Sterling Environmental Engineering, P.C.

RADIO CITY VENTURES, LLC
MORGAN DRIVE, LOT 3
TOWN AND VILLAGE OF MOUNT KISCO, NY
SITE NO. C360137

SITE CHARACTERIZATION REPORT
LOTS A AND B

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December 14, 2021
Revised July 13, 2022

"Serving our clients and the environment since 1993"

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CERTIFICATION

I, Mark P. Millspaugh, P.E., certify that I am currently a New York State registered professional engineer and that this Site Characterization Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the applicable requirements of Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

Mark P. Millspaugh, P.E.

7/13/2022
Date

1.0 INTRODUCTION AND PURPOSE

This Site Characterization Report (SCR) for Lots A and B was prepared for the Morgan Drive, Lot 3 Site (Morgan Drive), located at 2 Morgan Drive, Town and Village of Mount Kisco, Westchester County, New York (Site). The Site is being remediated under Consent Order Index #3-20150527-56 (Consent Order) with the New York State Department of Environmental Conservation (NYSDEC). The Site is proposed for subdivision into two lots, A and B. A copy of the Consent Order is provided as Appendix A.

A Site Location Map is provided as Figure 1. The proposed subdivision is shown on Figure 2.

The NYSDEC has determined that no remedial action is necessary for Lot A. Lot B will be remediated separately. This SCR has been prepared to present the results of previous investigations conducted at the Site, summarized by Lots A and B.

1.1 Site History and Description

A summary of investigations of the Site is presented in Section 2.0 below and is more fully detailed in the Wastewater Treatment Plant (WWTP) Remedial Investigation/Feasibility Study (RI/FS) dated October 3, 2014.

The Site is located in the Town and Village of Mount Kisco, Westchester County, New York. The Site is currently vacant and was previously used as a sanitary wastewater treatment plant (WWTP) operated by the New York City Department of Environmental Protection (NYCDEP). The Site is bordered on the northeast by the Kisco River, and to the northwest by vacant land that is currently included in the Brownfield Cleanup Program (BCP) as Site #C360112. Several structures from the former treatment plant remain on the Lot B portion of the Site. These structures include former primary tanks, sludge drying beds, sprinkling filter beds, and a concrete storage building. A former concrete settling basin and sand filter bed are also located on Lot B.

Subdivision of the Site has been proposed with Lot A consisting of the upland area which is at higher elevation than the former WWTP. As discussed below, the Lot A portion of the property showed no significant impact from the historic operations of the WWTP. One of the surface soil samples from Lot A contained constituents exceeding Residential Soil Cleanup Objectives (SCOs). No soil samples exceeded Restricted Residential or Commercial SCOs.

Lot B is the portion of the property with the former WWTP and adjacent areas where residuals from the WWTP were handled. Lot B will be the subject of further investigation and remedial actions. Subdividing the parcel will allow development of Lot A to proceed while Lot B proceeds in the current remedial program.

The Site has been the subject of field investigations, which are summarized in the reports listed in Section 2.1. The site investigations included soil, sediment and surface water sampling, as well as groundwater monitoring. On Lot B, the former wastewater treatment operations contributed low level impacts above Residential SCOs to soil and former WWTP system components at Pond 1 and Pond 2 (concrete settling basin and sand filter bed), Primary Tank 1 and Primary Tank 2.

Certain samples from Pond 1, Pond 2, Primary Tank 1, and Primary Tank 2 exceed the Restricted Residential Use SCOs. Site investigations indicate some soils/sediment/media at other locations of the Site exceed the Restricted Residential Use SCOs.

The 2019 summary report prepared by Great Lakes Environmental & Safety Consultants, Inc. of radiological surveys that were performed on the entire Site concluded that radiological activity encountered on Lot A is significantly lower and isolated compared to the rest of the property and adjacent properties. Potential radiological impacts on Lot A were addressed by completing a Class 2 Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) survey as approved under the Order on Consent with NYCDEP (Index No. CO 3-20180709-131). The results of these tests, described in the CoPhysics Final Status Survey Report dated December 2020, show that no elevated levels of radioactivity exist on Lot A. The elevated area of radioactivity on Lot B has not affected the soil in Lot A. All readings throughout Lot A are indicative of normal, natural background radiation levels. Radiological impact studies are provided as Appendix B.

Based on the results of investigations completed by CoPhysics in 2019 and 2020, NYSDEC and NYSDOH made the determination to accept the MARSSIM study and release Lot A from any radiological controls. Lot B will require additional investigation to fully delineate the extent of radiological contamination.

1.2 Proposed Future Use of Property

A Subdivision Plat and Site Plan Application have received conditional approval from the Village Planning Board by Resolution dated December 14, 2021. Upon satisfying the conditions of Site Plan approval, the final Site Plan and Subdivision Plat will be signed by the Planning Board Chairman and applications may be made for a building permit.

The existing nature of Lot A lends itself to a multi-story building constructed into the steep slope areas. The lot will be tiered to match the existing topography which will minimize the impact to the slopes to the greatest extent possible. The existing tiered nature of the lot will allow for standard construction practices to be utilized when excavating for the building foundations.

The conditionally approved building on Lot A is a 70,000 square foot (36,400 square foot footprint) two story building that will be built into the slope. The building foundation will act as the retaining structure including two (2) integral retaining walls at either end to separate the building levels. The slopes to the southwest will be shallowed to facilitate driveway access and will not exceed 10%. The regraded slope to the northeast will be constructed at a 3:1 horizontal to vertical slope. That slope will be vegetated and stabilized in accordance with standard erosion and sediment control practices to prevent erosion during construction.

The design and layout of Lot A has been completed in accordance with best engineering practices and every effort has been taken to ensure that all disturbance of steep slopes is performed in such a way as to minimize any impact to adjacent parcels.

The site work will require excavation and relocation of approximately 10,000 CY of soil to accommodate the building foundation. A preliminary Geotechnical Report dated January 2014 indicated that 1-2’ of surficial soils were fill materials over much of the site. Excavated soils that require removal will be tested and removed from the site for offsite disposal and/or beneficial use in accordance with the NYSDEC solid waste management regulations as set forth in NYCRR Part 360. Construction surplus soil will be hauled away by truck. Any material transported offsite will be managed in accordance with all applicable solid waste regulations.

Lot B will be the subject of additional investigations which will aid in determining future remedial actions.

1.3 Objectives, Scope and Rationale

The available data for this Site, as summarized in Section 2, determined that only one (1) of 19 soil samples collected at seven (7) locations on Lot A detected any exceedances of Residential SCOs. No exceedances of Commercial SCOs were detected on Lot A. As such, NYSDEC has determined the data do not indicate the need for a soil cover, environmental easement (EE), or Site Management Plan (SMP) for Lot A.

The Site has been fully characterized with respect to hazardous waste constituents. No further action regarding Lot A is indicated. Further investigation on Lot B will be completed to delineate radiological impacts.

To reduce the potential for impacts to Lot A from radiological contamination on Lot B, an Interim Remedial Measure (IRM) for installation of a fence between the two lots was proposed in a separate IRM work plan on April 20, 2022 and approved by NYSDEC. A temporary fence was installed on May 25, 2022 based on NYSDEC approval, with plans for a permanent fence to be constructed at a later date. Lot A will be removed from the requirements of the Consent Order.

2.0 PREVIOUS SITE INVESTIGATIONS

2.1 Summary of Investigations

The following reports summarize the environmental conditions at the Site:

- Supplemental Soil and Sediment Sampling (Tim Miller Associates, Inc., March 30, 2006)
- Environmental Site Assessment Summary Report (Tim Miller Associates, Inc., November 7, 2006)
- Additional Soil and Groundwater Sampling, Lot 3, Morgan Drive Property (Tim Miller Associates, Inc., December 31, 2007)
- Additional Deep Boring Sampling, Morgan Drive Property/Buckingham Property – Lot 3 (Tim Miller Associates, Inc., March 24, 2008)
- Wastewater Treatment Plant (WWTP) Remedial Investigation/Feasibility Study (RI/FS) (Sterling Environmental Engineering, P.C., October 3, 2014)
- Site Characterization Report and Focused Interim Remedial Measures Study (Sterling Environmental Engineering, P.C., July 25, 2016)
- Emerging Contaminants and Radon Sampling Report (LiRo Engineers, Inc., February 2018)
- Mt. Kisco WWTP Radiological Characterization Report (CoPhysics Corporation, August 2019)
- Letter Report Site A Subdivision (Great Lakes Environmental & Safety Consultants, Inc., September 20, 2019)
- Final Status Survey Report (CoPhysics, December 2020)

2.2 Subsurface Characteristics and Groundwater Flow Direction

Subsurface conditions at the Site are variable, ranging from a silty sand to a clayey sand to a depth of approximately 10 feet below ground surface (bgs) with traces of gravel, sand and silt to a depth of 13 feet bgs (Tim Miller Associates, 2008). Review of available geologic literature indicates that the Site is located within a kame deposit, which is an ice margin deposit with variable texture (Cadwell, 1989[1]). Depth to bedrock has not been determined but is likely less than 75 feet bgs (Fisher et al., 1970[2]). Groundwater levels vary from two (2) feet to greater than 21 feet bgs. The variation in groundwater elevations may be due to the heterogeneity of the onsite soils. Groundwater is expected to flow to the north towards the Kisco River. (Asselstine, E.S. and Grossman, I.G. 1955 The ground-water resources of Westchester County, New York, part 1, records of wells and test holes: New York State Water Power and Control Commission Bulletin GW-35, 79 p. "LIZARDTECH").

2.3 Summary of Prior Site Characterizations

Prior investigations evaluated the Site conditions and confirmed that the Site has been impacted by past operations of the WWTP. Sample locations are presented on Figure 3. A summary of the analytical results of the sediment and soil analyses are provided in Tables 1 and 2. A summary of groundwater analytical results is presented in Table 3. Laboratory data reports are provided in Appendix C, and the Data Usability Summary Report is provided as Appendix D. The following discussion presents the results of previous site characterizations of Lot A and Lot B.

2.3.1 Lot A Site Characterization Results

- Environmental Site Assessment Summary Report – November 7, 2006 (Tim Miller Associates, Inc.)

Sampling on Lot A was initially performed in 2004 in support of a Phase I Environmental Site Assessment (Tim Miller Associates, Inc., September 24, 2004). A single sample (B-7) was collected with hand tools at a depth of between 0.5 and 1.5 feet and analyzed for metals. The result of the soil analysis indicated Total Chromium was present at 70 ppm, above the Residential SCO of 58 ppm and below the Commercial SCO of 1,900 ppm.

- WWTP Remedial Investigation/Feasibility Study (RI/FS) – Sterling Environmental Engineering, P.C., October 3, 2014

Shallow Soil Borings

Soil conditions on Lot A were investigated by installation of 6 shallow soil borings at the locations shown on Figure 3. Surface soil samples were first collected at these locations. The vegetative cover, including root zone, was removed and a soil sample was collected from the remaining top two (2) inches. These samples were analyzed for the full Target Compound List/Target Analyte List (TCL/TAL) parameters.

Soil samples were collected continuously at each boring location down to the water table and logged using the Unified Soil Classification System by STERLING.

[1] Cadwell, D. H. 1989. Lower Hudson Sheet. In *Surficial Geologic Map of New York*. New York State Museum Map and Chart Series 40, edited by D. H. Cadwell, and others, The University of the State of New York, Albany, New York.

[2] Fisher, D. W., Y. W. Isachsen, and L. V. Richard. 1970. *Geologic Map of New York; Lower Hudson Sheet, 1:250,000.* New York State Museum and Science Service Map and Chart Series 15. The University of the State of New York, Albany, New York.

At each boring location, three (3) soil samples were submitted for laboratory analysis (Full TCL/TAL parameters). Once the vegetative cover, including root zone, was removed, the "A" soil sample was collected from the upper two (2) inches. Additionally, one (1) grab soil sample was collected at each boring from the "B" zone, which was one (1) foot below grade. The third grab soil sample was collected from the "C" zone at various depths above the water table and was selected at the interval with the most elevated PID headspace readings and/or from visual and olfactory observations indicating the greatest potential impact.

All samples were analyzed following New York State ASP Category B deliverables, in accordance with DER-10. Results of the analysis are summarized in Table 1. The results show that four (4) soil samples exceeded Unrestricted SCOs for metals (Trivalent chromium, lead and mercury). Six (6) locations exceeded Unrestricted SCOs for pesticides. None of the samples exceeded Residential SCOs.

Groundwater

On Lot A, one (1) existing groundwater well was sampled (MW-1). All unfiltered groundwater samples collected were submitted to TestAmerica, Inc. and analyzed for Full Target Compound List (TCL)/Target Analyte List (TAL) parameters. No filtered samples were collected due to the lack of available groundwater. All samples were analyzed following New York State ASP Category B deliverables, in accordance with DER-10.

As depicted in Table 3, no VOCs, Semi-Volatile Organic Compounds (SVOCs), Herbicides, or Polychlorinated Biphenyls (PCBs) were detected at MW-1 above groundwater standards.

All groundwater results for pesticides were either non-detect or below their respective groundwater standard, except one minor exceedance of heptachlor (0.08 ug/L) was reported above the NYSDEC groundwater standard (0.04 µg/L). Heptachlor is a persistent organic pollutant (POP) and is considered a legacy insecticide.

Iron results exceeded the NYSDEC groundwater standard at MW-1 (0.79 mg/L); the NYSDEC groundwater standard for iron is 0.3 mg/L.

- Emerging Contaminants and Radon Sampling Report (LiRo Engineers, Inc., February 2018)

Analytical data regarding emerging contaminants Per- and Polyfluoroalkyl substances (PFAS) and 1,4-dioxane sampling is provided in the LiRo Engineers, Inc., report of February 2018. Groundwater samples collected from monitoring well MW-01 during the 2018 investigation showed no detectable 1,4-dioxane at or above the reporting limit of 0.25 ug/L. The sample from MW-01 exhibited PFOA results of 11 nanograms per liter (ng/L), which exceeds the PFOA screening level of 10 ng/L. The sample from MW-01 exhibited PFOS results of 5.3 ng/L, which is below the Maximum Contaminant Level (MCL) of 10 ng/L. Total PFAS measured 32.64 ng/L in MW-01.

2.3.2 Lot B Site Characterization Results

- Environmental Site Assessment Summary Report – November 7, 2006 (Tim Miller Associates, Inc.)

Sampling on Lot B was initially performed in 2004 in support of a Phase I Environmental Site Assessment (Tim Miller Associates, Inc., September 24, 2004). Six (6) soil borings (B-1 through B-6) were drilled and soil samples were collected between 3 and 8 feet in depth. Sample locations are presented on Figure 3. Soil samples were analyzed for volatile organic compounds (VOCs) via USEPA Method 8260, semi-

volatile organic compounds (SVOCs) via USEPA Method 8270, RCRA 8 metals, and pesticides via USEPA Method 8081. Results of sample analysis on Lot B are presented in Table 2. No VOCs, SVOCs, metals or pesticides were detected at levels above NYSDEC's SCOs for Residential Use.

Groundwater was encountered between 3.5 to 10 feet below ground surface (bgs). One (1) groundwater sample was collected and analyzed for VOCs. No VOCs were detected above applicable NYSDEC groundwater standards (TOGS).

A Phase II Environmental Assessment was subsequently conducted in November 2005 (Tim Miller Associates, Inc., December 7, 2005). Four (4) sediment samples were collected from two (2) onsite ponds (Ponds 1 and 2) and analyzed for VOCs, SVOCs, and metals. Sample locations are presented on Figure 3 and analytical results are provided in Table 2. No VOCs were detected above Unrestricted SCOs. One (1) sediment sample collected from Pond 1 (Sed-1) contained SVOCs above Residential SCOs. Two (2) Pond 1 sediment samples (Sed-1 and Sed-4) contained barium, cadmium, chromium, lead, mercury and silver above Residential SCOs. Sediment samples from Pond 2 (Sed-2 and Sed-3), the former sand filter bed, contained mercury above Residential SCOs.

Additional soil and sediment sampling was performed in December 2005 (Tim Miller Associates, Inc., December 29, 2005) to further characterize the sediment in Pond 2 and to determine if any metals or SVOCs were present in the subsurface surrounding select WWTP structures. Soil borings were advanced at four (4) locations (B-8 through B-11) and samples were collected between 5 and 8 feet in depth. Soil samples were analyzed for SVOCs and metals. No SVOCs were detected above Residential SCOs. Soil samples from B-8 contained chromium and B-11 contained chromium and mercury above Unrestricted SCOs and below Residential SCOs.

Nine (9) sediment samples (Sed-6A, Sed-6B, Sed-6C, Sed-7A, Sed-7B, Sed-7C, Sed-8A, Sed-8B, and Sed-8C) were collected from Pond 2 and one (1) sediment sample (Sed-5) was collected from a former sludge drying bed in the southwestern part of the Site. Sediment samples were analyzed for metals. Cadmium and mercury were detected above Residential SCOs at three locations.

- Supplemental Soil and Sediment Sampling (Tim Miller Associates, Inc., March 30, 2006)

Sampling was conducted in March 2006 to characterize sediment in two (2) concrete primary clarifier structures (Figure 3). One (1) sediment and surface water sample were collected in each of Primary Tanks 1 and 2 and analyzed for VOCs, SVOCs, and metals and the results are presented in Table 2. The water samples (Tank Water 1 and Tank Water 2) did not contain any compounds above detection limits. Sediment samples (Tank 1 and Tank 2) contained methyl ethyl ketone (MEK) above Unrestricted SCOs while no SVOCs exceeded Unrestricted SCOs. Sediment samples from Primary Tank 1 contained arsenic, cadmium and mercury above Residential SCOs and sediment samples from Tank 2 contained barium, cadmium, chromium, silver and mercury above Residential SCOs.

- Additional Soil and Groundwater Sampling, Lot 3, Morgan Drive Property (Tim Miller Associates, Inc., December 31, 2007)

In November 2007, additional soil and groundwater sampling was conducted on Lot B. Three (3) borings (B-1, B-2, and B-3 (formerly W-2)) were drilled and three (3) shallow groundwater monitoring wells (W-1, W-4, and W-5) were installed, as shown on Figure 3. Soil samples were collected at depths of 2 to 4 feet and 6 to 8 feet bgs. Soil samples were screened with a photoionization detector (PID) and no evidence of VOCs, staining, odors, or any other evidence of a past release from the onsite treatment structures was observed. Soil samples were analyzed for SVOCs and metals and soil samples from B-1 were also analyzed

for VOCs. No VOCs or SVOCs were detected above Unrestricted SCOs. Chromium and mercury were detected above Unrestricted SCOs and below Residential SCOs.

Groundwater samples were analyzed for SVOCs and metals. Only one (1) groundwater sample contained one (1) SVOC above laboratory detection limits. No metals were detected. This additional sampling led to the conclusion that sediment contained in the concrete structures onsite has not migrated or impacted the soil and groundwater on the Site.

- Additional Deep Boring Sampling, Morgan Drive Property/Buckingham Property – Lot 3 (Tim Miller Associates, Inc., March 24, 2008)

On March 17, 2008, two (2) additional borings (B-12 and B-13) were drilled to a depth of 12 feet bgs downgradient of Pond 2 (Figure 3). Limited constituents were found at depth and the area is capped by 10 feet of clean soil. Soil samples collected from 10 to 12 feet bgs were analyzed for SVOCs and RCRA 8 metals (Table 2). No SVOCs were detected above Unrestricted SCOs. Cadmium, and mercury were detected above Residential SCOs.

Following consultation with the NYSDEC and NYCDEP, STERLING conducted a supplemental investigation in 2014, summarized below.

- WWTP Remedial Investigation/Feasibility Study (RI/FS) – Sterling Environmental Engineering, P.C., October 3, 2014

Shallow Soil Borings

Soil conditions on Lot B were investigated by installation of 6 shallow soil borings at the locations shown on Figure 3. Surface soil samples were first collected at these locations. The vegetative cover, including root zone, was removed and a soil sample was collected from the remaining top two (2) inches. These samples were analyzed for the full Target Compound List/Target Analyte List (TCL/TAL) parameters.

Soil samples were collected continuously at each boring location down to the water table and logged using the Unified Soil Classification System by STERLING.

At each boring location, three (3) soil samples were submitted for laboratory analysis (Full TCL/TAL parameters). Once the vegetative cover, including root zone, was removed, the "A" soil sample was collected from the upper two (2) inches. Additionally, one (1) grab soil sample was collected at each boring from the "B" zone, which was one (1) foot below grade. The third grab soil sample was collected from the "C" zone at various depths above the water table and was selected at the interval with the most elevated PID headspace readings and/or from visual and olfactory observations indicating the greatest potential impact.

All samples were analyzed following New York State ASP Category B deliverables, in accordance with DER-10. Results of the analysis are summarized in Table 2. The results confirm that Unrestricted SCOs were exceeded for one or more parameters at each of the 6 locations in one or more of the samples obtained at the boring.

Residential SCOs were exceeded at two locations. Sample SS-3C contained trivalent chromium at 36.5 ppm and SS-5C contained trivalent chromium at 36.8 ppm; both samples slightly exceeded the Residential SCO of 36 ppm. Additionally, sample SS-5A contained lead at 4,810 ppm, above the Residential SCO of 400 ppm.

Soil / Sediments

Soil samples were obtained from Sludge Drying Beds 1 and 2 and sediment samples were obtained from Pond 1 and Pond 2 (Figure 3). No exceedance of Unrestricted or Restricted Residential SCOs were observed for 2014 soil/sediment samples collected from Sludge Drying Beds 1 and 2.

As detailed in Table 2, historical exceedances of Residential SCOs in Pond 1 were from 2005 results for metals and SVOCs. The 2014 sediment samples (P1-1 and P1-2) were collected within 10 feet of 2005 samples collected from Pond 1 (Figure 3). Although the samples were collected in close proximity to the 2005 Pond 1 samples, the inorganic results were not replicated in the 2014 sampling event as no analyte (except PCBs) exceeded Unrestricted or Residential SCOs. The only 2014 Pond 1 sediment results to exceed the Residential SCOs were at sediment sample P1-1 for PCB Aroclors 1254 and 1260.

The soils and sediments in Pond 2 were sampled and characterized. Sediments in Pond 2 were sampled for TCL/TAL parameters with the analytical results summarized in Table 2. 2014 sediments in Pond 2 were found to be contaminated with mercury in excess of Unrestricted SCOs while below Residential SCOs.

According to as-built drawings of the WWTP, Pond 2 is unlined. Pond 2 contains a 2 feet 9 inch sand base over 6 inches of gravel. Soil to a depth of two (2) feet below the base of the Pond 2 filter bed was also sampled. Soil samples were analyzed for full TCL/TAL and found to be contaminated with mercury in excess of the Unrestricted SCOs at one location but below the Residential SCOs.

Soil/sediment samples could not be obtained from the sprinkling filter bed and Primary Tanks 1 and 2.

Liquids

Surface water in Ponds 1 and 2 and liquids (predominantly water) from Primary Tanks 1 and 2 were sampled and characterized for full TCL/TAL parameters to determine whether these structures had been impacted by Site operations. Two (2) surface water samples from Ponds 1 and 2 and a liquid sample from Primary Tanks 1 and 2 were also sampled for disposal characterization to determine if discharge to the local municipal sewers is feasible, if warranted. Results from these analyses are shown in Table 4. Water quality standards set forth in TOGS were not exceeded for aqueous samples collected from Primary Tanks 1 and 2 or Ponds 1 and 2. The onsite liquids were also within the discharge limits enforced by Westchester County at the time of sampling.

TCLP Data

Solids in the sludge drying beds and Sediments from Pond 1 and Pond 2 (P1-1, P1-2, P2-1, and P2-2) and two (2) solids samples were collected at each sludge drying bed and analyzed for waste disposal characteristics to determine if remaining contents of the WWTP structures will leach to groundwater.

The Pond sediments and Sludge Drying Beds solids were tested for characteristic wastes (corrosivity, ignitability, and reactivity) and select parameters (TCLP VOCs, TCLP SVOCs, TCLP Metals, TCLP Pesticides, select TCLP herbicides, and PCBs) and compared to NYSDEC's Universal Treatment Standards as set forth in 6 NYCRR Part 376.4(j). The pH ranged from 5.38 standard units (s.u.) to 6.58 s.u. which indicates that the subject samples are outside the corrosivity range ($pH \leq 2.0$ or ≥ 12.5 s.u.) and are deemed acceptable. Flashpoint results were all greater than 176ºF, indicating each sample was acceptable for ignitability characteristics. Hazardous waste characteristics of reactive cyanide and reactive sulfide were mostly non-detect or negative for reactivity, with the exception of 40.8 mg/kg of reactive sulfide at one sample collected from Sludge Drying Bed 1 (SDB1-2) that is positive.

TCLP results for VOCs, SVOCs, metals, pesticides, and herbicides and PCB solid results documented no exceedances when compared to the applicable and appropriate Universal Treatment Standard, with one exception of a slight exceedance of cadmium at one of the samples collected from Sludge Drying Bed 2 (0.16 mg/L at SBD 2-2).

Groundwater

Groundwater levels vary from 2.25 feet below ground surface (bgs) to greater than 21 feet bgs (not encountered). The variation in groundwater elevations may be due to the heterogeneity of the onsite soils. Groundwater flow is to the northwest towards the wetlands adjacent to an unnamed stream and the Kisco River (Figure 4). On Lot B, two (2) existing groundwater wells were sampled (MW-4 and MW-5).

All unfiltered groundwater samples collected were submitted to TestAmerica, Inc. and analyzed for Full Target Compound List (TCL)/Target Analyte List (TAL) parameters. No filtered samples were collected due to the lack of available groundwater. All samples were analyzed following New York State ASP Category B deliverables, in accordance with DER-10. Groundwater results are presented in Table 3.

Volatile Organic Compounds (VOCs)

No VOCs were detected, except for acetone which is a common laboratory artifact.

Semi-Volatile Organic Compounds (SVOCs), Herbicides, and Polychlorinated Biphenyls (PCBs)

No Herbicides or PCBs were detected. No SVOCs were detected with the exception of caprolactam, and two compounds detected at an estimated value below the reporting limit.

Pesticides

All groundwater results for pesticides were either non-detect or were below their respective groundwater standard.

Inorganics (Metals)

Exceedances of the groundwater standards at MW-4 were found for Iron and Manganese. Exceedances at MW-5 consisted of cadmium, chromium, iron, lead, and vanadium.

No other metals were detected or, if detected, were below their respective groundwater standard.

- Emerging Contaminants and Radon Sampling Report (LiRo Engineers, Inc., February 2018)

Groundwater samples collected from monitoring wells MW-04 and MW-05 were analyzed for Radium-226 by USEPA Method 903.1, and Radium-228 by USEPA Method 904.0. Analytical results are provided in the Liro Engineers, Inc. report provided in Appendix B. Laboratory results were compared to New York State Ambient Water Quality Standards (AWQS) for Class GA groundwater, Division of Water Technical and Operational Guidance Series (TOGS 1.1.1). The samples exhibited levels below their respective Class GA AWQS for Radium-226 and Radium-228. Total Radium-226 ranged from 0.242 to 0.314 picocuries per liter (pCi/L) and dissolved Radium-226 measured 0.949 pCi/L. Total Radium-228 ranged from -0.537 to 0.548 pCi/L and dissolved Radium-228 ranged from 0.257 to 0.370 pCi/L.

Groundwater samples collected from monitoring wells MW-04 and MW-05 were analyzed for 1,4-dioxane by USEPA Method 522, and PFAS by USEPA Method 537. Laboratory results were screened against the

New York State Drinking Water Quality Council Recommended Maximum Contaminant Levels for PFOA, PFOS and 1,4-dioxane (December 2018). The 1,4-dioxane results were all not detected at or above the adjusted reporting limit of 0.25 ug/L. The sample from MW-05 exhibited PFOA results of 18 ng/L which exceed the PFOA screening level of 10 ng/L. The samples from MW-04 and MW-05 exhibited PFOS results of 17 and 16 ng/L, respectively, exceeding the PFOS screening level of 10 ng/L. Total PFAS measured 44.44 ng/L and 58.70 ng/L in MW-04 and MW-05, respectively.

