HALEY ALDRICH

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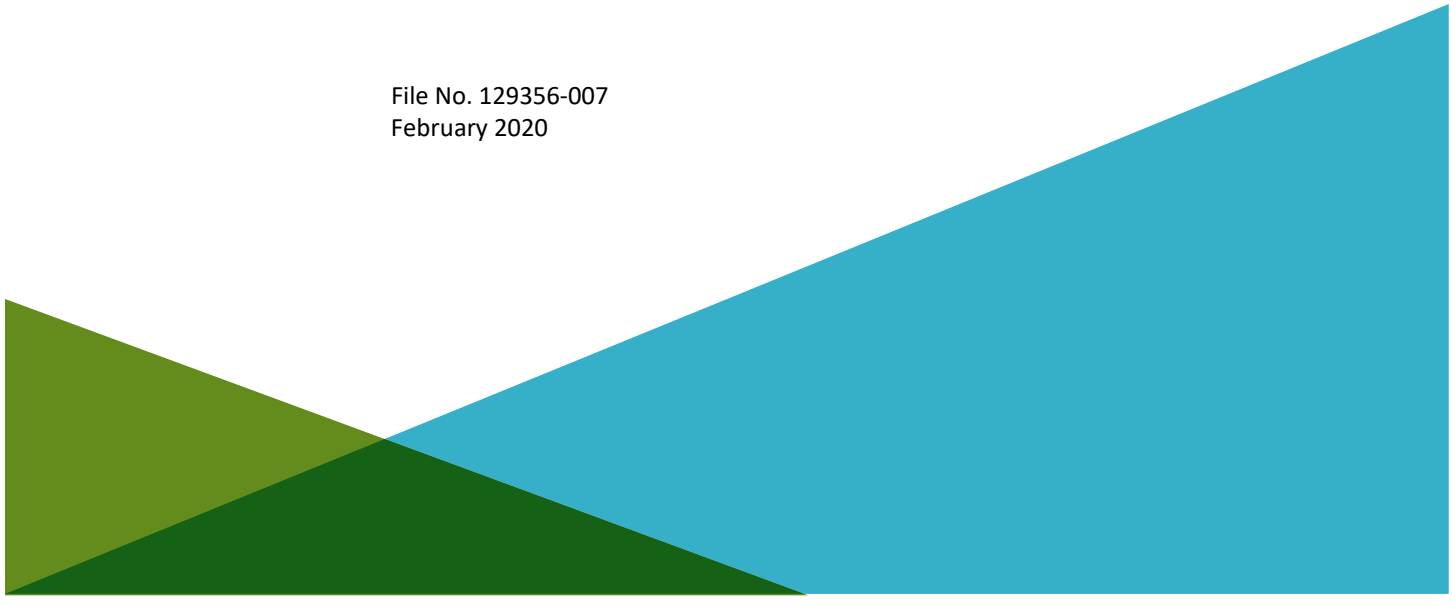
REPORT ON

2019 PERIODIC REVIEW REPORT
HYDRO-AIR COMPONENTS, INC. PROPERTY
FORMER STEELFIELDS AREA IV BCP SITE (#C915204)
100 RITTLING BLVD.
BUFFALO, NEW YORK

by
Haley & Aldrich of New York
Rochester, New York

for
New York State Department of Environmental Conservation
Buffalo, New York

File No. 129356-007
February 2020



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12 February 2020
File No. 129356-007

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

Attention: Megan Kuczka
Environmental Program Specialist 1

Subject: Hydro-Air Components, Inc. Property
Former Steelfields Area IV BCP Site #C915204
Periodic Review Report &
Institutional Controls/Engineering Controls Certification
100 Rittling Blvd.
Buffalo, New York

Ladies and Gentlemen:

On behalf of Hydro-Air Components, Inc. (Hydro-Air), Haley & Aldrich of New York (Haley & Aldrich) hereby submits this Periodic Review Report and Annual Institutional & Engineering Controls Certification for 2019 (2019 PRR). This report summarizes activities performed during the reporting period of 16 January 2019 through 15 January 2020, and was prepared in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved Site Management Plan dated November 2007, as amended on 25 March 2014 to incorporate recommendations from the 2012 Corrective Measures Report (SMP).

The 2019 PRR documents SMP activities implemented during the reporting period and provides documentation of ongoing monitoring activities required by the SMP.

Haley & Aldrich conducted the annual site engineering controls inspection on 17 December 2019. Site monitoring activities were completed over the reporting period by Hydro-Air personnel and contractors, and documentation of the monitoring activities is attached to and incorporated by reference in this 2019 PRR.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

Andrew L. Nichols
Technical Specialist

Glenn M. White, CHMM
Associate | Senior Project Manager

Enclosures

c: Hydro-Air Components, Inc.; Attn: Rob Daigler
Barclay Damon, LLP.; Attn: Thomas Walsh, Esq.

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SIGNATURE PAGE FOR

PERIODIC REVIEW REPORT &
INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS CERTIFICATION

HYDRO-AIR COMPONENTS, INC. PROPERTY
(FORMER STEELFIELDS AREA IV BCP SITE)
100 RITTLING BLVD.
BUFFALO, NEW YORK

PREPARED FOR
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
BUFFALO, NEW YORK

PREPARED BY:

Andrew L. Nichols
Technical Specialist
Haley & Aldrich of New York

REVIEWED AND APPROVED BY:

Glenn M. White
Associate | Senior Project Manager
Haley & Aldrich of New York

Executive Summary

The Steelfields Area IV Brownfields Cleanup Program (BCP) Site, NYSDEC Site #C915204, comprises 30.91 acres of land located at 100 Rittling Boulevard in Buffalo, New York (See Figures 1 and 2) (the "Site"). Originally part of the larger Steelfields Voluntary Cleanup Program (VCP) Site #V00619, remedial activities were initiated in 2003 under a Voluntary Cleanup Agreement (VCA) between the former Site owner, Steelfields Ltd., and the New York State Department of Environmental Conservation (NYSDEC). In 2006, the current Site owner, Hydro-Air Components, Inc. (Hydro-Air), purchased the Steelfields Area IV property, successfully applied for the BCP and subsequently entered into a Brownfields Cleanup Agreement with NYSDEC under which cleanup and redevelopment of the Site was completed in 2007.

The Site is currently developed with a 144,000 square foot manufacturing building and adjoining office space, surrounded by paved parking lots, landscaped areas, a stormwater retention pond, and seasonally vegetated areas. Soil and groundwater on some portions of the Site have been found to contain volatile organic compounds (VOCs), metals (primarily arsenic, chromium, and lead), and cyanide, associated with past use of the Site as the former Donner-Hanna Coke storage yard. Additionally, alkaline groundwater is known to exist in the northeastern corner of the Site, and acidic groundwater is known to exist in the western portion of the Site.

The NYSDEC-approved remedy for the Site included the following:

- Excavation and removal of soils contaminated from historical coking process wastes, excavation backfilling, and placement of a cover system;
- Use of Oxygen Release Compound (ORC) in Site groundwater wells to stimulate in-situ biodegradation of the Site contaminants of interest (began in 2007); and,
- Installation and operation of an active sub-slab depressurization system (ASD) in the Site building to mitigate the potential for impacted soil vapor intrusion into the indoor air space (ASD constructed and operated continuously since 2007).

Also included as part of the NYSDEC-approved remedy was the recording of the declaration of Covenants and restrictions (Deed Restrictions) to address institutional control requirements of the BCP, including, but not limited to:

- Continuing the industrial use of the property;
- Preventing use of groundwater at the Site without prior approval; and,
- Other measures, such as adherence to the NYSDEC-approved Site Management Plan (SMP) for long-term management of the Site to maintain protection of human health and the environment.

The Site is maintained per the approved SMP dated November 2007, as amended on 25 March 2014 to incorporate recommendations from the 2012 Corrective Measures Report, which SMP consists of institutional and engineering controls (IC/ECs). Site ECs include maintenance of the Site cover system, operation and maintenance of the sub-slab depressurization system (ASD), and application of ORC in the designated wells. Monitoring of the ECs is conducted periodically per the SMP. Site ICs consist of the Deed Restrictions on the property, which include groundwater and land use restrictions, and adherence to the SMP.

The IC/ECs have remained in-place and have functioned as designed during the reporting period. The SMP and Deed Restrictions remain in-place, groundwater has not been used, and Site use is consistent with land use restrictions (industrial).

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1. Site Overview and Remedy Implementation

The Steelfields Area IV Brownfields Cleanup Program (BCP) Site, NYSDEC Site #C915204, comprises 30.91 acres of land located at 100 Rittling Boulevard in Buffalo, New York (See Figures 1 and 2) (the "Site"). Although initially part of a larger New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Program (VCP) site known as Steelfields (Site #V00619), the Site was developed by the current Site owner, Hydro-Air Components, Inc. (Hydro-Air) under the BCP in 2006. Site development was completed in 2007 with the construction of an approximately 144,000 square foot manufacturing building and adjoining office space. Remaining portions of the Site include paved parking lots, landscaped areas, a stormwater retention pond, and seasonally vegetated areas. Soil and groundwater on some portions of the Site have been found to contain volatile organic compounds (VOCs), metals (primarily arsenic, chromium, and lead), and cyanide, associated with past use of the Site as the former Donner-Hanna Coke Storage Yard. Additionally, alkaline groundwater is known to exist in the northeastern corner of the Site, and acidic groundwater is known to exist in the western portion of the Site.

Soil and groundwater investigations were conducted at the Site between 1997 and 2005 as part of NYSDEC VCP activities under Site #V00619. Following investigation and placement of the Site in the BCP, a Site remedy was selected, consisting of: excavation and removal of soils contaminated from historical coking process wastes; excavation backfilling; placement of cover material; use of Oxygen Release Compound (ORC) in designated Site groundwater wells to stimulate and enhance intrinsic bioremediation of the VOCs in the soil and groundwater; and emplacement of institutional and engineering controls, including the installation and operation of an active sub-slab depressurization system (ASD) in the Site building to mitigate the potential for impacted soil vapor intrusion into the indoor air space.

Also included as part of the remedy was the recording of a Declaration of Covenants and Restrictions (Deed Restrictions) to establish institutional control requirements at the Site, including continued industrial use of the property, preventing use of groundwater at the Site without prior approval, and adherence to the Site Management Plan (SMP) for long-term management of the Site to maintain protection of human health and the environment as required by the NYSDEC. The NYSDEC approved the SMP dated November 2007, and its amendment dated 25 March 2014.

This report summarizes activities performed during the period 16 January 2019 through 15 January 2020. This report includes data collected since the SMP was approved in 2007.

2. IC/EC Compliance Report

2.1 INSTITUTIONAL CONTROLS - REQUIREMENTS AND COMPLIANCE

Site institutional controls (ICs) in the form of Deed Restrictions are in effect at the Site. These restrictions include prohibition of groundwater use unless rendered safe for the intended purpose and land use restrictions (industrial use only). The Deed Restrictions also stipulate that the Site is managed under a NYSDEC-approved SMP and requires periodic certification indicating that the Site engineering controls (ECs) remain in-place and continue to be protective.

The Site Deed Restrictions remained in force during the reporting period. Certifications are included in Appendix A.

2.2 ENGINEERING CONTROLS - REQUIREMENTS AND COMPLIANCE

There are six (6) ECs in place at the Site, which are as follows and further described in the sections below:

- 2.2.1 Existing Cover System
- 2.2.2 Active Sub-Slab Depressurization System
- 2.2.3 Gasketed Stormwater Conveyance
- 2.2.4 ORC In-situ Treatment
- 2.2.5 Groundwater Monitoring
- 2.2.6 Stormwater Pond Monitoring

2.2.1 Existing Cover System

Potential direct exposure to residual contamination remaining at the Site is prevented by the existing cover system, which consists of the building slab, pavement, and one foot of clean soil and vegetative cover. The cover system is required to be maintained in accordance with the SMP. Excavations that breach the cover system may require monitoring and soil management in accordance with the Excavation Work Plan appended to the SMP. In addition, should certain fill materials ever be imported onto the Site, they must be tested prior to Site use to demonstrate compliance with the requirements of the SMP.

Prior to 2010, groundwater from beneath the cover system was observed accumulating in the northeastern loading dock area of the Site building (see Figure 2). Subsequent to corrective measures that were put into place per the NYSDEC-approved Corrective Measures Work Plan, groundwater has not accumulated in the northeastern loading dock area. The reconfiguration of the loading dock pump system (setting to automatic pumping and raising the float set-point) has enabled sufficient pumping to maintain dry conditions and has sufficiently prevented the surfacing of groundwater in the area. Hydro-Air has continued to monitor the efficacy of these controls regularly throughout the reporting period, including the replacement of the pump on 3 February 2019.

Prior to 2012, evidence of surfacing groundwater from beneath the gravel cover areas on the northern end of the Site was evident (see Figure 2). This Site cover system engineering control was enhanced in 2012 by the placement of additional gravel (9 to 11 inches) on the northern portion of the access road.

Hydro-Air has monitored the continual efficacy of the gravel cover area throughout 2019 and has not observed any evidence of groundwater surfacing in these areas.

2.2.1.1 Utility Trench Excavation

In July and August 2019, roof-top solar panels were installed on the Site manufacturing building. Associated subsurface electrical connections required the excavation of an approximately 3.5-foot-deep trench on the east site of the Site between the building and the stormwater pond. Haley & Aldrich of New York (Haley & Aldrich) provided construction monitoring during the excavation and backfilling activities. During excavation activities, shallow clean cover materials [0 to 1-foot below ground surface (ft. bgs)] were segregated and staged in a stockpile at the Site for re-use.

Fill materials encountered between 1.0 and 3.5 ft. bgs were presumed to be potentially impacted, and therefore, they were excavated and temporarily staged in an on-Site roll-off container, while it was determined if they could be reused. The potentially impacted fill removed during excavation was screened for VOCs with a handheld photoionization detector (PID) equipped with a 11.7 eV Bulb. No elevated PID readings were observed. Following completion of subsurface electrical connections, the excavated trench was partially backfilled with this fill to a depth of 0.5 ft. bgs.

An additional 1 foot of clean topsoil was mounded over the impacted backfill. This topsoil consisted of both previously excavated cover soils (0 to 1 ft. bgs) and approximately 20 cubic yards of imported topsoil. A composite sample of the imported topsoil was collected by Haley & Aldrich and analyzed by Alpha Analytical Laboratory in accordance with DER-10 guidance. The NYSDEC approved use of the imported topsoil on 14 January 2020.

The cover system was temporarily breached in July/August 2019 during trench excavations needed to make subsurface electrical connections to solar panels installed on the roof of the Site building. The trench was backfilled and covered with 1 foot of clean fill materials, and the cover system continues to function in accordance with the SMP. Refer to Appendix B for NYSDEC correspondence. See Appendix C for photographs of utility trench excavation activities. Import Material Documentation is presented in Appendix D.

2.2.2 Sub-Slab Depressurization System

An active sub-slab depressurization (ASD) system was installed during 2006 Site building construction to mitigate the potential for soil vapor intrusion to occur. The ASD system consists of an 8-mil polyethylene vapor barrier and five assemblies strategically placed within the footprint of the Site building, each containing the following items; perforated pipe suction assembly, vertical piping vent stack and associated materials, exhaust fan, and magnehelic pressure gauge.

Based on sub-slab vacuum testing results and regular system monitoring, the ASD system continues to be operating as designed, and documentation for regular maintenance and monitoring is included in Appendix E. Refer to Section 3.2 below, for additional information, including updates provided within this Periodic Review Report and Annual Institutional & Engineering Controls Certification for 2019 (2019 PRR).

2.2.3 Gasketed Stormwater Conveyance Piping

In areas of the Site with known groundwater impacts, storm water injection (drywells) is prohibited and storm water conveyance pipes are required to have gasketed joints for water tightness to prevent the infiltration of impacted groundwater from beneath the cover system into the collection system.

Activities that would have impacted the integrity of the gasketed joints of stormwater conveyance piping were not performed during the reporting period. Gasketed stormwater conveyance pipes therefore remain in-place as designed and installed. No new stormwater conveyance piping was installed during the reporting period.

2.2.4 ORC In-Situ Treatment

The in-situ treatment of residual contamination in remaining soils and groundwater using oxygen release compounds (ORC) is maintained and monitored in accordance with the SMP. The three designated ORC wells are inspected semi-annually, and ORC is required to be replaced semi-annually in accordance with the SMP.

The ORC wells were inspected on both 28 January 2019 and 19 December 2019. During the January 2019 inspection by Test America, the cement seals around the wells were observed as covered in grass and therefore the integrity of the seals could not be visually assessed. Hydro-Air representatives subsequently implemented a grass-mowing program as a corrective measure, and the deficiency was not noted during the December 2019 inspection. The ORC wells are currently intact and operational, and the seals appear to have integrity. ORC was replaced during January 2019, and Hydro-Air reported that the ORC was also replaced by TestAmerica in June 2019, but the documentation for the June replacement was not provided by TestAmerica. Documentation for regular maintenance, monitoring, and ORC replacement is included in Appendix F. ORC was most recently replaced on 30 January 2020 and will be reported in the next PRR.

2.2.5 Groundwater Monitoring

Groundwater samples from five (5) monitoring wells and three (3) in-situ remediation wells identified on Figures 2 and 3, are collected annually using low-flow purge and sampling methods as specified in the SMP. Water quality parameters are measured and recorded in the field during the low-flow purge using a flow-through cell and water quality meter. The following field parameters are measured in each monitoring and in-situ remediation well: pH, temperature, Oxidation-Reduction Potential (ORP), specific conductance, turbidity, dissolved oxygen, CO_2, and visual/olfactory observations. Static depth to groundwater is measured at each monitoring well prior to groundwater sample collection. Static groundwater elevations from December 2019 are shown on Figure 3.

Groundwater samples collected from the five (5) monitoring wells are analyzed for volatile organic compounds (VOCs) (Method 8260C), arsenic/chromium/lead (Method 6010C), cyanide (Method 9012B), and alkalinity (Method 310.2).

Long-term groundwater monitoring continues at the Site. Sampling documentation is included in Appendix G.

2.2.6 Stormwater Pond Monitoring

Hydro-Air staff collect water samples each month from four locations in the Site stormwater pond (see Figure 2 for monitoring locations) and take pH and temperature readings on the samples using a hand-held probe. Readings are not collected when the pond is frozen. In accordance with the SMP, samples collected from the midpoint of the main pond and near the pond outlet pipe are combined in the field and analyzed as a composite sample.

Stormwater pond sampling continues at the Site. Sampling data are included in Table III.

2.3 IC/EC CERTIFICATION

Based on site visits and interviews with site personnel, the IC/ECs are herein certified by Robert Daigler, designated representative of Hydro-Air Components, Inc. and Glenn M. White (CHMM) working for Haley & Aldrich of New York on behalf of Hydro-Air Components, Inc. as the Qualified Environmental Professional. Refer to Appendix A for a copy of the appropriate certification documentation.

3. Operations, Maintenance, & Monitoring Plan Compliance Report

Monitoring activities conducted during this reporting period consisted of annual groundwater sampling, ORC well inspection and replacement of ORC, review of sub-slab vacuum measurements of the ASD, and stormwater pond monitoring. Monitoring activities were conducted in accordance with the SMP. The results of the groundwater and stormwater pond quality monitoring, and operations, maintenance, and monitoring of the ORC wells and ASD are further described below.

3.1 GROUNDWATER MONITORING

Groundwater monitoring was conducted in December 2019 and the results are presented on summary Tables I and II, and Figures 3 through 5. Figure 3 presents the groundwater elevation contours for the date of sampling as well as approximate groundwater flow direction. Figure 4 is a posting map of the groundwater parameters of interest (benzene, arsenic and cyanide). Figure 5 illustrates historical trends for the groundwater parameters of interest using data from this monitoring period as well as historical monitoring periods.

The December 2019 groundwater samples were collected and analyzed by TestAmerica located in Buffalo, NY. These laboratory data have been submitted as an EQuIS® electronic data deliverable (EDD) to the NYSDEC and the laboratory report is included in Appendix H. Groundwater sampling field forms are provided in Appendix G and historical groundwater monitoring data tables are presented in Appendix I.

3.1.1 Groundwater Elevation Data

The groundwater contour map included as Figure 3 was prepared using the static groundwater elevations measured at monitoring wells and ORC wells on 19 December 2019. Groundwater elevations continue to indicate that flow is generally to the southeast across the site. Groundwater levels appear to have been influenced by backfilling in portions of the site resulting in limited groundwater mounding in the vicinity of A4-ORC-3. The groundwater mounding around wells A4-ORC-2 and A4-ORC-3 has not markedly changed from that observed in prior years.

3.1.2 Parameters of Interest

The SMP indicates that groundwater quality parameters exceeding applicable NYSDEC Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations - Class GA – June 1998 (Class GA GWQS) for two consecutive events should be considered to be of interest. In 2007, benzene, ethylbenzene, naphthalene, toluene, lead, chromium, cyanide, and arsenic were parameters of interest at the Site. Currently, however, only benzene, cyanide, and arsenic remain parameters of interest per the SMP. Cyanide was elevated over Class GA GWQS at well A4-MW-5R, benzene was elevated over Class GA GWQS at A4-MW-8R, and arsenic was elevated over Class GA GWQS at A4-MW-10.

Concentrations for each parameter of interest measured in monitoring wells sampled in December 2019 are shown on Figure 4. Historical monitoring data and moving average trendlines for current parameters of interest at wells A4-MW-5R, A4-MW-8R, and A4-MW-9 are shown on Figure 5.

3.1.2.1 A4-MW-5R

Cyanide remains a parameter of interest at monitoring well A4-MW-5R, where a concentration of 470 µg/L was detected in December 2019. Cyanide concentrations have exceeded Class GA GWQS for 10 consecutive monitoring periods, and detected concentrations have fluctuated between 165 µg/L and 920 µg/L) during this period (see Figure 5), resulting in a slight increasing trend over time.

3.1.2.2 A4-MW-7R

Benzene was historically a parameter of interest at monitoring well A4-MW-7R. However, non-detect (ND <5 µg/L) concentrations of benzene for 5 consecutive monitoring periods (since 2015) suggest benzene is no longer a parameter of interest at this location.

3.1.2.3 A4-MW-8R

Benzene and arsenic remain parameters of interest at monitoring well A4-MW-8R, where concentrations of 8,100 µg/L benzene and 25 µg/L arsenic were detected in December 2019. Concentrations of benzene have exceeded Class GA GWQS for 14 consecutive monitoring periods. Benzene concentrations have generally decreased over time, with a large decrease (18,000 to 8,100 µg/L) observed between June 2018 and December 2019. Arsenic concentrations detected in December 2019 did not exceed Class GA GWQS, and decreased from 31 to 25 µg/L between June 2018 and December 2019. Although the December 2019 detected concentration suggests arsenic might no longer be a parameter of interest at well A4-MW-8R, arsenic concentrations exceeded Class GA GWQS for the previous 12 consecutive monitoring periods. This suggests arsenic should remain a parameter of interest at well A4-MW-8R. Arsenic concentrations have shown a slight decreasing trend over time.

3.1.2.4 A4-MW-9

Unexpectedly low concentrations of cyanide (140 µg/L) and benzene (non-detect) were identified in well A4-MW-9 in December 2019, each below Class GA GWQS. While these concentrations suggest cyanide and benzene might no longer be parameters of interest at well A4-MW-9, detected concentrations of each constituent exceeded Class GA GWQS for the previous 5 consecutive monitoring periods. This suggests cyanide and benzene should remain parameters of interest at well A4-MW-9.

Since 2007, detected concentrations of cyanide and benzene have nevertheless shown large decreases, dominated by a notable step-change decrease of approximately 2 orders of magnitude between 2012 and 2013. Since 2013, cyanide and benzene concentrations have shown a relatively neutral trend, with anomalous concentration spikes in June 2018.

3.1.2.5 A4-MW-10

Since 2007, parameters of interest have not been identified in well A4-MW-10. While benzene was detected in June 2018 at a concentration (41 µg/L) exceeding Class GA GWQS, benzene was not detected in December 2019. Conversely, in December 2019, arsenic was detected at a concentration (43 µg/L) exceeding Class GA GWQS, but since previously detected concentrations were below Class GA GWQS, arsenic does not yet represent a parameter of interest at this location.

Groundwater monitoring activities will continue in the future following the annual schedule in accordance with the SMP. The next groundwater sampling event is tentatively scheduled for June 2020.

3.2 ORC WELL MAINTENANCE AND MONITORING

The ORC® socks were replaced on 28 January 2019, and Hydro-Air reported that the ORC was also replaced by TestAmerica in June 2019, but the documentation for the June replacement was not provided to Hydro-Air by TestAmerica.

The three ORC® wells were monitored on 28 January 2019 and 19 December 2019 in accordance with the SMP. During the January 2019 inspection, the cement seals around the wells were observed covered in grass. Hydro-Air representatives subsequently implemented a grass-mowing program as a corrective measure, and the deficiency was not noted during the December 2019 inspection. The ORC wells are currently intact and operational, and the seals appear to have integrity. During the December 2019 maintenance and monitoring event, TestAmerica representatives identified ORC sock placement depths exceeding measured well depths in wells A4-ORC-2 and A4-ORC-3. This discrepancy could not be clarified, as the TestAmerica sampling representative is no longer employed with the company. Regardless, the discrepancy appears to be a transcription error, and does not require a corrective measure. ORC wells depths will be measured during the planned late-January 2020 ORC sock changeout.

ORC field parameter monitoring results are presented in Table II. The pH in the ORC wells continues to fluctuate. The pH at A4-ORC-1 decreased between June 2018 and January 2019 (from 5.70 to 5.21). The pH at A4-ORC-2 also decreased (from 3.91 to 2.95). The pH at A4-ORC-3 increased (from 3.21 to 5.57). Overall, the pH within the three ORC® wells continues to remain low, and as a result of the low pH conditions, the ORC® is likely being inhibited from enhancing biodegradation of residual contaminants.

Note that the groundwater monitoring wells tested surround the Tar/Blue Soil Fill Excavation Limits where the ORC socks have been placed. The pH of the groundwater in the surrounding monitoring wells tested ranged from 5.83 to 8.63.

3.3 SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS, MAINTENANCE, AND MONITORING

The ASD system continuously operates at the Site and is monitored monthly by Hydro-Air staff, who record the system vacuum readings and operations data on the maintenance form provided in the NYSDEC-approved SMP. These data are available on-site. The ASD system and monitoring documentation for the reporting period is provided in Appendix E.

The ASD system was evaluated in December 2019 by Haley & Aldrich. The evaluation included confirmation of vacuum measurements at the five (5) existing monitoring points located within the facility. Overall, the ASD system operation is consistent with prior operations, and is operating acceptably and consistent with its intended function, design and construction.

Although apparently not adversely impacting sub-slab vacuum, open cracks were observed (see the photo log in Appendix C) in the tile and underlying concrete slab in hallway areas of the Hydro-Air offices. Several of the cracks appear to have been sealed in the past but have reopened, presenting a potential pathway for vapor intrusion. Hydro-Air intends to seal all of the cracks before the end of the first quarter 2020.

3.4 STORMWATER POND MONITORING

Site stormwater pond water quality (pH and temperature) conditions were monitored monthly at four sampling locations (see Figure 2) by Hydro-Air staff. Stormwater pond monitoring data are summarized in Table III. Overall, the results of the pond monitoring appear consistent with the findings from previous sampling events, and measured pH values did not exceed NYSDEC TOGS 1.1.1 ambient water quality guidance values of pH 8.5 during the PRR monitoring period.

4. Conclusions and Recommendations

The following are conclusions and recommendations for the Site from the results of monitoring activities completed during the reporting period:

- Utility trench excavation and subsequent backfilling with imported clean topsoil was conducted during the reporting period.

- The engineering controls (groundwater monitoring, existing cover system, ASD system, ORC wells) were operated and maintained during the reporting period. Open cracks observed in the tile and underlying concrete slab in hallway areas of the Hydro-Air offices during the reporting period represent potential vapor intrusion pathway, so Hydro-Air is planning to seal the cracks during the first quarter 2020.

- The Deed Restrictions remain in place. Groundwater has not been used at the Site during the reporting period. Site land use has remained for industrial use only during the reporting period.

- Groundwater monitoring results indicate benzene, cyanide and arsenic continue to remain parameters of interest at selected Site groundwater monitoring wells.

References

1. Site Management Plan for Hydro-Air Components, Inc., Former Steelfields Area IV Parcel, Brownfields Cleanup Program, NYSDEC Site #C915204, prepared by TurnKey Environmental Restoration, LLC., dated November 2007, amended 25 March 2014.

2. Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, prepared by NYSDEC, dated June 1998.

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TABLES

TABLE I
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
HYDRO-AIR COMPONENTS, INC
BUFFALO, NEW YORK

Location Sample Date	Ambient Water Quality Standards	A4-MW-10 12/19/2019	A4-MW-5R 12/19/2019	A4-MW-7R 12/19/2019	A4-MW-8R 12/19/2019	A4-MW-9 12/19/2019
Inorganic Compounds (ug/L)						
Arsenic	25	**43** [A]	ND (15)	ND (75)	**25**	ND (15)
Chromium	50	**3.6 J**	**1 J**	ND (20)	ND (4)	ND (4)
Cyanide	200	**61**	**470** * [A]	**74**	**130**	**140**
Lead	25	**9.3 J**	ND (10)	ND (50)	**3.1 J**	ND (10)
Other (ug/L)						
Alkalinity, Total (as CaCO3)	-	**1040000**	**272000**	**43800 B**	**668000**	**359000**
Volatile Organic Compounds (ug/L)						
1,2,4-Trimethylbenzene	-	ND (5)	ND (1)	ND (5)	ND (200)	ND (5)
1,3,5-Trimethylbenzene	-	ND (5)	ND (1)	ND (5)	ND (200)	ND (5)
2-Phenylbutane (sec-Butylbenzene)	-	ND (5)	ND (1)	ND (5)	ND (200)	ND (5)
Benzene	1	ND (5)	ND (1)	ND (5)	**8100** [A]	ND (5)
Cymene (p-Isopropyltoluene)	-	ND (5)	ND (1)	ND (5)	ND (200)	ND (5)
Ethylbenzene	5	ND (5)	ND (1)	ND (5)	ND (200)	ND (5)
Isopropylbenzene (Cumene)	5	ND (5)	ND (1)	ND (5)	ND (200)	ND (5)
m,p-Xylenes	5	ND (10)	ND (2)	ND (10)	ND (400)	ND (10)
Methyl Tert Butyl Ether	10	ND (5)	ND (1)	ND (5)	ND (200)	ND (5)
Naphthalene	10	ND (5)	**0.5 J**	ND (5)	ND (200)	ND (5)
n-Butylbenzene	-	ND (5)	ND (1)	ND (5)	ND (200)	ND (5)
n-Propylbenzene	-	ND (5)	ND (1)	ND (5)	ND (200)	ND (5)
o-Xylene	5	ND (5)	ND (1)	ND (5)	ND (200)	ND (5)
tert-Butylbenzene	-	ND (5)	ND (1)	ND (5)	ND (200)	ND (5)
Toluene	5	ND (5)	ND (1)	ND (5)	ND (200)	ND (5)
Xylene (total)	5	ND (10)	ND (2)	ND (10)	ND (400)	ND (10)

Notes:
1. Results in **bold** were detected.
2. [A] - Results in red exceed TOGS 1.1.1 Ambient Water Quality Standards.
3. ND - Not detected above the reporting limit
   J - Estimated value
   B - Compound was found in the blank and sample.