2.4 Radiological Impacts

In addition to the above investigations, the entire Site was studied in 2019 and 2020 to determine if there were radiological impacted areas. From 1913 until 1964, the WWTP received sewage from the Village of Mt. Kisco including the Canadian Uranium and Radium Corporation facility located approximately 3 miles north of the plant. This led to elevated concentrations of radium-226 and thorium-230 being deposited in numerous locations across the property. To study the problem, in 2019, the NYCDEP and CoPhysics Corporation performed gamma radiation measurements over the entire property to estimate the magnitude and areal extent of radium contamination. The radiological studies are provided in Appendix B.

The results of the 2019 surface radiation survey showed that Lot A had no detectable radioactive contamination.

In 2020, a final status survey (FSS) of Lot A was performed so that it could be released from radiological safety controls and developed. The FSS extended the original surface survey by performing additional surface readings, collecting and analyzing sub-surface soil samples, and performing a more in-depth statistical analysis to prove that the lot is free of any residual radioactive contamination. The radiation measurements and the analysis of results were performed per the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM).

In addition to performing a standard FSS of Lot A, additional assessment of the soil near the Lot B elevated area was conducted to determine if any radionuclide migration had occurred. Sub-surface measurements and soil sampling were performed on the Lot A-B boundary nearest to the Lot B elevated area. These results are all indicative of normal unaffected soil. The elevated area of radioactivity on Lot B (near Morgan Drive) has not affected the soil in Lot A. Furthermore, the levels of radiation emitted by the Lot B elevated area are not immediately hazardous to health.

The results of these tests show that no elevated levels of radioactivity exist on Lot A. The elevated area of radioactivity on Lot B has not affected the soil in Lot A. All readings throughout Lot A are indicative of normal, natural background radiation levels. Therefore, the survey report recommended that the NYSDEC release Lot A from any radiological controls. By its February 18, 2021 letter, the NYSDEC concurs that there are no radiological impacts present on Lot A that would require remediation to protect public health and the environment.

3.0 INTERIM REMEDIAL MEASURES

The Final Status Survey on Lot A recommended the installation of a fence between Lot A and Lot B to prevent contact with potential radiological contamination on Lot B during and after development of Lot A. An IRM Work Plan was developed and the temporary fence installation was completed on May 25, 2022, with plans for a permanent fence to be installed at a later date.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The entire Site inclusive of Lots A and B has been fully characterized with respect to hazardous waste constituents. Based on the available data, summarized above, only one (1) of 19 soil samples collected from seven (7) locations on Lot A exhibited minor exceedances of Residential Use SCOs, and no samples exceeded Commercial Use SCOs. Several exceedances of Commercial Use SCOs have been found in the former WWTP structures on Lot B. Lot A has been fully characterized from a radiological standpoint and no elevated levels of radioactivity have been found. Lot B has confirmed radiological impacts that will need further investigation. Based on these findings, there is no need for remedial action on Lot A, and as such, no further action is recommended. However, a remedial investigation to fully delineate the extent of radiological contamination present on Lot B will be conducted at a future date.

An IRM for fence installation has been completed to prevent contact with potential radiological contamination from Lot B during and after development of Lot A. Following completion of the fence installation IRM, removal of Lot A from the NYSDEC Consent Order with Radio City Ventures is recommended.

5.0 SEQUENCE AND SCHEDULE

The following tasks are required to complete the subdivision of Lot A and B.

Tasks	Estimated Completion
Submit SCR for Lots A and B for NYSDEC/NYCDEP review	December 2021- Complete
Receive NYSDEC Comments	April 2022 - Complete
Address NYSDEC/NYCDEP Review Comments, Resubmit SCR for Approval	July 2022
Submit IRM Work Plan for fence installation	April 2022 – Complete
Receive NYSDEC/NYCDEP Comments	May 2022 -Complete
Address NYSDEC/NYCDEP comments, resubmit IRM Work Plan	May 2022 – Complete
Install Temporary Fence at Site	May 25, 2022 - Complete
No Further Action letter for Lot A, remove Lot A from Consent Order	July 2022

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FIGURES

MAP REFERENCE: NYSDOT MOUNT KISCO QUADRANGLE, 1990, OSSINING QUADRANGLE, 1991.

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Sterling Environmental Engineering, P.C.

24 Wade Road ♦ Latham, New York 12110

SITE LOCATION MAP

RADIO CITY VENTURES, LLC

MORGAN DRIVE

VILLAGE OF MOUNT KISCO — WESTCHESTER CO., N.Y.

PROJ. No.: 2013-36	DATE: 10/16/13	SCALE: 1" = 2000'	DWG. NO. 2013-36001	FIGURE 1

Proposed Land Area Schedule:	
PARCEL A	2.670 Acres
PARCEL B	3.046 Acres
TOTAL AREA	5.716 Acres

WESTCHESTER COUNTY DEPARTMENT OF HEALTH

Mount Kisco, New York

Approved pursuant to Chapter 873, Article X, Sections 873.951 and 873.1021 of the Westchester County Sanitary Code subject to the provision of public water supply and public sanitary sewer facilities to serve all structures intended for human occupancy constructed herein.

Each purchaser of property shown hereon shall be furnished a true copy of this plat showing this endorsement. Any erasures, changes, additions or alterations of any kind, except the addition of signatures of other approving authority and the date thereof made on this plan after this approval, shall invalidate this approval.

Approved by the Assistant Comissioner of Health on behalf of the Department of Health — Date

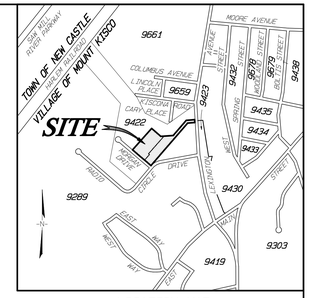
Approved by Resolution of the Town of Mount Kisco Planning Board.

Chairman — Date

Approved for filing in the Westchester County Clerk's Office, Division of Land Records:

Date

Richard Breck
Radio City Ventures, LLC
c\o Reynolds & Rowella
90 Grove St., Suite 101
Ridgefield, CT 06877



LOCATION MAP

SCALE: 1"=1,000'

Notes:

1) Premises shown hereon located in the RDX (Research and Development District) Zone in the Village and Town of Mount Kisco.
2) Premises shown hereon known and designated as Section 80.55 Block 1 Lot 2.1/1 on the Village of Mount Kisco Tax Maps.
3) Additional underground easements, utilities or structures, etc. other than those shown hereon may be encountered.
4) Unauthorized alterations or additions to this drawing is a violation of Section 7209 (2) of the New York State Education Law.
5) Wetland Delineated on August 23, 2019 by:
Steven Marino P.W.S.
Tim Miller Associates, Inc.
10 North Street
Cold Spring, N.Y. 10516
(845) 265-4400
6) Property shown hereon is subject ot the "Rules and Regulations for the protection from the contamination of the New York city water supply and its sources"
7) Elevations shown hereon are in accordance with the official Village and Town of Mount Kisco Datum.
8) Address: 2 Morgan Drive, Mt Kisco N.Y. 10549
9) Trees shown hereon were located January 17, 2014.

NET LOT AREA CALCULATION

		Existing	Parcel A	Parcel B
A	Gross Lot Area	5,716 Ac. 249,000 s.f.	2,670 Ac. 116,300 s.f.	3.046 Ac. 132,700 s.f.
B	Area Containing Steep Slopes >25%	16,037 s.f.	4,991 s.f.	11,046 s.f.
C	Area Containing Slopes >20-<25%	4,465 s.f.	2,895 s.f.	1,570 s.f.
D	50% of Line B	8,019 s.f.	2,496 s.f.	5,523 s.f.
E	25% of Line C	1,116 s.f.	724 s.f.	393 s.f.
F	Area Containing Wetlands	2,833 s.f.	0 s.f.	2,833 s.f.
G	Area Containing lakes, ponds, streams or other surface water	12,236 s.f.	1,405 s.f.	10,831 s.f.
H	50% of Line F	1,417 s.f.	0 s.f.	1,417 s.f.
I	100% of Line G	12,236 s.f.	1,405 s.f.	10,831 s.f.
J	Net Lot Area (Line A minus Lines D, E, H and I)	226,212 s.f.	111,675 s.f.	114,536 s.f.

Area Containing Steep Slopes >25%
Area Containing Slopes >20-<25%
Area Containing Slopes >15-<20%

RDX BULK ZONING REQUIREMENTS

RDX Bulk Zoning Requirements	Required	Existing	Proposed Parcel A	Proposed Parcel B
Min. Net Lot Area	40,000 s.f.	226,212 s.f.	111,675 s.f.	114,536 s.f.
Max. Building Coverage	35%	13%	31%	-
Max. Development Coverage	70%	14%	41%	-
Min. Lot Width	100 feet	415.56'	125'	260.56'
Min. Lot Depth	100 feet	493.72'	634.28'	493.72'
Setback - Abutting Nonresidential Zoning District				
Building Setback Front	30 feet	47.7'	170.8 feet	N.A.
Building Setback Rear	50 feet	~9.9'	53.4 feet	N.A.
Building Setback Side	20 feet	50.8'	20.7 feet	N.A.
Buffer Front	20 feet	20 feet	75.2 feet	N.A.
Buffer Rear	20 feet	0 feet	32.2 feet	N.A.
Buffer Side	20 feet	20 feet	20.7 feet	N.A.
Building Height	40 feet	N.A.	38.5 feet	N.A.

* No development abutting residential district

FINAL SUBDIVISION PLAT
PREPARED FOR
RADIO CITY VENTURES, LLC

Being Lot 3 as shown on a certain map entitled "Final Plat Lot Line Change Prepared for Crème de la Crème (Mt. Kisco), Inc. and Sanctuary Ventures, L.L.C., etc." Said map filed in the Westchester County Clerk's Office, Division of Land Records: November 4, 2009 as Map No. 28290.

SITUATE IN THE
VILLAGE AND TOWN OF MOUNT KISCO
WESTCHESTER COUNTY, NEW YORK

SCALE: 1" = 30'

0 30 60 90

SHEET 159 BLOCK 9422 IN COUNTY INDEX SYSTEM

Revised: March 8, 2021
Revised: February 9, 2021
Revised: May 1, 2020 to modify Net Lot Area Calculation.
Revised: April 24, 2020 to show wetlands only.
Revised: April 16, 2020

We, H. Stanley Johnson and Company, Land Surveyors, P.C., the surveyors who made this map, do hereby certify that the survey upon which this map is based was completed January 17, 2014 and that this map was completed February 29, 2020.

BY: _____
NEW YORK STATE LICENSED LAND SURVEYOR NO. 50037
ROBERT S. JOHNSON, P.L.S.

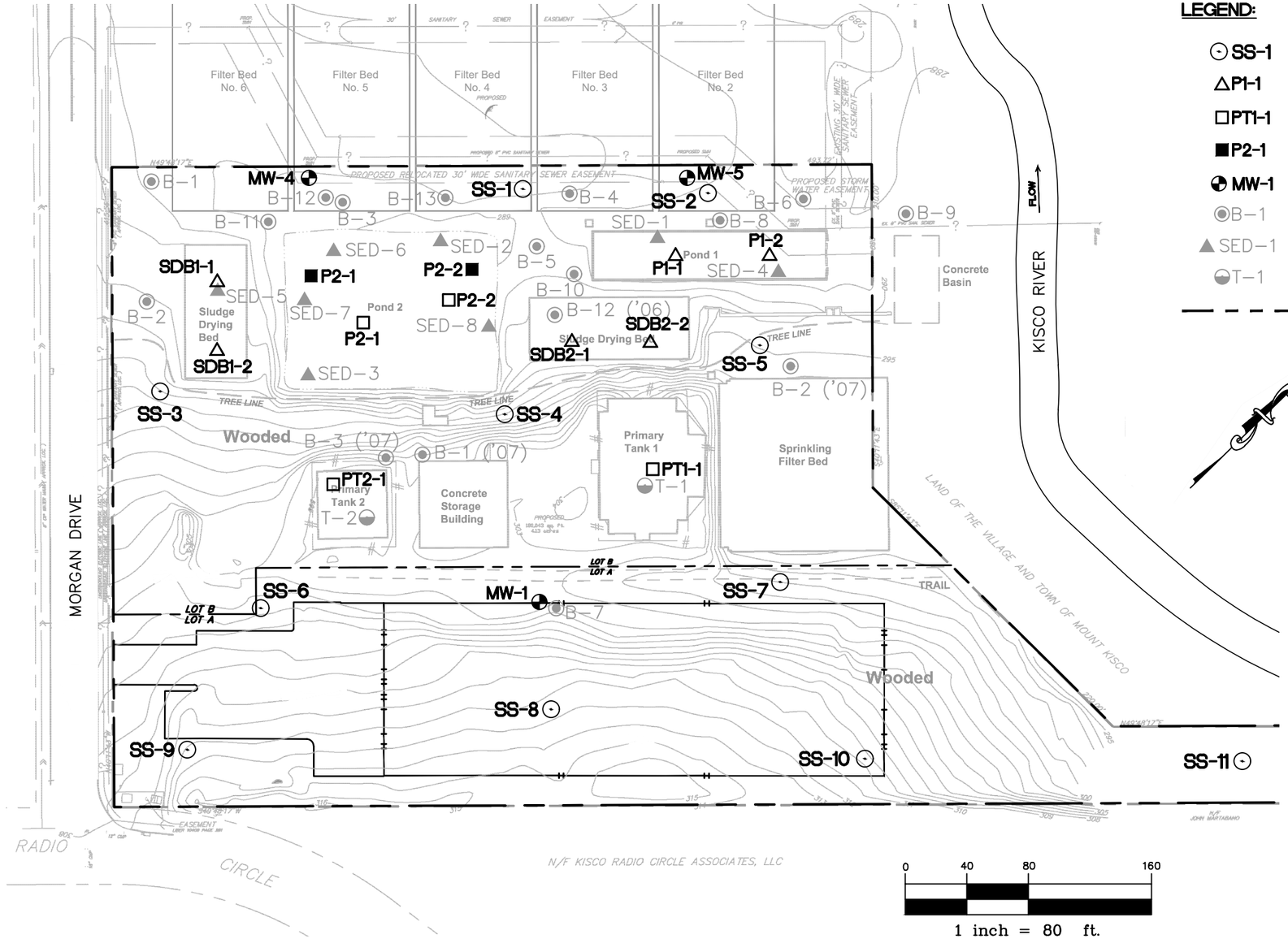
LICENSED LAND SURVEYOR — ROBERT S. JOHNSON — No. 50037 — STATE OF NEW YORK

H. STANLEY JOHNSON AND COMPANY
LAND SURVEYORS, P.C.
42 SMITH AVENUE P.O. BOX 93
MT. KISCO, N.Y. 10549
TEL. 914-241-3872
FAX. 914-241-0438

DATA: F03-017

PREPARED BY: JRJ CHECKED BY: RSJ

JOB No. F19-088.02_SD



LEGEND:

⊙ SS-1	2014 SOIL BORING SAMPLE LOCATION
△ P1-1	2014 SEDIMENT/AQUEOUS SAMPLE LOCATION
□ PT1-1	2014 SURFACE WATER SAMPLE LOCATION
■ P2-1	2014 SEDIMENT/SOIL SAMPLE LOCATION
◕ MW-1	MONITORING WELL SAMPLE LOCATION
◉ B-1	SOIL BORING SAMPLE LOCATION
▲ SED-1	SEDIMENT SAMPLE LOCATION
◒ T-1	SEDIMENT/SURFACE WATER SAMPLE LOCATION
— — —	PROPERTY BOUNDARY

0 40 80 160

1 inch = 80 ft.

DRAWING REFERENCES:

1. BASE DRAWING FROM DRAWING ENTITLED "SITE PLAN" BY TIM MILLER ASSOCIATES, INC.,WITH A PLOT STAMP DATE OF 8/27/13.
2. 2006 SAMPLE LOCATIONS FROM DRAWING ENTITLED "SITE PLAN WITH SAMPLING LOCATIONS" BY TIM MILLER ASSOCIATES, INC., WITH A PLOT STAMP OF 05/18/06.
3. 2007 SAMPLE LOCATIONS FROM DRAWING ENTITLED "ADDITIONAL SAMPLING LOCATIONS" BY TIM MILLER ASSOCIATES INC., DATED 11/7/2007.
4. 2008 SAMPLE LOCATIONS FROM SKETCH ENTITLED "ADDITIONAL DEEP BORING SAMPLING LOCATIONS" BY TIM MILLER ASSOCIATES, INC., DATED 3/24/2008.

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SAMPLING LOCATIONS MAP

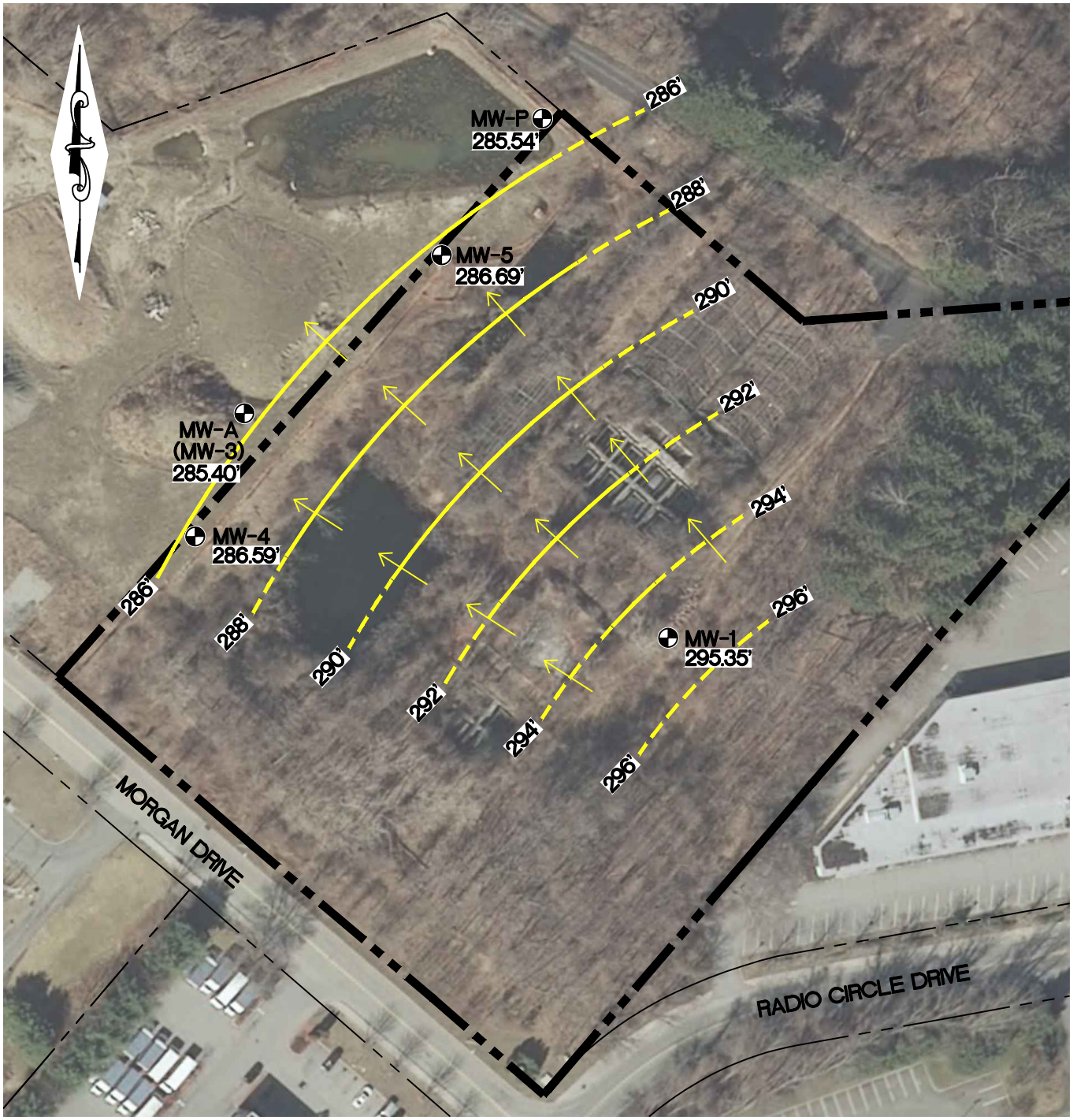
2 MORGAN DRIVE

RADIO CITY VENTURES, LLC

VILLAGE OF MOUNT KISCO WESTCHESTER CO., N.Y.

PROJ. No.:	DATE:	SCALE:	DWG. NO.	FIGURE
2018–39	06/16/2020	1" = 80'	2018–39014	3

S:\Sterling\Projects\2018 Projects\Mt Kisco - Thuesen Mechanical - 2018-39\Drawings-Maps-Figures\ACAD\2018-39014_F-3 - SampleLoc.dwg,3/25/2021 3:09 PM



LEGEND:

APPROXIMATE PROPERTY BOUNDARY

MW-1 295.35' MONITORING WELL LOCATION W/ GROUNDWATER ELEVATION (MARCH 10, 2014)

288' GROUNDWATER ELEVATION CONTOUR; DASHED WHERE INFERRED

GROUNDWATER FLOW DIRECTION

0 50 100 200

1 inch = 100 ft.

MAP REFERENCE: NEW YORK STATEWIDE DIGITAL ORTHOIMAGERY PROGRAM, PHOTOGRAPHY CIRCA 2009

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GROUNDWATER CONTOUR MAP (MARCH 10, 2014)

RADIO CITY VENTURES, LLC

MORGAN DRIVE

VILLAGE OF MOUNT KISCO WESTCHESTER CO., N.Y.

PROJ. No.:	DATE:	SCALE:	DWG. NO.	FIGURE
2013-36	01/18/2016	1" = 100'	2013-36015	5

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TABLES

Table 1

Summary of Exceedances on Lot A
(2004 - 2014)
Morgan Drive, Mount Kisco, New York

	Protection of GW SCO[2]	Unrestricted SCO[1]	Residential SCO[2]	Restricted Residential SCO[2]	Commercial Use SCO[2]	2004	2014																	
						B-7 @ 0.5-1.5'	SS-6A	SS-6B	SS-6C	SS-7A	SS-7B	SS-7C	SS-8A	SS-8B	SS-8C	SS-9A	SS-9B	SS-9C	SS-10A	SS-10B	SS-10C	SS-11A	SS-11B	SS-11C
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Trivalent Chromium (SM 3500 CR D) mg/kg																								
Cr (III)	---	30	36	180	1500	---	19.3 J	15.9 J	23.2 J	14.7 J	20.3 J	17.3 J	15.1 J	20.3 J	18.1 J	29.3 J	24.3 J	21.7 J	21.2 J	20.8 J	24.3 J	15.0 J	**32.1 J**	19.3 J
METALS (6010C, 3050B) mg/kg																								
Chromium (Total)	19	1	58	290	1900	**70**	U	---	---	**---**						---	---	---						
Lead, Total Recoverable	450	63	400	400	1000	---	15.5	15.2	29.7	36.9	48.1	2.9	38.1	20.1	4.2	8.9	7.2	8.6	46.2	19.3	4.6	**64.7**	10.3 JH	4.4
Mercury (7471B, 7471B_PREP) mg/kg																								
Mercury, Total Recoverable	0.73	0.18	0.81	0.81	2.8	---	**0.26 JH,B**	0.15 JH,B	0.11 JH,B	0.12 JH	0.087 JH	0.016 U	0.12 JH	0.061 JH	0.048 JH	0.067 JH,B	0.041 U,B	0.037 U,B	**0.19 JH**	0.065 JH	0.0084 U	0.084	0.061	0.038 U
Pesticides (8081B, 3550C) mg/kg																								
4,4'-DDE	17	0.0033	1.8	8.9	62	---	0.0045 J	0.0015 J	**0.0064 J**	0.002 U	0.00049 J	0.00039 U	0.0026 J	0.001 J	0.00039 U	**0.0061 J**	**0.0035 J**	0.00038 U	**0.0052 J**	0.00043 U	0.0007 J	**0.01 J**	0.00075 J	0.00084 J
4,4'-DDT	136	0.0033	1.7	7.9	47	---	0.0024 U	0.0019 U,B	**0.0093** U,B	**0.0043 J**	0.00097 J	0.00043 U	**0.0052 J**	0.0008 J	0.00043 U	0.0048 U	0.0022 U	0.00042 U	**0.0066 J**	0.00093 J	0.00043 U	**0.013 J**	0.00082 J	0.00093 J

Notes
[1] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(a), Unrestricted Use.
[2] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(b), Restricted Use.
Values in **BOLD** and highlighted in yellow indicate an exceedance of Unrestricted SCOs.
Values in **BOLD** and highlighted in pink indicate an exceedance of Residential SCOs.
--- Sample not analyzed or not detected.
U - Undetected at the Method Detection Limit.
JH = Indicates estimated biased high.
J - Result is less than the Reporting Limit but less than or equal to the Method Detection Limit and the concentration is an approximate value.
B - Compound was found in the blank and sample.
Qualifiers in Red were modified based on Data Validation Review (performed by Vali-Data of WHY, LLC).

Table 2

Summary of Exceedances on Lot B
Soil and Sediment (2004 - 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] mg/kg	Residential SCO[2] mg/kg	Restricted Residential SCO[2] mg/kg	Commercial Use SCO[2] mg/kg	Protection of GW SCO[2] mg/kg	2004		2005					
						B-5 @ 4-6' West of Pond 1 Soil	B-6 @ 7-8' North of Pond 1 Soil	B-8 @ 6-8' North of Pond 1 Soil	B-11 @ 6-8' Northwest of Pond 2 Soil	SED-1 Pond 1 (NW) Sediment	SED-2 Pond 2 (NE) Sediment	SED-3 Pond 2 (SW) Sediment	SED-4 Pond 1 (SE) Sediment
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg													
Acetone	0.05	100	100	500	0.05	U	U	U	U	U	U	U	U
Methyl Ethyl Ketone	0.12	100	100	500	0.12	U	U	U	U	U	U	U	U
Semi-Volatile Organic Compounds (8270) mg/kg													
Benz(a)anthracene	1	1	1	5.6	1	U	U	U	U	**1.01**	U	U	U
Benzo(b)fluoranthene	1	1	1	5.6	1.7	U	U	U	U	**1.95**	U	U	U
Chrysene	1	1	3.9	56	1	U	U	U	U	**1.44**	U	U	U
Trivalent Chromium (SM 3500 CR D) mg/kg													
Cr (III)	30	36	180	1500	---	U	U	U	U	U	U	U	U
METALS (6010C, 3050B) mg/kg													
Arsenic	13	16	16	16	16	U	U	U	U	U	U	U	U
Barium	350	350	400	400	820	U	U	U	96.6	**929.0**	336.0	105.0	**1970.0**
Cadmium	2.5	2.5	4.3	9.3	7.5	U	U	U	U	**5.25**	U	U	**20.7**
Chromium, Total	1	58	290	1900	19	**34**	U	**32.9**	**30.5**	**125.0**	**20.5**	**22.7**	**279.0**
Lead, Total Recoverable	63	400	400	1000	450	U	U	5.5	10.7	**321.0**	29.0	53.3	**573.0**
Nickel, Total Recoverable	30	140	310	310	130	U	U	U	U	U	U	U	U
Selenium	3.9	36	180	1500	4	U	U	U	U	U	U	U	U
Silver	2	36	180	1500	8.3	U	U	U	U	**51.0**	**2.18**	**1.81**	**59.1**
Mercury (7471B, 7471B_PREP) mg/kg													
Mercury, Total Recoverable	0.18	0.81	0.81	2.8	0.73	U	**0.22**	U	**0.22**	**21.1**	**0.89**	**1.14**	**33.8**
Pesticides (8081B, 3550C) mg/kg													
4,4'-DDE	0.0033	1.8	8.9	62	17	U	U	U	U	U	U	U	U
4,4'-DDT	0.0033	1.7	7.9	47	136	U	U	U	U	U	U	U	U
Endrin	0.014	2.2	11	89	0.06	U	U	U	U	U	U	U	U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg													
PCB-1254	0.1	1	1	1	3.2	U	U	U	U	U	U	U	U
PCB-1260	0.1	1	1	1	3.2	U	U	U	U	U	U	U	U

Notes

[1] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(a), Unrestricted Use.

[2] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(b), Restricted Use.

Values in **BOLD** and highlighted in yellow indicate an exceedance of Unrestricted SCOs.

Values in **BOLD** and highlighted in pink indicate an exceedance of Unrestricted SCOs and Residential SCOs.

--- Sample not analyzed or not detected .

U - Undetected at the Method Detection Limit.

J - Result is less than the Reporting Limit but less than or equal to the Method Detection Limit and the concentration is an approximate value.

UJ = Indicates the undected value is estimated.

JH = Indicates estimated biased high.

B - Compound was found in the blank and sample.

Qualifiers in Red were modified based on Data Validation Review (performed by Vali-Data of WHY, LLC).

Table 2

Summary of Exceedances on Lot B
Soil and Sediment (2004 - 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] mg/kg	Residential SCO[2] mg/kg	Restricted Residential SCO[2] mg/kg	Commercial Use SCO[2] mg/kg	Protection of GW SCO[2] mg/kg	2005										2006	
						SED-5 Sludge Drying Bed 1 Sediment	SED-6A Pond 2 (NW) Sediment	SED-6B Pond 2 (NW) Sediment	SED-6C Pond 2 (NW) Sediment	SED-7A Pond 2 (W) Sediment	SED-7B Pond 2 (W) Sediment	SED-7C Pond 2 (W) Sediment	SED-8A Pond 2 (E) Sediment	SED-8B Pond 2 (E) Sediment	SED-8C Pond 2 (E) Sediment	TANK SOIL 1 Primary Tank 1 Soil	TANK SOIL 2 Primary Tank 2 Soil
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg																	
Acetone	0.05	100	100	500	0.05	U	U	U	U	U	U	U	U	U	U	U	U
Methyl Ethyl Ketone	0.12	100	100	500	0.12	U	U	U	U	U	U	U	U	U	U	**0.269**	**0.614**
Semi-Volatile Organic Compounds (8270) mg/kg																	
Benz(a)anthracene	1	1	1	5.6	1	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)fluoranthene	1	1	1	5.6	1.7	U	U	U	U	U	U	U	U	U	U	U	U
Chrysene	1	1	3.9	56	1	U	U	U	U	U	U	U	U	U	U	U	U
Trivalent Chromium (SM 3500 CR D) mg/kg																	
Cr (III)	30	36	180	1500	---	U	U	U	U	U	U	U	U	U	U	U	U
METALS (6010C, 3050B) mg/kg																	
Arsenic	13	16	16	16	16	1.2	U	1.6	4.8	2.1	2.3	3.2	2.2	3.3	3.4	**24**	10.2
Barium	350	350	400	400	820	69.7	75.1	109	111	100	89	137	98	102	127	339	**1,660**
Cadmium	2.5	2.5	4.3	9.3	7.5	**2.6**	U	U	U	U	U	U	U	U	U	15.2	72.4
Chromium, Total	1	58	110	1900	19	**16.6**	**20.7**	**24.3**	**51.2**	**23.9**	**25.5**	**22.7**	**22.5**	**29.3**	**29.5**	**55.4**	**276**
Lead, Total Recoverable	63	400	400	1000	450	7.5	29.4	41.7	11.6	28.7	**78.3**	13.7	23.6	18.6	33.6	**198**	**384**
Nickel, Total Recoverable	30	140	310	310	130	U	U	U	U	U	U	U	U	U	U	U	U
Selenium	3.9	36	180	1500	4	U	U	U	U	U	U	U	U	U	U	**21.5**	U
Silver	2	36	180	1500	8.3	U	U	U	U	1.7	2	U	U	U	U	**15.3**	**73**
Mercury (7471B, 7471B_PREP) mg/kg																	
Mercury, Total Recoverable	0.18	0.81	0.81	2.8	0.73	0.086	**0.36**	**0.65**	**0.54**	**0.63**	**1.9**	**0.24**	0.095	**0.86**	**0.8**	**4.8**	**13.4**
Pesticides (8081B, 3550C) mg/kg																	
4,4'-DDE	0.0033	1.8	8.9	62	17	U	U	U	U	U	U	U	U	U	U	U	U
4,4'-DDT	0.0033	1.7	7.9	47	136	U	U	U	U	U	U	U	U	U	U	U	U
Endrin	0.014	2.2	11	89	0.06	U	U	U	U	U	U	U	U	U	U	U	U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg																	
PCB-1254	0.1	1	1	1	3.2	U	U	U	U	U	U	U	U	U	U	U	U
PCB-1260	0.1	1	1	1	3.2	U	U	U	U	U	U	U	U	U	U	U	U

Notes

[1] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(a), Unrestricted Use.

[2] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(b), Restricted Use.

Values in **BOLD** and highlighted in yellow indicate an exceedance of Unrestricted SCOs.

Values in **BOLD** and highlighted in pink indicate an exceedance of Unrestricted SCOs and Residential SCOs.

--- Sample not analyzed or not detected .

U - Undetected at the Method Detection Limit.

J - Result is less than the Reporting Limit but less than or equal to the Method Detection Limit and the concentration is an approximate value.

UJ = Indicates the undected value is estimated.

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B - Compound was found in the blank and sample.

Qualifiers in Red were modified based on Data Validation Review (performed by Vali-Data of WHY, LLC).

Table 2

Summary of Exceedances on Lot B
Soil and Sediment (2004 - 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] mg/kg	Residential SCO[2] mg/kg	Restricted Residential SCO[2] mg/kg	Commercial Use SCO[2] mg/kg	Protection of GW SCO[2] mg/kg	2007			2008		2014						
						B-2 @ 6-8' N., Spr. Filter Bed Soil	MW-4 @ 6-8' NW of Pond 2 Soil	MW-5 @ 2-4' N of Pond 1 Soil	B-12 @ 6-8' Soil	B-12 @ 10-12' Soil	SS-1A NE of Pond 2 Soil	SS-1B NE of Pond 2 Soil	SS-1C NE of Pond 2 Soil	SS-2A N of Pond 1 Soil	SS-2B N of Pond 1 Soil	SS-2C N of Pond 1 Soil	SS-3A SW, Sldg. Dry. Bed 1 Soil
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg																	
Acetone	0.05	100	100	500	0.05	U	U	U	U	U	0.031 U	0.4 J	0.51 J	0.46 J	0.46 J	0.31 U	0.35 U
Methyl Ethyl Ketone	0.12	100	100	500	0.12	U	U	U	U	U	0.0039 U	0.0042 U	0.0044 U	0.0053 U	0.0037 U	0.0039 U	0.0049 U
Semi-Volatile Organic Compounds (8270) mg/kg																	
Benz(a)anthracene	1	1	1	5.6	1	U	U	U	U	U	U J	U J	U	U	U	U	U J
Benzo(b)fluoranthene	1	1	1	5.6	1.7	U	U	U	U	U	U J	U	U	U	U	U	U
Chrysene	1	1	3.9	56	1	U	U	U	U	U	U J	U J	U	U	U	U	U J
Trivalent Chromium (SM 3500 CR D) mg/kg																	
Cr (III)	30	36	180	1500	---	U	U	U	U	U	19.1 J	18.9 J	20.1 J	17.9 J	17.5 J	20.4 J	21.6 J
METALS (6010C, 3050B) mg/kg																	
Arsenic	13	16	16	16	16	U	U	U	U	4.1	U JH	U JH	U JH	U JH	U JH	U JH	U JH
Barium	350	350	400	400	820	155	117	89.3	72.8	102	U	U	U	U	U	U	U
Cadmium	2.5	2.5	4.3	9.3	7.5	U	U	U	**3**	0.63	U	U	U	U	U	U	U
Chromium, Total	1	58	110	1900	19	**32.9**	**31.4**	**20.7**	**17.4**	**25.6**	U	U	U	U	U	U	U
Lead, Total Recoverable	63	400	400	1000	450	3.2	8.9	15.9	40.8	**124**	8.8	8.5	6.7	11.4	10.2	9.6	18.4
Nickel, Total Recoverable	30	140	310	310	130	U	U	U	U	U	14.8	15.1	16.5	13.9	13.5	14.9	16.8
Selenium	3.9	36	180	1500	4	U	U	U	U	U	U	U	U	U	U	U	U
Silver	2	36	180	1500	8.3	U	U	U	U	1.8	U	U	U	U	U	U	U
Mercury (7471B, 7471B_PREP) mg/kg																	
Mercury, Total Recoverable	0.18	0.81	0.81	2.8	0.73	U	0.093	**0.19**	**0.18**	**1.2**	0.043 U	0.050 JH	0.040 U	0.073 JH	0.057 JH	0.056 JH	0.092 JH
Pesticides (8081B, 3550C) mg/kg																	
4,4'-DDE	0.0033	1.8	8.9	62	17	U	U	U	U	U	0.002 U	0.0014 J	0.0009 J	**0.0033 J**	0.0031 J	0.0008 J	0.0022 J
4,4'-DDT	0.0033	1.7	7.9	47	136	U	U	U	U	U	0.0022 U	0.00091 U	0.00047 U	0.0024 U	**0.0093 U**	0.00045 U	**0.0043 U,B**
Endrin	0.014	2.2	11	89	0.06	U	U	U	U	U	**0.028**	0.0041 J	0.00039 U	0.0024 J	0.0018 U	0.00038 U	0.00085 U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg																	
PCB-1254	0.1	1	1	1	3.2	U	U	U	U	U	U	U	U	U	U	U	U
PCB-1260	0.1	1	1	1	3.2	U	U	U	U	U	U	U	U	U	U	U	U

Notes

[1] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(a), Unrestricted Use.

[2] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(b), Restricted Use.

Values in **BOLD** and highlighted in yellow indicate an exceedance of Unrestricted SCOs.

Values in **BOLD** and highlighted in pink indicate an exceedance of Unrestricted SCOs and Residential SCOs.

--- Sample not analyzed or not detected .

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B - Compound was found in the blank and sample.

Qualifiers in Red were modified based on Data Validation Review (performed by Vali-Data of WHY, LLC).

Table 2

Summary of Exceedances on Lot B
Soil and Sediment (2004 - 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1]	Residential SCO[2]	Restricted Residential SCO[2]	Commercial Use SCO[2]	Protection of GW SCO[2]	2014															
						SS-3B	SS-3C	SS-4A	SS-4B	SS-4C	SS-5A	SS-5B	SS-5C	SS-6A	SS-6B	SS-6C	P1-1(Sed)	P1-2(Sed)	P2-1(Sed)	P2-2(Sed)	P2-1(S)	P2-2(S)
						SW, Sldg. Dry. Bed 1	SW, Sldg. Dry. Bed 1	SE of Pond 2	SE of Pond 2	SE of Pond 2	N., Spr. Filter Bed	N., Spr. Filter Bed	N., Spr. Filter Bed	SW of Prim. Tank 2	SW of Prim. Tank 2	SW of Prim. Tank 2	Pond 1	Pond 1	Pond 2	Pond 2	Pond 2	Pond 2
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Sediment	Sediment	Sediment	Sediment	Soil	Soil
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg																						
Acetone	0.05	100	100	500	0.05	0.0043 U	0.004 U	**0.14**	0.0042 U	0.011 J	0.0052 U	0.006 U	0.0069 J	0.0041 U	0.0039 U	0.0063 U	U	U	0.0024 U	0.005 U	0.0052 U	0.0018 U
Methyl Ethyl Ketone	0.12	100	100	500	0.12	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Semi-Volatile Organic Compounds (8270) mg/kg																						
Benz(a)anthracene	1	1	1	5.6	1	U UJ	U UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)fluoranthene	1	1	1	5.6	1.7	U J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chrysene	1	1	3.9	56	1	U J	U UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trivalent Chromium (SM 3500 CR D) mg/kg																						
Cr (III)	30	36	180	1500	---	22.1 J	**36.5 J**	20.1 J	13.2 J	20.4 J	21.8 J	16.7 J	**36.8 J**	19.3 J	15.9 J	23.2 J	0.027B	0.0023 JB JB	8.4 J	8.9 J	16.8 J	17.7 J
METALS (6010C, 3050B) mg/kg																						
Arsenic	13	16	16	16	16	U JH	U J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Barium	350	350	400	400	820	U	U	U	U	U	U	U	U	U	U	U	1.1 JH	0.80 B	0.46 B	0.40 B	U	U
Cadmium	2.5	2.5	4.3	9.3	7.5	U	U	U	U	U	U	U	U	U	U	U	0.024	0.042	0.0026	0.0026	U	U
Chromium, Total	1	58	110	1900	19	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Lead, Total Recoverable	63	400	400	1000	450	14.9	9.2	**102**	**80.5**	53.2	**4810**	8.4	5.4	15.5	15.2	29.7	0.49	0.084	62.7 JH	31.9	20.6 JH	23.1 JH
Nickel, Total Recoverable	30	140	310	310	130	16.6	18.7	15.0	9.3	15.1	19.0	16.3	**30.9**	12.8	13.9	17.6	U	U	6.6	9.0	19.7	9.6
Selenium	3.9	36	180	1500	4	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Silver	2	36	180	1500	8.3	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Mercury (7471B, 7471B_PREP) mg/kg																						
Mercury, Total Recoverable	0.18	0.81	0.81	2.8	0.73	0.11 JH	0.040 JH	**0.32** JH	**0.22** JH	0.13 JH	0.076	0.026 J	0.0091 U	**0.26 JH**	0.15 JH	0.11 JH	0.0081 J	0.00014 J	**0.66** JH	**0.39** J	0.17	**0.22**
Pesticides (8081B, 3550C) mg/kg																						
4,4'-DDE	0.0033	1.8	8.9	62	17	0.0013 J	0.0012 J	0.0045 U	0.00063 J	0.00062 J	0.0044 UJ	0.0004 J	0.00038 U	0.0045 J	0.0015 J	**0.0064 J**	U	U	0.0004 J	0.0042 U	0.00068 J	0.0011 J
4,4'-DDT	0.0033	1.7	7.9	47	136	0.002 U,B	0.00044 U	**0.0099 J**	0.0011 J	0.0006 J	**0.0064 J**	0.00071 J	0.00043 U	0.0024 U	0.0019 U	**0.0093 U**	U	U	0.0006 J	0.0046 U	0.0011 J	0.00044 U
Endrin	0.014	2.2	11	89	0.06	0.00039 U	0.00037 U	0.0043 U	0.00039 U	0.00039 U	0.0041 U	0.00038 U	0.00036 U	0.002 U	0.00037 U	0.0018 U	0.000014 U	0.000014 U	0.00037 U	0.0039	0.00038 U	0.00038 U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg																						
PCB-1254	0.1	1	1	1	3.2	U	U	U	U	U	U	U	U	U	U	U	**2.5**	**0.84**	U	U	U	U
PCB-1260	0.1	1	1	1	3.2	U	U	U	U	U	U	U	U	U	U	U	**1.3**	**0.52**	U	U	U	U

Notes

[1] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(a), Unrestricted Use.

[2] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(b), Restricted Use.

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Table 3

Summary of Analytical Results - Groundwater
Morgan Drive Property, Mt. Kisco, New York

Sample I.D.	NYSDEC	LOT A	LOT B		OFF-SITE	
		MW-1	MW-4	MW-5	MW-P	MW-A (MW-3)
Date Sampled	GW Std.[1]	03/11/2014	03/11/2014	03/11/2014	03/10/2014	03/10/2014
VOLATILE ORGANIC COMPOUNDS via USEPA Method 8260C (µg/L)						
1,1,1-Trichloroethane	5	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,1,2,2-Tetrachloroethane	5	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
,2-Trichloro-1,2,2-trifluoroethane	5	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1,2-Trichloroethane	1	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1-Dichloroethane	5	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,1-Dichloroethene	5	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
1,2,4-Trichlorobenzene	5	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,2-Dibromo-3-Chloropropane	0.04[7]	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
1,2-Dibromoethane	0.0006[7]	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
1,2-Dichlorobenzene	3	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
1,2-Dichloroethane	0.6	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloropropane	1	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
1,3-Dichlorobenzene	3	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
1,4-Dichlorobenzene	3	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U
2-Butanone (MEK)	5	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2-Hexanone	50	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
4-Methyl-2-pentanone (MIBK)	50	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Acetone	50	4.5 J	7.6 J	3.0 U	3.2 J	**68**
Benzene	1	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Bromodichloromethane	50	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
Bromoform	50	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromomethane	5	0.69 UJ	0.69 UJ	0.69 UJ	0.69 U	0.69 U
Carbon disulfide	60	0.19 U	0.19 U	0.19 U	0.30 J	0.19 U
Carbon tetrachloride	5	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
Chlorobenzene	5	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
Chloroethane	5	0.32 UJ	0.32 UJ	0.32 UJ	0.32 U	0.32 U
Chloroform	7	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Chloromethane	5	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
cis-1,2-Dichloroethene	5	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
cis-1,3-Dichloropropene	0.4[2]	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Cyclohexane	---	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Dibromochloromethane	50	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Dichlorodifluoromethane	5	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U
Ethylbenzene	5	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U
Isopropylbenzene	5	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Methyl acetate	---	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methyl tert-butyl ether	10	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Methylcyclohexane	---	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Methylene Chloride	5	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Styrene	5	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
Tetrachloroethene	5	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Toluene	5	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	5	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U
trans-1,3-Dichloropropene	0.4[2]	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Trichloroethene	5	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Trichlorofluoromethane	5	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl chloride	2	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U
Xylenes, Total	5[3]	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U

Table 3

Summary of Analytical Results - Groundwater
Morgan Drive Property, Mt. Kisco, New York

		LOT A	LOT B		OFF-SITE	
Sample I.D.	NYSDEC	MW-1	MW-4	MW-5	MW-P	MW-A (MW-3)
Date Sampled	GW Std.[1]	03/11/2014	03/11/2014	03/11/2014	03/10/2014	03/10/2014
SEMI-VOLATILE ORGANIC COMPOUNDS via USEPA Method 8270D (µg/L)						
2,4,5-Trichlorophenol	35	0.47 U	0.47 U	0.47 U	0.49 U	0.45 U
2,4,6-Trichlorophenol	1[4]	0.60 U	0.60 U	0.60 U	0.62 U	0.57 U
2,4-Dichlorophenol	1[4]	0.50 U	0.50 U	0.50 U	0.52 U	0.47 U
2,4-Dimethylphenol	1[4]	0.49 U	0.49 U	0.49 U	0.51 U	0.46 U
2,4-Dinitrophenol	1[4]	2.2 U	2.2 UJ	2.2 UJ	2.3 UJ	2.1 UJ
2,4-Dinitrotoluene	5	0.44 U	0.44 U	0.44 U	0.46 U	0.42 U
2,6-Dinitrotoluene	5	0.39 U	0.39 U	0.39 U	0.41 U	0.37 U
2-Chloronaphthalene	10	0.45 U	0.45 U	0.45 U	0.47 U	0.43 U
2-Chlorophenol	1[4]	0.52 U	0.52 U	0.52 U	0.54 U	0.49 U
2-Methylnaphthalene	---	0.59 U	0.59 U	0.59 U	0.61 U	0.56 U
2-Methylphenol	1[4]	0.39 U	0.39 U	0.39 U	0.41 U	0.37 U
2-Nitroaniline	5	0.41 U	0.41 U	0.41 U	0.43 U	0.39 U
2-Nitrophenol	1[4]	0.47 UJ	0.47 U	0.47 U	0.49 U	0.45 U
3,3'-Dichlorobenzidine	5	0.39 U	0.39 U	0.39 UJ ♦	0.41 U	0.37 U
3-Nitroaniline	5	0.47 U	0.47 U	0.47 U	0.49 U	0.45 U
4,6-Dinitro-2-methylphenol	1[4][7]	2.2 U	2.2 U	2.2 UJ ♦	2.2 U	2.0 U
4-Bromophenyl phenyl ether	---	0.44 U	0.44 U	0.44 UJ ♦	0.46 U	0.42 U
4-Chloro-3-methylphenol	1[4]	0.44 U	0.44 U	0.44 U	0.46 U	0.42 U
4-Chloroaniline	5	0.58 U	0.58 U	0.58 U	0.60 U	0.55 U
4-Chlorophenyl phenyl ether	---	0.34 U	0.34 U	0.35 U	0.36 U	0.33 U
4-Methylphenol	1[4]	0.35 U	0.35 U	0.36 U	0.37 U	0.33 U
4-Nitroaniline	5	0.25 U	0.24 U	0.25 U	0.25 U	0.23 U
4-Nitrophenol	1[4][7]	1.5 UJ	1.5 UJ	1.5 UJ	1.5 UJ	1.4 UJ
Acenaphthene	20	0.40 U	0.40 U	0.40 U	0.42 U	0.38 U
Acenaphthylene	---	0.37 U	0.37 U	0.37 U	0.39 U	0.35 U
Acetophenone	---	0.53 U	0.53 U	0.53 U	0.55 U	0.50 U
Anthracene	50	0.28 U	0.27 U	0.28 UJ ♦	0.29 U	0.26 U
Atrazine	7.5	0.45 U	0.45 U	0.45 UJ	0.47 U	0.43 U
Benzaldehyde	---	0.26 U	0.26 U	0.26 U	0.28 J	0.25 U
Benzo[a]anthracene	0.002[7]	0.35 U	0.35 U	0.36 UJ ♦	0.37 U	0.33 U
Benzo[a]pyrene	ND	0.46 U	0.46 U	0.46 UJ ♦	0.48 U	0.44 U
Benzo[b]fluoranthene	0.002[7]	0.34 U	0.33 U	0.34 UJ ♦	0.35 U	0.32 U
Benzo[g,h,i]perylene	---	0.34 U	0.34 U	0.35 UJ ♦	0.36 U	0.33 U
Benzo[k]fluoranthene	0.002[7]	0.72 U	0.71 U	0.72 UJ ♦	0.74 U	0.68 U
Biphenyl	5	0.64 U	0.64 U	0.64 U	0.67 U	0.61 U
bis (2-chloroisopropyl) ether	1	0.51 U	0.51 U	0.51 U	0.53 U	0.48 U
Bis(2-chloroethoxy)methane	5	0.34 U	0.34 U	0.35 U	0.36 U	0.33 U
Butyl benzyl phthalate	50	0.41 U	0.41 U	0.41 UJ ♦	0.43 U	0.39 U
Caprolactam	---	9.5	8.1	59	5.1	2.0 U
Carbazole	---	0.30 U	0.29 U	0.30 UJ ♦	0.31 U	0.28 U
Chrysene	0.002[7]	0.33 U	0.32 U	0.33 UJ ♦	0.34 U	0.31 U
Dibenz(a,h)anthracene	---	0.41 U	0.41 U	0.41 UJ ♦	0.43 U	0.39 U
Dibenzofuran	---	0.50 U	0.50 U	0.50 U	0.52 U	0.47 U
Diethyl phthalate	50	0.22 J	0.43 J	0.84 J	0.22 U	0.20 U
Dimethyl phthalate	50	0.35 U	0.35 U	0.36 U	0.37 U	0.33 U
Di-n-butyl phthalate	50	0.31 U	0.30 U	0.31 UJ ♦	0.32 U	0.29 U
Di-n-octyl phthalate	50	0.46 U	0.46 U	0.46 UJ ♦	0.48 U	0.44 U
Fluoranthene	50	0.39 U	0.39 U	0.39 UJ ♦	0.41 U	0.37 U
Fluorene	50	0.35 U	0.35 U	0.36 U	0.37 U	0.33 U
Hexachlorobenzene	0.04[7]	0.50 U	0.50 U	0.50 UJ ♦	0.52 U	0.47 U
Hexachlorobutadiene	0.5[7]	0.67 U	0.67 U	0.67 U	0.69 U	0.63 U
Hexachlorocyclopentadiene	5	0.58 U	0.58 U	0.58 U	0.60 U	0.55 U
Hexachloroethane	5	0.58 U	0.58 U	0.58 U	0.60 U	0.55 U
Indeno[1,2,3-cd]pyrene	0.002[7]	0.46 U	0.46 U	0.46 UJ ♦	0.48 U	0.44 U

Table 3

Summary of Analytical Results - Groundwater
Morgan Drive Property, Mt. Kisco, New York

		LOT A	LOT B		OFF-SITE	
Sample I.D.	NYSDEC	MW-1	MW-4	MW-5	MW-P	MW-A (MW-3)
Date Sampled	GW Std.[1]	03/11/2014	03/11/2014	03/11/2014	03/10/2014	03/10/2014
SEMI-VOLATILE ORGANIC COMPOUNDS via USEPA Method 8270D (µg/L)						
Isophorone	50	0.42 U	0.42 U	0.42 U	0.44 U	0.40 U
Naphthalene	10	0.75 U	0.74 U	0.75 U	0.77 U	0.71 U
Nitrobenzene	0.4	0.29 U	0.28 U	0.29 U	0.30 U	0.27 U
N-Nitrosodi-n-propylamine	---	0.53 U	0.53 U	0.53 U	0.55 U	0.50 U
N-Nitrosodiphenylamine	50	0.50 U	0.50 U	0.50 U ♦	0.52 U	0.47 U
Pentachlorophenol	1[4][7]	2.2 UJ	2.2 UJ	2.2 UJ ♦	2.2 UJ	2.0 UJ
Phenanthrene	50	0.43 U	0.43 U	0.43 UJ ♦	0.45 U	0.41 U
Phenol	1[4]	0.38 U	0.38 U	0.38 U	0.40 U	0.36 U
Pyrene	50	0.34 U	0.33 U	0.34 UJ ♦	0.35 U	0.32 U
PESTICIDES via USEPA Method 8081B (µg/L)						
4,4'-DDD	0.3	0.046 U	0.046 U	0.0097 U	0.0091 U	0.0089 U
4,4'-DDE	0.2	0.058 U	0.058 U	0.012 U	0.011 U	0.011 U
4,4'-DDT	0.2	0.055 U	0.055 U	0.012 U	0.019 J B	0.027 J B
Aldrin	---	0.033 U	0.033 U	0.0070 U	0.0065 U	0.0064 U
alpha-BHC	0.01[7]	0.033 U	0.033 U	0.0088 J	0.0065 U	0.0064 U
alpha-Chlordane	0.05[7]	0.074 U	0.074 U	0.016 U	0.015 U	0.014 U
beta-BHC	0.04[7]	0.12 U	0.12 U	0.026 U	0.024 U	0.024 U
delta-BHC	0.04[7]	0.050 U	0.050 U	0.012 J	0.013 J	0.010 J
Dieldrin	0.004[7]	0.049 U	0.049 U	0.010 U	0.0097 U	0.0095 U
Endosulfan I	---	0.055 U	0.055 U	0.012 U	0.011 U	0.011 U
Endosulfan II	---	0.060 U	0.060 U	0.013 U	0.012 U	0.012 U
Endosulfan sulfate	---	0.079 U	0.078 U	0.017 U	0.016 U	0.015 U
Endrin	ND	0.069 U	0.069 U	0.015 U	0.014 U	0.013 U
Endrin aldehyde	5	0.082 U	0.081 U	0.017 U	0.016 U	0.016 U
Endrin ketone	5	0.060 U	0.060 U	0.013 U	0.012 U	0.012 U
gamma-BHC (Lindane)	0.05	0.030 U	0.030 U	0.0063 U	0.0059 U	0.0058 U
gamma-Chlordane	---	0.055 U	0.055 U	0.012 J	0.011 U	0.012 J
Heptachlor	0.04[7]	**0.080** J	0.042 U	0.0090 U	0.0084 U	0.0082 U
Heptachlor epoxide	0.03	0.027 U	0.026 U	0.0056 U	0.0052 U	0.0051 U
Methoxychlor	35	0.071 U	0.070 U	0.015 U	0.014 U	0.014 U
Toxaphene	0.06[7]	0.60 U	0.60 U	0.13 U	0.12 U	0.12 U
HERBICIDES via USEPA Method 8151A (µg/L)						
2,4-D	---	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
Silvex (2,4,5-TP)	---	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
POLYCHLORINATED BIPHENYLS via USEPA Method 8082A (µg/L)						
PCB-1016	0.09[5][7]	0.17 U	0.18 U	0.18 U	0.17 U	0.16 U
PCB-1221	0.09[5][7]	0.17 U	0.18 U	0.18 U	0.17 U	0.16 U
PCB-1232	0.09[5][7]	0.17 U	0.18 U	0.18 U	0.17 U	0.16 U
PCB-1242	0.09[5][7]	0.17 U	0.18 U	0.18 U	0.17 U	0.16 U
PCB-1248	0.09[5][7]	0.17 U	0.18 U	0.18 U	0.17 U	0.16 U
PCB-1254	0.09[5][7]	0.25 U	0.26 U	0.25 U	0.25 U	0.23 U
PCB-1260	0.09[5][7]	0.25 U	0.26 U	0.25 U	0.25 U	0.23 U