Table II
Summary of ORC Assessment Results
December 2019

Eleventh Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

Parameter	Monitoring Location																										
	A4-ORC-1														A4-ORC-2												
	7/12/2007	2/4/2008	6/3/2008	6/26/2009	6/29/2010	6/29/2011	7/6/2012	7/2/2013	6/3/2014	6/26/2015	6/23/2016	6/23/2017	6/26/2018	12/19/2019	7/12/2007	2/4/2008	6/3/2008	6/26/2009	6/29/2010	6/29/2011	7/6/2012	7/2/2013	6/3/2014	6/26/2015	6/23/2016	6/23/2017	6/26/2018	12/19/2019
Field Measurements																											
DTW (fbTOR)	9.27	4.53	3.97	4.22	2.62	2.65	4.66	2.91	4.89	4.04	4.65	3.82	5.3	2.94	6	6.27	3.87	2.75	2.01	0.96	2.08	1.23	2.46	2.5	2.25	1.4	1.35	3.41
pH (units)	2.34	3.78	3.49	5.00	4.07	3.50	2.90	3.01	6.13	2.93	3.66	2.83	5.70	5.21	1.96	1.73	1.72	4.31	2.64	2.30	1.40	1.81	2.37	2.14	3.09	2.68	3.91	2.95
Temperature (°C)	22.9	3.3	13.6	17.0	18.0	17.8	19.9	18.6	17.1	18.6	16.0	17.1	16.9	5.6	19.1	6.4	14.2	16.1	17.5	16.0	20.1	17.8	16.0	17.9	16.6	17.8	16.9	4.8
Specific Conductance (mS)	3.11	36.6	34.5	28.0	28.3	27.3	26.8	27.4	82.8	22.0	28.0	23.5	21.3	26.4	3.88	41.7	46.5	34.5	40	17.8	27.5	27.3	298.8	32.1	34.6	22.1	20.6	23.1
Turbidity (NTU)	190	23.1	176	6.17	9	8.19	2.46	3.2	33.1	1.17	2.6	0.82	2.53	7.9	130	99.8	62.3	50.8	5.01	29.1	11.63	18.6	19.7	3.27	3.91	0.65	4.8	13.7
Dissolved Oxygen (mg/L)	8.15	10.49	7.26	1.55	0.44	0.54	0.49	0.67	0.84	0.95	0.78	0.81	0.7	3.64	9.05	0.33	7.78	1.00	0.46	0.34	0.53	0.32	-0.5	0.65	0.56	0.56	0.46	4.32
Eh (mV)	235	155	209	330	344	58	190	267	-41	250	227	178	39	217	383	358	387	466	443	352	388	461	398	355	288	210	318	389
Appearance (visual)	brown	--	yellow-brown	amber	dark amber	amber	amber	amber	amber	amber	amber	amber	amber	--	brown	--	dark brown	tan/amber	amber	amber	dark amber	amber	amber	amber	amber	amber	amber	amber

Notes:
1. EnSol Environmental Solutions, Ltd. conducted the 25 June 2007 sampling event.
2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
3. Haley & Aldrich conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012, 1-2 July 2013, 2-3 June 2014, 25-26 June 2015, 22-23 June 2016, 22-23 June 2017, 25-26 June 2018, and 19 December 2019 sampling events. Samples were collected and analyzed in the field by Test America Buffalo.
4. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.
5. fbTOR = feet below top of riser.

Table II
Summary of ORC Assessment Results
December 2019

Eleventh Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

Parameter	Monitoring Location												
	A4-ORC-3												
	7/12/2007	2/4/2008	6/3/2008	6/25/2009	6/29/2010	6/29/2011	7/6/2012	7/2/2013	6/3/2014	6/26/2015	6/23/2016	6/23/2017	6/26/2018	12/19/2019
	Field Measurements													
DTW (fbTOR)	6.68	5.25	4.66	5.16	3.6	3.55	5.82	3.55	3.92	4.95	5.62	5.28	3.95	3.03
pH (units)	2.71	3.25	3.45	5.39	5.55	5.75	3.89	4.96	3.4	4.02	4.07	5.38	3.21	5.57
Temperature (°C)	17.9	7.2	11.7	19.72	15.6	15.3	18.5	20.5	17.2	17.5	16	17.2	17.8	7.4
Specific Conductance (mS)	3.44	39.7	38.2	32.9	28	28.8	26.9	19.7	263.2	21.49	23.9	21.4	28.27	24.3
Turbidity (NTU)	780	> 800	92.7	152	248	87.5	68.9	39	4.7	6.73	1.7	2.72	1.95	1297
Dissolved Oxygen (mg/L)	9.99	5.53	1.05	0.47	1.63	1.95	1.38	0.35	0.23	0.25	0.2	0.49	0.13	1.99
Eh (mV)	140	263	235	134	174	174	296	302	241	217	127	110	239	41
Appearance (visual)	brown	--	yellow-brown	orange	orange	orange	orange	amber	amber	amber	amber	amber	amber	amber

Notes:
1. EnSol Environmental Solutions, Ltd. conducted the 25 June 2007 sampling event.
2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
3. Haley & Aldrich conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012, 1-2 July 2013, 2-3 June 2014, 25-26 June 2015, 22-23 June 2016, 22-23 June 2017, 25-26 June 2018, and 19 December 2019 sampling events. Samples were collected and analyzed in the field by Test America Buffalo.
4. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

5. fbTOR = feet below top of riser.

Table III - 2019 PRR - Stormwater Pond Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, New York

In accordance with the Corrective Measures Report (dated 14 December 2012) and the Revised Site Management Plan (dated 25 March 2014) the following pond paramaters have been monitored:

Data Collection Completed By:	Date of Measurment (DD/MM/YR)	Time of Measurement	Estimated Quantity of Water Discharged (Gallons)	Measurement Location						Conditions at Pond (color, vegetation, odor, frozen, etc.)	General Comments (weather conditions, etc)
				Discharge Pipe		Northern Embayment		Main Pond (Combined Sample)[1]			
				pH	Temp (F)	pH	Temp (F)	pH	Temp (F)		
Dale Barto	12/28/2018	10:45 AM	N/A (Starting Point)							Frozen	Overcast
Dale Barto	2/4/2019	9:00 AM	--							Frozen	
Dale Barto	2/28/2019	9:00 AM	328							Frozen	
Dale Barto	3/29/2019	12:00 AM	9,895	8.10	45	7.50	44	6.50	46	Clear	Sunny
Dale Barto	4/29/2019	9:30 AM	61,125	7.90	46	7.80	44	6.80	45	Clear	Sunny
Dale Barto	5/30/2019	9:30 AM	30,036	7.95	48	7.75	46	6.60	47	Clear	Sunny
Dale Barto	6/28/2019	9:30 AM	61,125	7.8	54	7.6	53	7.1	53	Clear	Sunny
Dale Barto	7/29/2019	9:30 AM	30,036	7.75	72	7.5	72	7	73	Clear	Sunny
Dale Barto	8/29/2019	9:30 AM	61,125	7.8	63	7.2	64	7.1	63	Clear	Sunny
Dale Barto	9/30/2019	9:00 AM	26,560	7.7	60	7.3	61	7	61	Clear	Cloudy
Dale Barto	10/29/2019	9:00 AM	64,646	7.75	48	7.2	46	7.15	47	Clear	Cloudy
Dale Barto	11/27/2019	9:30 AM	26,570							Frozen	Clear
Dale Barto	12/31/2019	11:00 AM	64,653							Frozen	Cloudy
		Total Reporting Period Discharge:	436,099								

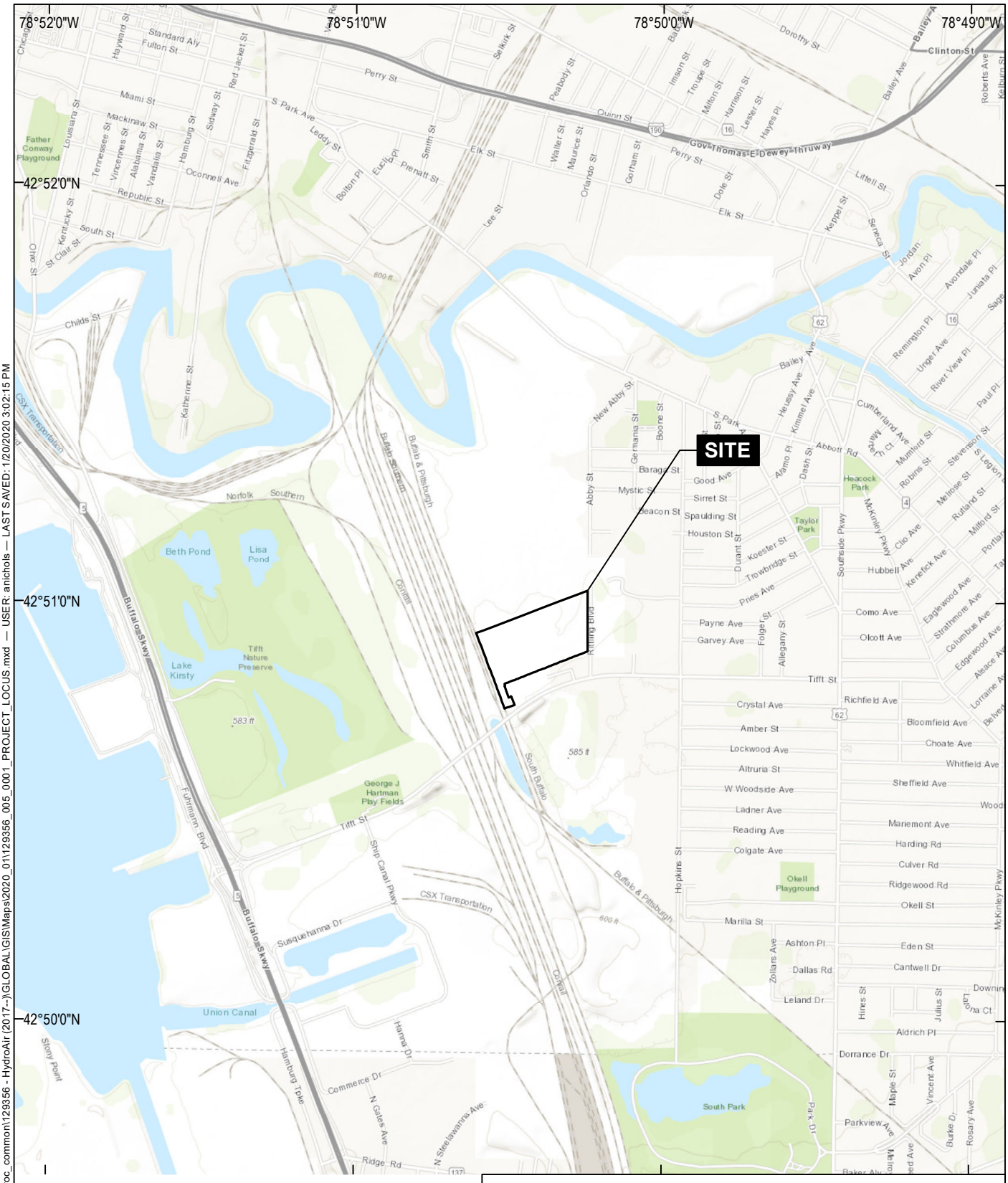
All pH values will be evaluated against the NYSDEC TOGS 1.1.1 ambient water quality guidance value of pH 8.5 selected for protection of public health.
Exceedance of the guidance value (8.5) for > 3 consecutive monitoring events (combined sample) will trigger enhancements as descirbed in Section IV of the SMP.

Notes or Other Observations:

1 Combined sample represents the combination of the sample point at the midpoint of the main pond and the sample point near the pond outlet pipe of the main pond. These pond samples are combined in the field to provide a representative pH value for the main pond area.

2 pH measurements were collected using a hand-held probe.

FIGURES



NY

N

HALEY ALDRICH

HYDRO-AIR COMPONENTS, INC.
100 RITTLING BOULEVARD
BUFFALO, NEW YORK

PROJECT LOCUS

MAP SOURCE: ESRI
SITE COORDINATES: 42°50'54"N, 78°50'24"W

APPROXIMATE SCALE: 1 IN = 2000 FT
FEBRUARY 2020

FIGURE 1

GIS FILE PATH: \\haleyaldrich.com\share\roc_common\129356 - HydroAir (2017-)\GLOBAL\GIS\Maps\2020_01\129356_005_0001_PROJECT_LOCUS.mxd — USER: anichols — LAST SAVED: 1/20/2020 3:02:15 PM

LEGEND

- MONITORING WELL, HYDRO-AIR PROPERTY
- ORC WELL, HYDRO-AIR PROPERTY
- RETENTION POND MONITORING LOCATION
- MONITORING WELL, STEELFIELDS III PROPERTY
- ORC WELL, STEELFIELDS III PROPERTY
- PLANT AREA
- APPROXIMATE TAR AND BLUE SOIL/FILL EXCAVATION LIMITS
- FENCE
- POND
- STORMWATER PIPE
- RAILROAD
- TAX PARCEL BOUNDARY
- HYDRO-AIR (STEELFIELDS AREA IV)
- STEELFIELDS AREA III

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: ERIE COUNTY
3. AERIAL IMAGERY SOURCE: ESRI

N

0 200 400

SCALE IN FEET

HALEY ALDRICH

HYDRO-AIR COMPONENTS, INC.
100 RITTLING BOULEVARD
BUFFALO, NEW YORK

SITE PLAN

FEBRUARY 2020

FIGURE 2

A3-ORC-1
A3-ORC-2
A3-ORC-4
A3-MW-7
A3-ORC-7
A3-ORC-11
A3-ORC-3
A3-ORC-6
A3-ORC-10
A3-ORC-8
A3-ORC-5
A3-ORC-9
STEELFIELDS AREA III
GRAVEL COVER AREA
LOADING DOCK
A4-MW-9
583.15
583
582.5
582
581.5
581
580.5
580
HYDRO-AIR PLANT
STORMWATER POND
A4-MW-5R
579.91
OFFICES
A4-ORC-1
581.81
A4-MW-8R
581.99
RITTLING BLVD
STEELFIELDS AREA IV
(HYDRO-AIR COMPONENTS)
A4-ORC-2
581.70
A4-ORC-3
582.03
A4-MW-7R
581.90
A4-MW-10
580.85
PROVIDENCE
TIFFT ST
A4-MW-1A
A4-MW-1

LEGEND

- MONITORING WELL, HYDRO-AIR PROPERTY, WITH GROUNDWATER ELEVATION IN FEET
- ORC SOCK WELL, HYDRO-AIR PROPERTY, WITH GROUNDWATER ELEVATION IN FEET
- MONITORING WELL, STEELFIELDS AREA III PROPERTY
- ORC SOCK WELL, STEELFIELDS AREA III PROPERTY
- GROUNDWATER ELEVATION CONTOUR, IN FEET ABOVE MEAN SEA LEVEL
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- PLANT AREA
- APPROXIMATE TAR AND BLUE SOIL/FILL EXCAVATION LIMITS
- FENCE
- POND
- STORMWATER PIPE
- RAILROAD
- TAX PARCEL BOUNDARY
- HYDRO-AIR (STEELFIELDS AREA IV)
- STEELFIELDS AREA

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: ERIE COUNTY
3. GROUNDWATER DEPTHS MEASURED ON 19 DECEMBER 2019.
4. AERIAL IMAGERY SOURCE: ESRI

N

0 200 400
SCALE IN FEET

HALEY ALDRICH

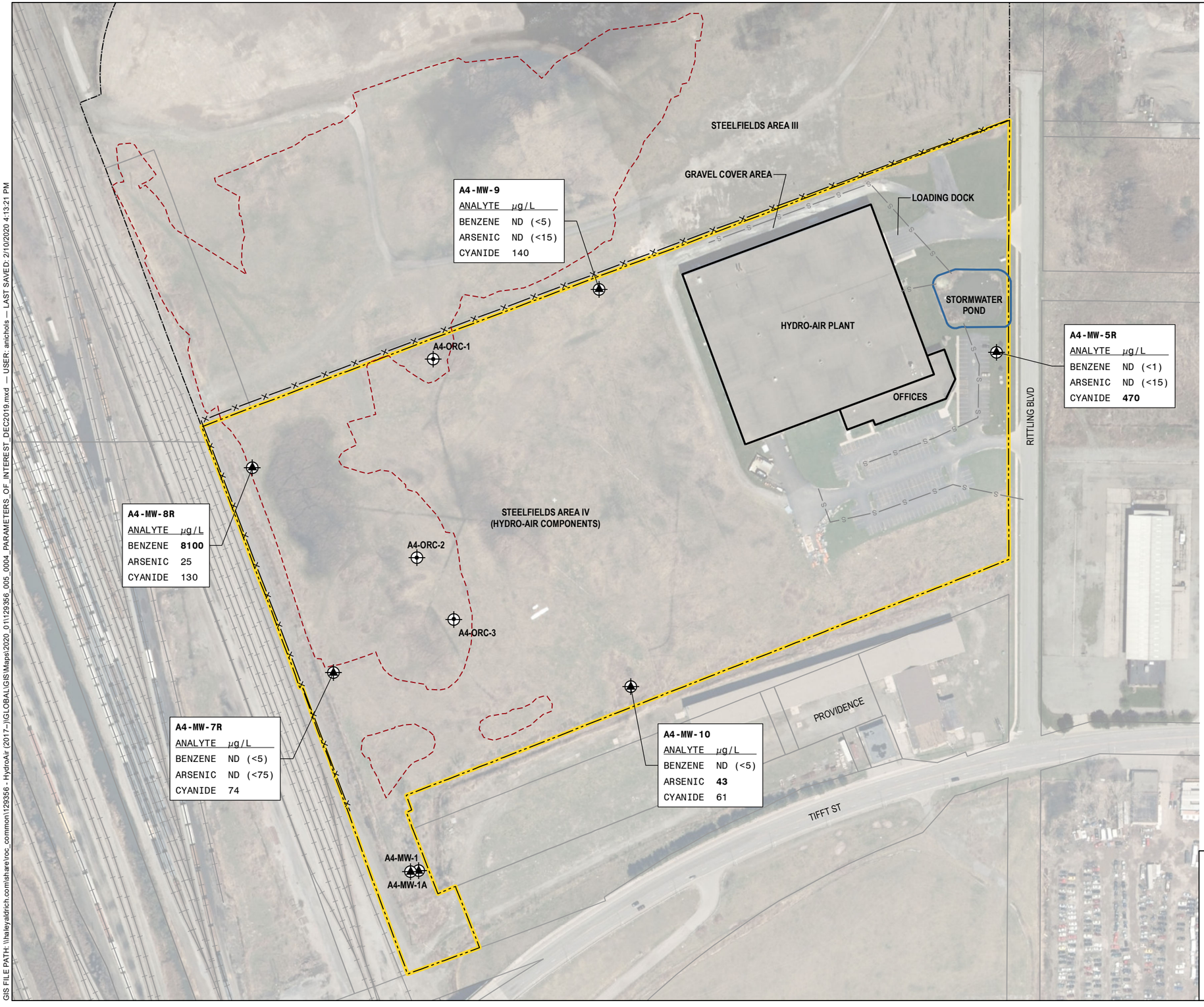
HYDRO-AIR COMPONENTS, INC.
100 RITTLING BOULEVARD
BUFFALO, NEW YORK

SHALLOW GROUNDWATER ELEVATION MAP - DECEMBER 2019

FEBRUARY 2020

FIGURE 3

GIS FILE PATH: \\haleyaldrich.com\share\roc_common\1229356 - HydroAir (2017-)\GLOBAL\GIS\Maps\2020_01\1229356_005_0003_SHALLOW_GW_ELEVATION.mxd — USER: anichols — LAST SAVED: 1/27/2020 1:12:58 PM



LEGEND

- MONITORING WELL, HYDRO-AIR PROPERTY
- ORC WELL, HYDRO-AIR PROPERTY
- PLANT AREA
- APPROXIMATE TAR AND BLUE SOIL/FILL EXCAVATION LIMITS
- FENCE
- POND
- STORMWATER PIPE
- RAILROAD
- TAX PARCEL BOUNDARY
- HYDRO-AIR (STEELFIELDS AREA IV)
- STEELFIELDS AREA III

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: ERIE COUNTY
3. µg/L = MICROGRAMS PER LITER
4. **BOLD** VALUES EXCEED NYSDEC CLASS GA GWQS.
5. ND = NOT DETECTED, WITH REPORTING LIMIT SHOWN IN PARENTHESES
6. AERIAL IMAGERY SOURCE: ESRI

N

0 200 400
SCALE IN FEET

HALEY ALDRICH

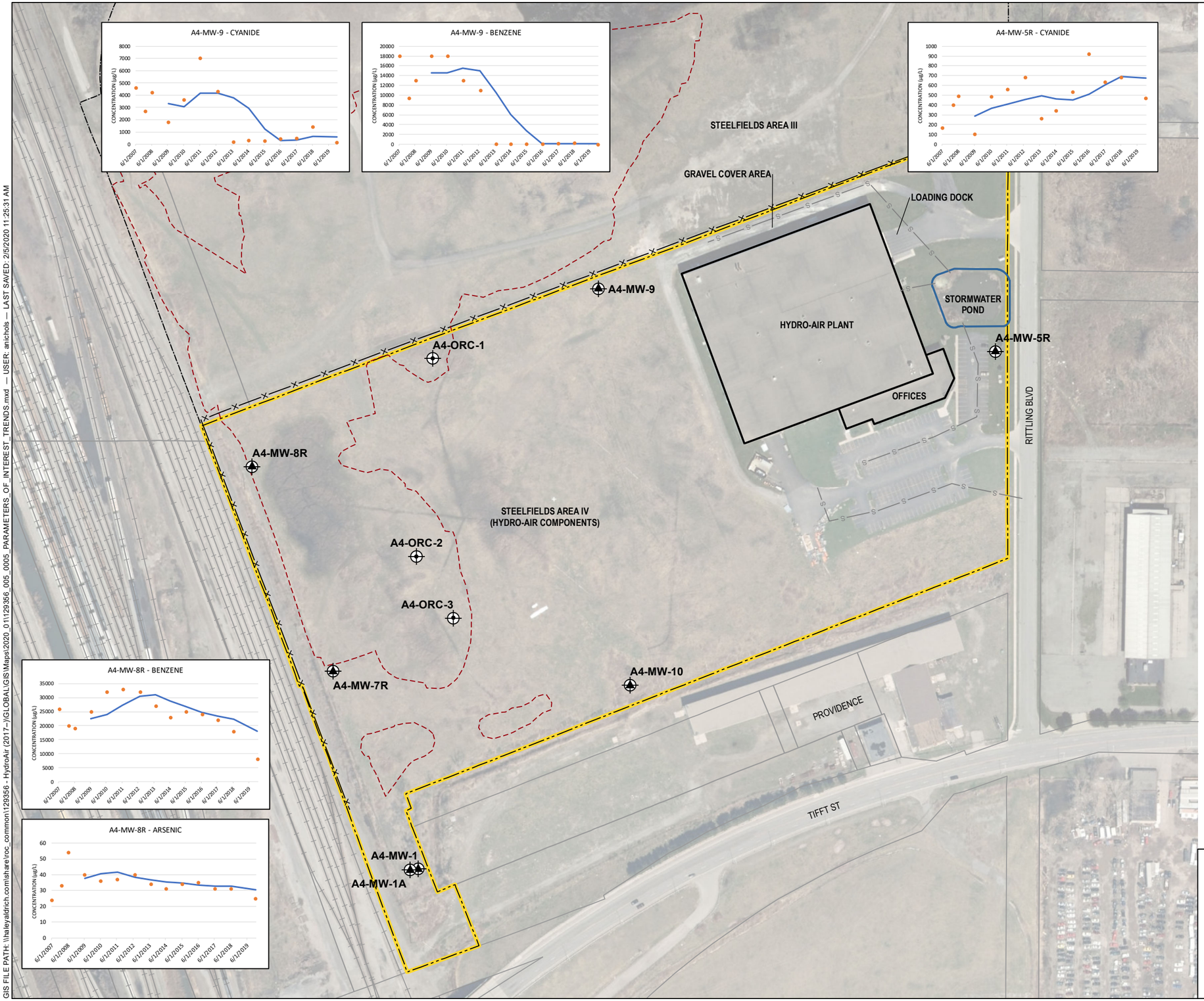
HYDRO-AIR COMPONENTS, INC.
100 RITTLING BOULEVARD
BUFFALO, NEW YORK

GROUNDWATER PARAMETERS OF INTEREST - DECEMBER 2019

FEBRUARY 2020

FIGURE 4

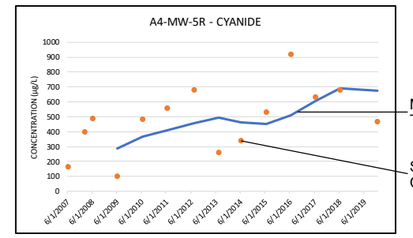
GIS FILE PATH: \\haleyaldrich.com\share\roc_common\129356 - HydroAir (2017-)\GLOBAL\GIS\Maps\2020_01\129356_005_0004_PARAMETERS_OF_INTEREST_DEC2019.mxd — USER: anichols — LAST SAVED: 2/10/2020 4:13:21 PM



GIS FILE PATH: \\haleyaldrich.com\share\roc_common\129356 - HydroAir (2017-)\GLOBAL\GIS\Maps\2020_01\129356_005_0005_PARAMETERS_OF_INTEREST_TRENDS.mxd — USER: anichols — LAST SAVED: 2/5/2020 11:25:31 AM

LEGEND

- MONITORING WELL, HYDRO-AIR PROPERTY
- ORC WELL, HYDRO-AIR PROPERTY
- PLANT AREA
- APPROXIMATE TAR AND BLUE SOIL/FILL EXCAVATION LIMITS
- FENCE
- POND
- STORMWATER PIPE
- RAILROAD
- TAX PARCEL BOUNDARY
- HYDRO-AIR (STEELFIELDS AREA IV)
- STEELFIELDS AREA III



NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: ERIE COUNTY
3. µg/L = MICROGRAMS PER LITER
4. MOVING AVERAGE TRENDLINE REPRESENTS THE AVERAGE OF THE 2019 SAMPLE CONCENTRATION AND THE CONCENTRATIONS IDENTIFIED DURING THE THREE (3) PREVIOUS SAMPLING EVENTS. METHOD DETECTION LIMITS USED IN AVERAGING IF AN ANALYTE WAS NOT DETECTED.
5. AERIAL IMAGERY SOURCE: ESRI

N

0 200 400

SCALE IN FEET

HALEY ALDRICH

HYDRO-AIR COMPONENTS, INC.
100 RITTLING BOULEVARD
BUFFALO, NEW YORK

GROUNDWATER PARAMETERS OF INTEREST HISTORICAL TRENDS

FEBRUARY 2020

FIGURE 5

APPENDIX A

Institutional and Engineering Controls Certification Form

HALEY ALDRICH

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. C915204

Site Name Steelfields Area IV

Site Address: 100 Rittling Blvd. Zip Code: 14220
City/Town: Buffalo
County: Erie
Site Acreage: 30.910

Reporting Period: January 15, 2019 to January 15, 2020

	YES	NO
1. Is the information above correct?	X	
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?		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? 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

SITE NO. C915204 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
132.12-1-9.121	Hydro-Air Components, Inc.	Site Management Plan Ground Water Use Restriction Landuse Restriction Soil Management Plan

i) until the remedial goals for the Controlled Property are attained or deemed complete by the Department, the Department-approved Site Management Plan (SMP) for the implemented remedy must be adhered to.

ii) a soil cover system and vegetation in accordance with the Soil/Fill Management Plan in the SMP shall be maintained over undeveloped portions of the Controlled Property.

iii) an active subslab depressurization system (ASD) to eliminate potential soil vapor intrusion shall be installed, operated and maintained in all new buildings and building additions in accordance with the standards and procedures specified in the SMP, and the ASD already installed in the existing building shall continue to be operated and maintained in accordance with the SMP, unless the Department determines that the ASD is not necessary based on the results of a Department-approved evaluation of potential sub-slab vapor impacts.

iv) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department.

v) groundwater monitoring in accordance with the SMP shall continue until the Department determines that continued monitoring is unnecessary.

vi) the in-situ treatment of residual contamination in native soils using oxygen release compounds (ORC) shall be maintained and monitored in accordance with the SMP until the Department determines that continued maintenance and monitoring of ORC is unnecessary.

vii) in areas of the Controlled Property with known groundwater impacts, storm water injection (drywells) will be prohibited and storm water conveyance pipes will be required to have gasketed joints for water tightness to prevent the infiltration of impacted groundwater into the collection system.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
132.12-1-9.121	Cover System Vapor Mitigation

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
☒	☐

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. C915204

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 ROBERT DAIGLER (print name) at 100 Rittling Blvd Buffalo, NY 14220 (print business address),

am certifying as Vice Pres of Finance (Owner or Remedial Party)

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

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

2/12/2020
Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional 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 Glenn M. White, CHMM (print name) at Haley & Aldrich of New York, 200 Town Centre Dr, Ste 2, Rochester, NY 14623 (print business address),

am certifying as a Qualified Environmental Professional for the Owner (Owner or Remedial Party)

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

Stamp (Required for PE)

12 Feb 2020
Date

APPENDIX B

NYSDEC Correspondence

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation
625 Broadway, 11th Floor, Albany, NY 12233-7020
P: (518)402-9543 | F: (518)402-9547
www.dec.ny.gov

12/23/2019

Robert Daigler
VP Of Finance
Hydro-Air Components Inc.
100 Rittling Blvd
Buffalo, NY 14220

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Steelfields Area IV
Site No.: C915204
Site Address: 100 Rittling Blvd.
Buffalo, NY 14220

Dear Robert Daigler:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site-specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **February 14, 2020**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Qualified Environmental Professional (QEP). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The required format for documents is an Adobe PDF file with optical character recognition and no password protection. Data must be submitted as an electronic data deliverable (EDD) according to the instructions on the following webpage:

https://www.dec.ny.gov/chemical/62440.html

Documents may be submitted to the project manager either through electronic mail or by using the Department's file transfer service at the following webpage:

https://fts.dec.state.ny.us/fts/

The Department will not approve the PRR unless all documents and data generated in support of the PRR has been submitted using the required formats and protocols.