Table 3

Summary of Analytical Results - Groundwater
Morgan Drive Property, Mt. Kisco, New York

		LOT A	LOT B		OFF-SITE	
Sample I.D.	NYSDEC	MW-1	MW-4	MW-5	MW-P	MW-A (MW-3)
Date Sampled	GW Std.[1]	03/11/2014	03/11/2014	03/11/2014	03/10/2014	03/10/2014
TOTAL CYANIDE via USEPA Method 335.4 (mg/L)						
Cyanide, Total	0.20	0.0050 U	0.0050 U	0.010 U	0.0050 U	0.0050 U
METALS via USEPA Method 6010C (mg/L) *						
Aluminum	---	0.53	4.1	2.1	58.1	2.1
Antimony	0.003[7]	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U
Arsenic	0.025	0.0056 U	0.0056 U	0.016	0.0062 J	0.0071 J
Barium	1	0.068	0.25	0.37	0.81	0.19
Beryllium	0.0011	0.00030 U	0.00030 U	0.00030 U	0.00030 U	0.00030 U
Cadmium	0.005	0.00050 U	0.00080 J	**0.0053**	0.0031	0.00050 U
Calcium	---	42.0	87.7	34.3	37.6	69.3
Chromium	0.05	0.0060	0.016	**0.11**	**0.13**	0.0047
Cobalt	---	0.00063 U	0.0055	0.0015 J	0.042	0.0024 J
Copper	0.20	0.0059 J	0.20	0.060	0.15	0.012
Iron	0.3[6]	**0.79**	**36.5**	**40.9**	**83.9**	**22.7**
Lead	0.025	0.0031 J	0.021	**0.054**	**0.056**	0.0063 J
Magnesium	35	14.9	21.9	10.0	29.9	17.3
Manganese	0.3[6]	0.083 B	**4.6 B**	0.96 B	**1.9**	**2.2**
Nickel	0.1	0.019	0.011	0.013	0.094	0.0036 J
Potassium	---	3.0	5.1	3.8	26.7	4.4
Selenium	0.01	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U
Silver	0.05	0.0017 U	0.0026 J	0.0035 J	0.0049 J	0.0017 U
Sodium	20	16.7	19.6	15.3	17.5	3.1
Thallium	0.008	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Vanadium	0.014	0.0015 U	0.010	**0.063**	**0.15**	0.010
Zinc	---	0.11 B	0.20 B	0.062 B	0.31	0.047
MERCURY via Method 7470A (mg/L) *						
Mercury	0.0007	0.00012 U	0.00044	0.00020	0.00083	0.00012 U

Notes:
--- = no standard available
Bolded and highlighted results exceed NYSDEC groundwater quality standards.
U = The compound was analyzed but not detected. The associated value is the compound quantitation limit.
J =Indicates an estimated value between the instrument detection limit and the Reporting Limit.
UJ = Indicates the undected value is estimated.
JH = Indicates estimated biased high.
B = Compound was found in the blank and the sample.
ND = Non-detectable concentration by the approved analytical methods, referenced in Section 700.3.
* = Indicates all target analytes are qualified as unusable.
(1) NYSDEC Groundwater Standards (NYSDEC - Water Quality Criteria (Class GA) per 6 NYCRR, Part 703)
(2) Applies to the sum of cis- and trans-1,3-dichloropropene.
(3) Not a sum total for DiMethyl Benzene (Xylene), applies to 1,2-Xylene; 1,3-Xylene, and 1,4-Xylene individually.
(4) Refers to the sum of all phenolic compounds.
(5) Applies to the sum of PCBs.
(6) The groundwater quality standard for the sum of iron and manganese is 0.5 mg/L.
(7) Groundwater standard is less than the instrument detection limit.
♦ Internal Standards Performance (ISTD) response or retention time outside acceptable limits.
Qualifiers in Red were modified based on Data Validation Review (performed by Vali-Data of WHY, LLC).

Table 4
Summary of Water Quality Results (April 2014), compared to Westchester County Local Sewer Limitations
Morgan Drive, Mount Kisco, New York

Regulated Pollutant	Average Daily Limit (mg/L)	PT1-1 (L) mg/L	PT2-1 (L) mg/L	P1-1 (L) mg/L	P1-2 (L) mg/L	P2-1 (L) mg/L	P2-2 (L) mg/L
pH	5.5-9.5 s.u.	8.16	7.34	7.03	7.27	7.65	7.46
Arsenic	0.2	0.0056 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U
Barium	2	0.030	0.025 JH	0.046	0.041	0.086	0.085
Cadmium	0.7	0.00050 U	0.00050 U	0.00071 J	0.00050 U	0.00050 U	0.00050 U
Chromium (Total)	3	0.0010 U	0.0010 U	0.0012 J	0.0010 U	0.0010 U	0.0010 U
Chromium (Hex)	2	0.005 U	0.005 U	0.005 U	0.005 U	---	---
Copper	2.8	0.0016 U	0.0019 J	0.050	0.025	0.0044 J	0.0039 J
Cyanide (Total)	0.8	0.0050 U	0.0050 U	0.0069 J	0.0050 U	0.0050 U	0.0050 U
Lead	0.4	0.0030 U	0.0030 U	0.0095 J	0.0042 J	0.0030 U	0.0030 U
Mercury	0.2	0.00012 U	0.00012 U	0.00012 U	0.00012 U	0.00012 U	0.00012 U
Nickel	2.8	0.0013 U	0.0013 U	0.0028 J	0.0026 J	0.0016 J	0.0015 J
Oil & Grease	100	1.4 U	2.7 J	1.4 U	2.5 U	1.4 U	1.4 U
Phenols	4	0.0050 U	0.0050 U	0.0068 J	0.0088 J	0.0063 J	0.0050 U
Selenium	0.2	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U
Silver	0.8	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U
Total Toxic Organics	2.1	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Zinc	1.8	0.023	0.034	0.12 B	0.090 B	0.029 B	0.025 B

Average Daily Limit provided by Westchester County Department of Environmental Facilities

U - Undetected at the Method Detection Limit

J - Result is less than the Reporting Limit but less than or equal to the Method Detection Limit and the concentration is an approximate value

JH = Indicates estimated biased high.

B - Compound was found in the blank and sample

* ISTD Response or retention time outside acceptable limits

^ ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Qualifiers in Red were modified based on Data Validation Review (performed by Vali-Data of WHY, LLC).

APPENDIX A

CONSENT ORDER

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

In the Matter of the
Development and Implementation
of a Remedial Program for an
Inactive Hazardous Waste Disposal
Site under Article 27, Title 13
of the Environmental Conservation Law
by

Radio City Ventures LLC
Respondent.

ORDER ON CONSENT
and
ADMINISTRATIVE
SETTLEMENT

Index # CO 3-20150527-56

Site # C360137

WHEREAS,

1. A. The New York State Department of Environmental Conservation ("Department") is responsible for inactive hazardous waste disposal site remedial programs pursuant to Article 27, Title 13 of the Environmental Conservation Law ("ECL") and Part 375 of Title 6 of the Official Compilation of Codes, Rules and Regulations ("6 NYCRR") and may issue orders consistent with the authority granted to the Commissioner by such statute.

B. The Department is responsible for carrying out the policy of the State of New York to conserve, improve and protect its natural resources and environment and control water, land, and air pollution consistent with the authority granted to the Department and the Commissioner by Article 1, Title 3 of the ECL.

C. This Order is issued pursuant to the Department's authority under, inter alia, ECL Article 27, Title 13 and ECL 3-0301, and resolves Respondent's liability to the State as provided at 6 NYCRR 375-1.5(b)(5).

2. A. During the period 1907 – 1985, the City of New York owned Morgan Drive, Lot 3, located at 2 Morgan Drive, Town and Village of Mount Kisco, Westchester County, New York (Tax Map/Parcel No.: 80.55-1-2.1/4) (hereinafter the "Site"). **Exhibit "A"** is a map of the Site showing its general location.

B. The City of New York, through the New York City Department of Environmental Protection ("NYCDEP") and its predecessor agencies, operated a wastewater treatment facility at the Site on a continuous basis from 1913 to 1964 and on a standby basis from 1964 into the 1970s. During the period 1985 – 1988, ownership of the Site was transferred to the Village/Town of Mount Kisco. From 1988 to 1990 the Site's owner and operator was Radio Circle Business Park. From 1990 to 2012, Sanctuary Ventures, LLC owned and operated the Site with the intention of developing an office building and supporting infrastructure.

C. Radio City Ventures LLC is a domestic limited liability company incorporated in 2011. Radio City Ventures LLC purchased the site in 2012. Radio City Ventures LLC will be referred to as "Respondent" in this Order.

3. The goals of this Order are to: 1) complete Site Characterization and any necessary Interim Remedial Measures necessary to remediate the Site under DEC's inactive hazardous waste disposal program consistent with a Track 4 remedial program (See 6 NYCRR 375-3.8(e)(4)). The Respondent plans to develop site-specific objectives to meet commercial use criteria.

4. The Site is not currently listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State.

5. Prior to the effective date of this Order, Respondent had submitted a Remedial Investigation/Feasibility Study ("RI/FS") for this Site to the Department for approval. The RI/FS is attached as Exhibit B.

6. Respondent consents to the issuance of this Order without (i) an admission or finding of liability, fault, wrongdoing, or violation of any law, regulation, permit, order, requirement, or standard of care of any kind whatsoever; (ii) an acknowledgment that there has been a release or threatened release of hazardous waste at or from the Site; and/or (iii) an acknowledgment that a release or threatened release of hazardous waste at or from the Site constitutes a significant threat to the public health or environment.

7. Solely with regard to the matters set forth below, Respondent hereby waives any right to a hearing as may be provided by law, consents to the issuance and entry of this Order, and agrees to be bound by its terms. Respondent consents to and agrees not to contest the authority or jurisdiction of the Department to issue or enforce this Order, and agrees not to contest the validity of this Order or its terms or the validity of data submitted to the Department by Respondent pursuant to this Order.

NOW, having considered this matter and being duly advised, IT IS ORDERED THAT:

I. Development, Performance, and Reporting of Work Plans

A. Work Plans

All activities at the Site that comprise any element of an Inactive Hazardous Waste Disposal Site Remedial Program shall be conducted pursuant to one or more Department-approved work plans ("Work Plan" or "Work Plans") and this Order and all activities shall be consistent with the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 C.F.R. Part 300, as required under CERCLA, 42 U.S.C. § 9600 et seq. The Work Plans under this Order shall address on-Site and shall be

developed and implemented in accordance with 6 NYCRR § 375-1.6(a). All Department-approved Work Plans shall be incorporated into and become enforceable parts of this Order. Upon approval of a Work Plan by the Department, Respondent shall implement such Work Plan in accordance with the schedule contained therein. Nothing in this Subparagraph shall mandate that any particular Work Plan be submitted. Each Work Plan submitted shall use one of the following captions on the cover page:

1. Site Characterization ("SC") Work Plan: a Work Plan whose objective is to identity the presence of any hazardous waste disposal at the Site;

2. Remedial Investigation/Feasibility Study ("RI/FS") Work Plan: a Work Plan whose objective is to perform a Remedial Investigation and a Feasibility Study;

3. Interim Remedial Measure ("IRM") Work Plan: a Work Plan whose objective is to provide for an Interim Remedial Measure;

4. Remedial Design/Remedial Action ("RD/RA") Work Plan: a Work Plan which objective is to provide for the development and implementation of final plans and specifications for implementing the remedial alternative set forth in the ROD; or

5. Site Management Plan: a Work Plan whose objective is to identify and implement the institutional and engineering controls required for the Site, as well as any necessary monitoring and/or operation and maintenance of the remedy.

B. Submission/Implementation of Work Plans

1. (a) An Interim Remedial Measure Work Plan shall be submitted to the Department within sixty (60) Days after the effective date of this Order.

(b) The Department may request that Respondent submit additional or supplemental Work Plans for the Site. Within thirty (30) Days after the Department's written request, Respondent shall advise the Department in writing whether it will submit and implement the requested additional or supplemental Work Plan or whether it elects to terminate this Order pursuant to Paragraph XII. If Respondent elects to submit and implement such Work Plan, Respondent shall submit the requested Work Plan within sixty (60) Days after such election. If Respondent elects to terminate this Order or fails to make a timely election, this Order shall terminate pursuant to Paragraph XII.

(c) Respondent may opt to propose one or more additional or supplemental Work Plans (including one or more IRM Work Plans) at any time, which the Department shall review for appropriateness and technical sufficiency.

(d) Any request made by the Department under Subparagraph I.B. 1(b) shall be subject to dispute resolution pursuant to Paragraph XI.

2. A Professional Engineer must stamp and sign all Work Plans other than SC or RI/FS Work Plans.

3. During all field activities conducted under this Order, Respondent shall have on-Site a representative who is qualified to supervise the activities undertaken. Such representative may be an employee or a consultant retained by Respondent to perform such supervision as set forth in 6 NYCRR Part 375-1.6(a)(3).

C. Modifications to Work Plans

The Department shall notify Respondent in writing if the Department determines that any element of a Department-approved Work Plan needs to be modified in order to achieve the objectives of the Work Plan as set forth in Subparagraph II.A or to ensure that the Remedial Program otherwise protects human health and the environment. Upon receipt of such notification, Respondent shall, subject to Respondent's right to terminate pursuant to Paragraph XII, provide written notification as provided at 6 NYCRR 375-1.6(d)(3) as to whether it will modify the Work Plan, or invoke dispute resolution

D. Submission of Final Reports and Annual Reports

1. In accordance with the schedule contained in a Work Plan, Respondent shall submit a final report as provided at 6 NYCRR 375-1.6(b) and a final engineering report as provided at 6 NYCRR 375-1.6(c).

2. Any final report or final engineering report that includes construction activities shall include "as built" drawings showing any changes made to the remedial design or the IRM.

3. In the event that the final engineering report for the Site requires Site management, Respondent shall submit an annual report by the 1st Day of the month following the anniversary of the start of the Site management. Such annual report shall be signed by a Professional Engineer or by such other qualified environmental professional as the Department may find acceptable and shall contain a certification as provided at 6 NYCRR 375-1.8(h)(3). Respondent may petition the Department for a determination that the institutional and/or engineering controls may be terminated. Such petition must be supported by a statement by a Professional Engineer that such controls are no longer necessary for the protection of public health and the environment. The Department shall not unreasonably withhold its approval of such petition.

E. Review of Submittals other than Progress Reports and Health and Safety Plans

1. The Department shall make a good faith effort to review and respond in writing to each submittal Respondent makes pursuant to this Order within

sixty (60) Days. The Department's response shall include an approval or disapproval of the submittal, in whole or in part. All Department-approved submittals shall be incorporated into and become an enforceable part of this Order.

2. If the Department disapproves a submittal, it shall specify the reasons for its disapproval. Within fifteen (15) Days after the date of the Department's written notice that Respondent's submittal has been disapproved, Respondent shall, subject to Respondent's right to terminate pursuant to Paragraph XII in the event the rejected submittal is a Work Plan submitted prior to the Department's approval of the RD/RA Work Plan, elect to proceed as provided at 6 NYCRR 375-1.6(d)(4). If Respondent elects to modify the submittal under 6 NYCRR 375-1.6(d)(4), within forty-five (45) Days after such election, Respondent shall make a revised submittal that addresses all of the Department's stated reasons for disapproving the first submittal. In the event that Respondent's revised submittal is disapproved, the Department shall set forth its reasons for such disapproval in writing and Respondent shall be in violation of this Order unless it invokes dispute resolution pursuant to Paragraph XI and its position prevails. Failure to make an election or failure to comply with the election is a violation of this Order.

3. Within forty-five (45) Days after the Department's approval of a final report, Respondent shall submit such final report, as well as all data gathered and drawings and submittals made pursuant to such Work Plan, in an electronic format acceptable to the Department. If any document cannot be converted into electronic format, Respondent shall submit such document in an alternative format acceptable to the Department.

F. Department's Issuance of a ROD

If after implementation of the Interim Remedial Measure Work Plan, the Department determines that further remediation of the Site is necessary, the Respondent shall cooperate with the Department and provide reasonable assistance, consistent with the Citizen Participation Plan, in soliciting public comment on a proposed remedial action plan ("PRAP"). If a PRAP is issued, after the close of the public comment period, the Department shall select a final remedial alternative for the Site in a ROD. Nothing in this Order shall be construed to abridge any rights of Respondent, as provided by law, to judicially challenge the Department's ROD.

G. No Further Action/Satisfactory Completion Letter

Upon the Department's determination that: (i) Respondent's Site Characterization Final Report is approved; (ii) Respondent's Interim Remedial Measure Final Report is approved; (iii) in the event the Department requires one, a Site Management Plan is approved; (iv) in the event the Department requires one, an Environmental Easement has been accepted by the Department and the Department receives proof of its recording; and (v) Respondent is in compliance with this Order, the Department shall issue a No Further Action/Satisfactory Completion Letter to Respondent reflecting the

Department's determination that, other than implementation of a Site Management Plan if required, no further remedial action at the Site is presently necessary. The Letter's form and substance shall be materially similar to the attached Exhibit C.

II. Progress Reports

Respondent shall submit written progress reports to the parties identified in Subparagraph X.A.1 by the 10th Day of each month commencing with the month subsequent to the approval of the first Work Plan and ending with the Termination Date, unless a different frequency is set forth in an approved Work Plan. Such reports shall, at a minimum, include: all actions taken pursuant to this Order during the reporting period and those anticipated for the upcoming reporting period; all approved modifications to work plans and/or schedules; all results of sampling and tests and all other data received or generated by or on behalf of Respondent in connection with the Site during the reporting period, including quality assurance/quality control information; information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule, and efforts made to mitigate such delays; and information regarding activities undertaken in support of the Citizen Participation Plan during the reporting period and those anticipated for the upcoming reporting period.

III. Penalties

A. 1. Respondent's failure to comply with any term of this Order constitutes a violation of this Order, the ECL, and 6 NYCRR 375-2.1 1 (a)(4). Nothing herein abridges Respondent's right to contest any allegation that it has failed to comply with this Order.

2. Payment of any penalties shall not in any way alter Respondent's obligations under this Order. Penalties are not enforceable against any third party.

B. 1. Respondent shall not suffer any penalty or be subject to any proceeding or action in the event it cannot comply with any requirement of this Order as a result of any Force Majeure Event as provided at 6 NYCRR 375-1.5(b)(4). Respondent must use best efforts to anticipate the potential Force Majeure Event, best efforts to address any such event as it is occurring, and best efforts following the Force Majeure Event to minimize delay to the greatest extent possible. "Force Majeure" does not include Respondent's economic inability to comply with any obligation, the failure of Respondent to make complete and timely application for any required approval or permit, and non-attainment of the goals, standards, and requirements of this Order.

2. Respondent shall notify the Department in writing within five (5) Days of the onset of any Force Majeure Event. Failure to give such notice within such five (5) Day period

constitutes a waiver of any claim that a delay is not subject to penalties. Respondent shall be deemed to know of any circumstance which it, any entity controlled by it, or its contractors knew or should have known.

3. Respondent shall have the burden of proving by a preponderance of the evidence that (i) the delay or anticipated delay has been or will be caused by a Force Majeure Event; (ii) the duration of the delay or the extension sought is warranted under the circumstances; (iii) best efforts were exercised to avoid and mitigate the effects of the delay; and (iv) Respondent complied with the requirements of Subparagraph III.B.2 regarding timely notification.

4. If the Department agrees that the delay or anticipated delay is attributable to a Force Majeure Event, the time for performance of the obligations that are affected by the Force Majeure Event shall be extended for a period of time equivalent to the time lost because of the Force Majeure event, in accordance with 375-1.5(4).

5. If the Department rejects Respondent's assertion that an event provides a defense to non-compliance with this Order pursuant to Subparagraph III.B, Respondent shall be in violation of this Order unless it invokes dispute resolution pursuant to Paragraph XI and Respondent's position prevails.

IV. Entry upon Site

A. Respondent hereby consents, upon reasonable notice under the circumstances presented, to entry upon the Site (or areas in the vicinity of the Site which may be under the control of Respondent) by any duly designated officer or employee of the Department or any State agency having jurisdiction with respect to matters addressed pursuant to this Order, and by any agent, consultant, contractor, or other person so authorized by the Commissioner, all of whom shall abide by the health and safety rules in effect for the Site, for inspecting, sampling, copying records related to the contamination at the Site, testing, and any other activities necessary to ensure Respondent's compliance with this Order. Upon request, Respondent shall (i) provide the Department with suitable work space at the Site, including access to a telephone, to the extent available and (ii) permit the Department full access to all non-privileged records relating to matters addressed by this Order. Raw data is not considered privileged and that portion of any privileged document containing raw data must be provided to the Department. In the event Respondent is unable to obtain any authorization from third-party property owners necessary to perform its obligations under this Order, the Department may, consistent with its legal authority, assist in obtaining such authorizations.

B. The Department shall have the right to take its own samples and scientific measurements and the Department and Respondent shall each have the right to obtain split samples, duplicate samples, or both, of all substances and materials sampled. The Department shall make the results of any such sampling and scientific measurements available to Respondent.

V. Payment of State Costs

A. Within forty-five (45) days of the effective date of this Order, Respondent shall pay to the Department a sum of money which shall represent reimbursement for past State Costs as provided at 6 NYCRR 375-1.5(b)(3).

B. Within forty-five (45) Days after receipt of an itemized invoice from the Department, Respondent shall pay to the Department a sum of money which shall represent reimbursement for State Costs, other than those identified in Subparagraph V.A, for work performed at or in connection with the Site through and including the Termination Date, as provided at 6 NYCRR 375-1.5(b)(3).

C. Costs shall be documented as provided by 6 NYCRR 375-1.5(b)(3)(ii). The Department shall not be required to provide any other documentation of costs, provided however, that the Department's records shall be available consistent with, and in accordance with, Article 6 of the Public Officers Law.

D. Such invoice shall be sent to Respondent at the following address:

Richard Breck
c/o Young Sommer LLC
Executive Woods
5 Palisades Drive
Albany, New York 12205

E. Each such payment shall be made payable to the New York State Department of Environmental Conservation and shall be sent to:

Director, Bureau of Program Management
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7012

F. Each party shall provide written notification to the other within ninety (90) Days of any change in the foregoing addresses.

G. Respondent may contest invoiced costs as provided at 6 NYCRR 375-1.5(b)(3)(v) and (vi).

VI. Reservation of Rights

A. Except as provided at 6 NYCRR 375-1.9 and 375-2.9, nothing contained in this Order shall be construed as barring, diminishing, adjudicating, or in any way affecting any of the Department's rights or authorities, including, but not limited to, the right to require performance of further investigations and/or response action(s), to recover natural resource damages, and/or to exercise any summary abatement powers with respect to any person, including Respondent.

B. Except as otherwise provided in this Order, Respondent specifically reserves all rights and defenses under applicable law respecting any Departmental assertion of remedial liability and/or natural resource damages against Respondent, and further reserves all rights respecting the enforcement of this Order, including the rights to notice, to be heard, to appeal, and to any other due process. The existence of this Order or Respondent's compliance with it shall not be construed as an admission of liability, fault, wrongdoing, or breach of standard of care by Respondent, and shall not give rise to any presumption of law or finding of fact, or create any rights, or grant any cause of action, which shall inure to the benefit of any third party. Further, Respondent reserves such rights as it may have to seek and obtain contribution, indemnification, and/or any other form of recovery from its insurers and from other potentially responsible parties or their insurers for past or future response and/or cleanup costs or such other costs or damages arising from the contamination at the Site as may be provided by law, including but not limited to rights of contribution under section 113(1)(3)(B) of CERCLA, 42 U.S.C. § 9613(1)(3)(B).

VII. Indemnification

Respondent shall indemnify and hold the Department, the State of New York, the Trustee of the State's natural resources, and their representatives and employees harmless as provided by 6 NYCRR 375-2.5(a)(3)(i).

VIII. Public Notice

A. Within thirty (30) Days after the effective date of this Order, Respondent shall provide notice as required by 6 NYCRR 375-1.5(a). Within sixty (60) Days of such filing, Respondent shall provide the Department with a copy of such instrument certified by the recording officer to be a true and faithful copy.

B. If Respondent proposes to transfer by sale or lease the whole or any part of Respondent's interest in the Site, or becomes aware of such transfer, Respondent shall, not fewer than forty-five (45) Days before the date of transfer, or within forty-five (45) Days after becoming aware of such conveyance, notify the Department in writing of the identity of the transferee and of the nature and proposed or actual date of the conveyance, and shall notify the transferee in writing, with a copy to the Department, of the applicability of this Order. However, such obligation shall not extend to a conveyance by means of a corporate reorganization or merger or the granting of any

rights under any mortgage, deed, trust, assignment, judgment, lien, pledge, security agreement, lease, or any other right accruing to a person not affiliated with Respondent to secure the repayment of money or the performance of a duty or obligation.

IX. Environmental Easement

A. If a Department-approved final engineering report for the Site relies upon one or more institutional and/or engineering controls, Respondent (or the owner of the Site) shall submit to the Department for approval an Environmental Easement to run with the land in favor of the State which complies with the requirements of ECL Article 71, Title 36, and 6 NYCRR 375-1.8(h)(2). Upon acceptance of Environmental Easement by the State, Respondent shall comply with the requirements of 6 NYCRR 375-1.8(h)(2).

B. If the ROD is required and provides for implementation of one or more institutional controls, Respondent shall cause an environmental easement to be recorded under the provisions of Subparagraph IX.A. If Respondent does not cause such environmental easement to be recorded in accordance with 6 NYCRR 375-1.8(h)(2), Respondent will not be entitled to the benefits conferred by 6 NYCRR 375-1.9 and 375-2.9, including issuance of a Letter of Satisfaction.

X. Communications

A. All written communications required by this Order shall be transmitted by United States Postal Service, by private courier service, or hand delivered as follows:

1. Communication from Respondent shall be sent to:

Daniel Lanners, DEC Project Manager (1 hard copy (unbound for work plans) & 1 electronic copy)
Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, Albany, NY 12233
Daniel.Lanners@dec.ny.gov

Krista Anders (electronic copy only)
New York State Department of Health
Bureau of Environmental Exposure Investigation
Empire State Plaza
Corning Tower Room 1787
Albany, NY 12237
kma06@health.state.ny.us

Note: three hard copies (one unbound) of work plans are required, as well as one electronic copy.

with electronic copies of correspondence only to:

Andrew Guglielmi, Esq.
NYSDEC, Office of General Counsel
625 Broadway, 14th Floor
Albany, NY 12233-1500

2. Communication to be made from the Department shall be sent to:

Richard Breck
c/o Young Sommer LLC
Executive Woods
5 Palisades Drive
Albany, New York 12205

B. The Department and Respondent reserve the right to designate additional or different addressees for communication upon written notice to the other.

C. Each party shall notify the other within ninety (90) Days after any change in the addresses in this Paragraph X or in Paragraph IV.

XI. Dispute Resolution

In the event disputes arise under this Order, Respondent may, within fifteen (15) Days after Respondent knew or should have known of the facts which are the basis of the dispute, initiate dispute resolution in accordance with the provisions of 6 NYCRR 375-1.5(b)(2). Nothing contained in this Order shall be construed to authorize Respondent to invoke dispute resolution with respect to the remedy selected by the Department in the ROD or any element of such remedy, nor to impair any right of Respondent to seek judicial review of the Department's selection of any remedy.