You may contact Megan Kuczka, the Project Manager, at 716-851-7220 or megan.kuczka@dec.ny.gov with any questions or concerns about the site. Please notify the project manager before conducting inspections and field work. You may also write the project manager at the following address:

New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo, NY 14203-2915

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/ enclosures
Megan Kuczka, Project Manager

Enclosure 1

Certification Instructions

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

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

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

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

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

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7**):**

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

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. C915204

Site Name Steelfields Area IV

Site Address: 100 Rittling Blvd. Zip Code: 14220
City/Town: Buffalo
County: Erie
Site Acreage: 30.910

Reporting Period: January 15, 2019 to January 15, 2020

	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.		
5. Is the site currently undergoing development?	☐	☐

Box 2

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

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and 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

SITE NO. C915204 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
132.12-1-9.121	Hydro-Air Components, Inc.	Site Management Plan Ground Water Use Restriction Landuse Restriction Soil Management Plan

i) until the remedial goals for the Controlled Property are attained or deemed complete by the Department, the Department-approved Site Management Plan (SMP) for the implemented remedy must be adhered to.

ii) a soil cover system and vegetation in accordance with the Soil/Fill Management Plan in the SMP shall be maintained over undeveloped portions of the Controlled Property.

iii) an active subslab depressurization system (ASD) to eliminate potential soil vapor intrusion shall be installed, operated and maintained in all new buildings and building additions in accordance with the standards and procedures specified in the SMP, and the ASD already installed in the existing building shall continue to be operated and maintained in accordance with the SMP, unless the Department determines that the ASD is not necessary based on the results of a Department-approved evaluation of potential sub-slab vapor impacts.

iv) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department.

v) groundwater monitoring in accordance with the SMP shall continue until the Department determines that continued monitoring is unnecessary.

vi) the in-situ treatment of residual contamination in native soils using oxygen release compounds (ORC) shall be maintained and monitored in accordance with the SMP until the Department determines that continued maintenance and monitoring of ORC is unnecessary.

vii) in areas of the Controlled Property with known groundwater impacts, storm water injection (drywells) will be prohibited and storm water conveyance pipes will be required to have gasketed joints for water tightness to prevent the infiltration of impacted groundwater into the collection system.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
132.12-1-9.121	Cover System Vapor Mitigation

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
☐	☐

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. C915204

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 _____ at _____,
print name print business address

am certifying as _____(Owner or Remedial Party)

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

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

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional 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 _____ at _____,
print name print business address

am certifying as a Qualified Environmental Professional for the _____
(Owner or Remedial Party)

_____	_____	_____
Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

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

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

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

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

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

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
   C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated

the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.

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

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

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
   1. whether all requirements of each plan were met during the reporting period
   2. any requirements not met
   3. proposed plans and a schedule for coming into full compliance.

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

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

VIII. Additional Guidance

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

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 9
270 Michigan Avenue, Buffalo, NY 14203-2915
P: (716) 851-7220 I F: (716) 851-7226
www.dec.ny.gov

December 26, 2019

Mr. Robert Daigler
VP of Finance
Hydro-Air Components Incorporated
100 Rittling Boulevard
Buffalo, New York 14220

Dear Mr. Daigler (as the Certifying Party):

Site Management (SM)
Periodic Review Report (PRR) Response Letter
Steelfields Area IV, Buffalo
Erie County, Site No.: **C915204**

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for the following period: January 15, 2018 to January 15, 2019. The Department hereby accepts the PRR and IC/EC Certification.

The frequency of Periodic Reviews for this site is one year, and your next PRR will be due on February 14, 2020. You will receive a reminder letter and updated certification form 75-days prior to the report's due date. Regardless of receipt or not of the reminder notice, the next PRR, including the signed certification form, is still due on the date specified above.

In future PRR's, please complete the following edits:

- Format the PRR as described in "Enclosure 3 – Periodic Review Report (PRR) General Guidance." Enclosure 3 is included within the PRR Reminder Notices.
- Add groundwater flow direction lines to the groundwater contour map
- Only provide a review of the site within the annual certifying period, as listed on the IC/EC Certification Form.
- Upload EQuIS data prior to the PRR submittal. The Department will not accept the next PRR without verification that the data has been uploaded.
- Include trendlines (graphics) of benzene, cyanide, and arsenic concentrations over time.

If you have any questions, please contact me at 716-851-7220 or email at megan.kuczka@dec.ny.gov.

Sincerely,

Megan Kuczka
Environmental Program Specialist – 1

MK/jl

ec: Mr. Stanley Radon, NYSDEC
Mr. Maurice Moore, NYSDEC
Mr. Glenn White, Haley & Aldrich
Mr. Tom Robitaille, Haley & Aldrich
Mr. Andrew Nichols, Haley & Aldrich
Mr. Ryan Panfil, Hydro-Air Components Inc.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation
270 Michigan Avenue, Buffalo, NY 14203-2915
P: (716) 851-7220| F: (716) 851-7226
www.dec.ny.gov

January 14, 2020

Glenn White
Haley & Aldrich of NY
200 Town Centre Drive
Suite 2
Rochester, NY 14623

Re: Imported Soil from Solar Trenching
Steelfields Area IV, Buffalo
Erie County, Site No.: **C915204**

Dear Mr. White:

The Department has reviewed the analytical results for the imported topsoil used as cover for the onsite solar utilities. The Department approves the use of the sampled topsoil as cover.

In the future, please submit a "Request to Import/Reuse Fill or Soil" form to the Department for pre-approval, prior to using imported soil onsite.

If you have any questions, please contact me at 716-851-7220 or email: megan.kuczka@dec.ny.gov.

Sincerely,

Megan Kuczka
Environmental Program Specialist – 1

ec: Chad Staniszewski – NYSDEC
Maurice Moore – NYSDEC
Andrew Nichols – Haley & Aldrich
Robert Daigler – Hydro-Air Components Inc.

From: Satanek, Melanie
To: dec.sm.NYENVDATA (NYENVDATA@dec.ny.gov)
Cc: Nichols, Andrew; White, Glenn; megan.kuczka@dec.ny.gov
Subject: Steelfields Area IV (C915204) - EDD 2015-2019 Groundwater Data
Date: Wednesday, February 12, 2020 1:15:38 PM
Attachments: 20200212 1245.C915204.NYSDEC_MERGE.zip

Please find attached the EDD for groundwater data from years 2015 through 2019 for Steelfields Area IV (C915204).

Please let me know if you have any questions.

Melanie Satanek
Senior Scientist

Haley & Aldrich, Inc.
6500 Rockside Rd. | Suite 200
Cleveland, OH 44131

T: (216)706.1320

www.haleyaldrich.com

APPENDIX C

Photo Log – 2019 PRR Monitoring Period

HALEY ALDRICH

Photo 1: Area of July-August 2019 utility trench excavation.

Photo 2: Area of July-August 2019 utility trench excavation

Photo 3: Imported topsoil

Photo 4: Utility trench excavation backfilling

Photo 5: Placing grass seed over utility trench excavation cover

Photo 6: Crack in floor of office hallway

Photo 7: Crack in floor of office hallway

Photo 8: Crack in floor of office hallway

Photo 9: Catch basin in northeast loading dock area

Photo 10: Northern gravel cover area

Photo 11: Western grass-covered area

Photo 12: Western grass-covered area

Photo 13: Stormwater pond in December 2019.

Photo 14: Stormwater pond in August 2019.

APPENDIX D

Imported Soil Analytical Data Package

HALEY ALDRICH

ANALYTICAL REPORT

Lab Number:	L1937478
Client:	Haley & Aldrich 200 Town Centre Drive Suite 2 Rochester, NY 14623-4264
ATTN:	Claire Mondello
Phone:	(585) 321-4219
Project Name:	FORMER HYDROAIR SOLAR PROJECT
Project Number:	129356-004
Report Date:	09/02/19

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORMER HYDROAIR SOLAR PROJECT
Project Number: 129356-004

Lab Number: L1937478
Report Date: 09/02/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1937478-01	IMP FILL-081919-1545	SOIL	BUFFALO, NY	08/19/19 15:45	08/20/19

Project Name:	FORMER HYDROAIR SOLAR PROJECT	**Lab Number:**	L1937478
Project Number:	129356-004	**Report Date:**	09/02/19

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name:	FORMER HYDROAIR SOLAR PROJECT	**Lab Number:**	L1937478
Project Number:	129356-004	**Report Date:**	09/02/19

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.

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

Pesticides

L1937478-01: One or more dual column RPDs are above the acceptance criteria; however, obvious column interferences are present. The result is qualified with a "P" if the higher of the two results is reported. The result is qualified with an "IP" if the lower of the two results is reported.

Cyanide, Total

The WG1275015-2/-3 LCS/LCSD recoveries (63%/74%), associated with L1937478-01, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

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: Cristin Walker

Title: Technical Director/Representative Date: 09/02/19

ORGANICS

VOLATILES

Project Name: FORMER HYDROAIR SOLAR PROJECT **Lab Number:** L1937478

Project Number: 129356-004 **Report Date:** 09/02/19

SAMPLE RESULTS

Lab ID: L1937478-01
Client ID: IMP FILL-081919-1545
Sample Location: BUFFALO, NY

Date Collected: 08/19/19 15:45
Date Received: 08/20/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 08/29/19 18:47
Analyst: AD
Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.8	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
Tetrachloroethene	ND		ug/kg	0.58	0.23	1
Chlorobenzene	ND		ug/kg	0.58	0.15	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	0.19	1
Benzene	ND		ug/kg	0.58	0.19	1
Toluene	ND		ug/kg	1.2	0.63	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1
Trichloroethene	ND		ug/kg	0.58	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	0.45	J	ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.65	1
o-Xylene	ND		ug/kg	1.2	0.34	1
Xylenes, Total	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Acetone	230		ug/kg	12	5.6	1
2-Butanone	ND		ug/kg	12	2.6	1
n-Butylbenzene	ND		ug/kg	1.2	0.19	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1

Project Name: FORMER HYDROAIR SOLAR PROJECT **Lab Number:** L1937478

Project Number: 129356-004 **Report Date:** 09/02/19

SAMPLE RESULTS

Lab ID: L1937478-01 Date Collected: 08/19/19 15:45

Client ID: IMP FILL-081919-1545 Date Received: 08/20/19

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
tert-Butylbenzene	ND		ug/kg	2.3	0.14	1
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.39	1
1,4-Dioxane	ND		ug/kg	93	41.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	124		70-130
Dibromofluoromethane	102		70-130

Project Name: FORMER HYDROAIR SOLAR PROJECT **Lab Number:** L1937478

Project Number: 129356-004 **Report Date:** 09/02/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/19 09:40
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1278678-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Vinyl chloride	ND		ug/kg	1.0	0.34
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Acetone	ND		ug/kg	10	4.8
2-Butanone	ND		ug/kg	10	2.2
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12

Project Name: FORMER HYDROAIR SOLAR PROJECT **Lab Number:** L1937478

Project Number: 129356-004 **Report Date:** 09/02/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/19 09:40
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1278678-5					
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	125		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HYDROAIR SOLAR PROJECT

Project Number: 129356-004

Lab Number: L1937478

Report Date: 09/02/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1278678-3 WG1278678-4								
Methylene chloride	84		86		70-130	2		30
1,1-Dichloroethane	97		100		70-130	3		30
Chloroform	91		94		70-130	3		30
Carbon tetrachloride	83		87		70-130	5		30
Tetrachloroethene	92		93		70-130	1		30
Chlorobenzene	94		95		70-130	1		30
1,2-Dichloroethane	111		113		70-130	2		30
1,1,1-Trichloroethane	90		94		70-130	4		30
Benzene	88		90		70-130	2		30
Toluene	98		99		70-130	1		30
Ethylbenzene	98		98		70-130	0		30
Vinyl chloride	83		83		67-130	0		30
1,1-Dichloroethene	89		88		65-135	1		30
trans-1,2-Dichloroethene	84		86		70-130	2		30
Trichloroethene	88		91		70-130	3		30
1,2-Dichlorobenzene	102		102		70-130	0		30
1,3-Dichlorobenzene	98		100		70-130	2		30
1,4-Dichlorobenzene	99		100		70-130	1		30
Methyl tert butyl ether	99		101		66-130	2		30
p/m-Xylene	98		99		70-130	1		30
o-Xylene	100		101		70-130	1		30
cis-1,2-Dichloroethene	89		91		70-130	2		30
Acetone	135		131		54-140	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HYDROAIR SOLAR PROJECT

Project Number: 129356-004

Lab Number: L1937478

Report Date: 09/02/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1278678-3 WG1278678-4								
2-Butanone	116		130		70-130	11		30
n-Butylbenzene	102		102		70-130	0		30
sec-Butylbenzene	99		99		70-130	0		30
tert-Butylbenzene	98		100		70-130	2		30
n-Propylbenzene	99		101		70-130	2		30
1,3,5-Trimethylbenzene	100		102		70-130	2		30
1,2,4-Trimethylbenzene	104		105		70-130	1		30
1,4-Dioxane	100		94		65-136	6		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	118		121		70-130
Toluene-d8	110		109		70-130
4-Bromofluorobenzene	116		114		70-130
Dibromofluoromethane	101		104		70-130

SEMIVOLATILES

Project Name: FORMER HYDROAIR SOLAR PROJECT **Lab Number:** L1937478

Project Number: 129356-004 **Report Date:** 09/02/19

SAMPLE RESULTS

Lab ID: L1937478-01
Client ID: IMP FILL-081919-1545
Sample Location: BUFFALO, NY

Date Collected: 08/19/19 15:45
Date Received: 08/20/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 08/30/19 15:17
Analyst: EK
Percent Solids: 85%

Extraction Method: EPA 3546
Extraction Date: 08/29/19 00:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Fluoranthene	100	J	ug/kg	120	22.	1
Naphthalene	ND		ug/kg	190	24.	1
Benzo(a)anthracene	46	J	ug/kg	120	22.	1
Benzo(a)pyrene	48	J	ug/kg	160	47.	1
Benzo(b)fluoranthene	75	J	ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	56	J	ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	36	J	ug/kg	160	23.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	43	J	ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	37	J	ug/kg	160	27.	1
Pyrene	85	J	ug/kg	120	19.	1
Dibenzofuran	ND		ug/kg	190	18.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1

Project Name: FORMER HYDROAIR SOLAR PROJECT **Lab Number:** L1937478

Project Number: 129356-004 **Report Date:** 09/02/19

SAMPLE RESULTS

Lab ID: L1937478-01 Date Collected: 08/19/19 15:45

Client ID: IMP FILL-081919-1545 Date Received: 08/20/19

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	78		25-120
Phenol-d6	85		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	79		30-120
2,4,6-Tribromophenol	109		10-136
4-Terphenyl-d14	82		18-120

Project Name: FORMER HYDROAIR SOLAR PROJECT **Lab Number:** L1937478

Project Number: 129356-004 **Report Date:** 09/02/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 08/29/19 13:05
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 08/28/19 13:36

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1277814-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	99	18.
Fluoranthene	ND		ug/kg	99	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Dibenzofuran	ND		ug/kg	160	16.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.

Project Name: FORMER HYDROAIR SOLAR PROJECT
Project Number: 129356-004
Lab Number: L1937478
Report Date: 09/02/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 08/29/19 13:05
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 08/28/19 13:36

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1277814-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	86		25-120
Phenol-d6	89		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	99		10-136
4-Terphenyl-d14	87		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HYDROAIR SOLAR PROJECT

Project Number: 129356-004

Lab Number: L1937478

Report Date: 09/02/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1277814-2 WG1277814-3								
Acenaphthene	62		85		31-137	31		50
Hexachlorobenzene	68		91		40-140	29		50
Fluoranthene	68		92		40-140	30		50
Naphthalene	59		86		40-140	37		50
Benzo(a)anthracene	64		87		40-140	30		50
Benzo(a)pyrene	68		91		40-140	29		50
Benzo(b)fluoranthene	68		93		40-140	31		50
Benzo(k)fluoranthene	70		92		40-140	27		50
Chrysene	65		86		40-140	28		50
Acenaphthylene	69		96		40-140	33		50
Anthracene	65		88		40-140	30		50
Benzo(ghi)perylene	66		89		40-140	30		50
Fluorene	65		90		40-140	32		50
Phenanthrene	62		84		40-140	30		50
Dibenzo(a,h)anthracene	68		92		40-140	30		50
Indeno(1,2,3-cd)pyrene	65		91		40-140	33		50
Pyrene	68		91		35-142	29		50
Dibenzofuran	64		87		40-140	30		50
Pentachlorophenol	67		92		17-109	31		50
Phenol	62		90		26-90	37		50
2-Methylphenol	66		92		30-130.	33		50
3-Methylphenol/4-Methylphenol	66		92		30-130	33		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HYDROAIR SOLAR PROJECT

Project Number: 129356-004

Lab Number: L1937478

Report Date: 09/02/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1277814-2 WG1277814-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	60		88		25-120
Phenol-d6	63		89		10-120
Nitrobenzene-d5	47		69		23-120
2-Fluorobiphenyl	53		72		30-120
2,4,6-Tribromophenol	70		94		10-136
4-Terphenyl-d14	56		74		18-120

PCBS

Project Name: FORMER HYDROAIR SOLAR PROJECT **Lab Number:** L1937478

Project Number: 129356-004 **Report Date:** 09/02/19

SAMPLE RESULTS

Lab ID: L1937478-01
Client ID: IMP FILL-081919-1545
Sample Location: BUFFALO, NY

Date Collected: 08/19/19 15:45
Date Received: 08/20/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 08/29/19 17:42
Analyst: KB
Percent Solids: 85%

Extraction Method: EPA 3546
Extraction Date: 08/29/19 00:49
Cleanup Method: EPA 3665A
Cleanup Date: 08/29/19
Cleanup Method: EPA 3660B
Cleanup Date: 08/29/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.8	3.36	1	A
Aroclor 1221	ND		ug/kg	37.8	3.79	1	A
Aroclor 1232	ND		ug/kg	37.8	8.02	1	A
Aroclor 1242	ND		ug/kg	37.8	5.10	1	A
Aroclor 1248	ND		ug/kg	37.8	5.67	1	A
Aroclor 1254	ND		ug/kg	37.8	4.14	1	A
Aroclor 1260	ND		ug/kg	37.8	6.99	1	A
Aroclor 1262	ND		ug/kg	37.8	4.80	1	A
Aroclor 1268	ND		ug/kg	37.8	3.92	1	A
PCBs, Total	ND		ug/kg	37.8	3.36	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	39		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	49		30-150	B

Project Name: FORMER HYDROAIR SOLAR PROJECT **Lab Number:** L1937478

Project Number: 129356-004 **Report Date:** 09/02/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 08/29/19 11:52
Analyst: HT

Extraction Method: EPA 3546
Extraction Date: 08/29/19 00:49
Cleanup Method: EPA 3665A
Cleanup Date: 08/29/19
Cleanup Method: EPA 3660B
Cleanup Date: 08/29/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1278017-1						
Aroclor 1016	ND		ug/kg	31.8	2.82	A
Aroclor 1221	ND		ug/kg	31.8	3.18	A
Aroclor 1232	ND		ug/kg	31.8	6.73	A
Aroclor 1242	ND		ug/kg	31.8	4.28	A
Aroclor 1248	ND		ug/kg	31.8	4.76	A
Aroclor 1254	ND		ug/kg	31.8	3.48	A
Aroclor 1260	ND		ug/kg	31.8	5.87	A
Aroclor 1262	ND		ug/kg	31.8	4.03	A
Aroclor 1268	ND		ug/kg	31.8	3.29	A
PCBs, Total	ND		ug/kg	31.8	2.82	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	59		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HYDROAIR SOLAR PROJECT

Project Number: 129356-004

Lab Number: L1937478

Report Date: 09/02/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1278017-2 WG1278017-3									
Aroclor 1016	79		74		40-140	7		50	A
Aroclor 1260	79		74		40-140	7		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		75		30-150	A
Decachlorobiphenyl	73		69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		66		30-150	B
Decachlorobiphenyl	62		59		30-150	B

PESTICIDES

Project Name: FORMER HYDROAIR SOLAR PROJECT **Lab Number:** L1937478

Project Number: 129356-004 **Report Date:** 09/02/19

SAMPLE RESULTS

Lab ID: L1937478-01
Client ID: IMP FILL-081919-1545
Sample Location: BUFFALO, NY

Date Collected: 08/19/19 15:45
Date Received: 08/20/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 08/29/19 19:30
Analyst: AMC
Percent Solids: 85%

Extraction Method: EPA 3546
Extraction Date: 08/29/19 00:28
Cleanup Method: EPA 3620B
Cleanup Date: 08/29/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.87	0.366	1	A
Lindane	ND		ug/kg	0.778	0.348	1	A
Alpha-BHC	ND		ug/kg	0.778	0.221	1	A
Beta-BHC	ND		ug/kg	1.87	0.708	1	A
Heptachlor	ND		ug/kg	0.934	0.418	1	A
Aldrin	ND		ug/kg	1.87	0.657	1	A
Endrin	ND		ug/kg	0.778	0.319	1	A
Dieldrin	ND		ug/kg	1.17	0.583	1	A
4,4'-DDE	1.87		ug/kg	1.87	0.432	1	B
4,4'-DDD	ND		ug/kg	1.87	0.666	1	A
4,4'-DDT	ND	IP	ug/kg	3.50	1.50	1	A
Endosulfan I	ND		ug/kg	1.87	0.441	1	A
Endosulfan II	ND		ug/kg	1.87	0.624	1	A
Endosulfan sulfate	ND		ug/kg	0.778	0.370	1	A
cis-Chlordane	ND		ug/kg	2.33	0.650	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	72		30-150	B
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	41		30-150	A

Project Name: FORMER HYDROAIR SOLAR PROJECT
Lab Number: L1937478
Project Number: 129356-004
Report Date: 09/02/19

SAMPLE RESULTS

Lab ID: L1937478-01
Client ID: IMP FILL-081919-1545
Sample Location: BUFFALO, NY

Date Collected: 08/19/19 15:45
Date Received: 08/20/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 08/30/19 17:29
Analyst: KEG
Percent Solids: 85%
Methylation Date: 08/28/19 23:21

Extraction Method: EPA 8151A
Extraction Date: 08/27/19 17:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	192	5.10	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	73		30-150	A
DCAA	64		30-150	B

Project Name: FORMER HYDROAIR SOLAR PROJECT
Project Number: 129356-004
Lab Number: L1937478
Report Date: 09/02/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 08/28/19 12:41
Analyst: DGM

Extraction Method: EPA 8151A
Extraction Date: 08/27/19 06:35

Methylation Date: 08/27/19 22:52

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01 Batch: WG1277079-1						
2,4,5-TP (Silvex)	ND		ug/kg	163	4.34	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	84		30-150	A
DCAA	82		30-150	B

Project Name: FORMER HYDROAIR SOLAR PROJECT **Lab Number:** L1937478

Project Number: 129356-004 **Report Date:** 09/02/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 08/29/19 13:07
Analyst: BM

Extraction Method: EPA 3546
Extraction Date: 08/28/19 16:36
Cleanup Method: EPA 3620B
Cleanup Date: 08/29/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1277900-1						
Delta-BHC	ND		ug/kg	1.53	0.299	A
Lindane	ND		ug/kg	0.636	0.284	A
Alpha-BHC	ND		ug/kg	0.636	0.181	A
Beta-BHC	ND		ug/kg	1.53	0.579	A
Heptachlor	ND		ug/kg	0.763	0.342	A
Aldrin	ND		ug/kg	1.53	0.538	A
Endrin	ND		ug/kg	0.636	0.261	A
Dieldrin	ND		ug/kg	0.954	0.477	A
4,4'-DDE	ND		ug/kg	1.53	0.353	A
4,4'-DDD	ND		ug/kg	1.53	0.544	A
4,4'-DDT	ND		ug/kg	2.86	1.23	A
Endosulfan I	ND		ug/kg	1.53	0.361	A
Endosulfan II	ND		ug/kg	1.53	0.510	A
Endosulfan sulfate	ND		ug/kg	0.636	0.303	A
cis-Chlordane	ND		ug/kg	1.91	0.532	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		30-150	B
Decachlorobiphenyl	77		30-150	B
2,4,5,6-Tetrachloro-m-xylene	88		30-150	A
Decachlorobiphenyl	84		30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HYDROAIR SOLAR PROJECT

Project Number: 129356-004

Lab Number: L1937478

Report Date: 09/02/19

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: WG1277079-2 WG1277079-3									
2,4,5-TP (Silvex)	95		100		30-150	5		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	85		92		30-150	A
DCAA	82		91		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HYDROAIR SOLAR PROJECT

Project Number: 129356-004

Lab Number: L1937478

Report Date: 09/02/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1277900-2 WG1277900-3									
Delta-BHC	96		108		30-150	12		30	A
Lindane	90		100		30-150	11		30	A
Alpha-BHC	102		114		30-150	11		30	A
Beta-BHC	91		102		30-150	11		30	A
Heptachlor	92		103		30-150	11		30	A
Aldrin	86		98		30-150	13		30	A
Endrin	96		108		30-150	12		30	A
Dieldrin	102		112		30-150	9		30	A
4,4'-DDE	92		104		30-150	12		30	A
4,4'-DDD	98		108		30-150	10		30	A
4,4'-DDT	100		111		30-150	10		30	A
Endosulfan I	83		96		30-150	15		30	A
Endosulfan II	91		105		30-150	14		30	A
Endosulfan sulfate	82		89		30-150	8		30	A
cis-Chlordane	76		84		30-150	10		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		102		30-150	B
Decachlorobiphenyl	78		88		30-150	B
2,4,5,6-Tetrachloro-m-xylene	92		106		30-150	A
Decachlorobiphenyl	90		105		30-150	A

METALS

Project Name: FORMER HYDROAIR SOLAR PROJECT
Lab Number: L1937478
Project Number: 129356-004
Report Date: 09/02/19

SAMPLE RESULTS

Lab ID: L1937478-01
Client ID: IMP FILL-081919-1545
Sample Location: BUFFALO, NY
Date Collected: 08/19/19 15:45
Date Received: 08/20/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	6.32		mg/kg	0.453	0.094	1	08/28/19 23:12	08/30/19 00:13	EPA 3050B	1,6010D	LC
Barium, Total	55.0		mg/kg	0.453	0.079	1	08/28/19 23:12	08/30/19 00:13	EPA 3050B	1,6010D	LC
Beryllium, Total	0.489		mg/kg	0.226	0.015	1	08/28/19 23:12	08/30/19 00:13	EPA 3050B	1,6010D	LC
Cadmium, Total	0.353	J	mg/kg	0.453	0.044	1	08/28/19 23:12	08/30/19 00:13	EPA 3050B	1,6010D	LC
Chromium, Total	12.5		mg/kg	0.453	0.043	1	08/28/19 23:12	08/30/19 00:13	EPA 3050B	1,6010D	LC
Copper, Total	14.3		mg/kg	0.453	0.117	1	08/28/19 23:12	08/30/19 00:13	EPA 3050B	1,6010D	LC
Lead, Total	22.9		mg/kg	2.26	0.121	1	08/28/19 23:12	08/30/19 00:13	EPA 3050B	1,6010D	LC
Manganese, Total	350		mg/kg	0.453	0.072	1	08/28/19 23:12	08/30/19 00:13	EPA 3050B	1,6010D	LC
Mercury, Total	0.050	J	mg/kg	0.074	0.048	1	08/29/19 09:00	08/30/19 11:32	EPA 7471B	1,7471B	GD
Nickel, Total	15.4		mg/kg	1.13	0.110	1	08/28/19 23:12	08/30/19 00:13	EPA 3050B	1,6010D	LC
Selenium, Total	0.335	J	mg/kg	0.905	0.117	1	08/28/19 23:12	08/30/19 00:13	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.453	0.128	1	08/28/19 23:12	08/30/19 00:13	EPA 3050B	1,6010D	LC
Zinc, Total	65.6		mg/kg	2.26	0.133	1	08/28/19 23:12	08/30/19 00:13	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	12		mg/kg	0.94	0.94	1		08/30/19 00:13	NA	107,-	

Project Name: FORMER HYDROAIR SOLAR PROJECT **Lab Number:** L1937478

Project Number: 129356-004 **Report Date:** 09/02/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1277925-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	08/28/19 23:12	08/29/19 22:01	1,6010D	LC
Barium, Total	ND		mg/kg	0.400	0.070	1	08/28/19 23:12	08/29/19 22:01	1,6010D	LC
Beryllium, Total	ND		mg/kg	0.200	0.013	1	08/28/19 23:12	08/29/19 22:01	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.400	0.039	1	08/28/19 23:12	08/29/19 22:01	1,6010D	LC
Chromium, Total	0.072	J	mg/kg	0.400	0.038	1	08/28/19 23:12	08/29/19 22:01	1,6010D	LC
Copper, Total	0.104	J	mg/kg	0.400	0.103	1	08/28/19 23:12	08/29/19 22:01	1,6010D	LC
Lead, Total	ND		mg/kg	2.00	0.107	1	08/28/19 23:12	08/29/19 22:01	1,6010D	LC
Manganese, Total	ND		mg/kg	0.400	0.064	1	08/28/19 23:12	08/29/19 22:01	1,6010D	LC
Nickel, Total	ND		mg/kg	1.00	0.097	1	08/28/19 23:12	08/29/19 22:01	1,6010D	LC
Selenium, Total	0.108	J	mg/kg	0.800	0.103	1	08/28/19 23:12	08/29/19 22:01	1,6010D	LC
Silver, Total	ND		mg/kg	0.400	0.113	1	08/28/19 23:12	08/29/19 22:01	1,6010D	LC
Zinc, Total	ND		mg/kg	2.00	0.117	1	08/28/19 23:12	08/29/19 22:01	1,6010D	LC

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1278115-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	08/29/19 09:00	08/30/19 11:10	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HYDROAIR SOLAR PROJECT

Project Number: 129356-004

Lab Number: L1937478

Report Date: 09/02/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1277925-2 SRM Lot Number: D105-540								
Arsenic, Total	103		-		70-130	-		
Barium, Total	95		-		75-125	-		
Beryllium, Total	95		-		75-125	-		
Cadmium, Total	94		-		75-125	-		
Chromium, Total	93		-		70-130	-		
Copper, Total	94		-		75-125	-		
Lead, Total	94		-		71-128	-		
Manganese, Total	90		-		76-124	-		
Nickel, Total	95		-		70-131	-		
Selenium, Total	102		-		63-137	-		
Silver, Total	98		-		69-131	-		
Zinc, Total	95		-		70-130	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1278115-2 SRM Lot Number: D105-540								
Mercury, Total	93		-		60-141	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: FORMER HYDROAIR SOLAR PROJECT
Project Number: 129356-004

Lab Number: L1937478
Report Date: 09/02/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1277925-3 QC Sample: L1938262-01 Client ID: MS Sample												
Arsenic, Total	2.38	10.9	11.5	83		-	-		75-125	-		20
Barium, Total	51.3	182	185	**73**	Q	-	-		75-125	-		20
Beryllium, Total	0.355	4.55	3.75	**74**	Q	-	-		75-125	-		20
Cadmium, Total	0.220J	4.64	3.67	79		-	-		75-125	-		20
Chromium, Total	9.65	18.2	22.7	**72**	Q	-	-		75-125	-		20
Copper, Total	8.30	22.8	25.8	77		-	-		75-125	-		20
Lead, Total	9.68	46.4	44.7	75		-	-		75-125	-		20
Manganese, Total	363	45.5	304	**0**	Q	-	-		75-125	-		20
Nickel, Total	8.70	45.5	40.4	**70**	Q	-	-		75-125	-		20
Selenium, Total	0.306J	10.9	8.42	77		-	-		75-125	-		20
Silver, Total	ND	27.3	21.7	79		-	-		75-125	-		20
Zinc, Total	35.8	45.5	72.7	81		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1278115-5 QC Sample: L1900008-198 Client ID: MS Sample												
Mercury, Total	1.45	0.126	0.204	**0**	Q	-	-		80-120	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER HYDROAIR SOLAR PROJECT

Project Number: 129356-004

Lab Number: L1937478

Report Date: 09/02/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1277925-4 QC Sample: L1938262-01 Client ID: DUP Sample						
Arsenic, Total	2.38	2.58	mg/kg	8		20
Barium, Total	51.3	45.2	mg/kg	13		20
Cadmium, Total	0.220J	0.212J	mg/kg	NC		20
Chromium, Total	9.65	8.74	mg/kg	10		20
Lead, Total	9.68	13.0	mg/kg	**29**	Q	20
Selenium, Total	0.306J	0.231J	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1278115-6 QC Sample: L1900008-198 Client ID: DUP Sample						
Mercury, Total	1.45	0.141	mg/kg	**165**	Q	20

INORGANICS
&
MISCELLANEOUS

Project Name: FORMER HYDROAIR SOLAR PROJECT
Project Number: 129356-004
Lab Number: L1937478
Report Date: 09/02/19

SAMPLE RESULTS

Lab ID: L1937478-01
Client ID: IMP FILL-081919-1545
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Soil

Date Collected: 08/19/19 15:45
Date Received: 08/20/19
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	85.3		%	0.100	NA	1	-	08/23/19 15:28	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.24	1	08/21/19 14:40	08/22/19 08:58	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.938	0.188	1	08/27/19 22:55	08/28/19 14:25	1,7196A	NH

Project Name: FORMER HYDROAIR SOLAR PROJEC
Project Number: 129356-004
Lab Number: L1937478
Report Date: 09/02/19

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: WG1275015-1										
Cyanide, Total	ND		mg/kg	0.90	0.19	1	08/21/19 14:40	08/22/19 08:36	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1277480-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	08/27/19 22:55	08/28/19 14:25	1,7196A	NH

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HYDROAIR SOLAR PROJECT

Project Number: 129356-004

Lab Number: L1937478

Report Date: 09/02/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1275015-2 WG1275015-3								
Cyanide, Total	**63**	Q	**74**	Q	80-120	10		35
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1277480-2								
Chromium, Hexavalent	84		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: FORMER HYDROAIR SOLAR PROJECT
Project Number: 129356-004

Lab Number: L1937478
Report Date: 09/02/19

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: WG1275015-4 WG1275015-5 QC Sample: L1937606-01 Client ID: MS Sample												
Cyanide, Total	0.28J	11	11	97		11	98		75-125	0		35
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1277480-4 QC Sample: L1937478-01 Client ID: IMP FILL-081919-1545												
Chromium, Hexavalent	ND	874	713	82		-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER HYDROAIR SOLAR PROJECT

Project Number: 129356-004

Lab Number: L1937478

Report Date: 09/02/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1276147-1 QC Sample: L1937459-01 Client ID: DUP Sample						
Solids, Total	97.2	97.2	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1277480-6 QC Sample: L1937478-01 Client ID: IMP FILL-081919-1545						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: FORMER HYDROAIR SOLAR PROJECT
Project Number: 129356-004

Lab Number: L1937478
Report Date: 09/02/19

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(*)
L1937478-01A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.6	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)
L1937478-01B	Glass 120ml/4oz unpreserved	A	NA		2.6	Y	Absent		NYTCL-8260-R2(14)
L1937478-01C	Glass 120ml/4oz unpreserved	A	NA		2.6	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1937478-01D	Glass 120ml/4oz unpreserved	A	NA		2.6	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1937478-01E	Glass 120ml/4oz unpreserved	A	NA		2.6	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1937478-01X	Vial MeOH preserved split	A	NA		2.6	Y	Absent		NYTCL-8260-R2(14)
L1937478-01Y	Vial Water preserved split	A	NA		2.6	Y	Absent	**27-AUG-19 07:04**	NYTCL-8260-R2(14)
L1937478-01Z	Vial Water preserved split	A	NA		2.6	Y	Absent	**27-AUG-19 07:04**	NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	FORMER HYDROAIR SOLAR PROJECT	**Lab Number:**	L1937478
Project Number:	129356-004	**Report Date:**	09/02/19

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER HYDROAIR SOLAR PROJECT	**Lab Number:**	L1937478
Project Number:	129356-004	**Report Date:**	09/02/19

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.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

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 Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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 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.

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).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

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.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER HYDROAIR SOLAR PROJECT	**Lab Number:**	L1937478
Project Number:	129356-004	**Report Date:**	09/02/19

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

107 Alpha Analytical - In-house calculation method.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
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: Chloride, 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, SM4500NO2-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: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, 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 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Brewer, ME 04412 Portsmouth, NH 03801 Mahwah, NJ 07430 Albany, NY 12205
Tonawanda, NY 14150 Holmes, PA 19043

Page 1 of 1

Date Rec'd in Lab: 8/21/19

ALPHA Job #: L1937478

H&A Information

H&A Client: H&A of New York
H&A Address: 200 Town Centre Dr. Ste. 2
Rochester, NY 14623
H&A Phone: 585-321-4219
H&A Fax:
H&A Email: cmondello&haleyaldrich.com

Project Information

Project Name: Former HydroAir Solar Project
Project Location: Buffalo, NY
Project # 129356-004
(Use Project name as Project #) ☐
Project Manager: C. Mondello
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☑ Email ☐ Fax
☐ EQuIS (1 File) ☑ EQuIS (4 File)
☐ Other:

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirements (Program/Criteria)

Note: Select State from menu & identify criteria.

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Depth	VOCs 8260B -NYS 375	SVOCs 8270 - NYS 375	Pesticides 8081A-NYS 375	PCBs 8082-2,4,5 -TP8151	Metals 6020-NYS 375	Chromium, Trivalent 7196A	Hex Chrom 7196A	Merc.(GVAA) 7471A, CN	Sample Specific Comments	Total Bottles
37478 -01	IMP FILL-081919-154	8/19/2019	154	Soil	DMN	NA	x	x	x	x	x	x	x	x	N	
Container Type							A	A	A	A						
Preservative							A	F	A	A						

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	08119119 1650	T. Williams	08/19/19 1650
	8/20/19 19:00		8/20/19 11:35
			8/21/19 01:10

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. Alpha Analytical's services under this Chain of Custody shall be performed in accordance with terms and conditions within Blanket Service Agreement# 2019-22-Alpha Analytical by and between Haley & Aldrich, Inc., its subsidiaries and affiliates and Alpha Analytical.

Document ID: 20455 Rev 3 (1/7/2019)

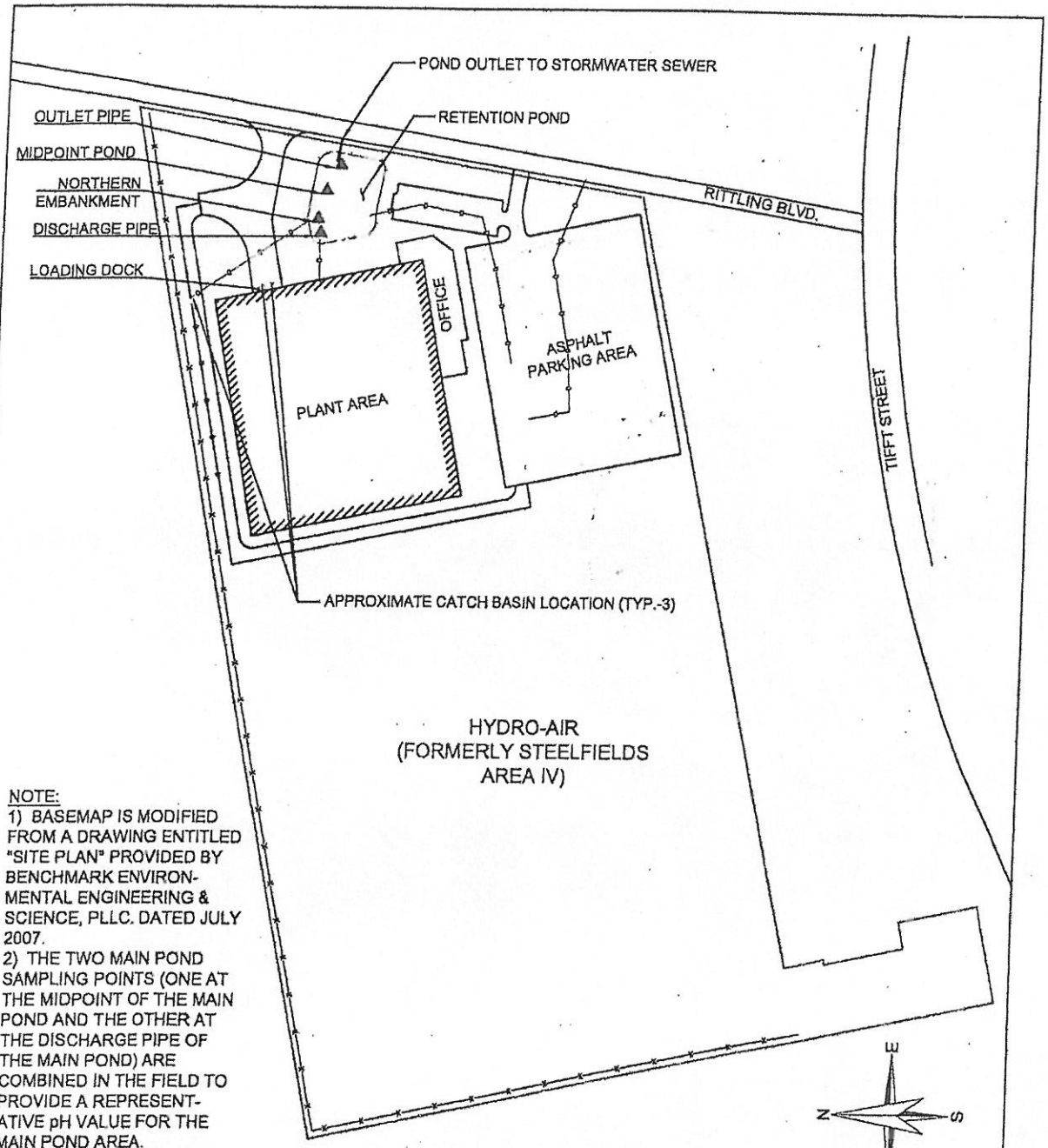
APPENDIX E

ASD System Maintenance and Monitoring Documentation

HALEY ALDRICH

2/4/2019
9:00 AM

FROZEN



NOTE:
1) BASEMAP IS MODIFIED FROM A DRAWING ENTITLED "SITE PLAN" PROVIDED BY BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. DATED JULY 2007.
2) THE TWO MAIN POND SAMPLING POINTS (ONE AT THE MIDPOINT OF THE MAIN POND AND THE OTHER AT THE DISCHARGE PIPE OF THE MAIN POND) ARE COMBINED IN THE FIELD TO PROVIDE A REPRESENTATIVE pH VALUE FOR THE MAIN POND AREA.
3) ALL LOCATIONS ARE APPROXIMATE.

LEGEND:

- FENCE
- BCP PROPERTY BOUNDARY
- STORM WATER PIPE
- ▲ RETENTION POND MONITORING LOCATION
- APPROXIMATE CATCH BASIN LOCATION

HALEY ALDRICH

HYDRO AIR COMPONENTS, INC.
BUFFALO, NEW YORK

RETENTION POND
MONITORING LOCATIONS

SCALE: AS SHOWN
FEBRUARY 2014

FIGURE 1

G:\134858_HYDROAIR\007\2014 SMP AMENDMENT & REVISIONS\DRAWINGS\134858-007_SITE PLAN MONITORING LOCATIONS_R2.DWG

NE / 1.65 SE / 1.40 NW / 1.25 / SW 1.65 IT Room 1.10

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Project Name: | Project No.:

Project Location: | Client:

Preparer's Name: Dale A Barb | Date/Time: 2/1/2019 9:00 am

Notes:

Monthly Operating Status:

System(s) currently running? ☑ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☑ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading? 1.41

Visual Inspection:

Any piping disconnected?	☐ yes	☑ no
Any cracks visible in piping?	☐ yes	☑ no
Any new cracks visible in slab floor?	☐ yes	☑ no
Magnehelic guage reading 0?	☐ yes	☑ no

If yes to any question above, please provide more information below.

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month? ☐ yes ☑ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System? ☐ yes ☑ no

If so, please list with date:

Magnehelic Readings

#1 Server Room Office
#2 S.E. Corner Cell 600/800
#3 N.E. Corner Warehouse
#4 N.W. Corner Cell 200
#5 S.W. Corner Cell 100

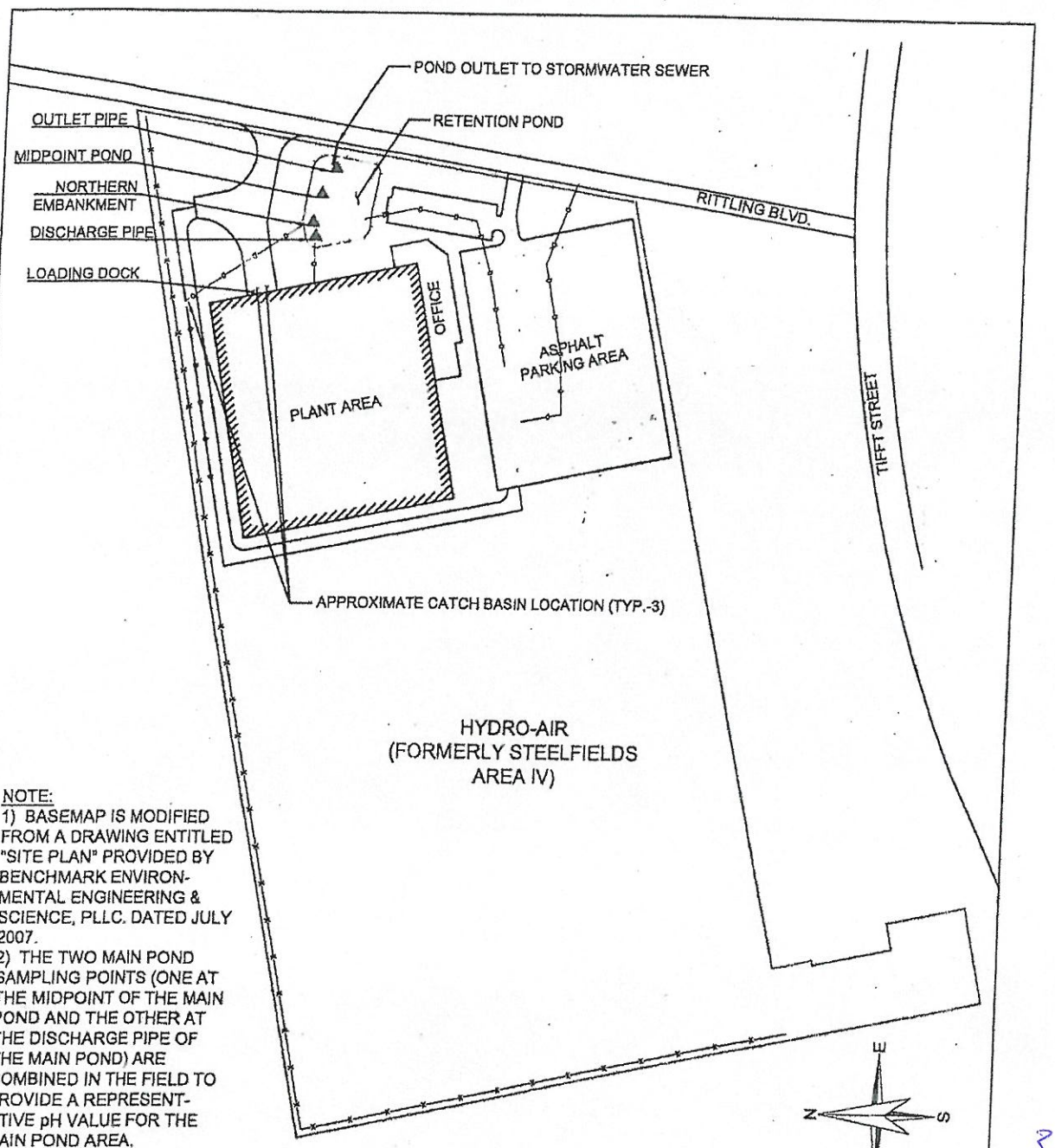
Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65

1) Pond Frozen

2) New sensor for Meter Instaled,

3) ordered New Pump will Instal this week 2/3/2019

2/28/19
9:



G:\134858_HYDROAIR\BDT\2014 SMP AMENDMENT & REVISIONS\DRAWINGS\134658-007_SITE PLAN MONITORING LOCATIONS_R2.DWG

328

Sewer Room
1.15

NE/1.75 SE/1.45 NW/1.35 SW/1.70

BENCHMARK
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SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Project Name: | Project No.:

Project Location: | Client:

Preparer's Name: Dale A Burke | Date/Time: 2/28/19 9:00 AM

Notes:

Monthly Operating Status:

System(s) currently running? ☑ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☑ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading? 1.48

Visual Inspection:

Any piping disconnected?	☐ yes	☑ no
Any cracks visible in piping?	☐ yes	☑ no
Any new cracks visible in slab floor?	☐ yes	☑ no
Magnehelic guage reading 0?	☐ yes	☑ no

If yes to any question above, please provide more information below.

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
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Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month? ☐ yes ☑ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System? ☐ yes ☑ no

If so, please list with date:

Magnehelic Readings

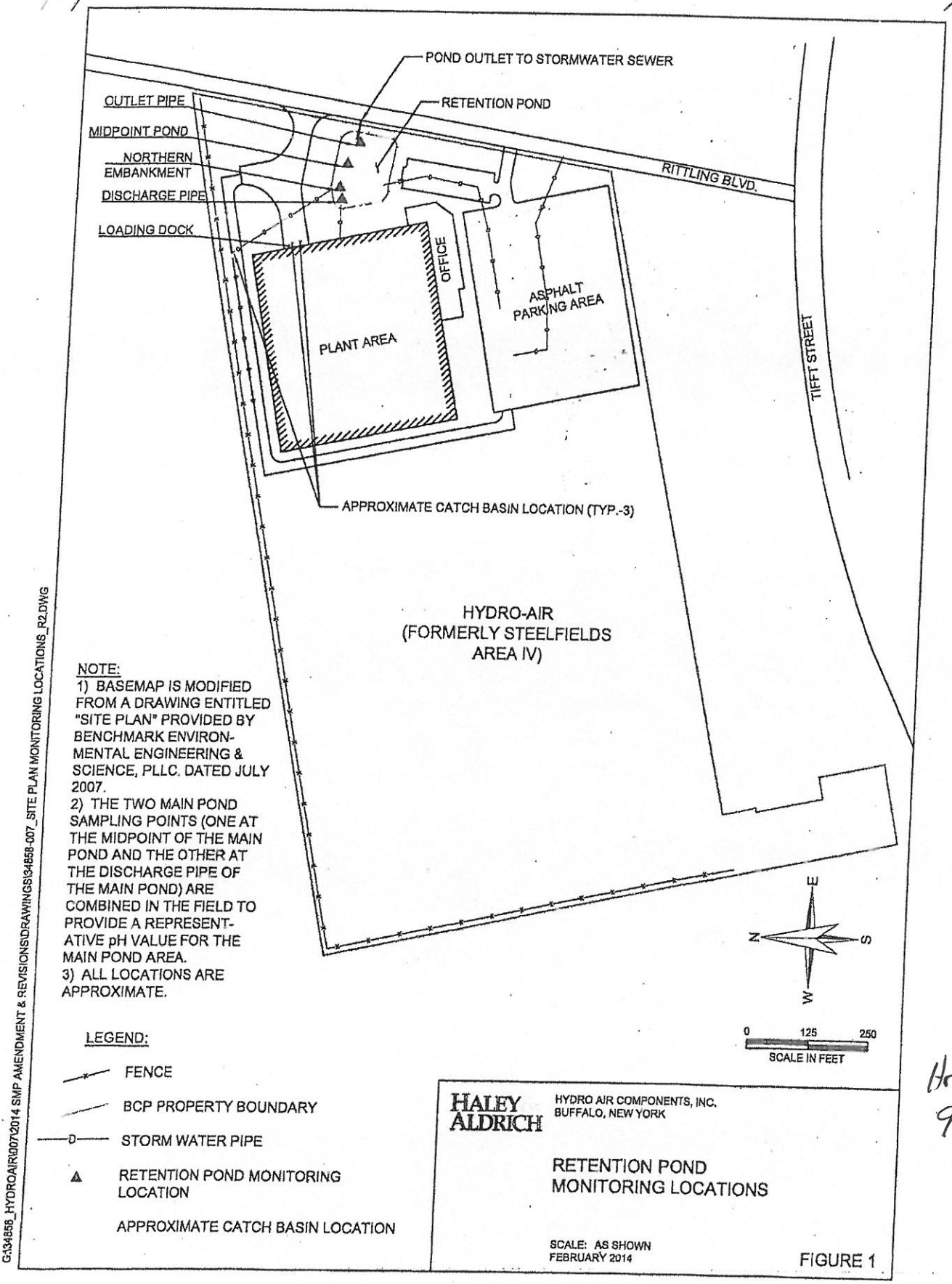
#1 Server Room Office
#2 S.E. Corner Cell 600/800
#3 N.E. Corner Warehouse
#4 N.W. Corner Cell 200
#5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70

1) Pond Frozen
2) Sensor Reading 328 Gallons into Pond from dock,
3) New Pump Fastened and working

3/29/19

9:30 AM



HS
9895

NE / 1.70

SE / 1.45

NW / 1.35

SW / 1.70

Server Room
1.10

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Project Name: | Project No.:

Project Location: | Client:

Preparer's Name: Dale A Bardo | Date/Time: 3/29/19 9:30 AM

Notes:

Monthly Operating Status:

System(s) currently running? ☑ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☑ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading? 1.46

Visual Inspection:

Any piping disconnected?	☑ yes	☐ no
Any cracks visible in piping?	☐ yes	☑ no
Any new cracks visible in slab floor?	☐ yes	☑ no
Magnehelic guage reading 0?	☐ yes	☑ no

If yes to any question above, please provide more information below.

New Meter & Sensor instaled and Cleaned out Piping - Instaled 2 union's so could be Cleaned out easer,

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month? ☐ yes ☑ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System? ☐ yes ☑ no

If so, please list with date:

Magnehelic Readings

#1 Server Room Office
#2 S.E. Corner Cell 600/800
#3 N.E. Corner Warehouse
#4 N.W. Corner Cell 200
#5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)				
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)			
Dale A Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46	9,895	clear	sunny

* May, 2016 is the first month the discharge quantity was calculated via flow meter

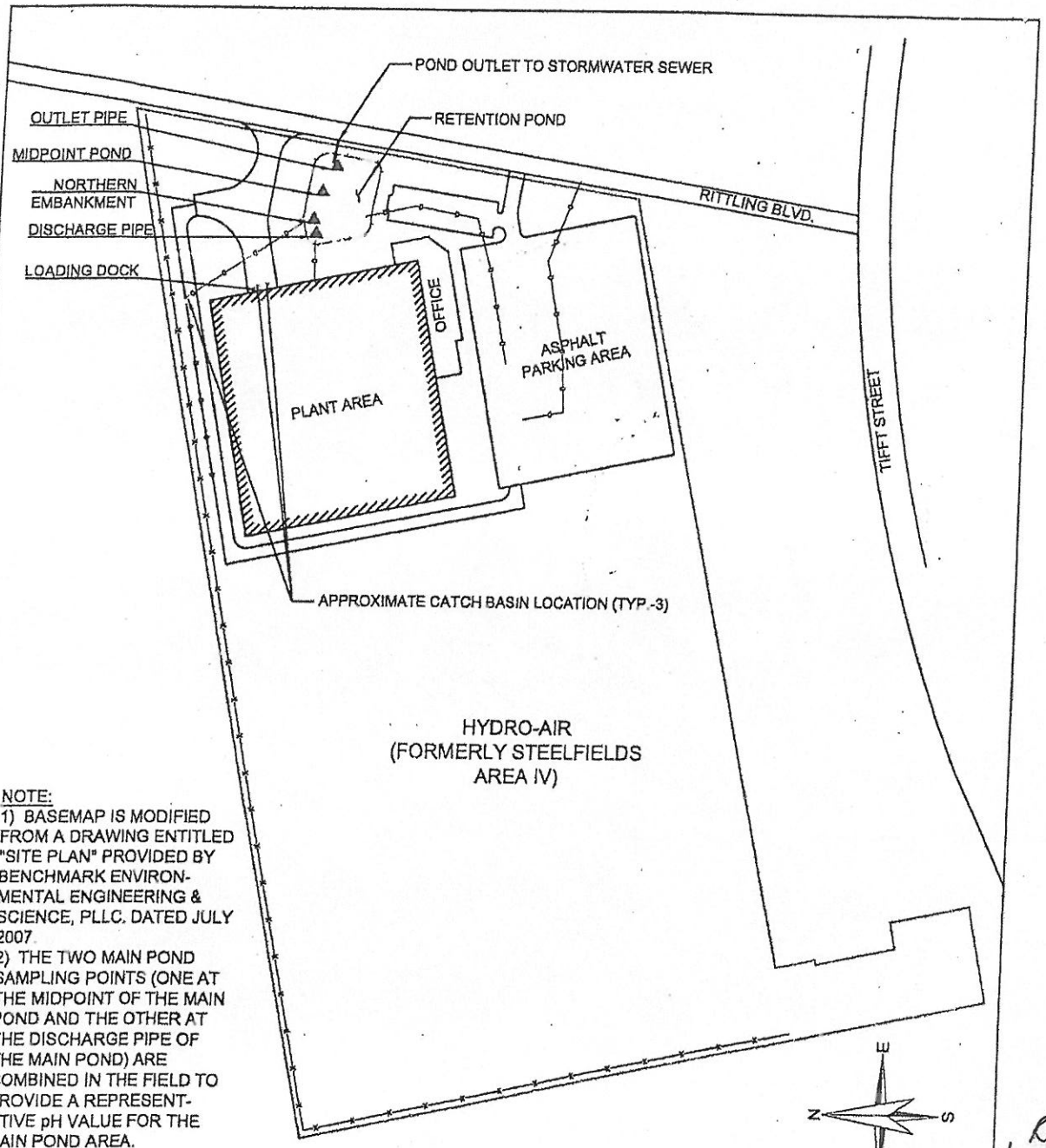
4/29/2019

9:30 AM

6.8 45°

7.8 44°

7.9 46°



NOTE:
1) BASEMAP IS MODIFIED FROM A DRAWING ENTITLED "SITE PLAN" PROVIDED BY BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. DATED JULY 2007.
2) THE TWO MAIN POND SAMPLING POINTS (ONE AT THE MIDPOINT OF THE MAIN POND AND THE OTHER AT THE DISCHARGE PIPE OF THE MAIN POND) ARE COMBINED IN THE FIELD TO PROVIDE A REPRESENTATIVE pH VALUE FOR THE MAIN POND AREA.
3) ALL LOCATIONS ARE APPROXIMATE.

LEGEND:

- FENCE
- BCP PROPERTY BOUNDARY
- STORM WATER PIPE
- ▲ RETENTION POND MONITORING LOCATION
- APPROXIMATE CATCH BASIN LOCATION

HALEY ALDRICH

HYDRO AIR COMPONENTS, INC.
BUFFALO, NEW YORK

RETENTION POND
MONITORING LOCATIONS

SCALE: AS SHOWN
FEBRUARY 2014

FIGURE 1

G:\34858_HYDROAIR\007\2014 SMP AMENDMENT & REVISIONS\DRAWINGS\34858-007_SITE PLAN MONITORING LOCATIONS_R2.DWG

Readings Hrs 7:020

Server Room 1.20

NE/1.70 NW/1.35 SE/1.40 SW/1.70

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Project Name: | Project No.:

Project Location: | Client:

Preparer's Name: Dale A Barto | Date/Time: 4/29/2019 9:00 am

Notes:

Monthly Operating Status:

System(s) currently running? ☑ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☐ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading? 1.41

Visual Inspection:

Any piping disconnected?	☐ yes	☑ no
Any cracks visible in piping?	☐ yes	☑ no
Any new cracks visible in slab floor?	☐ yes	☑ no
Magnehelic guage reading 0?	☐ yes	☑ no

If yes to any question above, please provide more information below.