XII. Termination of Order

A. This Order will terminate upon the earlier of the following events:

1. Respondent's election to terminate pursuant to Subparagraphs I.B.I.b, I.C or I.E.2 so long as such election is made prior to the Department's approval of the RD/RA Work Plan. In the event of termination in accordance with this Subparagraph XII.A.1, this Order shall terminate effective the 5th Day after the Department's receipt of the written notification terminating this Order or the 5th Day after the time for Respondent to make its election has expired, whichever is earlier, provided, however, that if there are one or more Work Plan(s) for which a final report has not been approved at the time of Respondent's notification of its election to terminate this Order pursuant to Subparagraphs I.B.1b or I.E.2 or its failure to timely make such an election

pursuant to Subparagraphs I.B.I.b or I.E.2, Respondent shall promptly complete the activities required by such previously approved Work Plan(s) consistent with the schedules contained therein. Thereafter, this Order shall terminate effective the 5th Day after the Department's approval of the final report for all previously approved Work Plans; or

2. The Department's written determination that Respondent has completed all phases of the Remedial Program (including preparation and approval of Site Management), in which event the termination shall be effective on the 5th Day after the date of the Department's approval of the final report relating to the final phase of the Remedial Program.

B. Notwithstanding the foregoing, the provisions contained in Paragraphs V and VII shall survive the termination of this Order and any violation of such surviving Paragraphs shall be a violation of this Order, the ECL, and 6 NYCRR 375-2.11 (a)(4), subjecting Respondent to penalties as provided under Paragraph IV so long as such obligations accrued on or prior to the Termination Date.

C. If the Order is terminated pursuant to Subparagraph XII.A.I, neither this Order nor its termination shall affect any liability of Respondent for remediation of the Site and/or for payment of State Costs, including implementation of removal and remedial actions, interest, enforcement, and any and all other response costs as defined under CERCLA, nor shall it affect any defenses to such liability that may be asserted by Respondent. Respondent shall ensure that it does not leave the Site in a condition, from the perspective of human health and environmental protection, worse than that which existed before any activities under this Order were commenced. Further, the Department's efforts in obtaining and overseeing compliance with this Order shall constitute reasonable efforts under law to obtain a voluntary commitment from Respondent for any further activities to be undertaken as part of a Remedial Program for the Site.

XIII. Miscellaneous

A. Respondent agrees to comply with and be bound by the provisions of all applicable laws and regulations including, but not limited to, 6 NYCRR Subparts 375-1 and 375-2; the provisions of such Subparts that are referenced herein are referenced for clarity and convenience only and the failure of this Order to specifically reference any particular regulatory provision is not intended to imply that such provision is not applicable to activities performed under this Order.

B. The Department may exempt Respondent from the requirement to obtain any state or local permit or other authorization for any activity conducted pursuant to this Order in accordance with 6 NYCRR 375-1.12(b), (c), and (d).

C. 1. Respondent shall use best efforts to obtain all Site access, permits, easements, approvals, institutional controls, and/or authorizations necessary to perform

Respondent's obligations under this Order, including all Department-approved Work Plans and the schedules contained therein. If, despite Respondent's best efforts, any access, permits, easements, approvals, institutional controls, or authorizations cannot be obtained, Respondent shall promptly notify the Department and include a summary of the steps taken. The Department may, as it deems appropriate and within its authority, assist Respondent in obtaining same.

2. If an interest in property is needed to implement an institutional control required by a Work Plan and such interest cannot be obtained, the Department may require Respondent to modify the Work Plan pursuant to 6 NYCRR 375-1.6(d)(3) to reflect changes necessitated by Respondent's inability to obtain such interest.

D. The paragraph headings set forth in this Order are included for convenience of reference only and shall be disregarded in the construction and interpretation of any provisions of this Order.

E. 1. The terms of this Order shall constitute the complete and entire agreement between the Department and Respondent concerning the implementation of the activities required by this Order. No term, condition, understanding, or agreement purporting to modify or vary any term of this Order shall be binding unless made in writing and subscribed by the party to be bound. No informal advice, guidance, suggestion, or comment by the Department shall be construed as relieving Respondent of Respondent's obligation to obtain such formal approvals as maybe required by this Order. In the event of a conflict between the terms of this Order and any Work Plan submitted pursuant to this Order, the terms of this Order shall control over the terms of the Work Plans. Respondent consents to and agrees not to contest the authority and jurisdiction of the Department to enter into or enforce this Order.

2. i. Except as set forth herein, if Respondent desires that any provision of this Order be changed, Respondent shall make timely written application to the Commissioner with copies to the parties listed in Subparagraph X.A.I.

ii. If Respondent seeks to modify an approved Work Plan, a written request shall be made to the Department's project manager, with copies to the parties listed in Subparagraph X.A.I.

iii Requests for a change to a time frame set forth in this Order shall be made in writing to the Department's project attorney and project manager; such requests shall not be unreasonably denied and a written response to such requests shall be sent to Respondent promptly.

F. If Respondent is a partnership, the obligations of all general partners (including limited partners who act as general partners) under this Order are joint and several and the insolvency or failure of any general partner to implement any obligations under this Order shall not affect the obligations of the remaining partner(s) under this Order.

G. Respondent shall be entitled to receive contribution protection and/or to seek contribution to the extent authorized by ECL 27-1421(6) and 6 NYCRR 375-1.5(b)(5).

H. Unless otherwise expressly provided herein, terms used in this Order which are defined in ECL Article 27 or in regulations promulgated thereunder shall have the meaning assigned to them under said statute or regulations.

I. Respondent's obligations under this Order represent payment for or reimbursement of response costs, and shall not be deemed to constitute any type of fine or penalty.

J. Respondent and Respondent's successors and assigns shall be bound by this Order. Any change in ownership or corporate status of Respondent shall in no way alter Respondent's responsibilities under this Order.

K. This Order may be executed for the convenience of the parties hereto, individually or in combination, in one or more counterparts, each of which shall be deemed to have the status of an executed original and all of which shall together constitute one and the same.

L. The effective date of this Order is the 10th Day after it is signed by the Commissioner or the Commissioner's designee.

DATED:

JUN 24 2015

JOSEPH MARTENS
COMMISSIONER
NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

By:

Robert W. Schick, P.E., Director
Division of Environmental Remediation

CONSENT BY RESPONDENT

Respondent hereby consents to the issuing and entering of this Order, waives Respondent's right to a hearing herein as provided by law, and agrees to be bound by this Order.

Radio City Ventures LLC

By: _____

Title: Managing Member

Date: 6/16/15

STATE OF)
)ss:
COUNTY OF)

On the ____ day of _____, in the year 2015, before me, the undersigned, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Signature and Office of Individual
taking acknowledgment

Acknowledgment by a corporation, in *State:*

On the 16th day of June, in the year 2015, before me, the undersigned, personally appeared Richard F Brock Jr *(full name)* personally known to me who, being duly sworn, did depose and say that he/she/they reside at 50 Beach Road Jupiter FL 33469 *(full mailing address)* and that he/she/they is(are) the Managing Member (*president or other officer or director or attorney in fact duly appointed*) of the **Radio City Ventures LLC** (*full legal name of corporation*), the corporation described in and which executed the above instrument; and that he/she/they signed his/her/their name(s) thereto by the authority of the board of directors of said corporation.

_____
Notary Public, State of

WHITNEY W. SINGLETON
Notary Public, State of New York
No. 02S16073731
Qualified in Westchester County
Commission Expires April 29, 2018

EXHIBIT A

MAP REFERENCE: NEW YORK STATEWIDE DIGITAL ORTHOIMAGERY PROGRAM, PHOTOGRAPHY CIRCA 2009

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- APPROXIMATE STREAM LOCATION
- 100 YEAR FLOODPLAIN
- 500 YEAR FLOODPLAIN

0 125 250 500

1 inch = 250 ft.

STERLING

Sterling Environmental Engineering, P.C.

24 Wade Road • Latham, New York 12110

FLOODPLAIN MAP

RADIO CITY VENTURES, LLC

MORGAN DRIVE

VILLAGE OF MOUNT KISCO WESTCHESTER CO., N.Y.

PROJ. No.:	DATE:	SCALE:	DWG. NO.	FIGURE
2013-36	11/14/13	1" = 150'	2013-36002	2

EXHIBIT B

STERLING
Sterling Environmental Engineering, P.C.

RADIO CITY VENTURES, LLC
MORGAN DRIVE, LOT 3
TOWN AND VILLAGE OF MOUNT KISCO, NY

WASTEWATER TREATMENT PLANT (WWTP) REMEDIAL INVESTIGATION / FEASIBILITY STUDY

Prepared for:

Mr. Kevin M. Young, Esq.
Young Sommer, LLC
Executive Woods
5 Palisades Drive
Albany, New York 12205

Prepared by:

Sterling Environmental Engineering, P.C.
24 Wade Road
Latham, New York 12110

October 3, 2014

"Serving our clients and the environment since 1993"

RADIO CITY VENTURES, LLC
MORGAN DRIVE, LOT 3
TOWN AND VILLAGE OF MOUNT KISCO, NY

WASTEWATER TREATMENT PLANT (WWTP)
REMEDIAL INVESTIGATION / FEASIBILITY STUDY

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- Table A-4a – Summary of Sediment Results (April/May 2014) Compared to Characteristics Wastes and Uniform Treatment Standards

2013-36/Reports/WWTP RI-FS_toc_rev100314.doc

1.0 INTRODUCTION AND PURPOSE

Site Description

The property located at 2 Morgan Drive, Town and Village of Mount Kisco, Westchester County, New York (Tax Map/Parcel No.: 80.55-1-2.1/4) (hereinafter the "Site") consists of approximately 5.7 acres designated at Lot 3. A Site Location Map is provided as Figure 1. The Site is bordered on the northeast by the Kisco River, and to the northwest by vacant land that is currently included in the Brownfield Cleanup Program (BCP) as Site #C360112. Details, dated 1937 and 1943, prepared by the City of New York Department of Water Supply Gas & Electricity, Division of Investigation, Design and Statistics, for the Sewage Disposal Plant at Mt. Kisco, N.Y. identified onsite structures that included two (2) former primary clarifiers (sedimentation-digestion tanks), trickling filter (sprinkling filter beds), a concrete storage building (storehouse), two (2) sludge drying beds, and two (2) sand filter beds (Ponds 1 and 2). A secondary clarifier (Concrete Basin) is located north of the Site on lands owned by the Village and Town of Mt. Kisco.

Ownership

Radio City Ventures LLC ("Owner") is the current owner of the Site; it was formed in 2011 to purchase the Site. Based on previous reports, the onsite sanitary sewage treatment plant was built in 1907 and operated until 1963 when the Yonkers Plant became operational; the plant was on "standby mode" from 1964 into the 1970's, and the property was sold in 1984. During the period 1907 - 1984, the City of New York owned the Site. During that period the Site was used as a sanitary sewage treatment plant for the New York City Department of Environmental Protection (NYCDEP) to serve the local community.

During the period 1985-1988, ownership of the Site was transferred to the Village of Mount Kisco. From 1988 to 1990, the Site's owner was Radio Circle Business Park. From 1990 to 2012, Sanctuary Ventures, LLC owned the Site with the intention of developing an office building and supporting infrastructure. No use has occurred on the Site after the ownership was transferred to the Village.

Purpose/Approach

In order for the Site to be developed, the Site must be properly remediated. There is currently a letter of intent to sell the property for assisted living/nursing home for the memory impaired. Various site plan concepts have been proposed consisting of an approximate 30,000 square foot building footprint, associated roadways, parking lots, stormwater management facilities and Site grading. Initial conceptual review by the Village of Mt. Kisco Planning Board for assisted living/nursing home has been favorable; however, at present, the final building configuration, utility corridors and design of the stormwater management system, etc., has not been determined. Until final Site Plan approval is granted, the extent of conflict with existing WWTP structures, piping and contaminated media cannot be specifically determined.

The approach set forth in the Work Plan provides for:

1. Proper management of contaminated filter media, water and sludge.
2. Proper management of contaminated soils.
3. Demolition/containment of WWTP components necessary for proper closure under the Remedial Order.

4. Capping with clean soil those portions of the Site where the surface soil/sediment/media exceeds restricted use soil cleanup objectives for commercial use set forth is Section 375-6.8(b) together with such measures necessary to eliminate any potential public health risk posed by the capped areas (e.g. caving, water pooling, soil gas).

Inspection of the Site confirms WWTP components remaining at the Site consist of:

- Primary Settling Tanks 1 and 2;
- Sprinkling Filter Bed;
- Sludge Drying Beds (2);
- Ponds 1 and 2; and,
- Storage Building.

There also remains significant underground piping, valve vaults and portions of the former sand filters which extend onto the parcel to the northwest. Current Pond 2 is the former sand filter Number 9. Construction details for the sand filter are consistent with the current configuration of the present pond.

The Owner has requested that the Site remedial plan minimize the need for offsite disposal of soil, sediment and concrete. NYSDEC allows the reuse of soil and concrete at the site of generation provided there is a legitimate use as approved backfill. As a result, once the building envelope, foundation excavation, utility corridors, stormwater management system, and grading of the future Site development is known, the following approach will be implemented:

- Draft institutional controls controlling access and disturbance to underground piping and vaults outside building envelope; and,
- Develop a final grading plan for the Project that incorporates the concrete debris and reusable soil/sediment as approved backfill to the extent allowed under State and local law.

Applicable Regulations

The Site is not currently listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State. The Owner is entering into an Order on Consent as a "P" listed site under the Inactive Hazardous Waste Disposal Program. A "P" listed site is a site that is not on the Registry of Inactive Hazardous Waste Disposal Sites, but it has the potential to be a listed site. Under the proposed Order, the Owner agrees to conduct an appropriate remediation of the Site as discussed below. The draft Order provides as follows:

> All activities at the Site that comprise any element of an Inactive Hazardous Waste Disposal Site Remedial Program shall be conducted pursuant to one or more Department-approved work plans ("Work Plan" or "Work Plans") and this Order and all activities shall be consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Part 300, as required under CERCLA, 42 U.S.C. § 9600 et seq. The Work Plans under this Order shall address only onsite conditions and shall be developed and implemented in accordance with 6 NYCRR § 375-1.6(a).

Section 375-1.6(a)(1) provides, "all work plans shall: (i) be prepared and implemented in accordance with the requirements of all applicable laws, rules and regulations; and (ii) consider applicable Department guidance." The work plans authorized under the Order (but not necessarily required by the Order) are as follows:

1. Site Characterization ("SC") Work Plan: a Work Plan whose objective is to identity the presence of any hazardous waste disposal at the Site;

2. Remedial Investigation/Feasibility Study ("RI/FS") Work Plan: a Work Plan whose objective is to perform a Remedial Investigation and a Feasibility Study;

3. Interim Remedial Measure ("IRM") Work Plan: a Work Plan whose objective is to provide for an Interim Remedial Measure;

4. Remedial Design/Remedial Action ("RD/RA") Work Plan: a Work Plan whose objective is to provide for the development and implementation of final plans and specifications for implementing the remedial alternative set forth in the ROD; or

5. Site Management Plan: a Work Plan whose objective is to identify and implement the institutional and engineering controls required for the Site, as well as any necessary monitoring and/or operation and maintenance of the remedy.

This report is intended to serve the purpose of an RI/FS. Because the Site is not on the Registry, the Department has flexibility to limit the scope of the RI/FS to the information necessary to select a remedial program consistent with Section 375-2.8. That section provides as follows:

> The goal of the remedial program for a specific site is to restore that site to pre-disposal conditions, to the extent feasible. At a minimum, the remedy selected shall eliminate or mitigate all significant threats to the public health and to the environment presented by contaminants disposed at the site through the proper application of scientific and engineering principles and in a manner not inconsistent with the national oil and hazardous substances pollution contingency plan as set forth in section 105 of CERCLA, as amended as by SARA. ... The remedial party must utilize soil cleanup objectives that eliminate or mitigate the significant threat and are protective of public health and the environment. The remedial party, subject to Department approval, may: (i) utilize the soil cleanup objectives, as set forth in section 375-6.8;

The Owner and the Department have agreed that the appropriate soil cleanup objectives for the Site are the restricted use soil cleanup objectives for commercial use set forth is Section 375-6.8(b).

Section 375-2.8(d) provides as follows:

> Interim remedial measures. In the case of a site at which an interim remedial measure has been implemented, the Department may determine, based on site-specific circumstances including post-implementation investigation and/or monitoring, that the interim remedial measure satisfies the goal of the remedial program for the site, where only continued implementation of the site management plan associated with the interim remedial measure or other engineering or institutional controls is required. In which event the Department will propose the no further action alternative. Provided no other operable units remain for the site requiring action, the Department may reclassify or delist the site according to subdivisions 375-2.7(d) or (e).

Upon the Department approval of this report, the Owner intends to submit an IRM Work Plan. Upon the Department approval of the IRM Work Plan, the Owner will implement the IRM. The Owner intends to seek a determination from the Department that the IRM satisfies the goals of the remedial program for the Site, where only continued implementation of the Site Management Plan associated with the IRM or other engineering or institution controls are required.

The former treatment plant structures remaining on the Site include former primary tanks, sludge drying beds, primary and secondary clarifiers, sprinkling filter beds, two (2) former treatment ponds and a concrete storage building. These structures are considered separable operable units. With respect to those operable units, Section 375-1.8(b)(4) provides as follows:

> Where any contaminant is found to be stored on the site in containment vessels other than storage tanks (such as drums, transformers, sumps, and pits),... such contaminants shall be removed and disposed of in accordance with all applicable State and federal requirements within a schedule approved by the Department.

Section 375-1.8(c) identifies the hierarchy of source removal and control measures which are to be used, ranked from most preferable to least preferable as follows:

> (1) Removal and/or treatment. All sources, concentrated solid or semi-solid hazardous substances, dense non-aqueous phase liquid, light non-aqueous phase liquid and/or grossly contaminated media shall be removed and/or treated; provided however, if the removal and/or treatment of all such contamination is not feasible, such contamination shall be removed or treated to the greatest extent feasible.
>
> (2) Containment. Any source remaining following removal and/or treatment set forth in this subdivision shall be contained; provided however, if full containment is not feasible, such source shall be contained to the greatest extent feasible.
>
> (3) Elimination of exposure. Exposure to any source remaining following removal, treatment and/or containment set forth in this subdivision shall be eliminated through additional measures, including but not limited to, as applicable, the timely and sustained provision of alternative water supplies and the elimination of volatilization into buildings; provided however, if such elimination is not feasible such exposure shall be eliminated to the greatest extent feasible.
>
> (4) Treatment of source at the point of exposure. Treatment of the exposure resulting from a source of environmental contamination at the point of exposure, as applicable, including but not limited to, wellhead treatment or the management of volatile contamination within buildings, shall be considered as a measure of last resort.

Under Section 375-1.8 (f), all remedies selected must "conform to standards and criteria that are generally applicable, consistently applied, and officially promulgated, that are either directly applicable, or that are not directly applicable but are relevant and appropriate, unless good cause exists why conformity should be dispensed with."

Based upon the prior investigation, and with the exception of one (1) soil sample, the soil/sediment/media exceeding the Commercial SCOs is limited to the following operable units: Pond 1, Primary Tank 1 and Primary Tank 2. The remedy selected for the IRM will be the closure of those contaminated operable units (i.e., Pond 1, Primary Tank 1 and Primary Tank 2) consistent with the applicable and relevant standards and criteria as required under 6 NYCRR Part 375. The presumed remedy will consist of pumping out and properly managing the liquid contents of the tanks and structures, characterization and

proper management or solidification of any accumulated sediment within the tanks and structures, and demolition of the sidewalls of tanks and structures. The areas exceeding the Commercial SCOs will also be covered with a layer of clean soil. Results also indicate soils/sediment/media at other locations of the Site exceed the unrestricted SCOs. . All areas where there is an exceedance will be subject to institutional controls. Given that the proposed development is Commercial and the constituents found were below current Commercial SCOs, except in sediment from Primary Tanks 1 and 2 and Pond 1, contaminant containment in other areas of the property appeared to be unnecessary.

The information known about each operable unit and its contents is set forth below.

2.0 PREVIOUS SITE INVESTIGATIONS

A summary of investigations of the Site is presented below, based on the Environmental Site Assessment (ESA) Summary Report dated November 7, 2006, the report of additional sampling dated December 31, 2007, and the additional deep boring sampling report dated March 24, 2008, all prepared by Tim Miller Associates, Inc. Additionally, Sterling Environmental Engineering, P.C. (STERLING) conducted a supplemental investigation of the Site in 2014, which is summarized below.

2.1 Summary of Previous Investigations

Prior investigations evaluated the Site conditions and confirmed that the Wastewater Treatment Plant (WWTP) contains residuals from past operations (Figure 2 and Tables 1 and 2). A summary of the analytical results of the sediment and soil analyses are provided in Tables 1 and 2.

Environmental Site Assessment Summary Report – November 7, 2006 (Tim Miller Associates, Inc.)

Sampling on the Site was initially performed in 2004 in support of a Phase I Environmental Site Assessment (Tim Miller Associates, Inc., September 24, 2004). Six (6) soil borings (B-1 through B-6) were drilled and soil samples were collected between 3 and 8 feet in depth. Sample locations are presented on Figure 2 and referenced in Table 2. Soil samples were analyzed for volatile organic compounds (VOCs) via USEPA Method 8260, semi-volatile organic compounds (SVOCs) via USEPA Method 8270, RCRA 8 metals, and pesticides via USEPA Method 8081. No VOCs, SVOCs or pesticides were detected at levels above NYSDEC's soil cleanup objectives (SCOs) for Commercial sites. Levels of chromium slightly exceeded the Unrestricted SCOs in seven (7) soil samples (Table 2). Levels of mercury slightly exceed the Unrestricted SCOs in one (1) soil sample (Table 2).

Groundwater was encountered between 3.5 to 10 feet below ground surface (bgs). One (1) groundwater sample was collected and analyzed for VOCs. No VOCs were detected above applicable NYSDEC groundwater standards (TOGS).

A Phase II Environmental Assessment was subsequently conducted in November 2005 (Tim Miller Associates, Inc., December 7, 2005). Four (4) sediment samples were collected from two (2) onsite ponds (Ponds 1 and 2) and analyzed for VOCs, SVOCs, and metals. Sample locations are presented on Figure 2 and analytical results are provided in Table 1 (sediment results) and Table 2 (soil results). No VOCs were detected above Unrestricted and Commercial SCOs. One (1) sediment sample collected from Pond 1 (Sed-1) contained SVOCs above current Unrestricted SCOs while below current Commercial SCOs. Two (2) Pond 1 sediment samples (Sed-1 and Sed-4) contained cadmium (Sed-1 only), chromium, lead, and silver above current Unrestricted SCOs and barium, cadmium (Sed-4 only), and mercury above current Commercial SCOs (Table 1). Sediment samples from Pond 2 (Sed-2 and Sed-3), the former sand

filter bed, contained chromium, mercury, and silver (Sed-2 only) above current Unrestricted SCOs only (Table 1).

Additional soil and sediment sampling was performed in December 2005 (Tim Miller Associates, Inc., December 29, 2005) to further characterize the sediment in Pond 2 and to determine if any metals or SVOCs were present in the subsurface surrounding select WWTP structures. Soil borings were advanced at four (4) locations (B-8 through B-11) and samples were collected between 5 and 8 feet in depth (Figure 2).

Nine (9) sediment samples (Sed-6A, Sed-6B, Sed-6C, Sed-7A, Sed-7B, Sed-7C, Sed-8A, Sed-8B, and Sed-8C) were collected from Pond 2 and one (1) sediment sample (Sed-5) was collected from a former sludge drying bed in the southwestern part of the Site (Figure 2). Sediment samples were analyzed for metals. Cadmium, chromium, lead, mercury, and silver were detected above current Unrestricted SCOs only (Table 1).

Soil samples were analyzed for SVOCs and metals. No SVOCs were detected or detected above current Unrestricted SCOs. Four (4) soil samples contained chromium and mercury (sample B-11 6-8' only) above current Unrestricted SCOs only (Table 2).

Supplemental Soil and Sediment Sampling (Tim Miller Associates, Inc., March 30, 2006)

Sampling was conducted in March 2006 to characterize sediment in two (2) concrete primary clarifier structures (Figure 2). One (1) sediment and surface water sample were collected in each of Primary Tanks 1 and 2 and analyzed for VOCs, SVOCs, and metals. The water samples (Tank Water 1 and Tank Water 2) did not contain any compounds above detection limits. Sediment samples (Tank 1 and Tank 2) contained acetone and methyl ethyl ketone (Tank 2 only) above current Unrestricted SCOs while no SVOCs exceeded current Unrestricted SCOs (Table 1). Sediment samples from Primary Tanks 1 and 2 also contained cadmium (Tank 1 only), chromium, lead, selenium (Tank 1 only), and silver exceeded current Unrestricted SCOs (Table 1) while arsenic (Tank 1 only), barium (Tank 2 only), cadmium (Tank 2 only), and mercury above current Commercial SCOs (Table 1).

Additional Soil and Groundwater Sampling, Lot 3, Morgan Drive Property (Tim Miller Associates, Inc., December 31, 2007)

In November 2007, additional soil and groundwater sampling was conducted at the Site. Three (3) borings (B-1, B-2, and B-3 (formerly W-2)) were drilled and three (3) shallow groundwater monitoring wells (W-1, W-4, and W-5) were installed, as shown on Figure 2. Soil samples were collected at depths of 2 to 4 feet and 6 to 8 feet bgs. Soil samples were screened with a photoionization detector (PID) and no evidence of VOCs, staining, odors, or any other evidence of a past release from the onsite treatment structures was observed. Soil samples were analyzed for SVOCs and metals and soil samples from B-1 were also analyzed for VOCs. No VOCs or SVOCs were detected above current Unrestricted SCOs (Table 2). Chromium and mercury was detected above current Unrestricted SCOs only (Table 2).

Groundwater samples were analyzed for SVOCs and metals. Only one (1) groundwater sample contained one (1) SVOC above laboratory detection limits. No metals were detected. This additional sampling led to the conclusion that sediment contained in the concrete structures onsite has not migrated or impacted the soil and groundwater on the Site.

Additional Deep Boring Sampling, Morgan Drive Property/Buckingham Property – Lot 3 (Tim Miller Associates, Inc., March 24, 2008)

On March 17, 2008, two (2) additional borings (B-12 and B-13) were drilled to a depth of 12 feet bgs downgradient of Pond 2 (Figure 2). Limited constituents were found at depth and the area is capped by 10 feet of clean soil. Soil samples collected from 10 to 12 feet bgs were analyzed for SVOCs and RCRA 8 metals (Table 2). No SVOCs were detected above current Unrestricted SCOs and chromium, lead (B-12 at 10-12 feet only), and mercury (B-12 at 10-12 feet only) was detected at two (2) locations above current Unrestricted SCOs but below current Commercial SCOs.

Given that the proposed development is Commercial and the constituents found were below current Commercial SCOs, except in sediment from Primary Tanks 1 and 2 and Pond 1, contaminant containment in other areas of the property appeared to be unnecessary.

2.2 Subsurface Characteristics and Groundwater Flow Direction

General subsurface conditions at the Site are highly variable, ranging from a silty sand to a clayey sand to a depth of approximately 10 feet bgs with traces of gravel, sand and silt to a depth of 13 feet bgs (Tim Miller Associates, 2008). Review of available geologic literature indicates that the Site is located within a kame deposit, which is an ice margin deposit with variable texture (Cadwell, 1989). Depth to bedrock has not been determined but may be less than 75 feet bgs (Fisher et al., 1970). Groundwater levels vary from 2 to greater than 21 feet bgs (not encountered). The variation in groundwater elevations may be due to the heterogeneity of the onsite soils. Groundwater is expected to flow to the north towards the Kisco River. (Asselstine, E.S. and Grossman, I.G. 1955 The ground-water resources of Westchester County, New York, part 1, records of wells and test holes: New York State Water Power and Control Commission Bulletin GW-35, 79 p. "LIZARDTECH").

3.0 SUPPLEMENTAL INVESTIGATION

Following consultation with the NYSDEC and NYCDEP, STERLING conducted a supplemental investigation in 2014, summarized as follows:

Shallow Soil Borings

Soil conditions on the property were investigated by installation of eleven (11) shallow soil borings at the locations shown on Figure 3. Surface soil samples were first collected at these locations. The vegetative cover, including root zone, was removed and a soil sample was collected from the remaining top two (2) inches. These samples were analyzed for the full Target Compound List/Target Analyte List (TCL/TAL) parameters.