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month? ☐ yes ☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System? ☐ yes ☒ no

If so, please list with date:

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy

Magnehelic Readings

#1 Server Room Office
#2 S.E. Corner Cell 600/800
#3 N.E. Corner Warehouse
#4 N.W. Corner Cell 200
#5 S.W. Corner Cell 100

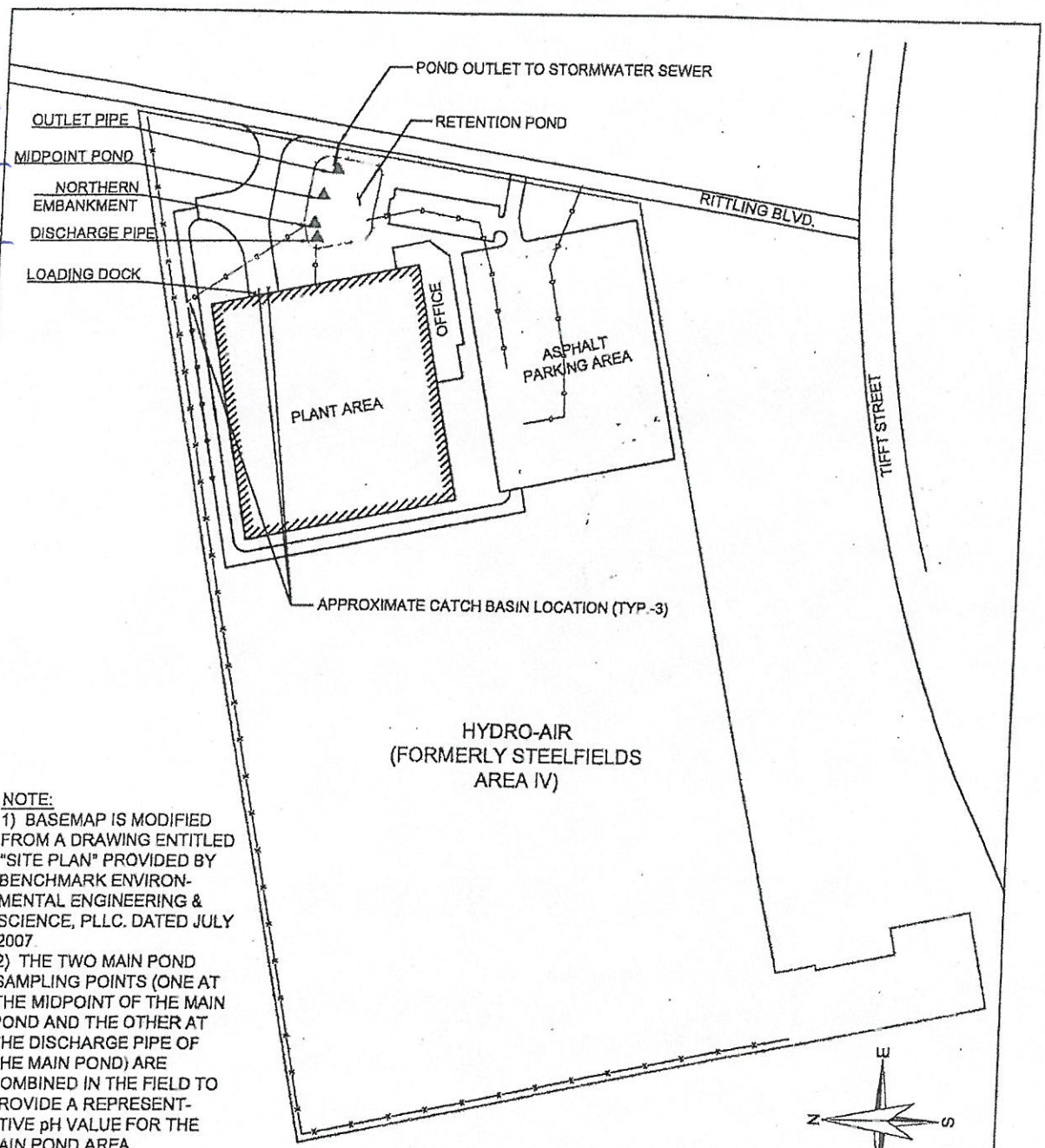
Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40

5/30/2019 9:30 AM

6.60/47°

7.75/46°

7.95/48°



G:\134858_HYDROAIR\2007\2014 SMP AMENDMENT & REVISIONS\DRAWINGS\134858-007_SITE PLAN MONITORING LOCATIONS_R2.DWG

IT Room 1.15

NE/1.75 NW/1.40 SE/1.40 SW/1.25

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Project Name: | Project No.:

Project Location: | Client:

Preparer's Name: Dale A Barto | Date/Time: 5-30-2019 9:30 AM

Notes:

Monthly Operating Status:

System(s) currently running? ☑ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☐ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading? 1.49

Visual Inspection:

Any piping disconnected?	☐ yes	☑ no
Any cracks visible in piping?	☐ yes	☑ no
Any new cracks visible in slab floor?	☐ yes	☑ no
Magnehelic guage reading 0?	☐ yes	☑ no

If yes to any question above, please provide more information below.

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month? ☐ yes ☑ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System? ☐ yes ☑ no

If so, please list with date:

Magnehelic Readings

#1 Server Room Office
#2 S.E. Corner Cell 600/800
#3 N.E. Corner Warehouse
#4 N.W. Corner Cell 200
#5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75

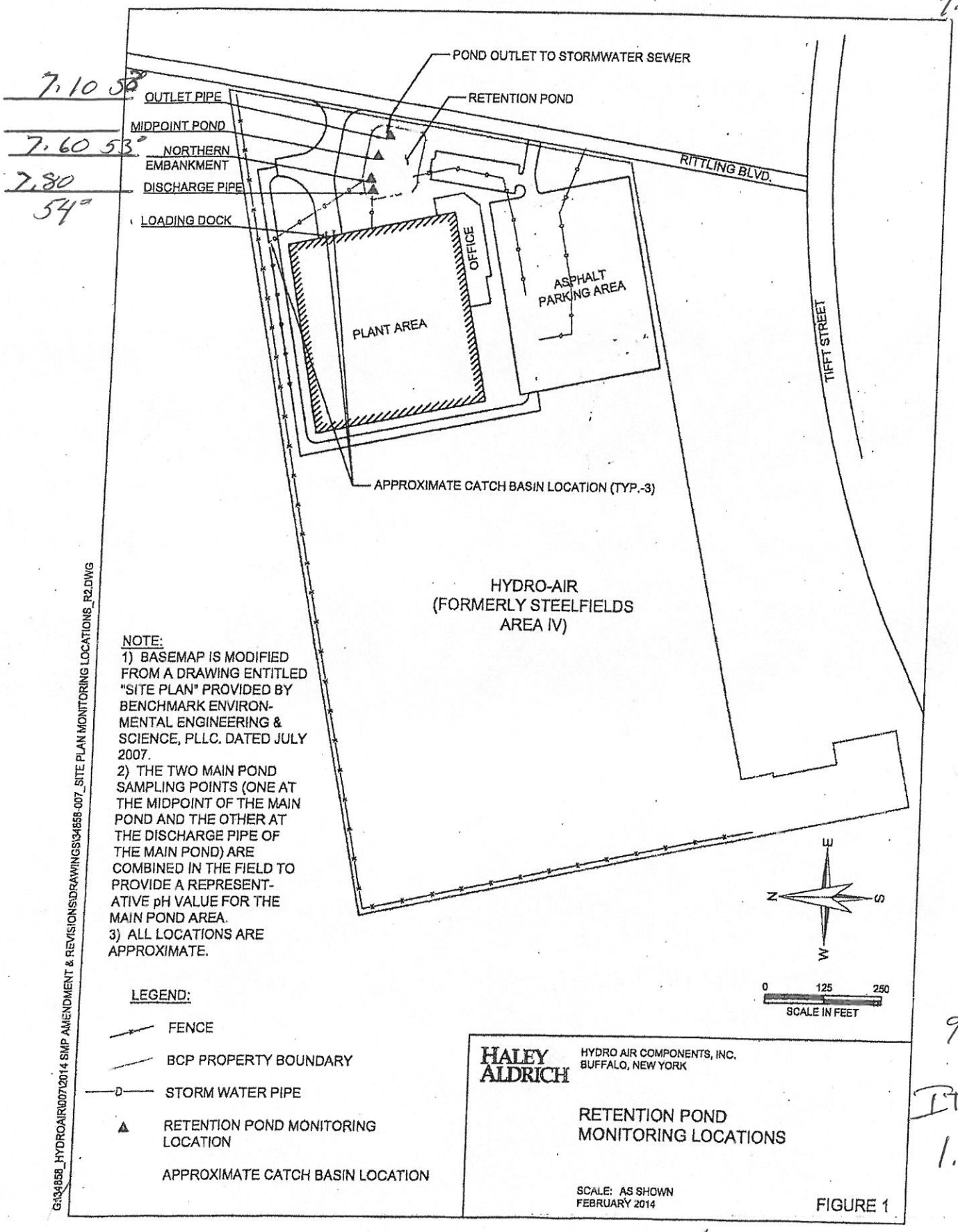
Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny

6/28/2019
9:30 AM



7.10 53"
7.60 53"
7.80 54"

9161

IT Room 1.10

NE/1.75 SE/1.45 SW/1.75 NW/1.75

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Project Name: | Project No.:

Project Location: | Client:

Preparer's Name: Dale A Barto | Date/Time: 6/28/2019 9:30 AM

Notes:

Monthly Operating Status:

System(s) currently running? ☑ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☑ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading? 1.56

Visual Inspection:

Any piping disconnected?	☐ yes	☑ no
Any cracks visible in piping?	☐ yes	☑ no
Any new cracks visible in slab floor?	☐ yes	☑ no
Magnehelic guage reading 0?	☐ yes	☑ no

If yes to any question above, please provide more information below.

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month? ☐ yes ☑ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System? ☐ yes ☑ no

If so, please list with date:

Magnehelic Readings

#1 Server Room Office
#2 S.E. Corner Cell 600/800
#3 N.E. Corner Warehouse
#4 N.W. Corner Cell 200
#5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

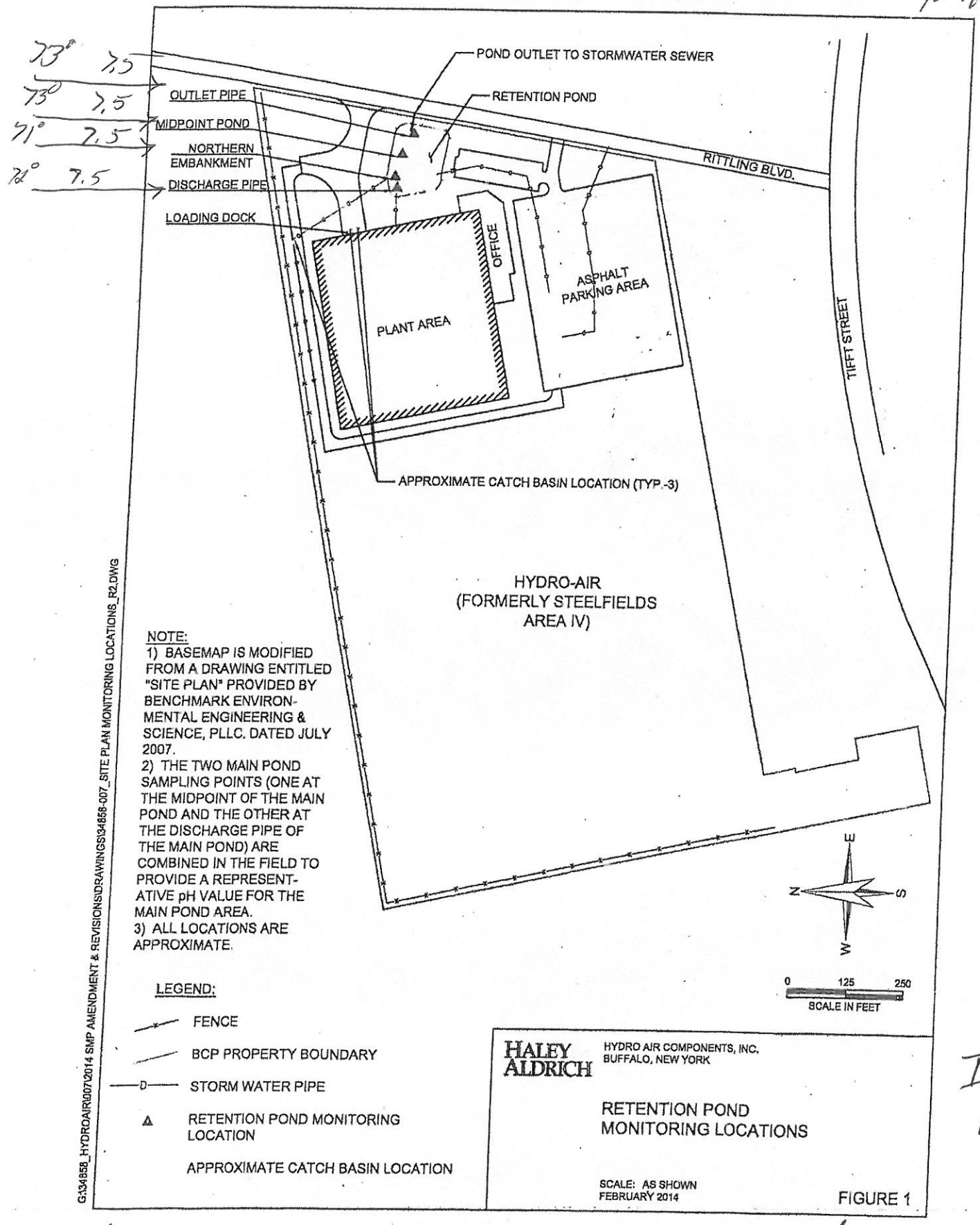
In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny

AM
9:30

7/29/2019



HALEY ALDRICH

HYDRO AIR COMPONENTS, INC.
BUFFALO, NEW YORK

RETENTION POND
MONITORING LOCATIONS

SCALE: AS SHOWN
FEBRUARY 2014

FIGURE 1

IT Room
1,10

NE/1.75 NW/1.50 SE/1.45 SW/1.75

Pump 91161

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Project Name: | Project No.:

Project Location: | Client:

Preparer's Name: Dale A Barto | Date/Time: 7/29/2019 9:30 AM

Notes:

Monthly Operating Status:

System(s) currently running? ☑ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☑ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading? 1.51

Visual Inspection:

Any piping disconnected?	☐ yes	☑ no
Any cracks visible in piping?	☐ yes	☑ no
Any new cracks visible in slab floor?	☐ yes	☑ no
Magnehelic guage reading 0?	☐ yes	☑ no

If yes to any question above, please provide more information below.

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month? ☐ yes ☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System? ☐ yes ☑ no

If so, please list with date:

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny

Magnehelic Readings

#1 Server Room Office
#2 S.E. Corner Cell 600/800
#3 N.E. Corner Warehouse
#4 N.W. Corner Cell 200
#5 S.W. Corner Cell 100

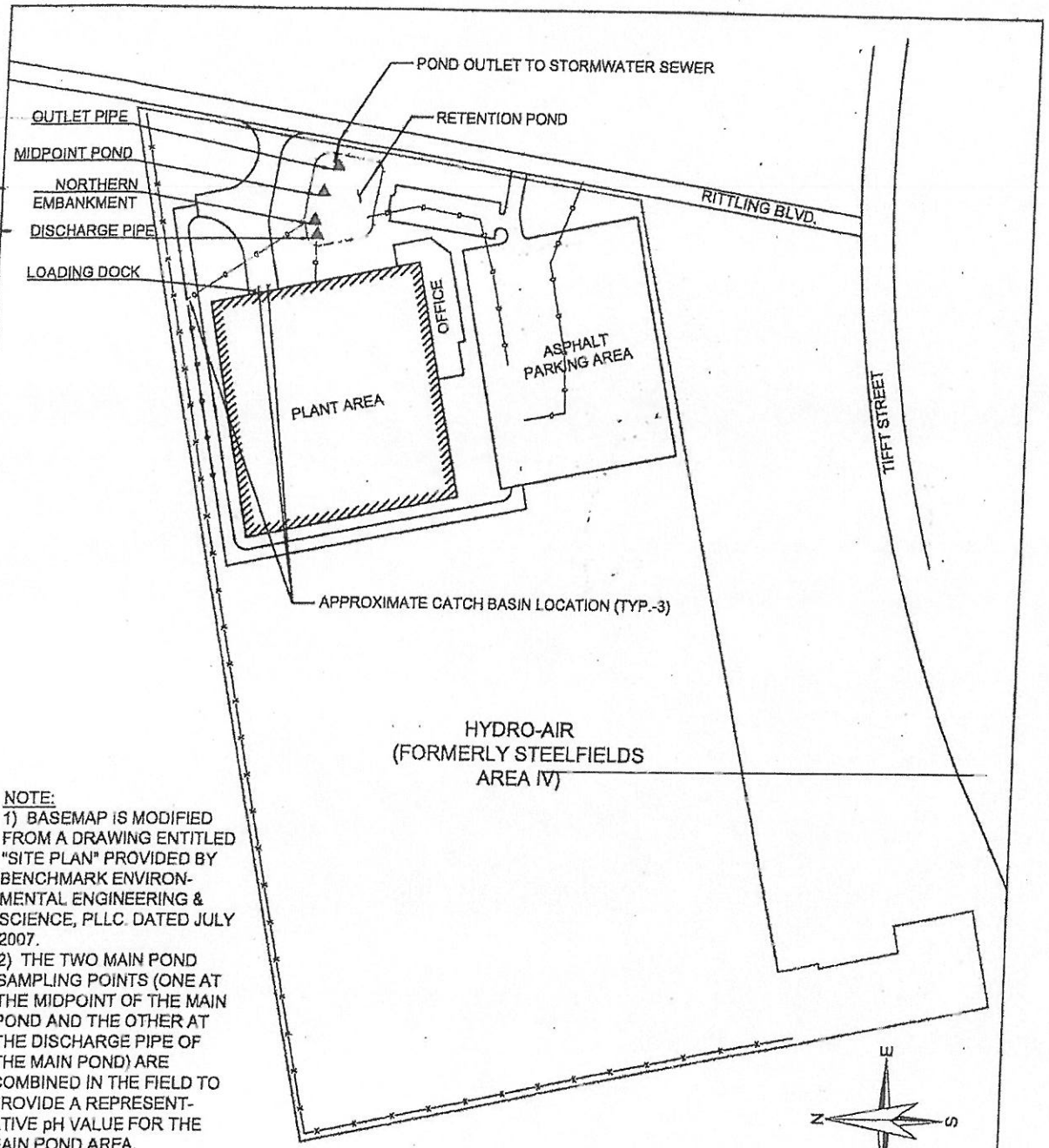
Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75

8/29/19
9:30 AM

7.1 63°

7.2 64°

7.8 63°



NOTE:
1) BASEMAP IS MODIFIED FROM A DRAWING ENTITLED "SITE PLAN" PROVIDED BY BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. DATED JULY 2007.
2) THE TWO MAIN POND SAMPLING POINTS (ONE AT THE MIDPOINT OF THE MAIN POND AND THE OTHER AT THE DISCHARGE PIPE OF THE MAIN POND) ARE COMBINED IN THE FIELD TO PROVIDE A REPRESENTATIVE pH VALUE FOR THE MAIN POND AREA.
3) ALL LOCATIONS ARE APPROXIMATE.

LEGEND:

- FENCE
- BCP PROPERTY BOUNDARY
- D — STORM WATER PIPE
- ▲ RETENTION POND MONITORING LOCATION
- APPROXIMATE CATCH BASIN LOCATION

HALEY ALDRICH

HYDRO AIR COMPONENTS, INC.
BUFFALO, NEW YORK

RETENTION POND MONITORING LOCATIONS

SCALE: AS SHOWN
FEBRUARY 2014

FIGURE 1

G:\134858_HYDROAIR\10012014 SMP AMENDMENT & REVISIONS\DRAWINGS\134858-007_SITE PLAN MONITORING LOCATIONS_R2.DWG

9/16/1

SE/1.50 SW/1.75 NE/1.75 NW/1.35 IT 1.10

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Project Name: | Project No.:

Project Location: | Client:

Preparer's Name: Dale A Barte | Date/Time: 8/29/2019 9:30 Am

Notes:

Monthly Operating Status:

System(s) currently running? ☑ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☑ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading? 1.49

Visual Inspection:

Any piping disconnected?	☐ yes	☑ no
Any cracks visible in piping?	☐ yes	☑ no
Any new cracks visible in slab floor?	☐ yes	☑ no
Magnehelic guage reading 0?	☐ yes	☑ no

If yes to any question above, please provide more information below.

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month? ☐ yes ☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System? ☐ yes ☒ no

If so, please list with date:

Magnehelic Readings

#1 Server Room Office
#2 S.E. Corner Cell 600/800
#3 N.E. Corner Warehouse
#4 N.W. Corner Cell 200
#5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
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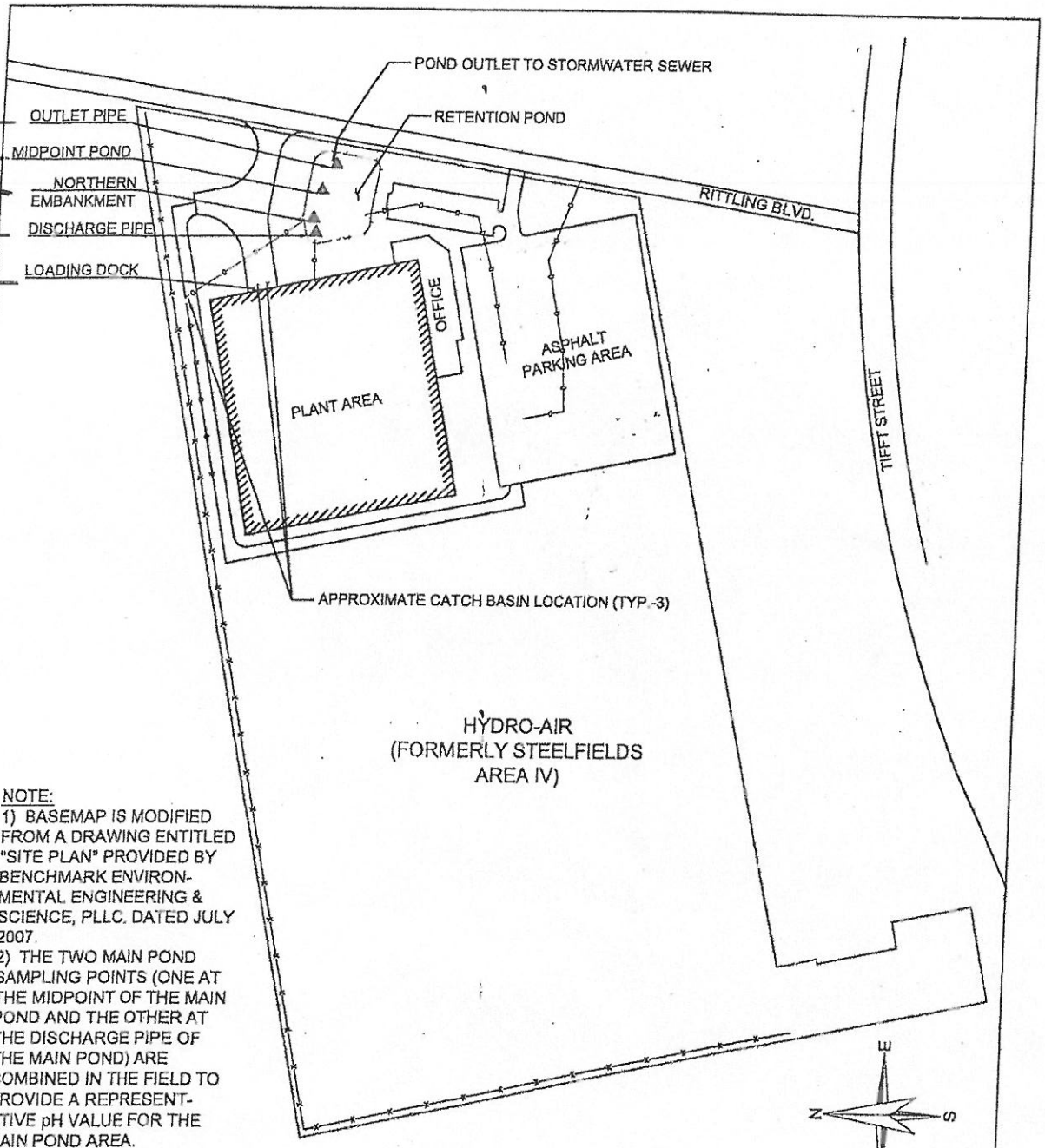
Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny

9/30/2019

7.0 / 61°
OUTLET PIPE
7.1 61°
MIDPOINT POND
7.3 61°
NORTHERN EMBANKMENT
7.7 60°
DISCHARGE PIPE
87,685
LOADING DOCK



NOTE:
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2) THE TWO MAIN POND SAMPLING POINTS (ONE AT THE MIDPOINT OF THE MAIN POND AND THE OTHER AT THE DISCHARGE PIPE OF THE MAIN POND) ARE COMBINED IN THE FIELD TO PROVIDE A REPRESENTATIVE pH VALUE FOR THE MAIN POND AREA.
3) ALL LOCATIONS ARE APPROXIMATE.

LEGEND:

- FENCE
- BCP PROPERTY BOUNDARY
- STORM WATER PIPE
- RETENTION POND MONITORING LOCATION
- APPROXIMATE CATCH BASIN LOCATION

HALEY ALDRICH

HYDRO AIR COMPONENTS, INC.
BUFFALO, NEW YORK

RETENTION POND
MONITORING LOCATIONS

SCALE: AS SHOWN
FEBRUARY 2014

FIGURE 1

G:\34858_HYDROAIR\80\20140 SMP AMENDMENT & REVISIONS\DRAWINGS\34858-007_SITE PLAN MONITORING LOCATIONS_R2.DWG

Server Room
1.10

NE/1.75 NW/1.45 SE/1.40 SW/1.70

9/30/2019

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Project Name: Dale A Barto Project No.:

Project Location: Client:

Preparer's Name: Date/Time: 9/30/2019 9:00 AM

Notes:

Monthly Operating Status:

System(s) currently running? ☑ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☑ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading? 1.48

Visual Inspection:

Any piping disconnected?	☐ yes	☑ no
Any cracks visible in piping?	☐ yes	☑ no
Any new cracks visible in slab floor?	☐ yes	☑ no
Magnehelic guage reading 0?	☐ yes	☑ no

If yes to any question above, please provide more information below.

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month? ☐ yes ☑ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System? ☐ yes ☑ no

If so, please list with date:

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
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		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
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Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy

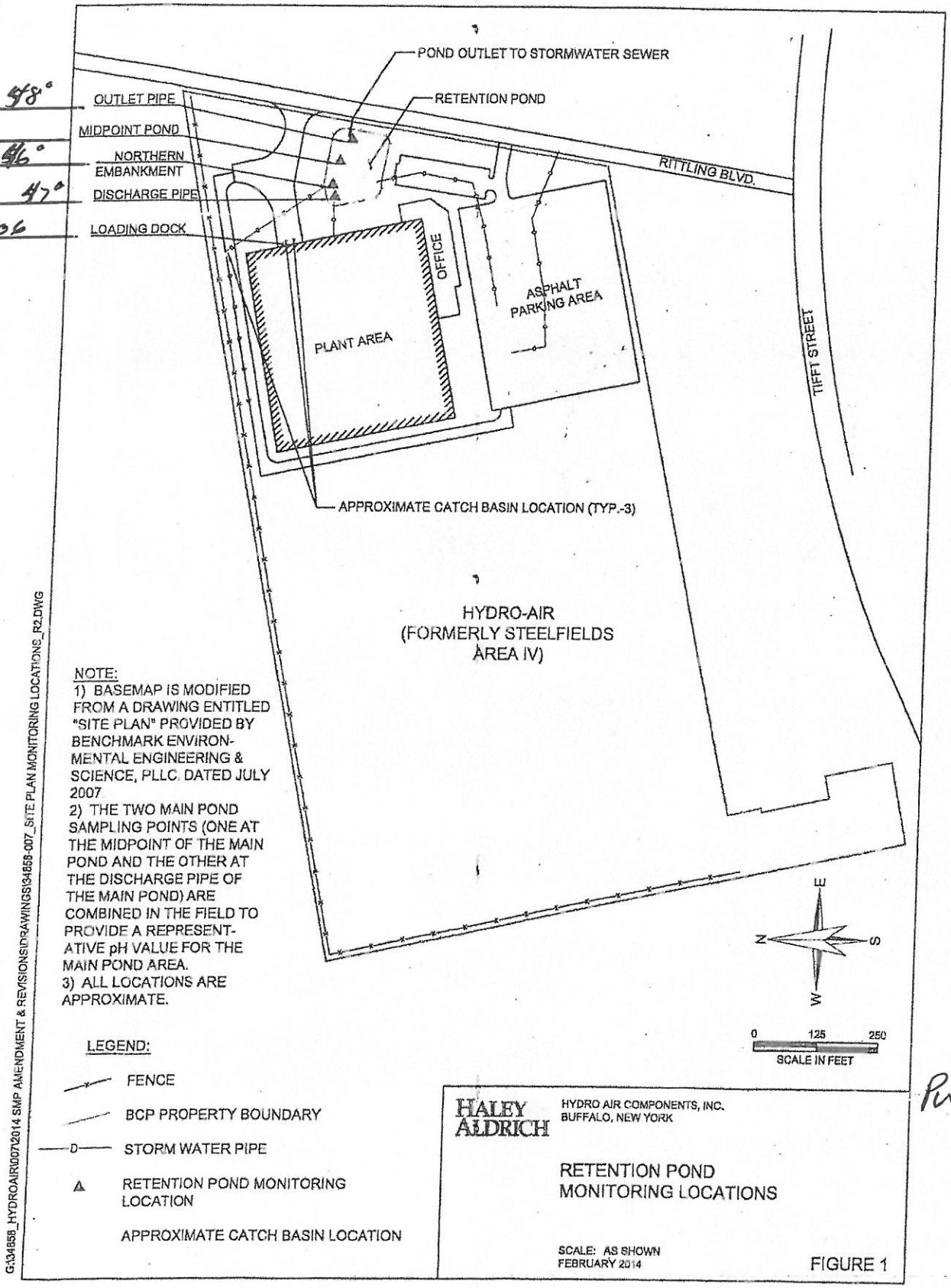
Magnehelic Readings

#1 Server Room Office
#2 S.E. Corner Cell 600/800
#3 N.E. Corner Warehouse
#4 N.W. Corner Cell 200
#5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70

10/29/2019
9:00 AM

7.75 48°
OUTLET PIPE
MIDPOINT POND
7.20 46°
NORTHERN EMBANKMENT
7.15 47°
DISCHARGE PIPE
9/206
LOADING DOCK



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3) ALL LOCATIONS ARE APPROXIMATE.