Soil samples were collected continuously at each boring location down to the water table and logged using the Unified Soil Classification System by Sterling Environmental Engineering, P.C. (STERLING). Background and headspace photoionization detector (PID) readings for volatile organic compounds (VOCs) were recorded on boring logs. Soil cuttings generated by boring activities, if any, were drummed for characterization and disposal.

At each boring location, three (3) soil samples were submitted for laboratory analysis (Full TCL/TAL parameters). Once the vegetative cover, including root zone, was removed the "A" soil sample was collected from the upper two (2) inches. Additionally, one (1) grab soil sample was collected at each boring from the "B" zone, which was one (1) foot below grade. The third grab soil sample was collected

from the "C" zone at various depths above the water table and was selected at the interval with the most elevated PID headspace readings and/or from visual and olfactory observations indicating the greatest potential impact. The "C" zone subsurface soil was collected at the following intervals:

Boring Location	Sample I.D.	C Zone (Feet below grade)
SB-14-1	SS-1	2 - 4
SB-14-2	SS-2	1 - 2
SB-14-3	SS-3	2 - 4
SB-14-4	SS-4	1 - 2
SB-14-5	SS-5	13.5 - 15
SB-14-6	SS-6	2 - 4
SB-14-7	SS-7	2 - 3.5
SB-14-8	SS-8	4 - 6
SB-14-9	SS-9	4 - 6
SB-14-10	SS-10	4 - 6
SB-14-11	SS-11	13.5 - 15

All samples were analyzed following New York State ASP Category B deliverables, in accordance with DER-10. Results of the analysis are summarized in Table 3 and Appendix A. The results confirm that unrestricted SCOs were exceeded for one or more parameters at each of the 11 locations in one or more of the samples obtained at the boring.

Subsurface drilling equipment was decontaminated prior to drilling and between drilling of each borehole. Water used for decontaminating (decon) equipment was acquired from a potable water source. A decon pad was built by the drilling company to contain decon water and water used to decontaminate drilling equipment was containerized and sampled. Given that analytical results indicate that the aqueous IDW is not contaminated, a petition to discharge aqueous IDW to onsite lands will be requested.

Soil / Sediments

Soil samples obtained from Sludge Drying Beds 1 and 2 and sediment samples obtained from Pond 1 were collected solely for waste disposal characterization (Figure 3). No exceedance of Unrestricted or Commercial SCOs were observed for 2014 soil/sediment samples collected from Sludge Drying Beds 1 and 2 (Tables A-1 and A-2).

As detailed in Table 1, the only historical exceedances of Commercial SCOs in Pond 1 were from 2005 results for barium (SED-1 and SED-4), cadmium (SED-4), and mercury (SED-1 and SED-4). It should also be noted that the 2005 mercury results at SED-1 and SED-4 also exceeded the Industrial SCOs (Table 1). The 2014 sediment samples (P1-1 and P1-2) were collected within 10 feet of 2005 samples collected from Pond 1 (Figure 3). Although the samples were collected in close proximity to the 2005 Pond 1 samples, the inorganic results were not replicated in the 2014 sampling event as no analyte exceeded Unrestricted or Commercial SCOs (Tables A-1 and A-2). The only 2014 Pond 1 sediment results to exceed the Commercial SCOs were at sediment sample P1-1 for PCB Aroclors 1254 and 1260 (Tables A-1 and A-2).

The soils and sediments in Pond 2 were sampled and characterized. Sediments in Pond 2 were sampled for TCL/TAL parameters with the analytical results summarized in Table 3 and Appendix A. 2014 sediments in Pond 2 were found to be contaminated with mercury in excess of unrestricted SCOs while well within the Commercial SCO criteria (Tables 3, A-1, and A-2). Results from sediment samples

collected in 2005 (SED-6, SED-7, and SED-8) were compared to current Commercial SCOs and confirmed similar trends as reported above (Table 1).

According to as-built drawings of the WWTP, Pond 2 is unlined. Pond 2 contains a 2 feet 9 inch sand base over 6 inches of gravel. Soil to a depth of two (2) feet below the base of the Pond 2 filter bed was also sampled. Soil samples were analyzed for full TCL/TAL and found to be contaminated with mercury in excess of the unrestricted SCOs and one location but well within the Commercial SCO criteria (Tables 3, A-1, and A-2).

Soil/sediment samples could not be obtained from the sprinkling filter bed and Primary Tanks 1 and 2. No historical investigation data has been collected from the sprinkling filter bed while March 2006 soil samples, collected from Primary Tanks 1 and 2, exceeded Commercial SCOs for mercury (Primary Tanks 1 and 2), arsenic (Primary Tank 1), and barium and cadmium (Primary Tank 2). It should be noted that the current Industrial SCO applied to the 2006 Primary Tank results revealed exceedances for arsenic, cadmium, and mercury.

Liquids

Surface water in Ponds 1 and 2 and liquids (predominantly water) from Primary Tanks 1 and 2 were sampled and characterized for full TCL/TAL parameters to determine whether these operable units had been impacted by Site operations (Figure 3 and Tables 4 and A-3). Two (2) surface water samples from Ponds 1 and 2 and a liquids (predominantly water) sample from Primary Tanks 1 and 2 were also sampled for disposal characterization to determine if discharge to the local municipal sewers is feasible, if warranted (Figure 3 and Tables 4 and A-4). Analytical results are summarized in Table 3 and Appendix A (Tables A-3 and A-4). Water quality standards set forth in TOGS were not exceeded for aqueous samples collected from Primary Tanks 1 and 2 or Ponds 1 and 2 (Table A-3). The onsite liquids are also within the discharge limits enforced by Westchester County (Table A-4).

Disposal Characteristics

Solids in the sludge drying beds and Sediments from Pond 1 and Pond 2 (P1-1, P1-2, P2-1, and P2-2) and two (2) solids samples were collected at each sludge drying bed and analyzed for waste disposal characteristics (Table A-4a) to determine if offsite disposal is feasible, if warranted.

The disposal characterization results for Pond sediments and Sludge Drying Beds solids were tested for characteristic wastes (corrosivity, ignitability, and reactivity) and select parameters (TCLP VOCs, TCLP SVOCs, TCLP Metals, TCLP Pesticides, select TCLP herbicides, and PCBs) were compared to NYSDEC's Universal Treatment Standards as set forth in 6 NYCRR Part 376.4(j). The results are summarized in Table A-4a. The pH ranged from 5.38 standard units (s.u.) to 6.58 s.u. which indicates that the subject samples are outside the corrosivity range (pH $\leq$ 2.0 or $\geq$ 12.5 s.u.) and are deemed acceptable. Flashpoint results were all greater than 176°F, indicating each sample was acceptable for ignitability characteristics. Hazardous waste characteristics of reactive cyanide and reactive sulfide were mostly non detect or negative for reactivity, with the exception of 40.8 mg/kg of reactive sulfide at one sample collected from Sludge Drying Bed 1 (SDB1-2) that is positive.

The hazardous waste characteristic of "reactivity" can be quite subjective. USEPA's definition of "reactivity" under 40 CFR 261.23(a) is as follows:

1. It is normally unstable and readily undergoes violent change without detonating.
2. It reacts violently with water.

3. It forms potentially explosive mixtures with water.
4. When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
5. It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2.0 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
6. It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.
7. It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.
8. It is a forbidden explosive as defined in 49 CFR Section 173.54, or meets the definition of a class/division 1.1, 1.2, or 1.3 explosive as defined in 49 CFR Section 173.50.

Since the sludge drying bed solids would be expected to have a significant water content, it would not be expected to meet criteria 1 through 4 and because it does not detonate or is not a forbidden explosive, it does not meet criteria 6 through 8, which leaves criteria 5 - a sulfide bearing waste.

In 1989, USEPA published a guidance manual (Policy Guidance No. 6) that established analytical methods (SW-846) and sulfide threshold concentration (500 mg/kg) in order to assist generators with the characterization of waste material relative to the hazardous waste characteristic of reactivity. However, in 1998, USEPA rescinded the guidance manual due to errors made in its development. Currently, there is nothing in its place. The USEPA web page (www.epa.gov/epaoswer/osw/hazwaste.htm#hazwaste) states there are no tests for "reactivity" available. It is challenging to develop a test that exposes a waste to "pH conditions between 2.0 and 12.5" and determine whether or not it generates "toxic gases, vapor, or fumes" that "present a danger to human health or the environment."

The test used by TestAmerica, Inc. is a "spot" test and is an acceptable method although USEPA has made it clear that there are no "reactivity" tests available. Unfortunately, many treatment/disposal sites are using the "spot" test as their default test in order to protect themselves from future liability. Based upon our past communications with NYSDEC, regional hazardous waste treatment/disposal facilities, and regional solid waste disposal facilities, the general consensus is as follows:

> There is no USEPA accepted analytical method for determining reactivity. If a sample is submitted to a laboratory, a sulfide screen will be performed that will indicate "positive" (>2 mg/kg) or "negative (<2 mg/kg)." A positive result does not necessarily define the waste is hazardous, although a negative result is much more comforting that the waste is not hazardous.
>
> Generators must use their knowledge of the process generating the waste stream and the waste stream itself and make a determination if the waste is reactive, particularly in relation to Criteria #5 above.

Based on the data collected during the supplemental investigation, the subject sludge drying bed sample is not believed to be hazardous or a "reactive" hazardous waste. However, the subject disposal facility that accepts this waste for treatment/disposal will need to be convinced despite the lab's "spot" test. This, based on past experiences, may result in the treatment/disposal facility requiring additional documentation of determination criteria and rationale to prove the result is anomalous.

TCLP results for VOCs, SVOCs, metals, pesticides, and herbicides and PCB solid results documented no exceedances when compared to the applicable and appropriate Universal Treatment Standard (Table A-

4a). The only exception being a slight exceedance of cadmium at one of the samples collected from Sludge Drying Bed 2 (0.16 mg/L at SBD 2-2).

4.0 IRM / INSTITUTIONAL CONTROLS

The results of the recent and previous Site investigations summarized in Sections 2.0 and 3.0 confirm that select WWTP structures (Primary Tanks 1 and 2 and Pond 1) contain accumulated solids exceeding applicable cleanup objectives (Commercial SCOs). The liquid data does not exceed applicable cleanup objectives. Results also indicate soils/sediment/media at various locations of the Site exceed the unrestricted SCOs potentially triggering the need for institutional controls; any areas with soils/sediments exceeding Commercial SCOs may require a clean soil cover. Also, the liquid accumulated in the tank appears to be a mixture of wastewater, stormwater and groundwater which is in contact with impacted sediments and filter media. With the exception of the liquid, an effort will be made to contain all materials onsite. To the extent that contaminated debris and soil that exceeds the Commercial SCOs is contained onsite by incorporating the material as backfill in a final grading plan, those areas will be capped with a one (1) foot layer of clean soil, properly contoured/graded, and subject to institutional controls in accordance with a Site Management Plan. The onsite soils that exceed the unrestricted SCOs will, if determined necessary by NYSDEC, be addressed through institutional controls which restrict future use of the Site to commercial use (including commercial residential) unless otherwise approved by the Department. The buried structures (e.g. underground piping, valve vaults) will be located onsite.

Exceedance of the Unrestricted and Commercial SCOs

Table 5 identifies the exceedances of the Unrestricted and Commercial SCOs for Site soils and sediment within the WWTP structure based on data collected during the supplemental investigation and prior investigations. Exceedance of Commercial SCOs were noted for barium, cadmium, mercury and PCB Aroclors 1254 and 1260 in sediment from Pond 1; arsenic and mercury in solids from Primary Tank 1; barium and mercury in solids from Primary Tank 2; and lead in surface soil (SS-5A) north of the sprinkling filter bed (Figure 3).

Table 6 identifies the exceedances of the unrestricted SCOs for Site soils outside the WWTP structures identified during the supplemental investigation and prior investigations. Except lead in surface soil (SS-5A) north of the sprinkling filter bed (Figure 3), there were no soil samples in the Site soils outside of a WWTP structure which exceeded the Commercial SCOs.

Estimated Quantity of Soil, Sediments, Liquid and Debris in Pond 1, Primary Tank 1 and Primary Tank 2

The estimated quantity of liquids and solids potentially requiring management is as follows:

WWTP Unit – Liquids	Estimated Quantity
Pond 1	100,000 gallons
Primary Tank 1	261,000 gallons
Primary Tank 2	93,000 gallons

The following quantities of potential debris, filter media and appurtenant piping is estimated for each operational unit.

Pond #1

Concrete (Walls and Slab-on-Grade) - 232 yds^3
Concrete (Manholes) - 4 yds^3
Piping - 7 yds^3

Primary Tank #1

Concrete (Walls) - 593 yds^3
Concrete (Slab-on-Grade/Baffles) - 397 yds^3
Piping - 14 yds^3
Fencing - 27 yds^3

Primary Tank #2

Concrete (Walls) - 238 yds^3
Concrete (Slab-on-Grade/Baffles) - 159 yds^3
Piping - 7 yds^3
Fencing - 12 yds^3

IRM Measures:

The IRM will include the following:

- Cleaning and grubbing necessary to locate and, if necessary, inspect underground piping and vaults;
- Documenting the location of the underground vaults and piping ;
- Removal of liquid from Pond 1, Primary Tank 1, and Primary Tank 2 and offsite disposal (preferably to the local POTW through existing sewer mains);
- Removal/containment of sediment and filter media from Pond 1, Primary Tank 1, and Primary Tank 2;
- Offsite disposal of any debris and/or sediment that cannot be contained onsite;
- Demolition and/or proper closure of the specified treatment plant components (i.e., Pond 1, Primary Tank 1 and Primary Tank 2); and,
- Capping with clean soil those portions of the Site where the surface soil/sediment/media exceeds Commercial SCOs together with such measures necessary to eliminate any potential public health risk posed by the capped areas (e.g. caving, water pooling, soil gas).

Such discrete activities, or combinations of such, are intended to be protective of public health and the environment and consistent with the applicable and relevant standards and criteria.

Upon NYSDEC approval, the IRM can be implemented in accordance with the Schedule in Section 5.0.

Liquid Removal

Following characterization of liquid in the former treatment facility structures as described in Section 3.0, the liquid will be removed by pumping out and will be properly managed at permitted offsite facilities.

Based upon the characterization data, the potential to discharge the liquid to the local municipal sewers is the preferred alternative. Similarly, based on the data, bids can be received from qualified transporters

possessing the necessary permits to transport the wastewater to permitted wastewater treatment plants. The offsite treatment will be in accordance with the treatment facility SPDES Permit and any applicable pretreatment requirements.

Sediments Management

Sediments below the Commercial SCOs will be left in place. Sediments above the Commercial SCOs (Contaminated sediment) will, to the extent practical, be contained in place. If for some reason, the contaminated sediment cannot be properly contained, the contaminated sediment will be removed and transported offsite to a permitted disposal facility in accordance with 6 NYCRR Part 360. The contaminated sediment contained in place will, if necessary, be stabilized to prevent the migration of contaminants. The area will be properly graded and capped with a 1-foot layer of clean soil. Institutional controls will be implemented for this area as set forth below.

Management of Debris Generated during the Remediation

To the extent practicable and allowed under 6 NYCRR Part 360 and the local code, debris from the demolition of the tanks and former WWTP structures will be managed and contained onsite. 6 NYCRR Part 360-1.15 allows the reuse onsite of the following: "(8) nonhazardous, contaminated soil, which has been excavated as part of a construction project, other than a department – approved or undertaken inactive hazardous waste disposal remediation program, and which is used as backfill for the same excavation or excavations containing similar contaminants at the same site." Section 360-7.1(b) exempts from the requirements of the Part 360 permit a site at which only the following construction and demolition debris is placed: "recognizable uncontaminated concrete and concrete products (including steel or fiber glass reinforcing rods that are embedded in the concrete), asphalt pavement, brick, glass, soil and rock." To the extent practical, the debris from the demolition will be used as fill in the containment structures provided such use does not interfere with the redevelopment of the property. If the demolition debris cannot be properly contained, the demolition debris will be removed and transported offsite to a permitted disposal facility in accordance with 6 NYCRR 360.

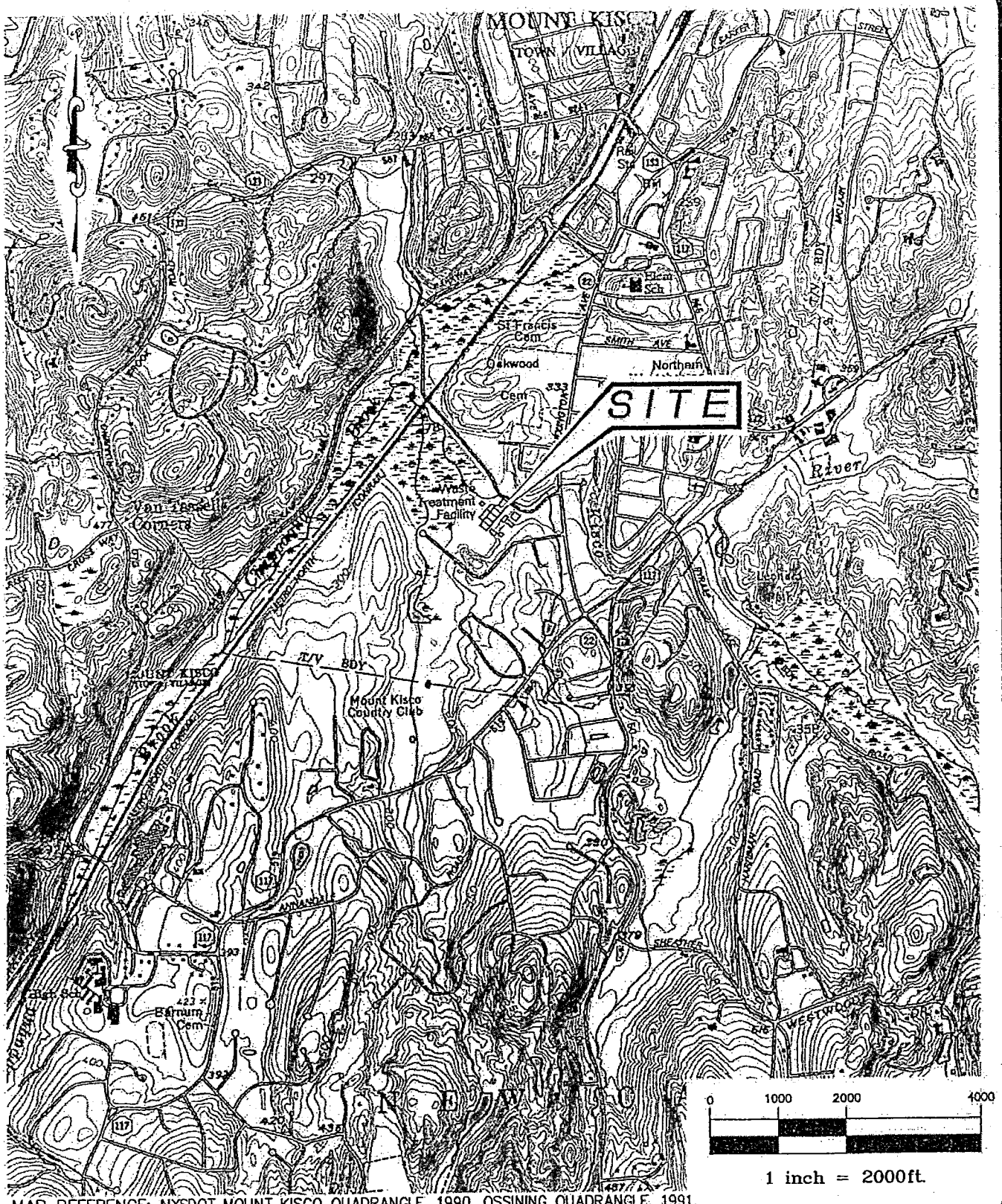
5.0 PROJECT SCHEDULE

The tasks required to complete the WWTP closure are summarized below:

Under the draft Indemnification Agreement, all submissions to NYSDEC must be approved by the NYCDEP. There are three documents that are critical to the time schedule that must be drafted, reviewed and approved by NYCDEP and NYSDEC (i.e., WWTP RI/FS Study/RI/FS; IRM Work Plan; and Final Engineering Report). A more detailed schedule is provided below. The schedule below ends with the submission to NYSDEC of the Final Engineering Report. It will likely take 3 to 4 months from the submission of the Final Engineering Report to agree on the Institutional Controls and the Site Management Plan. The objective, as outlined in this project schedule is to have the Site ready for development by the end of June 2015 in order to meet the demands of the potential buyer. It is respectfully requested that all parties attempt to meet this project schedule.

#	Tasks	Estimated Schedule
1	Obtain comments from NYCDEP on RI/FS	
2	Revise RI/FS and submit updated RI/FS Plan and draft Consent Order for NYCDEP final review	September 12
3	Receive NYCDEP comments on updated RI/FS and draft Consent Order	October 1
4	Submit RI/FS together with a draft Consent Order to NYSDEC	October 3
5	Execute Order on Consent	October 17
6	Receive Comments on RI/FS from NYSDEC	October 17
7	Submit IRM Work Plan for NYCDEP review (Sterling will obtain informal feedback from NYSDEC on the status of its review)	October 31
8	Receive comments from NYCDEP on IRM Work Plan	November 14
9	Submit updated IRM Work Plan to NYCDEP for approval	November 21
10	Obtain NYCDEP approval of IRM Work Plan	December 2
11	Submit IRM Work Plan for NYSDEC review	December 8
12	Receive Comments from NYSDEC on IRM Work Plan	December 29
13	Address NYSDEC Review Comments, Resubmit IRM Work Plan for Approval (simultaneously working w/NYCDEP)	January 12
14	Obtain NYSDEC approval for IRM Work Plan	January 26
15	Implement IRM Work Plan, coupled with Site Plan approval from Village of Mt. Kisco	February, March, April
16	Submit Final Engineering Report (with Site Management Plan) to NYCDEP for review	May 6
17	Obtain NYCDEP comments on Final Engineering Report	May 20
18	Resubmit Final Engineering Report (with Site Management Plan) to NYCDEP for review	May 27
19	Obtain NYCDEP approval of Final Engineering Report	June 11
20	Submit Final Engineering Report to NYSDEC	June 11

FIGURES



MAP REFERENCE: NYSDOT MOUNT KISCO QUADRANGLE, 1990, OSSINING QUADRANGLE, 1991.

STERLING

Sterling Environmental Engineering, P.C.

24 Wade Road • Latham, New York 12110

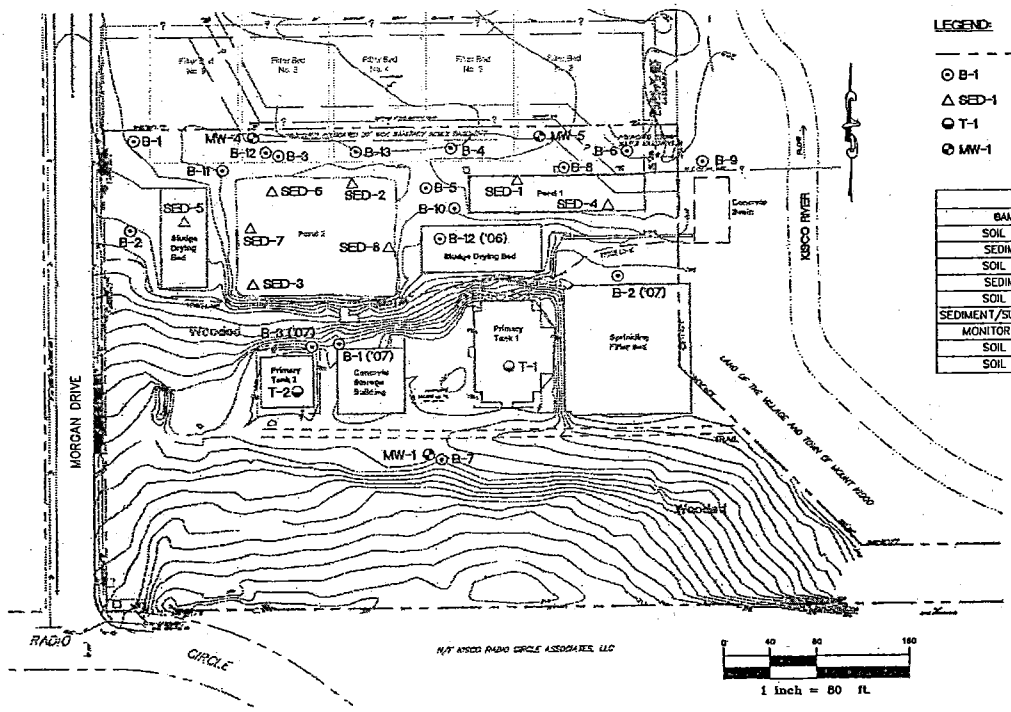
SITE LOCATION MAP

RADIO CITY VENTURES, LLC

MORGAN DRIVE

VILLAGE OF MOUNT KISCO WESTCHESTER CO., N.Y.

PROJ. No.: 2013-36	DATE: 10/16/13	SCALE: 1" = 2000'	DWG. NO. 2013-36001	FIGURE 1



LEGEND:

— — — —	PROPERTY BOUNDARY
⊙ B-1	SOIL BORING SAMPLE LOCATION
△ SED-1	SEDIMENT SAMPLE LOCATION
⊖ T-1	SEDIMENT/SURFACE WATER SAMPLE LOCATION
⊘ MW-1	MONITORING WELL SAMPLE LOCATION

SUMMARY OF SAMPLING HISTORY		
SAMPLE TYPE	SAMPLE NUMBERS	DATE OF SAMPLE
SOIL BORING (B)	1 – 7	SEPTEMBER 2004
SEDIMENT (SED)	1 – 4	NOVEMBER 2005
SOIL BORING (B)	8 – 11	DECEMBER 2005
SEDIMENT (SED)	5 – 8	DECEMBER 2005
SOIL BORING (B)	12 ('06)	MARCH 2006
SEDIMENT/SURFACE WATER (T)	1 – 2	MARCH 2006
MONITORING WELL (MW)	1, 4, & 5	NOVEMBER 2007
SOIL BORING (B)	1–3 ('07)	NOVEMBER 2007
SOIL BORING (B)	12 – 13	MARCH 2008

DRAWING REFERENCES:
1. BASE DRAWING FROM DRAWING ENTITLED "SITE PLAN" BY TIM MILLER ASSOCIATES, INC., WITH A PLOT STAMP DATE OF 8/27/13.
2. 2006 SAMPLE LOCATIONS FROM DRAWING ENTITLED "SITE PLAN WITH SAMPLING LOCATIONS" BY TIM MILLER ASSOCIATES, INC., WITH A PLOT STAMP OF 05/18/06.
3. 2007 SAMPLE LOCATIONS FROM DRAWING ENTITLED "ADDITIONAL SAMPLING LOCATIONS" BY TIM MILLER ASSOCIATES INC., DATED 11/7/2007.
4. 2008 SAMPLE LOCATIONS FROM SKETCH ENTITLED "ADDITIONAL DEEP BORING SAMPLING LOCATIONS" BY TIM MILLER ASSOCIATES, INC., DATED 3/24/2008.