LEGEND:

- FENCE
- BCP PROPERTY BOUNDARY
- STORM WATER PIPE
- RETENTION POND MONITORING LOCATION
- APPROXIMATE CATCH BASIN LOCATION

HALEY ALDRICH

HYDRO AIR COMPONENTS, INC.
BUFFALO, NEW YORK

RETENTION POND
MONITORING LOCATIONS

SCALE: AS SHOWN
FEBRUARY 2014

FIGURE 1

G:\134658_HYDROAIR\007\2014 SMP AMENDMENT & REVISIONS\DRAWINGS\134658-007_SITE PLAN MONITORING LOCATIONS_R2.DWG

Pump Reads
9/206

NE/1.70 SE/1.40 NW/1.35 SW/1.70

In Room
1.15

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Project Name: | Project No.:

Project Location: | Client:

Preparer's Name: Dale A Barto | Date/Time: 10-29-2019 9:00 AM

Notes:

Monthly Operating Status:

System(s) currently running? ☑ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☑ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading? 1.46

Visual Inspection:

Any piping disconnected?	☐ yes	☑ no
Any cracks visible in piping?	☐ yes	☑ no
Any new cracks visible in slab floor?	☐ yes	☑ no
Magnehelic guage reading 0?	☐ yes	☑ no

If yes to any question above, please provide more information below.

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month? ☐ yes ☑ ~~no~~

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System? ☐ yes ☑ no

If so, please list with date:

System Modifications:

Magnehelic Readings

#1 Server Room Office
#2 S.E. Corner Cell 600/800
#3 N.E. Corner Warehouse
#4 N.W. Corner Cell 200
#5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70
10/29/2019	1.15	1.40	1.70	1.35	1.70

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

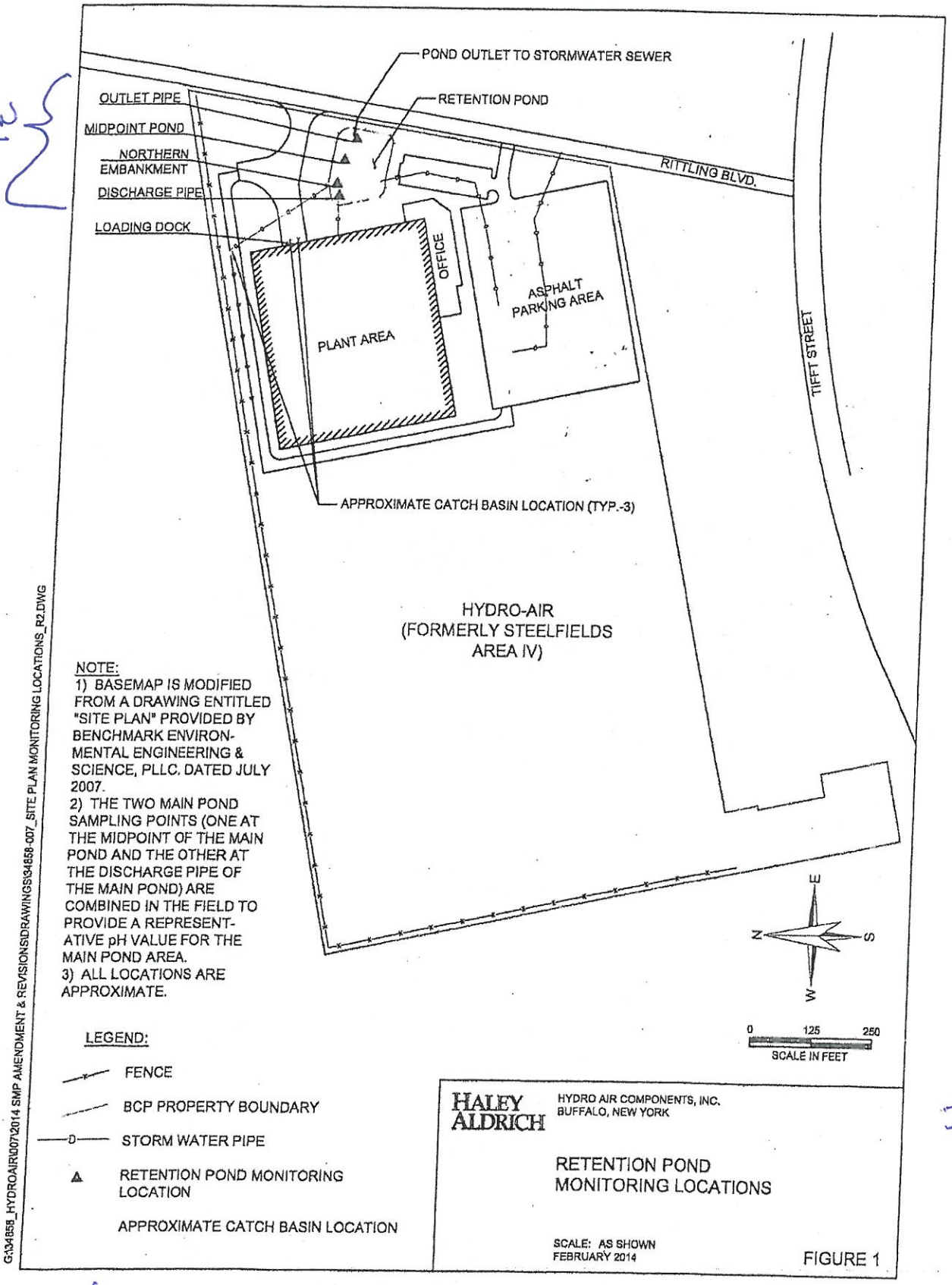
In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny

In accordance with

11/27/2019
9:30 AM



Frozen
Clear day

FT, Room 1.10

NE/1.65 SE/1.35 NW/1.20 SW/1.65

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Project Name: | Project No.:

Project Location: | Client:

Preparer's Name: Dale A Barto | Date/Time: 11/27/2019 9:30 AM

Notes:

Monthly Operating Status:

System(s) currently running? ☑ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☑ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading? 1.39

Visual Inspection:

Any piping disconnected?	☐ yes	☑ no
Any cracks visible in piping?	☐ yes	☑ no
Any new cracks visible in slab floor?	☐ yes	☑ no
Magnehelic guage reading 0?	☐ yes	☑ no

If yes to any question above, please provide more information below.

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month? ☐ yes ☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System? ☐ yes ☒ no

If so, please list with date:

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

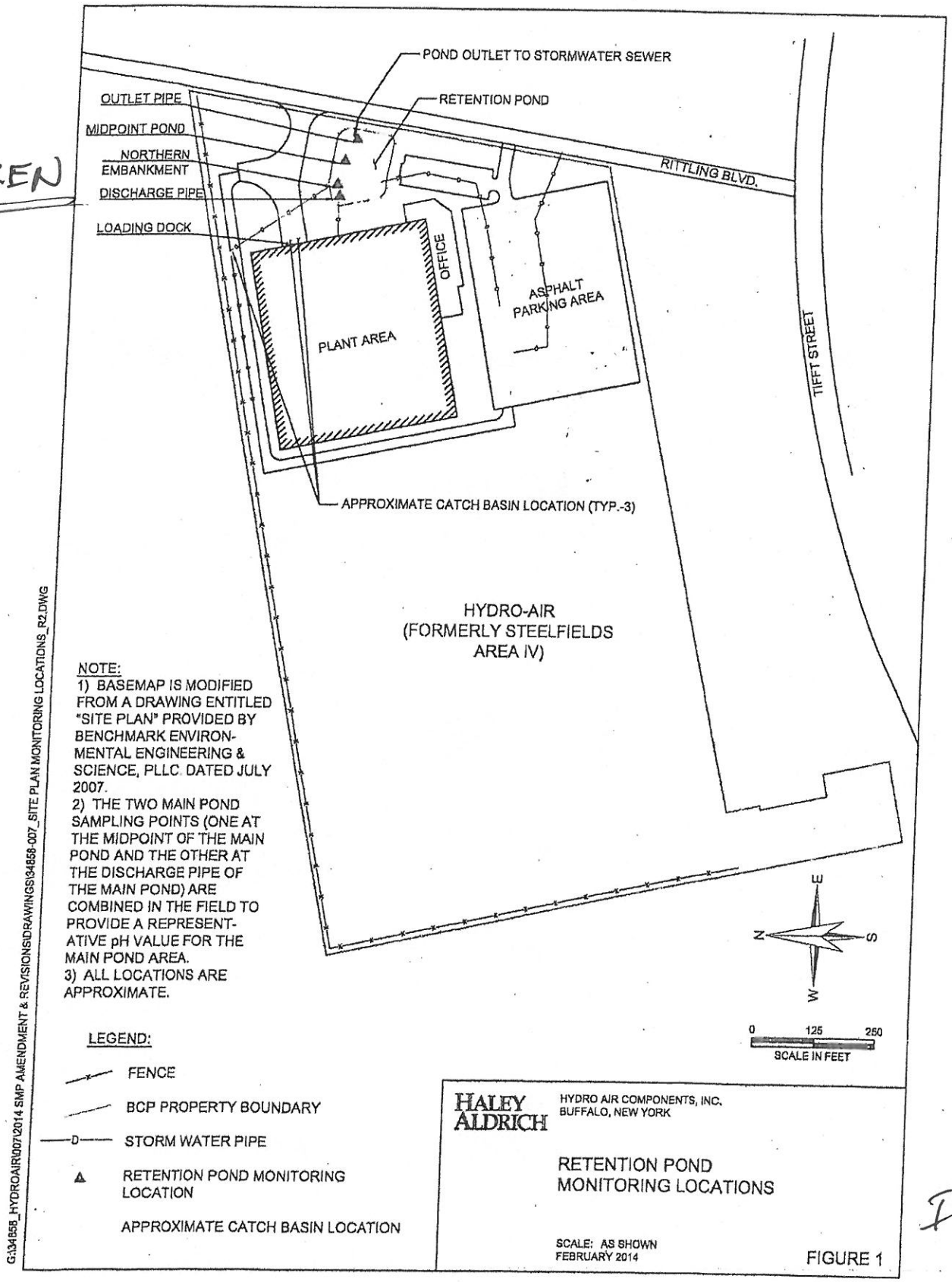
Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny
Dale A Barto	11/27/19 12:00 AM								26,570	Frozen	clear

Magnehelic Readings

#1 Server Room Office
#2 S.E. Corner Cell 600/800
#3 N.E. Corner Warehouse
#4 N.W. Corner Cell 200
#5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70
10/29/2019	1.15	1.40	1.70	1.35	1.70
11/27/2019	1.10	1.35	1.65	1.20	1.65

12/31/2019
11:00AM



FROZEN

FT Room
1.10

NE/1.75 NW/1.35 SE/1.40 SW/1.70

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Project Name: | Project No.:

Project Location: | Client:

Preparer's Name: Dale A. Barto | Date/Time: 12/31/2019 11:00 Am

Notes:

Monthly Operating Status:

System(s) currently running? ☑ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☑ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading? 1.46

Visual Inspection:

Any piping disconnected?	☐ yes	☑ no
Any cracks visible in piping?	☐ yes	☑ no
Any new cracks visible in slab floor?	☐ yes	☑ no
Magnehelic guage reading 0?	☐ yes	☑ no

If yes to any question above, please provide more information below.

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

Monthly Operation & Maintenance Log
Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month? ☐ yes ☑ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System? ☐ yes ☑ no

If so, please list with date:

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
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Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny
Dale A Barto	11/27/19 12:00 AM								26,570	Frozen	clear
Dale A Barto	12/31/2019 11:00am								64,653	Frozen	Cloudy

Magnehelic Readings

#1 Server Room Office
#2 S.E. Corner Cell 600/800
#3 N.E. Corner Warehouse
#4 N.W. Corner Cell 200
#5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70
10/29/2019	1.15	1.40	1.70	1.35	1.70
11/27/2019	1.10	1.35	1.65	1.20	1.65
12/31/2019	1.10	1.40	1.75	1.35	1.70

APPENDIX F

ORC Well Inspection Forms

HALEY ALDRICH

ORC WELL ANNUAL INSPECTION FORM
Active ORC monitoring wells

Project Name: Hydro Air | **Project No.:**

Project Location: Buffalo, NY | **Client:**

Preparer's Name: Timothy Bly | **Date/Time:** 1-28-19 ~~1430~~ 1205

	A4 - ORC - 1	A4 - ORC - 2	A4 - ORC - 3
sampling dates:	1-28-19 @ 1205		

Field groundwater quality measurements

Water Level	3.70		
Bottom Depth	14.30		
pH	7.32		
Temperature	3.81		
DO	3.55		
ORP	327		
Alkalinity	N/A		

Refer to Figure 1 for well locations

Well Integrity

Cement seal	☐ good	☒ poor	If poor please note well. grass covered
Pro - casing condition	☐ good	☐ poor	If poor please note any damage.
Lock condition	☒ good	☐ poor	If poor please note well.
Working J - plug	☒ yes	☐ no	If no please note well.

ORC Sock's

Have any Socks been replaced ☒ yes ☐ no

If replaced on what date and why. 1-28-19 - Plan

Are socks fully submerged in well screens. ☒ yes ☐ no

If no explain why. Sock Depth 13.55

Are all ORC wells begin sampled and maintained according to the site management plan

☒ yes ☐ no

If no please state why.

Initial: TB Date: 1-28-19

ORC WELL ANNUAL INSPECTION FORM
Active ORC monitoring wells

Project Name: Hydro Air | Project No.:

Project Location: Buffalo, NY | Client:

Preparer's Name: Timothy Bly | Date/Time:

	A4 - ORC - 1	A4 - ORC - 2	A4 - ORC - 3
sampling dates:	~~1-28-19 @ 1250~~	1-28-19 @ 1250	

Field groundwater quality measurements

Water Level	X	5.73	
Bottom Depth		11.55	
pH		7.32	
Temperature		1.68	
DO		6.06	
ORP		429	
Alkalinity		N/A	

Refer to Figure 1 for well locations

Well Integrity

Cement seal	☐ good	☒ poor	If poor please note well. Covered in grass
Pro - casing condition	☒ good	☐ poor	If poor please note any damage.
Lock condition	☒ good	☐ poor	If poor please note well.
Working J - plug	☒ yes	☐ no	If no please note well.

ORC Sock's

Have any Socks been replaced ☒ yes ☐ no

If replaced on what date and why. 1-28-19 – Plan

Are socks fully submerged in well screens. ☒ yes ☐ no

If no explain why. Socks @ 10.65

Are all ORC wells begin sampled and maintained according to the site management plan

☒ yes ☐ no

If no please state why.

Initial: TB Date: 1-28-19

ORC WELL ANNUAL INSPECTION FORM
Active ORC monitoring wells

Project Name: Hydro Air
Project No.:
Project Location: Buffalo, NY
Client:
Preparer's Name: Timothy Bly
Date/Time: 1-28-19

	A4 - ORC - 1	A4 - ORC - 2	A4 - ORC - 3
sampling dates:			1-28-19 @ 1335

Field groundwater quality measurements

Water Level			4.27
Bottom Depth			10.46
pH			7.37
Temperature			0.84
DO			3.09
ORP			361
Alkalinity			N/A

Refer to Figure 1 for well locations

Well Integrity

Cement seal	☐ good	☒ poor	If poor please note well. buried under grass
Pro - casing condition	☒ good	☐ poor	If poor please note any damage.
Lock condition	☒ good	☐ poor	If poor please note well.
Working J - plug	☒ yes	☐ no	If no please note well.

ORC Sock's

Have any Socks been replaced ☒ yes ☐ no
If replaced on what date and why. 1-28-19 – Plan

Are socks fully submerged in well screens. ☒ yes ☐ no
If no explain why. @ 9.48

Are all ORC wells begin sampled and maintained according to the site management plan
☒ yes ☐ no

If no please state why.

Initial: TB Date: 1-28-19

ORC WELL ANNUAL INSPECTION FORM
Active ORC monitoring wells

Project Name: Hydro Air | Project No.:

Project Location: Buffalo, NY | Client:

Preparer's Name: Tim Bly | Date/Time: 12-19-19 / 1325

	A4 - ORC - 1	A4 - ORC - 2	A4 - ORC - 3
sampling dates:			12-19-19 @ 1340

Field groundwater quality measurements

Water Level			3.03
Bottom Depth			10.46
pH			5.57
Temperature			7.24
DO			1.99
ORP			41
Alkalinity			N/A

Refer to Figure 1 for well locations

Well Integrity

Cement seal	☒ good	☐ poor	If poor please note well.
Pro - casing condition	☒ good	☐ poor	If poor please note any damage.
Lock condition	☒ good	☐ poor	If poor please note well.
Working J - plug	☒ yes	☐ no	If no please note well.

ORC Sock's

Have any Socks been replaced ☒ yes ☐ no

If replaced on what date and why. 6-11-19 → scheduled change

Are socks fully submerged in well screens. ☒ yes ☐ no

If no explain why. Sock Depth: 11.52 FT

Are all ORC wells begin sampled and maintained according to the site management plan

☒ yes ☐ no

If no please state why.

Initial: TJB Date: 12-19-19

ORC WELL ANNUAL INSPECTION FORM
Active ORC monitoring wells

Project Name: Hydro Air | Project No.:

Project Location: Buffalo, NY | Client:

Preparer's Name: Tim Bly | Date/Time: 12-19-19 / 1457

	A4 - ORC - 1	A4 - ORC - 2	A4 - ORC - 3
sampling dates:	12-19-19 @ 1457		
Field groundwater quality measurements			
Water Level	2.94		
Bottom Depth	14.30		
pH	5.21		
Temperature	5.6°C		
DO	3.64		
ORP	217		
Alkalinity	N/A		

Refer to Figure 1 for well locations

Well Integrity

Cement seal	☒ good	☐ poor	If poor please note well.
Pro - casing condition	☒ good	☐ poor	If poor please note any damage.
Lock condition	☒ good	☐ poor	If poor please note well.
Working J - plug	☒ yes	☐ no	If no please note well.

ORC Sock's

Have any Socks been replaced ☒ yes ~~☒ no~~

If replaced on what date and why. 6-11-19 → scheduled change

Are socks fully submerged in well screens. ☒ yes ☐ no

If no explain why. Sock depth: 14.44 FT

Are all ORC wells begin sampled and maintained according to the site management plan

☒ yes ☐ no

If no please state why.

Initial: TSB Date: 12-19-19

ORC WELL ANNUAL INSPECTION FORM
Active ORC monitoring wells

Project Name: Hydro Air | Project No.:

Project Location: Buffalo, NY | Client:

Preparer's Name: Tim Bly | Date/Time: 12-19-19 / 1328

	A4 - ORC - 1	A4 - ORC - 2	A4 - ORC - 3
sampling dates:		12-19-19 @ 1343	

Field groundwater quality measurements

Water Level		3.4	
Bottom Depth		11.55	
pH		2.95	
Temperature		4.8°C	
DO		4.32	
ORP		389	
Alkalinity		N/A	

Refer to Figure 1 for well locations

Well Integrity

Cement seal	☒ good	☐ poor	If poor please note well.
Pro - casing condition	☒ good	☐ poor	If poor please note any damage.
Lock condition	☑ good	☐ poor	If poor please note well.
Working J - plug	☒ yes	☐ no	If no please note well.

ORC Sock's

Have any Socks been replaced ☒ yes ☐ no

If replaced on what date and why. 6-11-19 → scheduled change

Are socks fully submerged in well screens. ☒ yes ☐ no

If no explain why. Sock depth = 14.44 FT

Are all ORC wells begin sampled and maintained according to the site management plan

☒ yes ☐ no

If no please state why.

Initial: TJB Date: 12-19-19

APPENDIX G

Groundwater Sampling Field Monitoring Forms

HALEY ALDRICH

LOW FLOW/MNA FIELD SAMPLING FORM

HALEY & ALDRICH

Page of

PROJECT: Hydro Air
LOCATION: Buffalo, NY
CLIENT: Hydro Air
CONTRACTOR: Test America

H&A FILE NO.
PROJECT MGR.
FIELD REP
DATE: 1-28-19

Sampling Data:

Well ID: A4-ORC-1
Start time: 1170
Finish Time: 1205
Well Depth: 14.30 ft
Depth To Top Of Screen: ft
Depth To Bottom Of Screen: ft
Initial Depth To Water: 2.98 ft
Depth Of Pump Intake: ft
Purging Device: Peristaltic Pump
Tubing Present In Well: ☑ Yes ☐ No
Tubing Type:

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temperature (°F) or (°C)	pH	Conductivity (us/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
1140	3.47		60		3.89	7.31	26200	4.18	9.72	327	
1145	3.52				3.95	7.30	26200	4.10	9.06	327	
1150	3.57				3.92	7.29	26200	4.03	8.13	327	
1155	3.61				3.89	7.27	26200	3.78	8.58	328	
1200	3.65				3.70	7.28	26200	3.68	8.62	328	
1205	3.70			2100	3.81	7.32	26200	3.55	8.68	327	

Field Alkalinity: Unable due to
Field CO2: water characteristics

Form 3010

LOW FLOW/MNA FIELD SAMPLING FORM

HALEY & ALDRICH

Page of

PROJECT: Hydro Air
LOCATION: Buffalo, NY
CLIENT: Hydro Air
CONTRACTOR: Test America

H&A FILE NO.
PROJECT MGR.
FIELD REP
DATE: 1-28-19

Sampling Data:

Well ID: A4-ORC-2
Start time: 1215
Finish Time: 1250

Well Depth: 11.55 ft
Depth To Top Of Screen: ft
Depth To Bottom Of Screen: ft

Initial Depth To Water: 4.91 ft
Depth Of Pump Intake: ft

Purging Device: Peristaltic Pump
Tubing Present in Well: ☒ Yes ☐ No
Tubing Type:

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temperature (°F) or (°C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/nH (mv)	Comments
1230	5.55		60		1.74	7.35	24200	6.87	22.7	428	
1235	5.58		↓		1.86	7.34	24200	6.61	21.6	428	
1240	5.64				1.71	7.33	24300	6.53	20.8	429	
1245	5.68				1.63	7.33	24300	6.12	20.3	429	
1250	5.73		↓	2100mL	1.68	7.32	24300	6.06	21.4	429	

Field Alkalinity: Unable due to water characteristics
Field CO2:

Form 2010

HALEY & ALDRICH

LOW FLOW/MNA FIELD SAMPLING FORM

Page of

PROJECT: Hydro Air
LOCATION: Buffalo, NY
CLIENT: Hydro Air
CONTRACTOR: Test America

B&A FILE NO.
PROJECT MGR.
FIELD REP
DATE: 1-28-19

Sampling Data:

Well ID: A4-ORC-3
Start time: 1305
Finish Time: 1335

Well Depth: 10.46 ft
Depth To Top Of Screen: ft
Depth To Bottom Of Screen: ft

Initial Depth To Water: 3.18 ft
Depth Of Pump Intake: ft

Purging Device: Peristaltic Pump
Tubing Present In Well: ☒ Yes ☐ No
Tubing Type:

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liter) or (gal)	Temperature (°F) or (°C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/sH (mv)	Comments
1320	4.02		60		0.60	7.42	22600	3.98	72.7	342	
1325	4.10		↓		0.62	7.41	22500	3.52	65.2	347	
1330	4.18				0.76	7.39	22500	3.82	60.1	352	
1335	4.27		↓	1800mL	0.84	7.37	22300	3.09	57.3	361	

Field Alkalinity: Unable due to
Field CO2: water characteristics

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HALEY & ALDRICH

LOW FLOW/MNA FIELD SAMPLING FORM

Page of

PROJECT Hydro Air

LOCATION Buffalo, NY

CLIENT Hydro Air

CONTRACTOR Test America

H&A FILE NO.

PROJECT MGR.

FIELD REP

DATE 12-19-19

Sampling Data:

Well ID: A4-ORC-3

Start time: 1325

Finish Time: 1340

Well Depth: 10.46 ft

Depth To Top Of Screen: ft

Depth To Bottom Of Screen ft

Initial Depth To Water: 3.03 ft

Depth Of Pump Intake: ft

Purging Device: Peristaltic Pump

Tubing Present In Well: ☒ Yes ☐ No

Tubing Type:

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temperature (°F) or (°C)	pH	Conductivity (us/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
1330	3.04		50 ml/min	.5 gal	7.5	5.58	24.1 ms	2.11	1305 AD	40	RED-ORANGE-ISH brown
1335	3.11		↓	1.0	7.4	5.57	24.2 ms	2.09	1262 AD	42	Smells like metal (rust)
1340	3.13			1.5	7.4	5.57	24.2 ms	1.99	1297 AD	41	VERY TURBID

Field Alkalinity:

Field CO2: Unable due to water characteristics

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LOW FLOW/MNA FIELD SAMPLING FORM

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PROJECT: Hydro Air
LOCATION: Buffalo, NY
CLIENT: HYDRO AIR
CONTRACTOR: Test America

H&A FILE NO.:
PROJECT MGR.:
FIELD REP:
DATE: 12-19-19

Sampling Data:

Well ID: A4-MW-10 | Well Depth: 15.25 ft | Initial Depth To Water: 5.70 ft | Purging Device: Peristaltic Pump
Start time: 1210 | Depth To Top Of Screen: ft | Depth Of Pump Intake: ft | Tubing Present In Well: ☑ Yes ☐ No
Finish Time: 1225 | Depth To Bottom Of Screen: ft | Tubing Type:

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temperature (°F) or (°C)	pH	Conductivity (us/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
1215	5.72	200 ml/min	200 ml/min	1.5 gal	7.7	6.81	3147	4.56	42.0	-5	no odor / orange + turbid
1220	6.74		200 ml/min	1.0 L	7.5	6.93	3169	4.35	40.7	-49	
1225	6.79		200 ml/min	2.0	7.5	6.88	3132	4.35	40.6	-49	

Field Alkalinity: —
Field CO2: 0.0

m 2010

LOW FLOW/MNA FIELD SAMPLING FORM

Page of

PROJECT	Hydro Air	H&A FILE NO.	
LOCATION	Buffalo, NY	PROJECT MGR.	
CLIENT	Hydro Air	FIELD REP	
CONTRACTOR	Test America	DATE	12-19-19

Sampling Data:

Well ID: A4-MW-7R | Well Depth: 13.30 ft | Initial Depth To Water: 3.05 ft | Purging Device: Peristaltic Pump

Start time: 1235 | Depth To Top Of Screen: ft | Depth Of Pump Intake: ft | Tubing Present In Well: ☑ Yes ☐ No

Finish Time: 1255 | Depth To Bottom Of Screen ft | Tubing Type:

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liter) or (gal)	Temperature (°F) or (°C)	pH	Conductivity (us/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/sH (mv)	Comments
00:05	3.74		140		8.8	5.69	5518	3.17	12.5	24	strong odor / clear
00:10	3.71				8.9	5.66	5054	3.16	23.7	17	
00:15	3.82				9.0	5.74	4850	3.17	21.2	13	
00:20	3.80		140	0.80	8.9	5.83	4807	3.16	16.5	12	

Field Alkalinity:

Field CO2: 0.0 mg/L

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LOW FLOW/MNA FIELD SAMPLING FORM

Page of

PROJECT: Hydro Air
LOCATION: Buffalo, NY
CLIENT: Hydro Air
CONTRACTOR: Test America

H&A FILE NO.
PROJECT MGR.
FIELD REP
DATE: 12-19-19

Sampling Data:

Well ID: A4-MW-SR
Start time: 1530
Finish Time: 1550

Well Depth: 11.14 ft
Depth To Top Of Screen: ft
Depth To Bottom Of Screen ft

Initial Depth To Water: 4.32 ft
Depth Of Pump Intake: ft

Purging Device: Peristaltic Pump
Tubing Present In Well: ☒ Yes ☐ No
Tubing Type:

Elapsed Time (24-hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (feet/min)	Cumulative Purge Vol. (liters) or (gal)	Temperature (°F) or (°C)	pH	Conductivity (us/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
00:05	4.77		165		8.7	7.69	725	6.27	3.5	-4	clear
00:10	5.01		"		9.0	7.61	711	6.26	6.6	-3	
00:15	5.22		"		9.0	7.42	695	6.24	4.3	-20	
00:20	5.38		165	1.0	9.4	7.43	686	6.26	3.7	-6	

Field Alkalinity:
Field CO2: 0.0

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LOW FLOW/MNA FIELD SAMPLING FORM

Page of

PROJECT: Hydro Air
LOCATION: Buffalo, NY
CLIENT: Hydro Air
CONTRACTOR: Test America

H&A FILE NO.
PROJECT MGR.
FIELD REP
DATE: 12-19-19

Sampling Data:

Well ID: A4-ORC-1
Start time: 1437
Finish Time: 1457
Well Depth: 14.30 ft
Depth To Top Of Screen: ft
Depth To Bottom Of Screen: ft
Initial Depth To Water: 2.94 ft
Depth Of Pump Intake: ft
Purging Device: Peristaltic Pump
Tubing Present In Well: ☒ Yes ☐ No
Tubing Type:

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liter) or (gal)	Temperature (°F) or (°C)	3&4 pH	Conductivity (us/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
00:05	3.62		180		6.0	~~6.0~~	26,550	3.67	7.1	225	
00:10	3.61		↓		5.8	4.24	20,510	3.66	7.6	219	
00:15	3.81		↓		5.7	5.24	26,470	3.65	8.3	215	
00:20	3.84		180	1.25	5.6	5.21	26,380	3.64	7.9	217	

Field Alkalinity:
Field CO2: Unable due to water characteristics

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LOW FLOW/MNA FIELD SAMPLING FORM

HALEY & ALDRICH

Page of

PROJECT: Hydro Air
LOCATION: Buffalo, NY
CLIENT: Hydro Air
CONTRACTOR: Test America

H&A FILE NO.:
PROJECT MGR.:
FIELD REP:
DATE: 12-19-19

Sampling Data:

Well ID: A4-MW-9
Start time: 1500
Finish Time: 1520

Well Depth: 13.40 ft
Depth To Top Of Screen: ft
Depth To Bottom Of Screen: ft

Initial Depth To Water: 3.95 ft
Depth Of Pump Intake: ft

Purging Device: Peristaltic Pump
Tubing Present In Well: ☒ Yes ☐ No
Tubing Type:

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temperature (°F) or (°C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
00:05	5.25		140		6.1	8.47	1411	6.27	41.9	-23	Orange
00:10	5.31		↓		6.0	8.74	1308	6.29	13.4	-64	
00:15	5.39		↓		6.3	8.56	1316	6.31	9.5	-70	
00:20	5.46		140	1.0	6.2	8.63	1324	6.27	8.4	-72	

Field Alkalinity: —
Field CO2: 0

Form 3010

HALEY & ALDRICH

LOW FLOW/MNA FIELD SAMPLING FORM

Page of

PROJECT: Hydro Air
LOCATION: Buffalo, NY
CLIENT: Hydro Air
CONTRACTOR: Test America

H&A FILE NO.
PROJECT MGR.
FIELD REP
DATE: 12-19-19

Sampling Data:

Well ID: A4-ORC-2
Start time: 1328
Finish Time: 1343
Well Depth: 11.55 ft
Depth To Top Of Screen: ft
Depth To Bottom Of Screen: ft
Initial Depth To Water: 3.41 ft
Depth Of Pump Intake: ft
Purging Device: Peristaltic Pump
Tubing Present In Well: ☑ Yes ☐ No
Tubing Type:

Elapsed Time (24-hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temperature (°F) or (°C)	pH	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
00:05	3.89		180		5.4	2.79	23,280	4.33	11.3	384	Orange tint / Strong odor
00:10	4.25		"		4.8	2.83	22,890	4.31	10.8	388	
00:15	4.88		150	1.0	4.8	2.95	23,110	4.32	13.7	359	

Field Alkalinity: —
Field CO2: unable due to water characteristics

Form 3810

LOW FLOW/MNA FIELD SAMPLING FORM

Page of

PROJECT	Hydro Air	H&A FILE NO.	
LOCATION	Buffalo NY	PROJECT MGR.	
CLIENT	Hydro Air	FIELD REP	
CONTRACTOR	Test America	DATE	12-19-19

Sampling Data:

Well ID: A4-MW-8R | Well Depth: 15.10 ft | Initial Depth To Water: 4.54 ft | Purging Device: Peristaltic Pump

Start time: 1400 | Depth To Top Of Screen: ft | Depth Of Pump Intake: ft | Tubing Present In Well: ☑ Yes ☐ No

Finish Time: 1420 | Depth To Bottom Of Screen ft | Tubing Type:

Elapsed Time (24-hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (ft³/min)	Cumulative Purge Vol. (liters) or (gal)	Temperature (°F) or (°C)	pH	Conductivity (us/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
00:05	5.15		180		6.8	6.86	3727	5.21	81.6	30	Start = turbid/orange
00:10	5.35		↓		6.7	7.23	3695	5.22	9.5	-40	end = clear w/ S.S.
00:15	5.32		↓		8.4	6.84	4470	5.21	4.2	-33	
00:20	5.35		150	1.25	8.4	7.12	4543	5.21	4.4	-35	

Field Alkalinity: —

Field CO2: 0.0

Form 3010

APPENDIX H

Groundwater Analytical Data – December 2019

HALEY ALDRICH

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-164549-1
Client Project/Site: Hydro-Air Componenets

For:
Hydro-Air Components, Inc.
100 Rittling Boulevard
Buffalo, New York 14220

Attn: Robert Daigler

Authorized for release by:
12/31/2019 10:43:46 AM
Alexander Gilbert, Project Management Assistant I
alexander.gilbert@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

Table of Contents

Definitions/Glossary

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

Job ID: 480-164549-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-164549-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-164549-1

Comments
No additional comments.