STERLING
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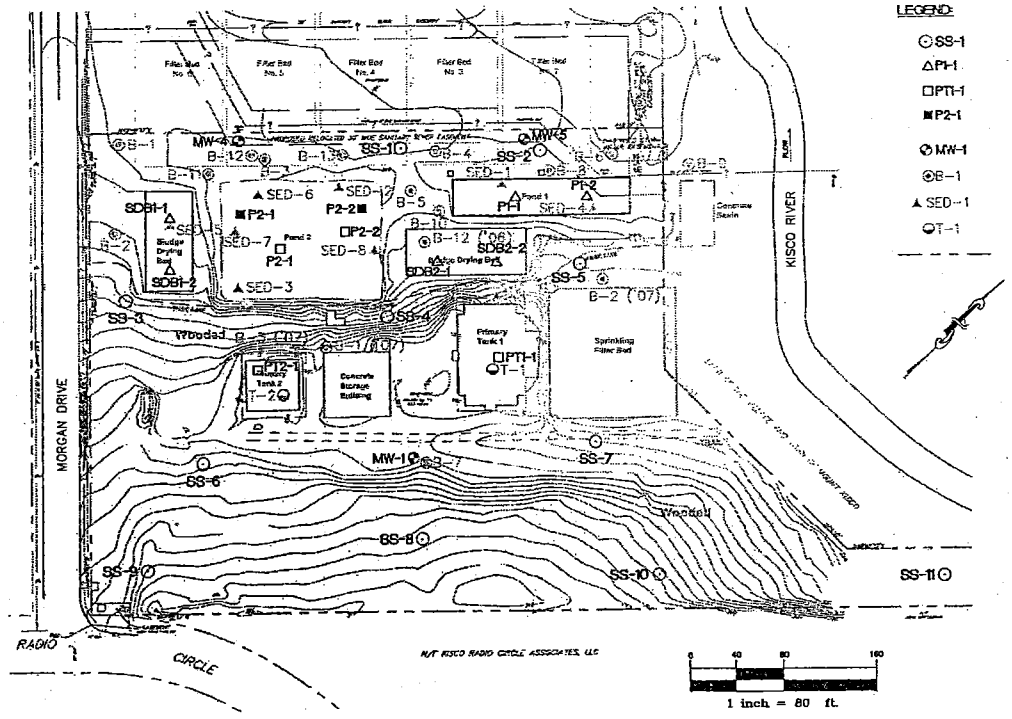
EXISTING SAMPLING LOCATIONS
RADIO CITY VENTURES, LLC
MORGAN DRIVE
VILLAGE OF MOUNT KISCO WESTCHESTER CO., N.Y.

PROJ. No.: 2013–36	DATE: 2/11/14	SCALE: 1" = 80'	DWG. NO. 2013–36007	FIGURE 2



LEGEND:

⊙SS-1	2014 SOIL SAMPLE LOCATION
△PH-1	2014 SEDIMENT/AQUEOUS SAMPLE LOCATION
□PTI-1	2014 SURFACE WATER SAMPLE LOCATION
■P2-1	2014 SEDIMENT/SOIL SAMPLE LOCATION
⊗MW-1	MONITORING WELL (2005–2007)
⊕B-1	SOIL BORING (2005–2008)
▲SED-1	SEDIMENT SAMPLE LOCATION (2005–2006)
⊙T-1	SEDIMENT/WATER SAMPLE LOCATION (2006)
— — —	PROPERTY BOUNDARY

DRAWING REFERENCES:

1. BASE DRAWING FROM DRAWING ENTITLED "SITE PLAN" BY TIM MILLER ASSOCIATES, INC., WITH A PLOT STAMP DATE OF 8/27/13.
2. 2006 SAMPLE LOCATIONS FROM DRAWING ENTITLED "SITE PLAN WITH SAMPLING LOCATIONS" BY TIM MILLER ASSOCIATES, INC., WITH A PLOT STAMP OF 05/18/06.
3. 2007 SAMPLE LOCATIONS FROM DRAWING ENTITLED "ADDITIONAL SAMPLING LOCATIONS" BY TIM MILLER ASSOCIATES INC., DATED 11/7/2007.
4. 2008 SAMPLE LOCATIONS FROM SKETCH ENTITLED "ADDITIONAL DEEP BORING SAMPLING LOCATIONS" BY TIM MILLER ASSOCIATES, INC., DATED 3/24/2008.

S:\Drawing\2013-36 - Mount Kisco - Kevin Young\2013-36011 Sample Loc.dwg 7/14/2014 1:19 PM

STERLING
Sterling Environmental Engineering, P.C.
24 Wade Road • Latham, New York 12110

2014 SUPPLEMENTAL INVESTIGATION
SAMPLING LOCATIONS
RADIO CITY VENTURES, LLC
MORGAN DRIVE
VILLAGE OF MOUNT KISCO — WESTCHESTER CO., N.Y.

PROJ. No.:	DATE:	SCALE:	DWG. NO.	FIGURE
2013-36	7/14/14	1" = 80'	2013-36010	3

TABLES

RADIO CITY VENTURES, LLC
MORGAN DRIVE, LOT 3, MT. KISCO, NY

Table 1
Summary of Historical Sediment Sample Results (2005-2006)

VOLATILE ORGANICS																
Matrix	Units	6 NYCRR 375.6 - Unrestricted SCOs	6 NYCRR 375.6 - Commercial SCOs	Sediment												
Date Sampled				11/3/2005								3/30/2006				
Sample ID				Sed-1		Sed-2		Sed-3		Sed-4		Tank Soil 1		Tank Soil 2		
Parameters				Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
Acetone	ppm	0.05	500	-		-		-		-		0.269		0.614		
Benzene	ppm	0.06	44	-		-		-		-		-		0.033	J	
Carbon disulfide	ppm	-	-	-		-		-		-		0.0275	J	0.0432		
Chlorobenzene	ppm	1.1	500	-		-		-		-		0.0373	J	0.0204	J	
cis-1,2-Dichloroethene	ppm	0.25	500	-		-		-		-		-		0.0051	J	
1,2-Dichlorobenzene	ppm	1.1	500	-		-		-		-		0.0704		0.0978		
1,3-Dichlorobenzene	ppm	2.4	280	-		-		-		0.0274		0.0353	J	0.078		
1,4-Dichlorobenzene	ppm	1.8	130	-		-		-		0.039		0.0836		0.145		
Ethylbenzene	ppm	1	390	-		-		-		-		-		0.0057		
4-Isopropyltoluene	ppm	-	-	0.059		-		-		0.0293		-		-		
Methyl ethyl ketone	ppm	0.12	500	-		-		-		-		0.0717	J	0.147		
1,2,4-Trichlorobenzene	ppm	-	-	-		-		-		0.03		-		-		
Toluene	ppm	0.70	500	-		-		-		-		-		0.0245		
Vinyl chloride	ppm	0.02	13	-		-		-		-		-		0.0064	J	
Xylene (mixed)	ppm	0.26	500	-		-		-		-		0.175		0.253		

SEMI-VOLATILE ORGANICS																
Matrix	Units	6 NYCRR 375.6 - Unrestricted SCOs	6 NYCRR 375.6 - Commercial SCOs	Sediment												
Date Sampled				11/3/2005								3/30/2006				
Sample ID				Sed-1		Sed-2		Sed-3		Sed-4		Tank Soil 1		Tank Soil 2		
Parameters				Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
Acenaphthene	ppm	20	500	-		-		-		-		0.0558	J	-		
Anthracene	ppm	100	500	-		-		-		-		0.0697	J	0.19	J	
Benz(a)anthracene	ppm	1	5.6	1.01		-		-		-		0.104	J	0.217	J	
Benzo(a)pyrene	ppm	1	1	0.846		-		-		-		0.1	J	0.239	J	
Benzo(b)fluoranthene	ppm	1	6	1.95		-		-		-		0.109	J	0.325		
Benzo(k)fluoranthene	ppm	0.80	5.6	-		-		-		-		0.117	J	0.275	J	
Bis(2-ethylhexyl)phthalate	ppm	-	-	-		-		-		-		0.849		1.67		
Carbazole	ppm	-	-	-		-		-		-		-		0.148	J	
4-Chloroaniline	ppm	-	-	2.08		-		-		2.61		-		-		
Chrysene	ppm	1	56	1.44		-		-		-		0.119	J	0.322		
1,2-Dichlorobenzene	ppm	1.1	500	-		-		-		-		0.0501	J	0.166	J	
1,3-Dichlorobenzene	ppm	2.4	280	-		-		-		-		-		0.127	J	
1,4-Dichlorobenzene	ppm	1.8	130	-		-		-		-		0.0605	J	0.251	J	
Dibenzofuran	ppm	7	350	-		-		-		-		0.0572	J	0.128	J	
Fluoranthene	ppm	100	500	0.992		-		-		-		0.265		0.777		
Fluorene	ppm	30	500	-		-		-		-		0.077	J	0.235	J	
Naphthalene	ppm	12	500	-		-		-		-		0.372		1.7		
Phenanthrene	ppm	100	500	-		-		-		-		0.292		0.895		
Pyrene	ppm	100	500	1.05		-		-		-		0.18		0.573		

METALS																					
Matrix	Units	6 NYCRR 375.6 - Unrestricted SCOs	6 NYCRR 375.6 - Commercial SCOs	Sediment																	
Date Sampled				11/3/2005										12/29/2005							
Sample ID				Sed-1		Sed-2		Sed-3		Sed-4		Sed-5		Sed-6A		Sed-6B		Sed-6C	
Parameters				Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Arsenic	ppm	13	16	-		-		-		-		1.2		-		1.6		4.8	
Barium	ppm	350	400	920		336		105		1920		69.7		75.1		109		111	
Cadmium	ppm	2.5	9.3	5.25		-		-		20.7		2.6		-		-		-	
Total Chromium	ppm	1[1]	400[2]	125		20.5		22.7		279		16.6		20.7		24.3		51.2	
Lead	ppm	63	1,000	321		29		53.3		573		7.5		29.4		41.7		11.6	
Mercury	ppm	0.18	2.8	2.11*		0.89		1.14		33.2*		0.086		0.36		0.65		0.54	
Selenium	ppm	3.9	1500	-		-		-		-		-		-		-		-	
Silver	ppm	2	1500	51		2.18		1.81		59.1		-		-		-		-	

METALS Cont.																					
Matrix	Units	6 NYCRR 375.6 - Unrestricted SCOs	6 NYCRR 375.6 - Commercial SCOs	Sediment																	
Date Sampled				12/29/2005												3/30/2006					
Sample ID				Sed-7A		Sed-7B		Sed-7C		Sed-8A		Sed-8B		Sed-8C		Tank Soil 1		Tank Soil 2	
Parameters				Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Arsenic	ppm	13	16	2.1		2.3		3.2		2.2		3.3		3.4		24*		10.2	
Barium	ppm	350	400	100		89		137		98		102		127		339		1680	
Cadmium	ppm	2.5	9.3	-		-		-		-		-		-		15.2		72.1*	
Total Chromium	ppm	1[1]	400[2]	23.9		25.5		22.7		22.5		29.3		29.5		55.4		276	
Lead	ppm	63	1,000	28.7		78.3		13.7		23.6		18.6		33.6		198		384	
Mercury	ppm	0.18	2.8	0.63		1.9		0.24		0.095		0.86		0.8		1.8		13.4*	
Selenium	ppm	3.9	1500	-		-		-		-		-		-		21.5		-	
Silver	ppm	2	1500	1.7		2		-		-		-		-		15.3		73	

Source: Tim Miller Associates, 2006, 2007, 2008

- = Not Detected or No Standard

(1) = (1) Unrestricted SCO for Chromium, hexavalent = 1mg/kg, Unrestricted SCO for Chromium, trivalent = 30 mg/kg

(2) = (2) Commercial SCO for Chromium, hexavalent = 400 mg/kg, Commercial SCO for Chromium, trivalent = 1500 mg/kg

Above Unrestricted Use SCOs

Above Unrestricted Use and Commercial Use SCOs

* Above Unrestricted Use, Commercial Use, and Industrial Use SCOs

LABORATORY QUALIFIERS

J = Indicates an Estimated Value

RADIO CITY VENTURES, LLC
MORGAN DRIVE, LOT 3, MT. KISCO, NY

Table 2
Summary of Historical Soil Sample Results (2004-2008)

VOLATILE ORGANICS							
Matrix	Units	6 NYCRR 375.6 - Unrestricted SCOs	6 NYCRR 375.6 - Commercial SCOs	Soil			
Date Sampled				11/20/2007		11/20/2007	
Sample ID				B-1 @ 2-4'		B-1 @ 6-8'	
Parameters				Result	Qual	Result	Qual
Xylene (mixed)	ppm	0.26	500	0.00086	J	-	

NOTE: Soil samples from borings B-1 through B-7 were collected on September 16, 2004 at various depths; no VOCs were detected.

SEMI-VOLATILE ORGANICS																	
Matrix	Units	6 NYCRR 375.6 - Unrestricted SCOs	6 NYCRR 375.6 - Commercial SCOs	Soil													
Date Sampled				12/29/2005		11/20/2007								3/17/2008			
Sample ID				B-11 @ 6-8'		B-1 @ 2-4'		B-3 @ 2-4'		B-3 @ 6-8'		MW-4 @ 6-8'		B-12 @ 10-12'		B-13 @ 10-12'	
Parameters				Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Acenaphthene	ppm	20	500	-		-		-		-		-		0.0222	J	-	
Benz(a)anthracene	ppm	1	6	-		-		0.0543	J	-		0.0117	J	0.0715	J	-	
Benzo(a)pyrene	ppm	1	1	-		-		0.051	J	-		-		0.0526	J	-	
Benzo(b)fluoranthene	ppm	1	6	-		-		0.0507	J	-		-		0.058	J	-	
Benzo(g,h,i)perylene	ppm	100	500	-				0.0303	J					0.0413	J	-	
Benzo(k)fluoranthene	ppm	0.80	56	-		-		0.049	J	-		-		0.0434	J	-	
Chrysene	ppm	1	56	-		-		0.0483	J	-		-		0.0832	J	-	
Fluoranthene	ppm	100	500	0.0203	J	0.0115	J	0.0871		0.0094	J	0.0128	J	0.109		-	
Fluorene	ppm	30	500	-		-		-		-		-		0.0246	J	-	
Phenanthrene	ppm	100	500	-		-		0.0236	J	-		-		0.0742	J	-	
Pyrene	ppm	100	500	0.018	J	-		0.0814		-		0.0143	J	0.112		-	

NOTE: Soil samples from borings B-1 through B-7 were collected on September 16, 2004 at various depths; no SVOCs were detected in the samples. Soil samples from borings B-8 through B-10 were collected on December 29, 2005 at various depths; no SVOCs were detected in the samples. Soil samples from boring B-12 were collected on March 30, 2006 at 0.5-1.5'; no SVOCs were detected in the samples.

METALS																	
Matrix	Units	6 NYCRR 375.6 - Unrestricted SCOs	6 NYCRR 375.6 - Commercial SCOs	Soil													
Date Sampled				9/16/2004												12/29/2005	
Sample ID				B-1 @ 3-4'		B-2 @ 7-8'		B-3 @ 7-8'		B-4 @ 3-4'		B-5 @ 4-6'		B-6 @ 7-8'		B-7 @ 0.5-1.5'		B-8 @ 6-8'	
Parameters				Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Arsenic	ppm	13	16	-		-		-		-		-		-		-		2.8	
Barium	ppm	350	400	40		49		97		89		85	U	48		180		154	
Cadmium	ppm	2.5	9.3	-		-		0.91		0.8		1.1		1		1.7		-	
Total Chromium	ppm	1[1]	400[2]	12		15		28		21		34		19		70		32.9	
Lead	ppm	63	1,000	10		3.2		9.4		4.5		4.8		5.9		3.3		5.5	
Mercury	ppm	0.18	2.8	0.1		-		-		0.11		-		0.22		-		-	
Selenium	ppm	3.9	1,500	-		-		-		-		-		-		-		-	
Silver	ppm	2	1,500	0.57		-		-		-		-		-		-		-	

METALS Cont.																					
Matrix	Units	6 NYCRR 375.6 - Unrestricted SCOs	6 NYCRR 375.6 - Commercial SCOs	Soil																	
Date Sampled				12/19/2005						3/9/2008		11/20/2007									
Sample ID				B-9 @ 7-9'		B-10 @ 5-7'		B-11 @ 6-8'		B-12 @ 6-8'		B-1 @ 2-4'		B-1 @ 6-8'		B-2 @ 2-4'		B-2 @ 6-8'	
Parameters				Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Arsenic	ppm	13	16	1.9		-		-		-		2.9		2.3		-		-	
Barium	ppm	350	400	114		103		96.6		72.8		116		94.4		45.5		155	
Cadmium	ppm	2.5	9.3	-		-		-		3		-		-		-		-	
Total Chromium	ppm	1[1]	400[2]	28.9		15.7		30.5		17.4		28.2		30.3		12.1		32.9	
Lead	ppm	63	1,000	23.6		4.4		10.7		40.8		29.8		6.8		-		3.2	
Mercury	ppm	0.18	2.8	-		-		0.22		0.18		0.059		0.034		-		-	
Selenium	ppm	3.9	1,500	1.2	U	1.2	U	1.1	U	-		-		-		-		-	
Silver	ppm	2	1,500	1.2	U	1.2	U	1.1	U	-		-		-		-		-	

METALS Cont.																					
Matrix	Units	6 NYCRR 375.6 - Unrestricted SCOs	6 NYCRR 375.6 - Commercial SCOs	Soil																	
Date Sampled				11/20/2007												3/17/2008					
Sample ID				B-3 @ 2-4'		B-3 @ 6-8'		MW-4 @ 2-4'		MW-4 @ 6-8'		MW-5 @ 2-4'		MW-5 @ 6-8'		B-12 @ 10-12'		B-13 @ 10-12'	
Parameters				Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Arsenic	ppm	13	16	-		-		-		-		-		-		4.1		-	
Barium	ppm	350	400	88.4		85.6		113		117		89.3		25.8		102		106	
Cadmium	ppm	2.5	9.3	-		-		-		-		-		-		0.63		-	
Total Chromium	ppm	1[1]	400[2]	26.7		29.2		25.6		31.4		20.7		8.9		25.6		28.7	
Lead	ppm	63	1,000	31.2		52.9		3.4		8.9		15.9		3.1		124		7.9	
Mercury	ppm	0.18	2.8	0.16		0.061		-		0.093		0.19		0.056		1.2		-	
Selenium	ppm	3.9	1,500	-		-		-		-		-		-		-		-	
Silver	ppm	2	1,500	-		-		-		-		-		-		1.8		-	

Source: Tim Miller Associates, 2006, 2007, 2008

- = Not Detected or No Standard

(1) = (1) Unrestricted SCO for Chromium, hexavalent = 1mg/kg, Unrestricted SCO for Chromium, trivalent = 30 mg/kg

(2) = (2) Commercial SCO for Chromium, hexavalent = 400 mg/kg, Commercial SCO for Chromium, trivalent = 1500 mg/kg

Above Unrestricted Use SCOs

Above Unrestricted Use and Commercial Use SCOs

* Above Unrestricted Use, Commercial Use, and Industrial Use SCOs

LABORATORY QUALIFIERS

J = Indicates an Estimated Value

NOTE: Soil samples from borings B-1 through B-7 were collected on September 16, 2004 at various depths and tested for pesticides. Pesticides were not detected in the samples.

Table 3

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] mg/kg	Commercial SCO[2] mg/kg	SS-1A	SS-1B	SS-1C	SS-2A	SS-2B	SS-2C	SS-3A	SS-3B	SS-3C	SS-4A	SS-4B
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg													
Acetone	0.05	500	0.0039 U	0.0042 U	0.0044 U	0.0053 U	0.0037 U	0.0039 U	0.0049 U	0.0043 U	0.004 U	0.14	0.0042 U
Trivalent Chromium (SM 3500 CR D) mg/kg													
Cr (III)	30	1500	19.1	18.9	20.1	17.9	17.5	20.4	21.6	22.1	36.5	20.1	13.2
METALS (6010C, 3050B) mg/kg													
Chromium (Total)	30		19.1	19.3	20.6	18.4	18.0	20.4	21.6	22.4	37.3	20.1	13.2
Lead, Total Recoverable	63	1000	8.8	8.5	6.7	11.4	10.2	9.6	18.4	14.9	9.2	102	80.5
Nickel, Total Recoverable	30	310	14.8	15.1	16.5	13.9	13.5	14.9	16.8	16.6	18.7	15.0	9.3
Mercury (7471B, 7471B_PREP) mg/kg													
Mercury, Total Recoverable	0.18	2.8	0.034 J B	0.050 B	0.030 J B	0.073 B	0.057 B	0.056 B	0.092 B	0.11 B	0.040 B	0.32	0.22
Pesticides (8081B, 3550C) mg/kg													
4,4'-DDE	0.0033	62	0.002 U	0.0014 J	0.0009 J	0.0033 J	0.0031 J	0.0008 J	0.0022 J	0.0013 J	0.0012 J	0.0045 U	0.00063 J
4,4'-DDT	0.0033	47	0.0022 U	0.00091 U	0.00047 U	0.0024 U	0.0027 J B	0.00045 U	0.0015 J B	0.00069 J B	0.00044 U	0.0099 J	0.0011 J
Endrin	0.014	89	0.028	0.0041	0.00039 U	0.0024 J	0.0018 U	0.00038 U	0.00085 U	0.00039 U	0.00037 U	0.0043 U	0.00039 U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg													
PCB-1254	0.1	1	—	—	—	—	—	—	—	—	—	—	—
PCB-1260	0.1	1	—	—	—	—	—	—	—	—	—	—	—

Notes

[1] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(a), Unrestricted Use.

[2] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(b), Commercial Use

Values in BOLD and highlighted in yellow indicate an exceedance of Unrestricted SCOs.

Values highlighted in purple indicate an exceedance of Unrestricted and Residential SCOs, Restricted Residential and Commercial SCOs.

— Sample not detected above Unrestricted SCO.

J - Result is less than the Reporting Limit but less than or equal to the Method Detection Limit and the concentration is an approximate value

U - Undetected at the Method Detection Limit

B - Compound was found in the blank and sample

* ISTD Response or retention time outside acceptable limits

Table 3

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] mg/kg	Commercial SCO[2] mg/kg	SS-4C	SS-5A	SS-5B	SS-5C	SS-6A	SS-6B	SS-6C	SS-7A	SS-7B	SS-7C	SS-8A	SS-8B	SS-8C
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg															
Acetone	0.05	500	0.011 J	0.0052 U	0.006 U	0.0069 J	0.0041 U	0.0039 U	0.0063 U	0.0043 U	0.0038 U	0.0043 J	0.007 U	0.006 U	0.0038 U
Trivalent Chromium (SM 3500 CR D) mg/kg															
Cr (III)	30	1500	20.4	21.8	16.7	**36.8**	19.3	15.9	23.2	14.7	20.3	17.3	15.1	20.3	18.1
METALS (6010C, 3050B) mg/kg															
Chromium (Total)	30		20.4	22.3	17.2	**37.1**	19.3	16.5	23.6	15.1	20.3	17.8	15.1	20.3	18.4
Lead, Total Recoverable	63	1000	53.2	**4810**	8.4	5.4	15.5	15.2	29.7	36.9	48.1	2.9	38.1	20.1	4.2
Nickel, Total Recoverable	30	310	15.1	19.0	16.3	**30.9**	12.8	13.9	17.6	10.5	13.7	12.6	10.1	13.5	10.8
Mercury (7471B, 7471B_PREP) mg/kg															
Mercury, Total Recoverable	0.18	2.8	0.13	0.076	0.026	0.0091 U	0.26 B	0.15 B	0.11 B	0.12	0.087	0.016 U	0.12	0.061	0.048
Pesticides (8081B, 3550C) mg/kg															
4,4'-DDE	0.0033	62	0.0006 J	0.0044 U	0.0004 J	0.0004 U	0.0045 J	0.0015 J	0.0064 J	0.002 U	0.0005 J	0.0004 U	0.003 J	0.001 J	0.0004 U
4,4'-DDT	0.0033	47	0.0006 J	0.0064 J	0.0007 J	0.0004 U	0.0024 U	0.0007 J B	0.0027 J B	0.0043 J	0.001 J	0.0004 U	0.005 J	8E-04 J	0.0004 U
Endrin	0.014	89	0.0004 U	0.0041 U	0.0004 U	0.0004 U	0.002 U	0.0004 U	0.0018 U	0.0019 U	0.0004 U	0.0004 U	0.002 U	4E-04 U	0.0004 U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg															
PCB-1254	0.1	1	—	—	—	—	—	—	—	—	—	—	—	—	—
PCB-1260	0.1	1	—	—	—	—	—	—	—	—	—	—	—	—	—

Notes

[1] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(a), Unrestricted Use.

[2] Soil Cleanup Objectives are from 6 NYCRR Subpart 375-6.8(b), Restricted, Commercial, and Industrial Use, Protection of Public Health.

(3) Values in BOLD indicate an exceedance of Unrestricted SCOs.

Values highlighted in purple indicate an exceedance of Unrestricted and Residential SCOs, Restricted, Restricted Residential and Commercial SCOs

— Sample not detected above Unrestricted SCO.

J - Result is less than the Reporting Limit but less than or equal to the Method Detection Limit and the concentration is an approximate value

U - Undetected at the Method Detection Limit

B - Compound was found in the blank and sample

* ISTD Response or retention time outside acceptable limits

Table 3

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] mg/kg	Commercial SCO[2] mg/kg	SS-8A	SS-9B	SS-9C	SS-10A	SS-10B	SS-10C	SS-11A	SS-11B	SS-11C	P1-1(Sed)	P1-2(Sed)	P2-1(S)	P2-2(S)	P2-1(Sed)	P2-2(Sed)
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg																	
Acetone	0.05	500	0.0052 U	0.0039 U	0.004 J	0.0051 U	0.0051 U	0.0041 U	0.0067 U	0.0042 U	0.0038 U	—	—	0.0052 U	0.0018 U	0.0024 U	0.005 U
Trivalent Chromium (SM 3500 CR D) mg/kg																	
Cr (III)	30	1500	29.3	24.3	21.7	21.2	20.8	24.3	15.0	32.1	19.3	0.027B	0.0023 JB	16.8	17.7	8.4	8.9
METALS (6010C, 3050B) mg/kg																	
Chromium (Total)	30		30.0	25.0	21.7	21.6	21.4	24.8	15.0	32.6	20.1	0.027B	0.0023 JB	17.6	18.5	8.4	9.5
Lead, Total Recoverable	63	1000	8.9	7.2	8.6	46.2	19.3	4.6	64.7	10.3	4.4	0.49	0.084	20.6	23.1	62.7	31.9
Nickel, Total Recoverable	30	310	25.5	19.4	18.2	15.3	14.5	16.8	9.4	21.5	13.7	—	—	19.7	9.6	6.6	9.0
Mercury (7471B, 7471B_PREP) mg/kg																	
Mercury, Total Recoverable	0.18	2.8	0.067 B	0.035 JB	0.028 JB	0.19	0.065	0.0084 U	0.084	0.061	0.0096 J	0.008	0.00014J	0.17	0.22	0.66	0.39
Pesticides (8081B, 3550C) mg/kg																	
4,4'-DDE	0.0033	62	0.0061 J	0.0035 J	0.0004 U	0.0052 J	0.0004 U	0.0007 J	0.01 J	0.0008 J	0.0008 J	—	—	0.00068 J	0.0011 J	0.0004 J	0.0042 U
4,4'-DDT	0.0033	47	0.0046 U	0.0022 U	0.0004 U	0.0068 J	0.0009 J	0.0004 U	0.013 J	0.0008 J	0.0009 J	—	—	0.0011 J	0.0004 U	0.0006 J	0.0046 U
Endrin	0.014	89	0.0041 U	0.0019 U	0.0004 U	0.0021 U	0.0004 U	0.0004 U	0.0036 U	0.0005 U	0.0004 U	0.000014U	0.000014U	0.00038 U	0.0004 U	0.0004 U	0.0039 U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg																	
PCB-1254	0.1	1	—	—	—	—	—	—	—	—	—	2.5	0.84	—	—	—	—
PCB-1260	0.1	1	—	—	—	—	—	—	—	—	—	1.3	0.52	—	—	—	—

Notes

[1] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(a), Unrestricted Use.

[2] Soil Cleanup Objectives are from 6 NYCRR Subpart 375-6.8(b), Restricted, Commercial, and Industrial Use, Protection of Public Health.

(3) Values in BOLD indicate an exceedance of Unrestricted SCOs.

Values highlighted in purple indicate an exceedance of Unrestricted and Residential SCOs, Protection, Restricted Residential and Commercial SCOs.