Receipt
The samples were received on 12/19/2019 4:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3º C.

GC/MS VOA
Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: A4-MW-7R (480-164549-2). Elevated reporting limits (RLs) are provided.

Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: A4-MW-9 (480-164549-4) and A4-MW-10 (480-164549-5). Elevated reporting limits (RLs) are provided.

Method 8260C: The surrogate 4-Bromofluorobezene (SURR) was outside the 20%D limits on the continuing calibration verification (CCV) but was within laboratory limits. The following samples are impacted: A4-MW-9 (480-164549-4), A4-MW-10 (480-164549-5) and TRIP BLANK (480-164549-6).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-511528 recovered outside acceptance criteria, low biased, for n-Butylbenzene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: A4-MW-8R (480-164549-3). Elevated reporting limits (RLs) are provided.

Method 8260C: The results reported for the following sample does not concur with results previously reported for this site: A4-MW-8R (480-164549-3). Reanalysis was performed, and the result confirmed.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-511563 recovered outside acceptance criteria, low biased, for Naphthalene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Methods 335.4, 9012B: The laboratory control sample (LCS) associated with preparation batch 480-511457 and analytical batch 480-511660 was outside acceptance criteria.The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 9012B: The laboratory control sample (LCS) associated with batch 480-511661 was outside acceptance criteria. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

Job ID: 480-164549-1

Client Sample ID: A4-MW-5R — Lab Sample ID: 480-164549-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.50	J	1.0	0.43	ug/L	1		8260C	Total/NA
Chromium	0.0010	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Alkalinity, Total	272		40.0	16.0	mg/L	4		310.2	Total/NA
Cyanide, Total	0.47	*	0.020	0.010	mg/L	2		9012B	Total/NA

Client Sample ID: A4-MW-7R — Lab Sample ID: 480-164549-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity, Total	43.8	B	10.0	4.0	mg/L	1		310.2	Total/NA
Cyanide, Total	0.074	*	0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: A4-MW-8R — Lab Sample ID: 480-164549-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	8100		200	82	ug/L	200		8260C	Total/NA
Arsenic	0.025		0.015	0.0056	mg/L	1		6010C	Total/NA
Lead	0.0031	J	0.010	0.0030	mg/L	1		6010C	Total/NA
Alkalinity, Total	668		80.0	32.0	mg/L	8		310.2	Total/NA
Cyanide, Total	0.13	*	0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: A4-MW-9 — Lab Sample ID: 480-164549-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity, Total	359		40.0	16.0	mg/L	4		310.2	Total/NA
Cyanide, Total	0.14	*	0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: A4-MW-10 — Lab Sample ID: 480-164549-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.043		0.015	0.0056	mg/L	1		6010C	Total/NA
Chromium	0.0036	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Lead	0.0093	J	0.010	0.0030	mg/L	1		6010C	Total/NA
Alkalinity, Total	1040		130	52.0	mg/L	13		310.2	Total/NA
Cyanide, Total	0.061	*	0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-164549-6

No Detections.

Client Sample ID: EQUIPMENT BLANK — Lab Sample ID: 480-164549-7

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

Job ID: 480-164549-1

Client Sample ID: A4-MW-5R

Lab Sample ID: 480-164549-1

Date Collected: 12/19/19 15:50

Matrix: Water

Date Received: 12/19/19 16:40

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			12/27/19 00:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/27/19 00:39	1
Toluene	ND		1.0	0.51	ug/L			12/27/19 00:39	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/27/19 00:39	1
o-Xylene	ND		1.0	0.76	ug/L			12/27/19 00:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/27/19 00:39	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/27/19 00:39	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/27/19 00:39	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/27/19 00:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/27/19 00:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/27/19 00:39	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/27/19 00:39	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/27/19 00:39	1
Naphthalene	**0.50**	**J**	1.0	0.43	ug/L			12/27/19 00:39	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/27/19 00:39	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/27/19 00:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*12/27/19 00:39*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*12/27/19 00:39*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*12/27/19 00:39*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*12/27/19 00:39*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		12/24/19 09:27	12/24/19 17:10	1
Chromium	**0.0010**	**J**	0.0040	0.0010	mg/L		12/24/19 09:27	12/24/19 17:10	1
Lead	ND		0.010	0.0030	mg/L		12/24/19 09:27	12/24/19 17:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**272**		40.0	16.0	mg/L			12/26/19 20:04	4
Cyanide, Total	**0.47**	*	0.020	0.010	mg/L		12/23/19 12:53	12/24/19 11:58	2

Client Sample ID: A4-MW-7R

Lab Sample ID: 480-164549-2

Date Collected: 12/19/19 12:55

Matrix: Water

Date Received: 12/19/19 16:40

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	2.1	ug/L			12/24/19 04:37	5
Ethylbenzene	ND		5.0	3.7	ug/L			12/24/19 04:37	5
Toluene	ND		5.0	2.6	ug/L			12/24/19 04:37	5
m-Xylene & p-Xylene	ND		10	3.3	ug/L			12/24/19 04:37	5
o-Xylene	ND		5.0	3.8	ug/L			12/24/19 04:37	5
Xylenes, Total	ND		10	3.3	ug/L			12/24/19 04:37	5
Isopropylbenzene	ND		5.0	4.0	ug/L			12/24/19 04:37	5
N-Propylbenzene	ND		5.0	3.5	ug/L			12/24/19 04:37	5
4-Isopropyltoluene	ND		5.0	1.6	ug/L			12/24/19 04:37	5
1,2,4-Trimethylbenzene	ND		5.0	3.8	ug/L			12/24/19 04:37	5
1,3,5-Trimethylbenzene	ND		5.0	3.9	ug/L			12/24/19 04:37	5

Client Sample ID: A4-MW-7R

Date Collected: 12/19/19 12:55
Date Received: 12/19/19 16:40

Lab Sample ID: 480-164549-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		5.0	3.2	ug/L			12/24/19 04:37	5
sec-Butylbenzene	ND		5.0	3.8	ug/L			12/24/19 04:37	5
Naphthalene	ND		5.0	2.2	ug/L			12/24/19 04:37	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			12/24/19 04:37	5
tert-Butylbenzene	ND		5.0	4.1	ug/L			12/24/19 04:37	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*12/24/19 04:37*	*5*
Toluene-d8 (Surr)	*98*		*80 - 120*		*12/24/19 04:37*	*5*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*12/24/19 04:37*	*5*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*12/24/19 04:37*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.075	0.028	mg/L		12/24/19 09:27	12/24/19 17:14	5
Chromium	ND		0.020	0.0050	mg/L		12/24/19 09:27	12/24/19 17:14	5
Lead	ND		0.050	0.015	mg/L		12/24/19 09:27	12/24/19 17:14	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**43.8**	**B**	10.0	4.0	mg/L			12/26/19 19:37	1
Cyanide, Total	**0.074**	*****	0.010	0.0050	mg/L		12/23/19 12:53	12/24/19 11:31	1

Client Sample ID: A4-MW-8R

Date Collected: 12/19/19 14:20
Date Received: 12/19/19 16:40

Lab Sample ID: 480-164549-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**8100**		200	82	ug/L			12/24/19 11:57	200
Ethylbenzene	ND		200	150	ug/L			12/24/19 11:57	200
Toluene	ND		200	100	ug/L			12/24/19 11:57	200
m-Xylene & p-Xylene	ND		400	130	ug/L			12/24/19 11:57	200
o-Xylene	ND		200	150	ug/L			12/24/19 11:57	200
Xylenes, Total	ND		400	130	ug/L			12/24/19 11:57	200
Isopropylbenzene	ND		200	160	ug/L			12/24/19 11:57	200
N-Propylbenzene	ND		200	140	ug/L			12/24/19 11:57	200
4-Isopropyltoluene	ND		200	62	ug/L			12/24/19 11:57	200
1,2,4-Trimethylbenzene	ND		200	150	ug/L			12/24/19 11:57	200
1,3,5-Trimethylbenzene	ND		200	150	ug/L			12/24/19 11:57	200
n-Butylbenzene	ND		200	130	ug/L			12/24/19 11:57	200
sec-Butylbenzene	ND		200	150	ug/L			12/24/19 11:57	200
Naphthalene	ND		200	86	ug/L			12/24/19 11:57	200
Methyl tert-butyl ether	ND		200	32	ug/L			12/24/19 11:57	200
tert-Butylbenzene	ND		200	160	ug/L			12/24/19 11:57	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*12/24/19 11:57*	*200*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/24/19 11:57*	*200*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*12/24/19 11:57*	*200*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*12/24/19 11:57*	*200*

Client Sample ID: A4-MW-8R

Lab Sample ID: 480-164549-3

Date Collected: 12/19/19 14:20

Matrix: Water

Date Received: 12/19/19 16:40

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.025**		0.015	0.0056	mg/L		12/24/19 09:27	12/24/19 17:33	1
Chromium	ND		0.0040	0.0010	mg/L		12/24/19 09:27	12/24/19 17:33	1
Lead	**0.0031**	**J**	0.010	0.0030	mg/L		12/24/19 09:27	12/24/19 17:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**668**		80.0	32.0	mg/L			12/26/19 19:23	8
Cyanide, Total	**0.13**	*	0.010	0.0050	mg/L		12/23/19 12:53	12/24/19 11:36	1

Client Sample ID: A4-MW-9

Lab Sample ID: 480-164549-4

Date Collected: 12/19/19 15:20

Matrix: Water

Date Received: 12/19/19 16:40

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	2.1	ug/L			12/24/19 04:20	5
Ethylbenzene	ND		5.0	3.7	ug/L			12/24/19 04:20	5
Toluene	ND		5.0	2.6	ug/L			12/24/19 04:20	5
m-Xylene & p-Xylene	ND		10	3.3	ug/L			12/24/19 04:20	5
o-Xylene	ND		5.0	3.8	ug/L			12/24/19 04:20	5
Xylenes, Total	ND		10	3.3	ug/L			12/24/19 04:20	5
Isopropylbenzene	ND		5.0	4.0	ug/L			12/24/19 04:20	5
N-Propylbenzene	ND		5.0	3.5	ug/L			12/24/19 04:20	5
4-Isopropyltoluene	ND		5.0	1.6	ug/L			12/24/19 04:20	5
1,2,4-Trimethylbenzene	ND		5.0	3.8	ug/L			12/24/19 04:20	5
1,3,5-Trimethylbenzene	ND		5.0	3.9	ug/L			12/24/19 04:20	5
n-Butylbenzene	ND		5.0	3.2	ug/L			12/24/19 04:20	5
sec-Butylbenzene	ND		5.0	3.8	ug/L			12/24/19 04:20	5
Naphthalene	ND		5.0	2.2	ug/L			12/24/19 04:20	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			12/24/19 04:20	5
tert-Butylbenzene	ND		5.0	4.1	ug/L			12/24/19 04:20	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*		*12/24/19 04:20*	*5*
Toluene-d8 (Surr)	*103*		*80 - 120*		*12/24/19 04:20*	*5*
4-Bromofluorobenzene (Surr)	*115*		*73 - 120*		*12/24/19 04:20*	*5*
Dibromofluoromethane (Surr)	*117*		*75 - 123*		*12/24/19 04:20*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		12/24/19 09:27	12/24/19 17:37	1
Chromium	ND		0.0040	0.0010	mg/L		12/24/19 09:27	12/24/19 17:37	1
Lead	ND		0.010	0.0030	mg/L		12/24/19 09:27	12/24/19 17:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**359**		40.0	16.0	mg/L			12/26/19 19:44	4
Cyanide, Total	**0.14**	*	0.010	0.0050	mg/L		12/23/19 12:53	12/24/19 11:37	1

Client Sample ID: A4-MW-10

Lab Sample ID: 480-164549-5

Date Collected: 12/19/19 12:25

Matrix: Water

Date Received: 12/19/19 16:40

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	2.1	ug/L			12/24/19 04:44	5
Ethylbenzene	ND		5.0	3.7	ug/L			12/24/19 04:44	5
Toluene	ND		5.0	2.6	ug/L			12/24/19 04:44	5
m-Xylene & p-Xylene	ND		10	3.3	ug/L			12/24/19 04:44	5
o-Xylene	ND		5.0	3.8	ug/L			12/24/19 04:44	5
Xylenes, Total	ND		10	3.3	ug/L			12/24/19 04:44	5
Isopropylbenzene	ND		5.0	4.0	ug/L			12/24/19 04:44	5
N-Propylbenzene	ND		5.0	3.5	ug/L			12/24/19 04:44	5
4-Isopropyltoluene	ND		5.0	1.6	ug/L			12/24/19 04:44	5
1,2,4-Trimethylbenzene	ND		5.0	3.8	ug/L			12/24/19 04:44	5
1,3,5-Trimethylbenzene	ND		5.0	3.9	ug/L			12/24/19 04:44	5
n-Butylbenzene	ND		5.0	3.2	ug/L			12/24/19 04:44	5
sec-Butylbenzene	ND		5.0	3.8	ug/L			12/24/19 04:44	5
Naphthalene	ND		5.0	2.2	ug/L			12/24/19 04:44	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			12/24/19 04:44	5
tert-Butylbenzene	ND		5.0	4.1	ug/L			12/24/19 04:44	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*		*12/24/19 04:44*	*5*
Toluene-d8 (Surr)	*107*		*80 - 120*		*12/24/19 04:44*	*5*
4-Bromofluorobenzene (Surr)	*116*		*73 - 120*		*12/24/19 04:44*	*5*
Dibromofluoromethane (Surr)	*117*		*75 - 123*		*12/24/19 04:44*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.043**		0.015	0.0056	mg/L		12/24/19 09:27	12/24/19 17:40	1
Chromium	**0.0036**	**J**	0.0040	0.0010	mg/L		12/24/19 09:27	12/24/19 17:40	1
Lead	**0.0093**	**J**	0.010	0.0030	mg/L		12/24/19 09:27	12/24/19 17:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**1040**		130	52.0	mg/L			12/26/19 19:23	13
Cyanide, Total	**0.061**	*	0.010	0.0050	mg/L		12/23/19 12:53	12/24/19 11:39	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-164549-6

Date Collected: 12/19/19 11:30

Matrix: Water

Date Received: 12/19/19 16:40

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			12/24/19 05:08	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/24/19 05:08	1
Toluene	ND		1.0	0.51	ug/L			12/24/19 05:08	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/24/19 05:08	1
o-Xylene	ND		1.0	0.76	ug/L			12/24/19 05:08	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/24/19 05:08	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/24/19 05:08	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/24/19 05:08	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/24/19 05:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/24/19 05:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/24/19 05:08	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-164549-6

Date Collected: 12/19/19 11:30

Matrix: Water

Date Received: 12/19/19 16:40

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		1.0	0.64	ug/L			12/24/19 05:08	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/24/19 05:08	1
Naphthalene	ND		1.0	0.43	ug/L			12/24/19 05:08	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/24/19 05:08	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/24/19 05:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*12/24/19 05:08*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*12/24/19 05:08*	*1*
4-Bromofluorobenzene (Surr)	*114*		*73 - 120*		*12/24/19 05:08*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*12/24/19 05:08*	*1*

Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 480-164549-7

Date Collected: 12/19/19 12:00

Matrix: Water

Date Received: 12/19/19 16:40

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			12/24/19 11:00	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/24/19 11:00	1
Toluene	ND		1.0	0.51	ug/L			12/24/19 11:00	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/24/19 11:00	1
o-Xylene	ND		1.0	0.76	ug/L			12/24/19 11:00	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/24/19 11:00	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/24/19 11:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/24/19 11:00	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/24/19 11:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/24/19 11:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/24/19 11:00	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/24/19 11:00	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/24/19 11:00	1
Naphthalene	ND		1.0	0.43	ug/L			12/24/19 11:00	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/24/19 11:00	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/24/19 11:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*		*12/24/19 11:00*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*12/24/19 11:00*	*1*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*		*12/24/19 11:00*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*12/24/19 11:00*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		12/24/19 09:27	12/24/19 17:44	1
Chromium	ND		0.0040	0.0010	mg/L		12/24/19 09:27	12/24/19 17:44	1
Lead	ND		0.010	0.0030	mg/L		12/24/19 09:27	12/24/19 17:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			12/26/19 19:21	1
Cyanide, Total	ND	*	0.010	0.0050	mg/L		12/23/19 12:53	12/24/19 11:44	1

Surrogate Summary

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

Job ID: 480-164549-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(77-120)	(80-120)	(73-120)	(75-123)
480-164549-1	A4-MW-5R	106	98	100	107
480-164549-2	A4-MW-7R	108	98	100	106
480-164549-3	A4-MW-8R	106	99	100	105
480-164549-4	A4-MW-9	111	103	115	117
480-164549-5	A4-MW-10	111	107	116	117
480-164549-6	TRIP BLANK	104	104	114	109
480-164549-7	EQUIPMENT BLANK	94	91	107	98
LCS 480-511528/9	Lab Control Sample	107	106	115	114
LCS 480-511530/5	Lab Control Sample	105	99	98	108
LCS 480-511563/5	Lab Control Sample	96	92	104	101
LCS 480-511601/5	Lab Control Sample	105	99	101	105
LCS 480-511879/5	Lab Control Sample	103	99	100	104
MB 480-511528/7	Method Blank	107	103	114	121
MB 480-511530/7	Method Blank	106	97	98	107
MB 480-511563/26	Method Blank	96	92	107	96
MB 480-511601/7	Method Blank	105	98	98	106
MB 480-511879/8	Method Blank	105	97	97	104

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-511528/7
Matrix: Water
Analysis Batch: 511528

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			12/23/19 22:56	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/23/19 22:56	1
Toluene	ND		1.0	0.51	ug/L			12/23/19 22:56	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/23/19 22:56	1
o-Xylene	ND		1.0	0.76	ug/L			12/23/19 22:56	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/23/19 22:56	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/23/19 22:56	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/23/19 22:56	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/23/19 22:56	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/23/19 22:56	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/23/19 22:56	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/23/19 22:56	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/23/19 22:56	1
Naphthalene	ND		1.0	0.43	ug/L			12/23/19 22:56	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/23/19 22:56	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/23/19 22:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*12/23/19 22:56*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*12/23/19 22:56*	*1*
4-Bromofluorobenzene (Surr)	*114*		*73 - 120*		*12/23/19 22:56*	*1*
Dibromofluoromethane (Surr)	*121*		*75 - 123*		*12/23/19 22:56*	*1*

Lab Sample ID: LCS 480-511528/9
Matrix: Water
Analysis Batch: 511528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	24.7		ug/L		99	71 - 124
Ethylbenzene	25.0	24.2		ug/L		97	77 - 123
Toluene	25.0	25.1		ug/L		100	80 - 122
m-Xylene & p-Xylene	25.0	25.5		ug/L		102	76 - 122
o-Xylene	25.0	25.2		ug/L		101	76 - 122
Xylenes, Total	50.0	50.7		ug/L		101	76 - 122
Isopropylbenzene	25.0	22.9		ug/L		92	77 - 122
N-Propylbenzene	25.0	22.7		ug/L		91	75 - 127
4-Isopropyltoluene	25.0	23.7		ug/L		95	73 - 120
1,2,4-Trimethylbenzene	25.0	24.1		ug/L		96	76 - 121
1,3,5-Trimethylbenzene	25.0	23.4		ug/L		93	77 - 121
n-Butylbenzene	25.0	22.2		ug/L		89	71 - 128
sec-Butylbenzene	25.0	23.1		ug/L		92	74 - 127
Naphthalene	25.0	24.2		ug/L		97	66 - 125
Methyl tert-butyl ether	25.0	24.6		ug/L		98	77 - 120
tert-Butylbenzene	25.0	24.3		ug/L		97	75 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-511528/9
Matrix: Water
Analysis Batch: 511528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*115*		*73 - 120*
Dibromofluoromethane (Surr)	*114*		*75 - 123*

Lab Sample ID: MB 480-511530/7
Matrix: Water
Analysis Batch: 511530

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			12/23/19 21:42	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/23/19 21:42	1
Toluene	ND		1.0	0.51	ug/L			12/23/19 21:42	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/23/19 21:42	1
o-Xylene	ND		1.0	0.76	ug/L			12/23/19 21:42	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/23/19 21:42	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/23/19 21:42	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/23/19 21:42	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/23/19 21:42	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/23/19 21:42	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/23/19 21:42	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/23/19 21:42	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/23/19 21:42	1
Naphthalene	ND		1.0	0.43	ug/L			12/23/19 21:42	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/23/19 21:42	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/23/19 21:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*12/23/19 21:42*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*12/23/19 21:42*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*12/23/19 21:42*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*12/23/19 21:42*	*1*

Lab Sample ID: LCS 480-511530/5
Matrix: Water
Analysis Batch: 511530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	24.5		ug/L		98	71 - 124
Ethylbenzene	25.0	23.9		ug/L		96	77 - 123
Toluene	25.0	23.6		ug/L		94	80 - 122
m-Xylene & p-Xylene	25.0	24.0		ug/L		96	76 - 122
o-Xylene	25.0	24.3		ug/L		97	76 - 122
Xylenes, Total	50.0	48.3		ug/L		97	76 - 122
Isopropylbenzene	25.0	24.8		ug/L		99	77 - 122
N-Propylbenzene	25.0	24.2		ug/L		97	75 - 127
4-Isopropyltoluene	25.0	25.2		ug/L		101	73 - 120
1,2,4-Trimethylbenzene	25.0	25.6		ug/L		102	76 - 121
1,3,5-Trimethylbenzene	25.0	24.9		ug/L		100	77 - 121
n-Butylbenzene	25.0	25.0		ug/L		100	71 - 128

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-511530/5
Matrix: Water
Analysis Batch: 511530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
sec-Butylbenzene	25.0	25.0		ug/L		100	74 - 127
Naphthalene	25.0	23.9		ug/L		96	66 - 125
Methyl tert-butyl ether	25.0	25.2		ug/L		101	77 - 120
tert-Butylbenzene	25.0	25.4		ug/L		102	75 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*108*		*75 - 123*

Lab Sample ID: MB 480-511563/26
Matrix: Water
Analysis Batch: 511563

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			12/24/19 10:01	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/24/19 10:01	1
Toluene	ND		1.0	0.51	ug/L			12/24/19 10:01	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/24/19 10:01	1
o-Xylene	ND		1.0	0.76	ug/L			12/24/19 10:01	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/24/19 10:01	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/24/19 10:01	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/24/19 10:01	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/24/19 10:01	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/24/19 10:01	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/24/19 10:01	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/24/19 10:01	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/24/19 10:01	1
Naphthalene	ND		1.0	0.43	ug/L			12/24/19 10:01	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/24/19 10:01	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/24/19 10:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*12/24/19 10:01*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*12/24/19 10:01*	*1*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*		*12/24/19 10:01*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*12/24/19 10:01*	*1*

Lab Sample ID: LCS 480-511563/5
Matrix: Water
Analysis Batch: 511563

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	26.1		ug/L		105	71 - 124
Ethylbenzene	25.0	25.2		ug/L		101	77 - 123
Toluene	25.0	24.6		ug/L		98	80 - 122
m-Xylene & p-Xylene	25.0	24.8		ug/L		99	76 - 122

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-511563/5
Matrix: Water
Analysis Batch: 511563

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	25.0	24.2		ug/L		97	76 - 122
Xylenes, Total	50.0	49.0		ug/L		98	76 - 122
Isopropylbenzene	25.0	25.3		ug/L		101	77 - 122
N-Propylbenzene	25.0	24.6		ug/L		98	75 - 127
4-Isopropyltoluene	25.0	24.7		ug/L		99	73 - 120
1,2,4-Trimethylbenzene	25.0	24.5		ug/L		98	76 - 121
1,3,5-Trimethylbenzene	25.0	25.0		ug/L		100	77 - 121
n-Butylbenzene	25.0	24.5		ug/L		98	71 - 128
sec-Butylbenzene	25.0	24.7		ug/L		99	74 - 127
Naphthalene	25.0	21.5		ug/L		86	66 - 125
Methyl tert-butyl ether	25.0	24.4		ug/L		98	77 - 120
tert-Butylbenzene	25.0	25.5		ug/L		102	75 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*
Toluene-d8 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*

Lab Sample ID: MB 480-511601/7
Matrix: Water
Analysis Batch: 511601

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			12/24/19 10:59	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/24/19 10:59	1
Toluene	ND		1.0	0.51	ug/L			12/24/19 10:59	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/24/19 10:59	1
o-Xylene	ND		1.0	0.76	ug/L			12/24/19 10:59	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/24/19 10:59	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/24/19 10:59	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/24/19 10:59	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/24/19 10:59	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/24/19 10:59	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/24/19 10:59	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/24/19 10:59	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/24/19 10:59	1
Naphthalene	ND		1.0	0.43	ug/L			12/24/19 10:59	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/24/19 10:59	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/24/19 10:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*12/24/19 10:59*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*12/24/19 10:59*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*12/24/19 10:59*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*12/24/19 10:59*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-511601/5
Matrix: Water
Analysis Batch: 511601

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	23.3		ug/L		93	71 - 124
Ethylbenzene	25.0	23.1		ug/L		92	77 - 123
Toluene	25.0	22.7		ug/L		91	80 - 122
m-Xylene & p-Xylene	25.0	23.0		ug/L		92	76 - 122
o-Xylene	25.0	22.8		ug/L		91	76 - 122
Xylenes, Total	50.0	45.8		ug/L		92	76 - 122
Isopropylbenzene	25.0	23.4		ug/L		93	77 - 122
N-Propylbenzene	25.0	23.4		ug/L		93	75 - 127
4-Isopropyltoluene	25.0	23.9		ug/L		96	73 - 120
1,2,4-Trimethylbenzene	25.0	23.4		ug/L		94	76 - 121
1,3,5-Trimethylbenzene	25.0	23.5		ug/L		94	77 - 121
n-Butylbenzene	25.0	24.1		ug/L		96	71 - 128
sec-Butylbenzene	25.0	23.8		ug/L		95	74 - 127
Naphthalene	25.0	21.5		ug/L		86	66 - 125
Methyl tert-butyl ether	25.0	23.4		ug/L		93	77 - 120
tert-Butylbenzene	25.0	23.8		ug/L		95	75 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*
Dibromofluoromethane (Surr)	*105*		*75 - 123*

Lab Sample ID: MB 480-511879/8
Matrix: Water
Analysis Batch: 511879

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			12/26/19 20:28	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/26/19 20:28	1
Toluene	ND		1.0	0.51	ug/L			12/26/19 20:28	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/26/19 20:28	1
o-Xylene	ND		1.0	0.76	ug/L			12/26/19 20:28	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/26/19 20:28	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/26/19 20:28	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/26/19 20:28	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/26/19 20:28	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/26/19 20:28	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/26/19 20:28	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/26/19 20:28	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/26/19 20:28	1
Naphthalene	ND		1.0	0.43	ug/L			12/26/19 20:28	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/26/19 20:28	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/26/19 20:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*12/26/19 20:28*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*12/26/19 20:28*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-511879/8
Matrix: Water
Analysis Batch: 511879

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*12/26/19 20:28*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*12/26/19 20:28*	*1*

Lab Sample ID: LCS 480-511879/5
Matrix: Water
Analysis Batch: 511879

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	24.6		ug/L		98	71 - 124
Ethylbenzene	25.0	24.6		ug/L		98	77 - 123
Toluene	25.0	23.9		ug/L		96	80 - 122
m-Xylene & p-Xylene	25.0	24.6		ug/L		98	76 - 122
o-Xylene	25.0	24.9		ug/L		100	76 - 122
Xylenes, Total	50.0	49.5		ug/L		99	76 - 122
Isopropylbenzene	25.0	24.3		ug/L		97	77 - 122
N-Propylbenzene	25.0	24.3		ug/L		97	75 - 127
4-Isopropyltoluene	25.0	24.7		ug/L		99	73 - 120
1,2,4-Trimethylbenzene	25.0	25.2		ug/L		101	76 - 121
1,3,5-Trimethylbenzene	25.0	24.5		ug/L		98	77 - 121
n-Butylbenzene	25.0	24.5		ug/L		98	71 - 128
sec-Butylbenzene	25.0	24.4		ug/L		98	74 - 127
Naphthalene	25.0	23.8		ug/L		95	66 - 125
Methyl tert-butyl ether	25.0	25.8		ug/L		103	77 - 120
tert-Butylbenzene	25.0	24.4		ug/L		98	75 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Dibromofluoromethane (Surr)	*104*		*75 - 123*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-511610/1-A
Matrix: Water
Analysis Batch: 511800

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 511610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		12/24/19 09:27	12/24/19 17:03	1
Chromium	ND		0.0040	0.0010	mg/L		12/24/19 09:27	12/24/19 17:03	1
Lead	ND		0.010	0.0030	mg/L		12/24/19 09:27	12/24/19 17:03	1

Lab Sample ID: LCS 480-511610/2-A
Matrix: Water
Analysis Batch: 511800

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 511610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.200	0.190		mg/L		95	80 - 120
Chromium	0.200	0.194		mg/L		97	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-511610/2-A
Matrix: Water
Analysis Batch: 511800

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 511610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.200	0.188		mg/L		94	80 - 120

Lab Sample ID: 480-164549-7 MS
Matrix: Water
Analysis Batch: 511800

Client Sample ID: EQUIPMENT BLANK
Prep Type: Total/NA
Prep Batch: 511610

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		0.200	0.188		mg/L		94	75 - 125
Chromium	ND		0.200	0.190		mg/L		95	75 - 125
Lead	ND		0.200	0.185		mg/L		93	75 - 125

Lab Sample ID: 480-164549-7 MSD
Matrix: Water
Analysis Batch: 511800

Client Sample ID: EQUIPMENT BLANK
Prep Type: Total/NA
Prep Batch: 511610

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		0.200	0.194		mg/L		97	75 - 125	3	20
Chromium	ND		0.200	0.195		mg/L		98	75 - 125	3	20
Lead	ND		0.200	0.188		mg/L		94	75 - 125	1	20

Method: 310.2 - Alkalinity

Lab Sample ID: MB 480-511893/20
Matrix: Water
Analysis Batch: 511893

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			12/26/19 19:21	1

Lab Sample ID: MB 480-511893/26
Matrix: Water
Analysis Batch: 511893

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			12/26/19 19:22	1

Lab Sample ID: MB 480-511893/45
Matrix: Water
Analysis Batch: 511893

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	5.29	J	10.0	4.0	mg/L			12/26/19 19:34	1

Lab Sample ID: MB 480-511893/48
Matrix: Water
Analysis Batch: 511893

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	4.18	J	10.0	4.0	mg/L			12/26/19 19:35	1

Method: 310.2 - Alkalinity (Continued)

Lab Sample ID: MB 480-511893/57
Matrix: Water
Analysis Batch: 511893

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			12/26/19 19:43	1

Lab Sample ID: MB 480-511893/81
Matrix: Water
Analysis Batch: 511893

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			12/26/19 20:00	1

Lab Sample ID: LCS 480-511893/21
Matrix: Water
Analysis Batch: 511893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	45.76		mg/L		92	90 - 110

Lab Sample ID: LCS 480-511893/27
Matrix: Water
Analysis Batch: 511893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	50.17		mg/L		100	90 - 110

Lab Sample ID: LCS 480-511893/46
Matrix: Water
Analysis Batch: 511893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	51.99		mg/L		104	90 - 110

Lab Sample ID: LCS 480-511893/49
Matrix: Water
Analysis Batch: 511893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	50.78		mg/L		102	90 - 110

Lab Sample ID: LCS 480-511893/58
Matrix: Water
Analysis Batch: 511893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	48.65		mg/L		97	90 - 110

Lab Sample ID: LCS 480-511893/82
Matrix: Water
Analysis Batch: 511893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	49.42		mg/L		99	90 - 110

Method: 310.2 - Alkalinity

Lab Sample ID: 480-164549-1 MS
Matrix: Water
Analysis Batch: 511893

Client Sample ID: A4-MW-5R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	272		20.0	304.8	4	mg/L		162	60 - 140

Lab Sample ID: 480-164549-5 DU
Matrix: Water
Analysis Batch: 511893

Client Sample ID: A4-MW-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	1040		1083		mg/L		4	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-511457/1-A
Matrix: Water
Analysis Batch: 511660

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 511457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		12/23/19 12:53	12/24/19 11:26	1

Lab Sample ID: LCS 480-511457/2-A
Matrix: Water
Analysis Batch: 511660

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 511457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.223	*	mg/L		89	90 - 110

Lab Sample ID: 480-164549-2 MS
Matrix: Water
Analysis Batch: 511660

Client Sample ID: A4-MW-7R
Prep Type: Total/NA
Prep Batch: 511457

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.074	*	0.100	0.174		mg/L		100	90 - 110

Lab Sample ID: 480-164549-2 MSD
Matrix: Water
Analysis Batch: 511660

Client Sample ID: A4-MW-7R
Prep Type: Total/NA
Prep Batch: 511457

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.074	*	0.100	0.172		mg/L		98	90 - 110	1	15

Lab Sample ID: 480-164549-5 MS
Matrix: Water
Analysis Batch: 511660

Client Sample ID: A4-MW-10
Prep Type: Total/NA
Prep Batch: 511457

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.061	*	0.100	0.166		mg/L		106	90 - 110

QC Association Summary

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

Job ID: 480-164549-1

GC/MS VOA

Analysis Batch: 511528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164549-4	A4-MW-9	Total/NA	Water	8260C	
480-164549-5	A4-MW-10	Total/NA	Water	8260C	
480-164549-6	TRIP BLANK	Total/NA	Water	8260C	
MB 480-511528/7	Method Blank	Total/NA	Water	8260C	
LCS 480-511528/9	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 511530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164549-2	A4-MW-7R	Total/NA	Water	8260C	
MB 480-511530/7	Method Blank	Total/NA	Water	8260C	
LCS 480-511530/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 511563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164549-7	EQUIPMENT BLANK	Total/NA	Water	8260C	
MB 480-511563/26	Method Blank	Total/NA	Water	8260C	
LCS 480-511563/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 511601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164549-3	A4-MW-8R	Total/NA	Water	8260C	
MB 480-511601/7	Method Blank	Total/NA	Water	8260C	
LCS 480-511601/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 511879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164549-1	A4-MW-5R	Total/NA	Water	8260C	
MB 480-511879/8	Method Blank	Total/NA	Water	8260C	
LCS 480-511879/5	Lab Control Sample	Total/NA	Water	8260C	

Metals

Prep Batch: 511610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164549-1	A4-MW-5R	Total/NA	Water	3005A	
480-164549-2	A4-MW-7R	Total/NA	Water	3005A	
480-164549-3	A4-MW-8R	Total/NA	Water	3005A	
480-164549-4	A4-MW-9	Total/NA	Water	3005A	
480-164549-5	A4-MW-10	Total/NA	Water	3005A	
480-164549-7	EQUIPMENT BLANK	Total/NA	Water	3005A	
MB 480-511610/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-511610/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-164549-7 MS	EQUIPMENT BLANK	Total/NA	Water	3005A	
480-164549-7 MSD	EQUIPMENT BLANK	Total/NA	Water	3005A	

Analysis Batch: 511800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164549-1	A4-MW-5R	Total/NA	Water	6010C	511610
480-164549-2	A4-MW-7R	Total/NA	Water	6010C	511610
480-164549-3	A4-MW-8R	Total/NA	Water	6010C	511610
480-164549-4	A4-MW-9	Total/NA	Water	6010C	511610

Metals (Continued)

Analysis Batch: 511800 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164549-5	A4-MW-10	Total/NA	Water	6010C	511610
480-164549-7	EQUIPMENT BLANK	Total/NA	Water	6010C	511610
MB 480-511610/1-A	Method Blank	Total/NA	Water	6010C	511610
LCS 480-511610/2-A	Lab Control Sample	Total/NA	Water	6010C	511610
480-164549-7 MS	EQUIPMENT BLANK	Total/NA	Water	6010C	511610
480-164549-7 MSD	EQUIPMENT BLANK	Total/NA	Water	6010C	511610

General Chemistry

Prep Batch: 511457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164549-1	A4-MW-5R	Total/NA	Water	9012B	
480-164549-2	A4-MW-7R	Total/NA	Water	9012B	
480-164549-3	A4-MW-8R	Total/NA	Water	9012B	
480-164549-4	A4-MW-9	Total/NA	Water	9012B	
480-164549-5	A4-MW-10	Total/NA	Water	9012B	
480-164549-7	EQUIPMENT BLANK	Total/NA	Water	9012B	
MB 480-511457/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-511457/2-A	Lab Control Sample	Total/NA	Water	9012B	
480-164549-2 MS	A4-MW-7R	Total/NA	Water	9012B	
480-164549-2 MSD	A4-MW-7R	Total/NA	Water	9012B	
480-164549-5 MS	A4-MW-10	Total/NA	Water	9012B	

Analysis Batch: 511660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164549-2	A4-MW-7R	Total/NA	Water	9012B	511457
480-164549-3	A4-MW-8R	Total/NA	Water	9012B	511457
480-164549-4	A4-MW-9	Total/NA	Water	9012B	511457
480-164549-5	A4-MW-10	Total/NA	Water	9012B	511457
480-164549-7	EQUIPMENT BLANK	Total/NA	Water	9012B	511457
MB 480-511457/1-A	Method Blank	Total/NA	Water	9012B	511457
LCS 480-511457/2-A	Lab Control Sample	Total/NA	Water	9012B	511457
480-164549-2 MS	A4-MW-7R	Total/NA	Water	9012B	511457
480-164549-2 MSD	A4-MW-7R	Total/NA	Water	9012B	511457
480-164549-5 MS	A4-MW-10	Total/NA	Water	9012B	511457

Analysis Batch: 511661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164549-1	A4-MW-5R	Total/NA	Water	9012B	511457

Analysis Batch: 511893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164549-1	A4-MW-5R	Total/NA	Water	310.2	
480-164549-2	A4-MW-7R	Total/NA	Water	310.2	
480-164549-3	A4-MW-8R	Total/NA	Water	310.2	
480-164549-4	A4-MW-9	Total/NA	Water	310.2	
480-164549-5	A4-MW-10	Total/NA	Water	310.2	
480-164549-7	EQUIPMENT BLANK	Total/NA	Water	310.2	
MB 480-511893/20	Method Blank	Total/NA	Water	310.2	
MB 480-511893/26	Method Blank	Total/NA	Water	310.2	
MB 480-511893/45	Method Blank	Total/NA	Water	310.2	

General Chemistry (Continued)

Analysis Batch: 511893 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-511893/48	Method Blank	Total/NA	Water	310.2	
MB 480-511893/57	Method Blank	Total/NA	Water	310.2	
MB 480-511893/81	Method Blank	Total/NA	Water	310.2	
LCS 480-511893/21	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-511893/27	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-511893/46	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-511893/49	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-511893/58	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-511893/82	Lab Control Sample	Total/NA	Water	310.2	
480-164549-1 MS	A4-MW-5R	Total/NA	Water	310.2	
480-164549-5 DU	A4-MW-10	Total/NA	Water	310.2	

Lab Chronicle

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

Job ID: 480-164549-1

Client Sample ID: A4-MW-5R

Lab Sample ID: 480-164549-1
Matrix: Water
Date Collected: 12/19/19 15:50
Date Received: 12/19/19 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	511879	12/27/19 00:39	RJF	TAL BUF
Total/NA	Prep	3005A			511610	12/24/19 09:27	NSW	TAL BUF
Total/NA	Analysis	6010C		1	511800	12/24/19 17:10	EMB	TAL BUF
Total/NA	Analysis	310.2		4	511893	12/26/19 20:04	SRW	TAL BUF
Total/NA	Prep	9012B			511457	12/23/19 12:53	AJL	TAL BUF
Total/NA	Analysis	9012B		2	511661	12/24/19 11:58	MDL	TAL BUF

Client Sample ID: A4-MW-7R

Lab Sample ID: 480-164549-2
Matrix: Water
Date Collected: 12/19/19 12:55
Date Received: 12/19/19 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	511530	12/24/19 04:37	RJF	TAL BUF
Total/NA	Prep	3005A			511610	12/24/19 09:27	NSW	TAL BUF
Total/NA	Analysis	6010C		5	511800	12/24/19 17:14	EMB	TAL BUF
Total/NA	Analysis	310.2		1	511893	12/26/19 19:37	SRW	TAL BUF
Total/NA	Prep	9012B			511457	12/23/19 12:53	AJL	TAL BUF
Total/NA	Analysis	9012B		1	511660	12/24/19 11:31	MDL	TAL BUF

Client Sample ID: A4-MW-8R

Lab Sample ID: 480-164549-3
Matrix: Water
Date Collected: 12/19/19 14:20
Date Received: 12/19/19 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		200	511601	12/24/19 11:57	RJF	TAL BUF
Total/NA	Prep	3005A			511610	12/24/19 09:27	NSW	TAL BUF
Total/NA	Analysis	6010C		1	511800	12/24/19 17:33	EMB	TAL BUF
Total/NA	Analysis	310.2		8	511893	12/26/19 19:23	SRW	TAL BUF
Total/NA	Prep	9012B			511457	12/23/19 12:53	AJL	TAL BUF
Total/NA	Analysis	9012B		1	511660	12/24/19 11:36	MDL	TAL BUF

Client Sample ID: A4-MW-9

Lab Sample ID: 480-164549-4
Matrix: Water
Date Collected: 12/19/19 15:20
Date Received: 12/19/19 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	511528	12/24/19 04:20	S1V	TAL BUF
Total/NA	Prep	3005A			511610	12/24/19 09:27	NSW	TAL BUF
Total/NA	Analysis	6010C		1	511800	12/24/19 17:37	EMB	TAL BUF
Total/NA	Analysis	310.2		4	511893	12/26/19 19:44	SRW	TAL BUF
Total/NA	Prep	9012B			511457	12/23/19 12:53	AJL	TAL BUF
Total/NA	Analysis	9012B		1	511660	12/24/19 11:37	MDL	TAL BUF

Lab Chronicle

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

Job ID: 480-164549-1

Client Sample ID: A4-MW-10

Lab Sample ID: 480-164549-5

Date Collected: 12/19/19 12:25

Matrix: Water

Date Received: 12/19/19 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	511528	12/24/19 04:44	S1V	TAL BUF
Total/NA	Prep	3005A			511610	12/24/19 09:27	NSW	TAL BUF
Total/NA	Analysis	6010C		1	511800	12/24/19 17:40	EMB	TAL BUF
Total/NA	Analysis	310.2		13	511893	12/26/19 19:23	SRW	TAL BUF
Total/NA	Prep	9012B			511457	12/23/19 12:53	AJL	TAL BUF
Total/NA	Analysis	9012B		1	511660	12/24/19 11:39	MDL	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-164549-6

Date Collected: 12/19/19 11:30

Matrix: Water

Date Received: 12/19/19 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	511528	12/24/19 05:08	S1V	TAL BUF

Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 480-164549-7

Date Collected: 12/19/19 12:00

Matrix: Water

Date Received: 12/19/19 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	511563	12/24/19 11:00	CRL	TAL BUF
Total/NA	Prep	3005A			511610	12/24/19 09:27	NSW	TAL BUF
Total/NA	Analysis	6010C		1	511800	12/24/19 17:44	EMB	TAL BUF
Total/NA	Analysis	310.2		1	511893	12/26/19 19:21	SRW	TAL BUF
Total/NA	Prep	9012B			511457	12/23/19 12:53	AJL	TAL BUF
Total/NA	Analysis	9012B		1	511660	12/24/19 11:44	MDL	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

Job ID: 480-164549-1

Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

Method Summary

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

Job ID: 480-164549-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
9012B	Cyanide, Total andor Amenable	SW846	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL BUF

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

Job ID: 480-164549-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-164549-1	A4-MW-5R	Water	12/19/19 15:50	12/19/19 16:40	
480-164549-2	A4-MW-7R	Water	12/19/19 12:55	12/19/19 16:40	
480-164549-3	A4-MW-8R	Water	12/19/19 14:20	12/19/19 16:40	
480-164549-4	A4-MW-9	Water	12/19/19 15:20	12/19/19 16:40	
480-164549-5	A4-MW-10	Water	12/19/19 12:25	12/19/19 16:40	
480-164549-6	TRIP BLANK	Water	12/19/19 11:30	12/19/19 16:40	
480-164549-7	EQUIPMENT BLANK	Water	12/19/19 12:00	12/19/19 16:40	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: TB/EA	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-139598-26549.1
Client Contact: Thomas Robitaille	Phone:	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Haley & Aldrich, Inc.				Job #:
Address: 200 Town Centre Drive #2	Due Date Requested:			
City: Rochester	TAT Requested (days):			
State, Zip: NY, 14623-4264				
Phone:	PO #: Purchase Order not requir			
Email: TRobitaille@haleyaldrich.com	WO #:			
Project Name: Hydro-Air Componenets	Project #: 48004458			
Site:	SSOW#:			

480-164549 Chain of Custody

I - Ice; J - DI Water; K - EDTA; L - EDA; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify); Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C - As, Cr & Pb	8260C - STARS Volatiles	9012B - Cyanide	310.2 - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	B	N		
A4-MW-5R	12/19/19	1550	G	Water			1	3	1	1		
A4-MW-7R	12/19/19	1255	G	Water			1	3	1	1		
A4-MW-8R	12/19/19	1420	G	Water			1	3	1	1		
A4-MW-9	12/19/19	1520	G	Water			1	3	1	1		
A4-MW-10	12/19/19	1225	G	Water			1	3	1	1		
Trip Blank	12/19/19	1130	G	Water			0	3	0	0		
Equipment Blank	12/19/19	1200	G	Water			1	3	1	1		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		12/19/19 1640	TAL		12/19/19 1640	TAL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: #13.3

Ver: 01/16/2019

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12/31/2019

Login Sample Receipt Checklist

Client: Hydro-Air Components, Inc.

Job Number: 480-164549-1

Login Number: 164549
List Number: 1
Creator: Wallace, Cameron

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

APPENDIX I

Historical Groundwater Analytical Data Tables

HALEY ALDRICH

Table 1
Summary of Historical Groundwater Analytical Results

Eleventh Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

Parameter (ug/L)	Class GA GWQS/GV	Monitoring Location																													
		A4-MW-5R															A4-MW-7R															
		6/25/2007	2/1/2008	6/2/2008	6/25/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/26/2018	12/19/2019	6/25/2007	1/31/2008	6/2/2008	6/25/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/26/2018	12/19/2019
Volatile Organic Compounds																															
1,2,4-Trimethylbenzene	5	NM	NM	18	3.8 J	3.8 J	18	ND <10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	NM	NM	ND < 1.0	ND < 5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Acetone	50*	6.7 J	ND < 50	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	11 J	ND < 50	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Benzene	0.7	ND	7.1	8.3	5.4	8.2	13	ND <10	0.6 J	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	16	ND < 1.0	7.9	3.6	6.4	2.3 J	3.6 J	ND <5.0	2.3 J	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Carbon disulfide	60*	ND	ND < 1.0	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	24	3.1	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Ethylbenzene	5	ND	3.1	4.4	3.5	ND < 5.0	9.1	ND <10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND	ND < 1.0	ND < 1.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
2-Butanone (MEK)	50*	ND	ND < 10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	2.8 J	ND < 10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Napthalene	10	NM	NM	940	28	29	420	ND <10	14	ND<1.0	2.9	ND<1.0	ND<1.0	ND<1.0	0.5 J	NM	NM	ND<5.0	ND<5.0	ND<5.0	3.3 J	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Toluene	5	ND	ND < 5.0	1.6	ND<5.0	ND < 5.0	ND < 5.0	ND <10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND	ND < 5.0	ND < 1.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Xylenes, Total	5	ND	32	25.5	ND<10	NM	NM	ND <20	1.7 J	ND <2.0	ND <2.0	ND <2.0	ND <2.0	ND <2.0	ND <2.0	1.4 J	ND < 3.0	ND < 1.0	ND<10	NM	NM	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10
Metals																															
Arsenic	25	ND	ND < 20	21	19.1	11.5	7.9 J	14	17	ND<1.5	5.8 J	5.9 J	ND<1.5	ND <15	ND <15	9.1	ND < 20	29	ND<50	ND < 10	ND < 10	12	11	7.3	ND < 15	ND < 15	ND < 15	ND < 15	ND < 75		
Chromium	50	ND	ND < 10	ND<10	1.8 J	2.1 J	1.7 J	4.1	1.6 J	ND<0.4	ND<0.4	ND<0.4	ND<0.4	ND < 4	1.0 J	11	ND < 10	21	ND<20	ND < 4.0	ND < 4.0	11	ND < 20	9	8.2 J	7.3	6.3 J	6.5 J	ND < 20		
Lead	25	ND	ND < 5.0	ND<5.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND < 5.0	ND<1.0	ND<1.0	3.7 J	3.6 J	ND <10	ND <10	7.6	6.2	17	ND<5.0	4.4	ND < 5.0	27	23	ND < 5.0	ND < 5.0	17	13 J	ND < 200	ND < 50		
Wet Chemistry																															
Alkalinity	--	--	--	--	--	--	--	--	--	--	508000 B	555000 B	379000	433000 B	272,000	--	--	--	--	--	--	--	--	--	28,300	ND < 10,000	ND < 10,000	158,000	43800 B		
Cyanide	200	165	400	490	103	482	560	680	260	340	530	920	630	680	470	42.9	100	41	39.4	64	240	49	91	550	14	66	89	33	74		

Notes:
1. Benchmark Environmental Engineering & Science conducted the 25 June 2007 sampling event.
2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
3. Haley & Aldrich conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5 July 2012, 1-2 July 2013, 2-3 June 2014, 25-26 June 2015, 22-23 June 2016, 22-23 June 2017, 25-26 June 2018, and 19 December 2019 sampling events. Samples were collected and analyzed by Test America Buffalo.
4. Only those analytes detected above the Class GA GW QS/GV are presented in this table.
5. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) as published in NYSDEC Ambient Water Quality Standards/Guidance Values and Groundwater Effluent Limitations (June 1998).
6. Shaded results indicate exceedance of the GWQS/GV.
7. ND indicates not detected above laboratory detection limits.
8. NS indicates not sampled.
9. NM indicates not measured.
10. Samples that contain results between the MDL and RL were flagged as estimated, "J", by the laboratory. Samples that contain results flagged with "B" by the laboratory identifies that the compound was found in the blank and the sample. The data user should be aware that there is a possibility of false positive or mis-identification at the quantitation levels.
11. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table 1
Summary of Historical Groundwater Analytical Results

Eleventh Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

Parameter (ug/L)	Class GA GWQS/GV	Monitoring Location													
		A4-MW-8R													
		6/25/2007	1/31/2008	6/2/2008	6/26/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/26/2018	12/19/2019
Volatile Organic Compounds															
1,2,4-Trimethylbenzene	5	NM	NM	ND < 25	ND < 5.0	ND < 400	ND < 100	ND < 500	ND < 500	ND < 500	ND < 500	ND < 500	ND <50	ND <500	ND <200
Acetone	50*	ND	ND < 50	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Benzene	0.7	26000 D	20000 D	19000	25000	32000	33000	32000	27000	23000	25000	24000	22000	18000	8100
Carbon disulfide	60*	ND	ND < 1.0	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Ethylbenzene	5	38 J	ND < 1.0	25	33	ND < 400	ND < 100	ND <500	ND <500	ND <500	ND <500	ND <500	ND <50	ND <500	ND <200
2-Butanone (MEK)	50*	ND	ND < 10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Napthalene	10	NM	NM	ND<120	ND<5.0	ND < 400	ND < 100	ND <500	ND <500	ND <500	ND <500	ND <500	ND <50	ND <500	ND <200
Toluene	5	60 J	ND < 5.0	ND < 25	3.8	ND < 400	ND < 100	ND <500	ND <500	ND <500	ND <500	ND <500	ND <50	ND <500	ND <200
Xylenes, Total	5	ND	ND < 3.0	ND < 25	5.8	NM	NM	ND <1000	ND <1000	ND <1000	ND <1000	ND <1000	ND <100	ND <1000	ND <400
Metals															
Arsenic	25	24	33	54	39.9	36	37	40	34	31	34	35	31	31	25
Chromium	50	3.8	ND < 10	ND < 10	ND < 4.0	ND < 4.0	ND < 4	1.7 J	ND < 4	1.5 J	ND < 4	ND < 4	1.3 J	ND < 4	ND < 4
Lead	25	ND	26	8.5	ND < 40	ND < 5.0	ND < 5	3.5 J	ND < 5	ND < 10	3.3 J	7.0 J	4.7 J	ND < 200	3.1 J
Wet Chemistry															
Alkalinity	--	--	--	--	--	--	--	--	--	--	737,000	492,000 B	485,000	708,000 B	668,000
Cyanide	200	106	86	94	137	91.2	140	140	130	120	120	160	120	140	130

Parameter (ug/L)	Class GA GWQS/GV	Monitoring Location													
		A4-MW-9													
		6/25/2007	1/31/2008	6/2/2008	6/26/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/26/2018	12/19/2019
Volatile Organic Compounds															
1,2,4-Trimethylbenzene	5	NM	NM	ND < 100	ND<10	ND < 200	ND < 5	ND <200	ND < 1.0	ND < 1.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 5.0
Acetone	50*	660 J	ND < 50	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Benzene	0.7	18000 D	9400	13000	18000	18000	13000	11000	72	93	90	90	150	260	ND < 5.0
Carbon disulfide	60*	77 J	4.2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Ethylbenzene	5	ND	ND < 1.0	ND < 100	ND<10	ND < 200	ND < 5	ND <200	ND < 1.0	ND < 1.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 5.0
2-Butanone (MEK)	50*	ND	ND < 10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Napthalene	10	NM	NM	ND<500	ND<10	ND < 200	ND < 5	ND <200	ND < 1.0	ND < 1.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 5.0
Toluene	5	230 J	11	160	270	280	150	ND <200	ND < 1.0	ND < 1.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 5.0
Xylenes, Total	5	ND	ND < 3.0	ND < 100	ND<20	NM	NM	ND <400	ND < 2.0	ND < 2.0	ND < 4.0	ND < 4.0	ND < 4.0	ND < 4.0	ND < 10.0
Metals															
Arsenic	25	34	ND < 20	ND < 400	ND<50	ND < 50	20	26	ND < 10	7.2 J	ND < 15	5.6 J	ND < 15	ND < 15	ND < 15
Chromium	50	170	21	390	84.3	68.4	30	22	1.7 J	1.3 J	ND < 4.0	ND < 4.0	ND < 4.0	1.4 J	ND < 4.0
Lead	25	28	590	160	12.0 J	16.3	13	53	ND < 5	ND < 10	ND < 10	4.6 J	ND < 10	ND < 200	ND < 10
Wet Chemistry															
Alkalinity	--	--	--	--	--	--	--	--	--	--	312,000	303,000	364,000	226,000 B	359,000
Cyanide	200	4600	2700	4200	1770	3610	7000	4300	190	280	250	420	450	1400	140

Notes:
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3. Haley & Aldrich conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5 July 2012, 1-2 July 2013, 2-3 June 2014, 25-26 June 2015, 22-23 June 2016, 22-23 June 2017, 25-26 June 2018, and 19 December 2019 sampling events. Samples were collected and analyzed by Test America Buffalo.
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8. NS indicates not sampled.
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11. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table 1
Summary of Historical Groundwater Analytical Results

Eleventh Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

Parameter (ug/L)	Class GA GWQS/GV	Monitoring Location													
		A4-MW-10													
		6/25/2007	1/31/2008	6/2/2008	6/25/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/25/2018	12/19/2019
Volatile Organic Compounds															
1,2,4-Trimethylbenzene	5	NM	NM	ND<1.0	ND<5.0	ND < 5.0	3.8 J	ND <200	ND < 1.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0
Acetone	50*	5.8 J	NS	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Benzene	0.7	ND	NS	ND < 1.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND < 5.0	41	ND < 5.0
Carbon disulfide	60*	ND	NS	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Ethylbenzene	5	ND	NS	ND < 1.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND < 5.0	ND < 5.0	ND < 5.0
2-Butanone (MEK)	50*	ND	NS	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Napthalene	10	NM	NM	7.3	ND<5.0	ND<5.0	ND<5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND < 5.0	ND < 5.0	ND < 5.0
Toluene	5	ND	NS	ND < 1.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND < 5.0	ND < 5.0	ND < 5.0
Xylenes, Total	5	ND	NS	ND < 1.0	ND<10	NM	NM	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	ND < 10.0
Metals															
Arsenic	25	6.1	NS	26	13.1	8.3 J	7.4 J	13	8.8 J	7.8 J	8.0 J	8.9 J	11 J	10 J	43
Chromium	50	ND	NS	ND < 10	ND<4.0	ND < 4.0	ND < 4.0	2.1 J	2.4 J	1.4 J	ND < 4.0	ND < 4.0	ND < 4.0	ND < 4.0	3.6 J
Lead	25	ND	NS	ND < 5.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	3.7 J	ND <10	5.1 J	ND <10	ND <20	9.3 J
Wet Chemistry															
Alkalinity	--	--	--	--	--	--	--	--	--	--	1220000	120000	1100000	1170000 B	1,040,000
Cyanide	200	108	NS	73	35.7	51.0	110	110	96	86	55	88	79	73	61

Notes:
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