J - Result is less than the Reporting Limit but less than or equal to the Method Detection Limit and the concentration is an approximate value

U - Undetected at the Method Detection Limit

B - Compound was found in the blank and sample

* ISTD Response or retention time outside acceptable limits

Table 4

Summary of Samples Collected – Supplemental Investigation
Morgan Drive Property, Mount Kisco, NY

Area Sampled	Matrix	Sample ID	Total #	Analyses	Category	Notes
Site-wide	Surface and Shallow Soil	SS-1(A,B) through SS-9(A,B)	16 + grab samples	TCL/TAL parameters	B	Additional grab samples if indicated from PID readings
Pond 1	Liquid	P1-1(L) and P1-2(L)	2	Disposal		
Pond 1	Sediment	P1-1(Sed) and P1-2(Sed)	2	Disposal and/or solidification		
Pond 2	Liquid	P2-1(L) and P2-2(L)	2	TCL/TAL and Disposal	B	
Pond 2	Sediment	P2-1(Sed) and P2-2(Sed)	2	TCL/TAL parameters; disposal and/or solidification	B	
Pond 2	Soil Beneath	P2-1(S) and P2-2(S)	2	TCL/TAL parameters	B	
Sludge Drying Bed 1	Sediment	SD1-1 and SD1-2	2	Disposal		
Sludge Drying Bed 2	Sediment	SD2-1 and SD2-2	2	Disposal		
Primary Tank 1	Liquid	PT1-1(L)	1	Disposal		
Primary Tank 2	Liquid	PT2-1(L)	1	Disposal		

Table 5

Summary of Exceedances within WWTP Area - Soil and Sediment (2004 - 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1]	Commercial SCO[2]	2004			2005					
			B-5 @ 4-6'	B-6 @ 7-8'	B-7 @ 0.5-1.5'	B-8 @ 6-8'	B-11 @ 6-8'	SED-1	SED-2	SED-3	SED-4
			West of Pond 1	North of Pond 1	South of Primary Tank 1	North of Pond 1	Northwest of Pond 2	Pond 1 (NW)	Pond 2 (NE)	Pond 2 (SW)	Pond 1 (SE)
	(mg/kg)	(mg/kg)	Soil	Soil	Soil	Soil	Soil	Sediment	Sediment	Sediment	Sediment
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg											
Acetone	0.05	500	--	--	--	--	--	--	--	--	--
Methyl Ethyl Ketone	0.12	500	--	--	--	--	--	--	--	--	--
Semi-Volatile Organic Compounds (8270) mg/kg											
Benz(a)anthracene	1	5.6	--	--	--	--	--	[redacted]	--	--	--
Benzo(b)fluoranthene	1	5.6	--	--	--	--	--	[redacted]	--	--	--
Chrysene	1	56	--	--	--	--	--	1.44	--	--	--
Trivalent Chromium (SM 3500 CR D) mg/kg											
Cr (III)	30	1500	--	--	--	--	--	--	--	--	--
METALS (6010C, 3050B) mg/kg											
Arsenic	13	16	--	--	--	--	--	--	--	--	--
Barium	350	400	--	--	--	--	96.6	[redacted]	336.0	105.0	[redacted]
Cadmium	2.5	9.3	--	--	--	--	--	6.25	--	--	[redacted]
Chromium (Total)	30	1500	34	--	76	32.9	30.5	125.0	20.5	22.7	273.0
Lead, Total Recoverable	63	1000	--	--	--	5.5	10.7	331.0	29.0	53.3	673.0
Nickel, Total Recoverable	30	310	--	--	--	--	--	--	--	--	--
Selenium	3.9	1500	--	--	--	--	--	--	--	--	--
Silver	2	1500	--	--	--	--	--	51.0	2.18	1.91	69.1
Mercury (7471B, 7471B_PREP) mg/kg											
Mercury, Total Recoverable	0.18	2.8	--	0.22	--	--	0.22	2.13	0.37	1.74	2.13
Pesticides (8081B, 3550C) mg/kg											
4,4'-DDE	0.0033	62	--	--	--	--	--	--	--	--	--
4,4'-DDT	0.0033	47	--	--	--	--	--	--	--	--	--
Endrin	0.014	89	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg											
PCB-1254	0.1	1	--	--	--	--	--	--	--	--	--
PCB-1260	0.1	1	--	--	--	--	--	--	--	--	--

Table 5

Summary of Exceedances within WWTP Area - Soil and Sediment (2004 - 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1]	Commercial SCO[2]	2005										2006	
			SED-5	SED-6A	SED-6B	SED-6C	SED-7A	SED-7B	SED-7C	SED-8A	SED-8B	SED-8C	TANK SOIL 1	TANK SOIL 2
			Basket Drying Bed 1	Pond 2 (NW)	Pond 2 (NW)	Pond 2 (NW)	Pond 2 (W)	Pond 2 (W)	Pond 2 (W)	Pond 2 (E)	Pond 2 (E)	Pond 2 (E)	Primary Tank 1	Primary Tank 2
	(mg/kg)	(mg/kg)	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Soil	Soil
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg														
Acetone	0.05	500	—	—	—	—	—	—	—	—	—	—	—	—
Methyl Ethyl Ketone	0.12	500	—	—	—	—	—	—	—	—	—	—	0.269	0.614
Semi-Volatile Organic Compounds (8270) mg/kg														
Benz(a)anthracene	1	5.6	—	—	—	—	—	—	—	—	—	—	—	—
Benzo(b)fluoranthene	1	5.6	—	—	—	—	—	—	—	—	—	—	—	—
Chrysene	1	56	—	—	—	—	—	—	—	—	—	—	—	—
Trivalent Chromium (SM 3500 CR D) mg/kg														
Cr (III)	30	1500	—	—	—	—	—	—	—	—	—	—	—	—
METALS (6010C, 3050B) mg/kg														
Arsenic	13	16	1.2	—	1.6	4.8	2.1	2.3	3.2	2.2	3.3	3.4	21	10.2
Barium	350	400	69.7	75.1	109	111	100	89	137	98	102	127	339	1,230
Cadmium	2.5	9.3	2.6	—	—	—	—	—	—	—	—	—	15.2	72.4
Chromium (Total)	30	1500	16.6	20.7	24.3	31.2	23.9	25.5	22.7	22.5	29.3	29.5	65.4	226
Lead, Total Recoverable	63	1000	7.5	29.4	41.7	11.6	28.7	78.3	13.7	23.6	18.6	33.5	198	384
Nickel, Total Recoverable	30	310	—	—	—	—	—	—	—	—	—	—	—	—
Selenium	3.9	1500	—	—	—	—	—	—	—	—	—	—	21.5	—
Silver	2	1500	—	—	—	—	1.7	2	—	—	—	—	15.3	73
Mercury (7471B, 7471B_PREP) mg/kg														
Mercury, Total Recoverable	0.18	2.8	0.086	0.36	0.65	0.54	0.63	1.3	0.24	0.095	0.95	0.8	1.2	1.4
Pesticides (8081B, 3550C) mg/kg														
4,4'-DDE	0.0033	62	—	—	—	—	—	—	—	—	—	—	—	—
4,4'-DDT	0.0033	47	—	—	—	—	—	—	—	—	—	—	—	—
Endrin	0.014	89	—	—	—	—	—	—	—	—	—	—	—	—
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg														
PCB-1254	0.1	1	—	—	—	—	—	—	—	—	—	—	—	—
PCB-1260	0.1	1	—	—	—	—	—	—	—	—	—	—	—	—

Table 5

Summary of Exceedances within WWTP Area - Soil and Sediment (2004 - 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1]	Commercial SCO[2]				2008		2014						
			B-2 @ 6-8'	MW-4 @ 6-8'	MW-5 @ 2-4'	B-12 @ 6-8'	B-12 @ 10-12'	SS-1A	SS-1B	SS-1C	SS-2A	SS-2B	SS-2C	SS-3A
			[illegible]	NW of Pond 2	N of Pond 1	[illegible]	[illegible]	NE of Pond 2	NE of Pond 2	NE of Pond 2	N of Pond 1	N of Pond 1	N of Pond 1	[illegible]
	(mg/kg)	(mg/kg)	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg														
Acetone	0.05	500	--	--	--	--	--	0.0039 U	0.0042 U	0.0044 U	0.0053 U	0.0037 U	0.0039 U	0.0049 U
Methyl Ethyl Ketone	0.12	500	--	--	--	--	--	--	--	--	--	--	--	--
Semi-Volatile Organic Compounds (8270) mg/kg														
Benz(a)anthracene	1	5.6	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	1	5.6	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	1	56	--	--	--	--	--	--	--	--	--	--	--	--
Trivalent Chromium (SM 3500 CR D) mg/kg														
Cr (III)	30	1500	32.9	31.4	20.7	17.4	25.6	19.1	18.9	20.1	17.9	17.5	20.4	21.6
METALS (6010C, 3050B) mg/kg														
Arsenic	13	16	--	--	--	--	4.1	--	--	--	--	--	--	--
Barium	350	400	155	117	89.3	72.8	102	--	--	--	--	--	--	--
Cadmium	2.5	9.3	--	--	--	3	0.63	--	--	--	--	--	--	--
Chromium (Total)	30	1500	32.9	31.4	20.7	17.4	25.6	19.1	19.3	20.6	18.4	18.0	20.4	21.6
Lead, Total Recoverable	63	1000	3.2	8.9	15.9	40.8	124	8.8	8.5	6.7	11.4	10.2	9.6	16.4
Nickel, Total Recoverable	30	310	--	--	--	--	--	14.8	15.1	16.5	13.9	13.5	14.9	16.8
Selenium	3.9	1500	--	--	--	--	--	--	--	--	--	--	--	--
Silver	2	1500	--	--	--	--	1.8	--	--	--	--	--	--	--
Mercury (7471B, 7471B_PREP) mg/kg														
Mercury, Total Recoverable	0.18	2.8	--	0.093	0.19	0.18	[illegible]	0.034 J B	0.050 B	0.030 J	0.073 B	0.057 B	0.056 B	0.092 B
Pesticides (8081B, 3550C) mg/kg														
4,4'-DDE	0.0033	62	--	--	--	--	--	0.002 U	0.0014 J	0.0009 J	0.0033 J	0.0031 J	0.0008 J	0.0022 J
4,4'-DDT	0.0033	47	--	--	--	--	--	0.0022 U	0.00091 U	0.00047 U	0.0024 U	0.0027 J	0.00045 U	0.0015 J
Endrin	0.014	89	--	--	--	--	--	0.028	0.0041	0.00039 U	0.0024 J	0.0016 U	0.00038 U	0.00085 U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg														
PCB-1254	0.1	1	--	--	--	--	--	--	--	--	--	--	--	--
PCB-1260	0.1	1	--	--	--	--	--	--	--	--	--	--	--	--

Table 5

Summary of Exceedances within WWTP Area - Soil and Sediment (2004 - 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1]	Commercial SCO[2]	2014															
			SS-3B	SS-3C	SS-4A	SS-4B	SS-4C	SS-5A	SS-5B	SS-5C	SS-6A	SS-6B	SS-6C	P1-1(Sed)	P1-2(Sed)	P2-1(Sed)	P2-2(Sed)	P2-1(S)	P2-2(S)
					BC of Pond 2	BC of Pond 2	NE of Pond 2							Pond 1	Pond 1	Pond 2	Pond 2	Pond 2	Pond 2
	(mg/kg)	(mg/kg)	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Sediment	Sediment	Sediment	Sediment	Soil	Soil
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg																			
Acetone	0.05	500	0.0043 U	0.004 U	0.14	0.0042 U	0.011 J	0.0052 U	0.006 U	0.0069 J	0.0041 U	0.0039 U	0.0063 U	—	—	0.0024 U	0.005 U	0.0052 U	0.0018 U
Methyl Ethyl Ketone	0.12	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Semi-Volatile Organic Compounds (8270) mg/kg																			
Benz(a)anthracene	1	5.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Benzo(b)fluoranthene	1	5.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chrysene	1	56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Trivalent Chromium (SM 3500 CR D) mg/kg																			
Cr (III)	30	1500	22.1	36.5	20.1	13.2	20.4	21.8	16.7	36.8	19.3	15.9	23.2	0.0278	0.0023 JB	8.4	8.9	16.8	17.7
METALS (6010C, 3050B) mg/kg																			
Arsenic	13	16	—	—	—	—	—	—	—	—	—	—	—	0.0056U	0.0056U	—	—	—	—
Barium	350	400	—	—	—	—	—	—	—	—	—	—	—	1.18	0.808	—	—	—	—
Cadmium	2.5	9.3	—	—	—	—	—	—	—	—	—	—	—	0.024	0.042	—	—	—	—
Chromium (Total)	30	1500	22.4	37.3	20.1	13.2	20.4	22.3	17.2	37.1	19.3	16.5	23.6	0.0278	0.0023 JB	8.4	9.5	17.6	18.5
Lead, Total Recoverable	63	1000	14.9	9.2	102	80.5	53.2	210	8.4	5.4	15.5	15.2	29.7	0.49	0.064	62.7	31.9	20.6	23.1
Nickel, Total Recoverable	30	310	16.6	18.7	15.0	9.3	15.1	19.0	16.3	30.9	12.8	13.9	17.6	—	—	6.6	9.0	19.7	9.6
Selenium	3.9	1500	—	—	—	—	—	—	—	—	—	—	—	0.0087 U	0.0087 U	—	—	—	—
Silver	2	1500	—	—	—	—	—	—	—	—	—	—	—	0.017	0.0017U	—	—	—	—
Mercury (7471B, 7471B_PREP) mg/kg																			
Mercury, Total Recoverable	0.18	2.8	0.11 B	0.040 B	0.32	0.22	0.13	0.076	0.026	0.0091 U	0.26 B	0.15 B	0.11 B	0.0081	0.00014J	0.66	0.39	0.17	0.22
Pesticides (8081B, 3550C) mg/kg																			
4,4'-DDE	0.0033	62	0.0013 J	0.0012 J	0.005 U	0.00063 J	0.0006 J	0.0044 U	0.0004 J	0.00038 U	0.0045 J	0.0015 J	0.0064 J	—	—	0.0004 J	0.0042 U	0.00068 J	0.0011 J
4,4'-DDT	0.0033	47	0.00089 J	0.00044 U	0.01 J	0.0011 J	0.0006 J	0.0064 J	0.00071 J	0.00043 U	0.0024 U	0.0007 JB	0.0027 JB	—	—	0.0006 J	0.0046 U	0.0011 J	0.00044 U
Endrin	0.014	89	0.00039 U	0.00037 U	0.004 U	0.00039 U	0.0004 U	0.0041 U	0.00038 U	0.00036 U	0.002 U	0.00037 U	0.0018 U	0.000014U	0.000014U	0.00037 U	0.0039 U	0.00038 U	0.00038 U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg																			
PCB-1254	0.1	1	—	—	—	—	—	—	—	—	—	—	—	0.3	0.84	—	—	—	—
PCB-1260	0.1	1	—	—	—	—	—	—	—	—	—	—	—	0.3	0.52	—	—	—	—

Notes

[1] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(a), Unrestricted Use.

[2] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(b), Commercial Use

Values in BOLD and highlighted as yellow indicate an exceedance of Unrestricted SCO.

Values highlighted in orange indicate an exceedance of Unrestricted SCOs and Residential SCOs, but not Restricted Residential SCOs.

Values in bold, italics & pink indicate an exceedance of a chemical's Protection of Groundwater SCO.

Values highlighted in purple indicate an exceedance of Unrestricted SCOs, Residential, Restricted-Residential and Commercial SCOs.

Values highlighted in red indicate an exceedance of Unrestricted SCOs, Residential, Restricted-Residential, Commercial, and Industrial SCOs.

— Sample not analyzed or not detected above Unrestricted SCO.

J - Result is less than the Reporting Limit but less than or equal to the Method Detection Limit and the concentration is an approximate value

U - Undetected at the Method Detection Limit

B - Compound was found in the blank and sample

* ISTD Response or retention time outside acceptable limits

Mt. Kisco - 2013-36\Lab Data\FINAL_Table5.xlsx

Table 6

Summary of Exceedances Outside WWTP Area - Soil and Sediment (2004 - 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1]	Commercial SCO[2]	2004	2014														
	mg/kg	mg/kg	B-7 @ 0.5-1.5'	SS-7A	SS-7B	SS-7C	SS-8A	SS-8B	SS-8C	SS-9A	SS-9B	SS-9C	SS-10A	SS-10B	SS-10C	SS-11A	SS-11B	SS-11C
			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg																		
Acetone	0.05	500	—	0.0043 U	0.0038 U	0.0043 J	0.0067 U	0.0058 U	0.0038 U	0.0052 U	0.0039 U	0.004 J	0.0051 U	0.0051 U	0.0041 U	0.0067 U	0.0042 U	0.0038 U
Semi-Volatile Organic Compounds (8270) mg/kg																		
Benz(a)anthracene	1	5.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Benzo(b)fluoranthene	1	5.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chrysene	1	56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Trivalent Chromium (SM 3500 CR D) mg/kg																		
Cr (III)	30	1500	—	14.7	20.3	17.3	15.1	20.3	18.1	29.3	24.3	21.7	21.2	20.8	24.3	15.0	32.1	19.3
METALS (6010C, 3050B) mg/kg																		
Arsenic	13	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Barium	350	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cadmium	2.5	9.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chromium (Total)	30	1500	70	15.1	20.3	17.8	15.1	20.3	18.4	30.0	25.0	21.7	21.6	21.4	24.8	15.0	32.6	20.1
Lead, Total Recoverable	63	1000	—	36.9	48.1	2.9	36.1	20.1	4.2	8.9	7.2	8.6	46.2	19.3	4.6	64.7	10.3	4.4
Manganese, Total	1,600	10,000	—	196	239	238	393	502	227	405	448	612	273	344	409	80.4	205	208
Nickel, Total Recoverable	30	310	—	10.5	13.7	12.6	10.1	13.5	10.8	25.5	19.4	18.2	15.3	14.5	16.8	9.4	21.5	13.7
Selenium	3.9	1500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Silver	2	1500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mercury (7471B, 7471B_PREP) mg/kg																		
Mercury, Total Recoverabl	0.18	2.8	—	0.12	0.087	0.016 U	0.12	0.061	0.048	0.067 B	0.035 J	0.028 JB	0.19	0.065	0.0084 U	0.064	0.061	0.0096 J
Pesticides (8081B, 3550C) mg/kg																		
4,4'-DDE	0.0033	62	—	0.002 U	0.0005 J	0.0004 U	0.0026 J	0.001 J	0.0004 U	0.0061 J	0.0035 J	0.0004 U	0.0052 J	0.0004 U	0.0007 J	0.01 J	0.0008 J	0.0008 J
4,4'-DDT	0.0033	47	—	0.0043 J	0.001 J	0.0004 U	0.0052 J	0.0008 J	0.0004 U	0.0048 U	0.0022 U	0.0004 U	0.0068 J	0.0009 J	0.0004 U	0.013 J	0.0008 J	0.0009 J
Endrin	0.014	89	—	0.0019 U	0.0004 U	0.0004 U	0.0022 U	0.0004 U	0.0004 U	0.0041 U	0.0019 U	0.0004 U	0.0021 U	0.0004 U	0.0004 U	0.0036 U	0.0005 U	0.0004 U

Notes

[1] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(a), Unrestricted Use.

[2] Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(b), Commercial Use.

Values in BOLD indicate an exceedance of Unrestricted SCOs.

'—' Sample not analyzed or not detected above Unrestricted Use SCO.

J - Result is less than the Reporting Limit but less than or equal to the Method Detection Limit and the concentration is an approximate value

U - Undetected at the Method Detection Limit

B - Compound was found in the blank and sample

* ISTD Response or retention time outside acceptable limits

S:\Sterling\Projects\2013 Projects\Mt Kisco - Kevin Young - 2013-36\Table 6 - Lab Data\Summary of Exceedances Outside WWTP Area

APPENDIX A

ANALYTICAL DATA TABLES

- Table A-1 – Summary of Analytical Results – Soil and Sediment (April/May 2014)
- Table A-2 – Summary of Pond Analytical Results – Soil and Sediment (April/May 2014)
- Table A-3 – Summary of Water Sampling Results (April 2014)
- Table A-4 – Summary of Water Quality Results (April 2014), Compared to Westchester County Local Sewer Limitations
- Table A-4a – Summary of Sediment Results (April/May 2014) Compared to Characteristics Wastes and Uniform Treatment Standards

Table A - 1

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[3] (mg/kg)	SS-1A	SS-1B	SS-1C	SS-2A	SS-2B	SS-2C	SS-3A	SS-3B	SS-3C
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg												
1,1,1-Trichloroethane	0.68	100	500	0.00034 U	0.00036 U	0.00038 U	0.00046 U	0.00032 U	0.00034 U	0.00042 U	0.00037 U	0.00035 U
1,1,2,2-Tetrachloroethane				0.00075 U	0.0008 U	0.00084 U	0.001 U	0.00071 U	0.00075 U	0.00095 U	0.00082 U	0.00078 U
1,1,2-Trichloro-1,2,2-trifluoroethane				0.0011 U	0.0011 U	0.0012 U	0.0014 U	0.001 U	0.0011 U	0.0013 U	0.0012 U	0.0011 U
1,1,2-Trichloroethane				0.0006 U	0.00064 U	0.00067 U	0.00082 U	0.00057 U	0.0006 U	0.00076 U	0.00066 U	0.00062 U
1,1-Dichloroethane	0.27	19	240	0.00056 U	0.0006 U	0.00063 U	0.00077 U	0.00054 U	0.00057 U	0.00071 U	0.00062 U	0.00058 U
1,1-Dichloroethene	0.33	100	500	0.00057 U	0.00061 U	0.00063 U	0.00077 U	0.00054 U	0.00057 U	0.00071 U	0.00062 U	0.00059 U
1,2,4-Trichlorobenzene				0.00028 U	0.0003 U	0.00031 U	0.00038 U	0.00027 U	0.00028 U	0.00036 U	0.00031 U	0.00029 U
1,2-Dibromo-3-Chloropropane				0.0023 U	0.0025 U	0.0026 U	0.0032 U	0.0022 U	0.0023 U	0.0029 U	0.0025 U	0.0024 U
1,2-Dibromoethane				0.00059 U	0.00064 U	0.00066 U	0.00081 U	0.00057 U	0.0006 U	0.00075 U	0.00065 U	0.00061 U
1,2-Dichlorobenzene	1.1	100	500	0.00036 U	0.00039 U	0.0004 U	0.00049 U	0.00034 U	0.00036 U	0.00046 U	0.0004 U	0.00037 U
1,2-Dichloroethane	0.02	2.3	30	0.00023 U	0.00025 U	0.00026 U	0.00032 U	0.00022 U	0.00023 U	0.00029 U	0.00025 U	0.00024 U
1,2-Dichloropropane				0.0023 U	0.0025 U	0.0026 U	0.0032 U	0.0022 U	0.0023 U	0.0029 U	0.0025 U	0.0024 U
1,3-Dichlorobenzene	2.4	17	280	0.00024 U	0.00025 U	0.00027 U	0.00033 U	0.00023 U	0.00024 U	0.0003 U	0.00026 U	0.00025 U
1,4-Dichlorobenzene	1.8	9.8	130	0.00065 U	0.00069 U	0.00073 U	0.00089 U	0.00062 U	0.00065 U	0.00082 U	0.00071 U	0.00067 U
2-Butanone (MEK)	0.12	100	500	0.0017 U	0.0018 U	0.0019 U	0.0023 U	0.0016 U	0.0017 U	0.0021 U	0.0019 U	0.0018 U
2-Hexanone				0.0023 U	0.0025 U	0.0026 U	0.0032 U	0.0022 U	0.0023 U	0.0029 U	0.0025 U	0.0024 U
4-Methyl-2-pentanone (MIBK)				0.0015 U	0.0016 U	0.0017 U	0.0021 U	0.0014 U	0.0015 U	0.0019 U	0.0017 U	0.0016 U
Acetone	0.05	100	500	0.0039 U	0.0042 U	0.0044 U	0.0053 U	0.0037 U	0.0039 U	0.0049 U	0.0043 U	0.004 U
Benzene	0.06	2.9	44	0.00023 U	0.00024 U	0.00025 U	0.00031 U	0.00022 U	0.00023 U	0.00029 U	0.00025 U	0.00023 U
Bromodichloromethane				0.00062 U	0.00066 U	0.00069 U	0.00085 U	0.00059 U	0.00062 U	0.00078 U	0.00068 U	0.00064 U
Bromoform				0.0023 U	0.0025 U	0.0026 U	0.0032 U	0.0022 U	0.0023 U	0.0029 U	0.0025 U	0.0024 U
Bromomethane				0.00042 U	0.00045 U	0.00047 U	0.00057 U	0.0004 U	0.00042 U	0.00053 U	0.00046 U	0.00043 U
Carbon disulfide				0.0023 U	0.0025 U	0.0026 U	0.0032 U	0.0022 U	0.0023 U	0.0029 U	0.0025 U	0.0024 U
Carbon tetrachloride	0.76	1.4	22	0.00045 U	0.00048 U	0.0005 U	0.00061 U	0.00043 U	0.00045 U	0.00057 U	0.00049 U	0.00046 U
Chlorobenzene	1.1	100	500	0.00061 U	0.00065 U	0.00068 U	0.00084 U	0.00058 U	0.00061 U	0.00077 U	0.00067 U	0.00063 U
Chloroethane				0.001 U	0.0011 U	0.0012 U	0.0014 U	0.001 U	0.0011 U	0.0013 U	0.0011 U	0.0011 U
Chloroform	0.37	10	350	0.00029 U	0.00031 U	0.00032 U	0.00039 U	0.00027 U	0.00029 U	0.00036 U	0.00031 U	0.0003 U
Chloromethane				0.00028 U	0.0003 U	0.00031 U	0.00038 U	0.00027 U	0.00028 U	0.00035 U	0.00031 U	0.00029 U
cis-1,2-Dichloroethene	0.25	59	500	0.00059 U	0.00063 U	0.00066 U	0.00081 U	0.00056 U	0.00059 U	0.00075 U	0.00065 U	0.00061 U
cis-1,3-Dichloropropene				0.00067 U	0.00071 U	0.00075 U	0.00091 U	0.00063 U	0.00067 U	0.00084 U	0.00073 U	0.00069 U
Cyclohexane				0.00065 U	0.00069 U *	0.00073 U *	0.00089 U *	0.00062 U *	0.00065 U *	0.00082 U *	0.00071 U *	0.00067 U *
Dibromochloromethane				0.00059 U	0.00063 U	0.00066 U	0.00081 U	0.00056 U	0.00059 U	0.00075 U	0.00065 U	0.00061 U
Dichlorodifluoromethane				0.00038 U	0.00041 U	0.00043 U	0.00052 U	0.00036 U	0.00038 U	0.00048 U	0.00042 U	0.0004 U
Ethylbenzene	1.0	30.0	390	0.00032 U	0.00034 U	0.00036 U	0.00044 U	0.0003 U	0.00032 U	0.0004 U	0.00035 U	0.00033 U
Isopropylbenzene				0.0007 U	0.00075 U	0.00078 U	0.00095 U	0.00066 U	0.0007 U	0.00088 U	0.00076 U	0.00072 U
Methyl acetate				0.0028 U	0.003 U	0.0031 U	0.0038 U	0.0027 U	0.0028 U	0.0035 U	0.0031 U	0.0029 U
Methyl tert-butyl ether (MTBE)	0.93	62	500	0.00045 U	0.00049 U	0.00051 U	0.00062 U	0.00043 U	0.00046 U	0.00057 U	0.0005 U	0.00047 U
Methylcyclohexane				0.0007 U	0.00075 U	0.00079 U	0.00096 U	0.00067 U	0.00071 U	0.00089 U	0.00077 U	0.00073 U
Methylene Chloride	0.05	51	500	0.0021 U	0.0023 U	0.0024 U	0.0029 U	0.002 U	0.0021 U	0.0027 U	0.0023 U	0.0022 U
Styrene				0.00023 U	0.00025 U	0.00026 U	0.00032 U	0.00022 U	0.00023 U	0.00029 U	0.00025 U	0.00024 U
Tetrachloroethene	1.3	5.5	150	0.00062 U	0.00067 U	0.00069 U	0.00085 U	0.00059 U	0.00062 U	0.00078 U	0.00068 U	0.00064 U
Toluene	0.7	100	500	0.00035 U	0.00037 U	0.00039 U	0.00048 U	0.00033 U	0.00035 U	0.00044 U	0.00038 U	0.00036 U
trans-1,2-Dichloroethene	0.19	100	500	0.00048 U	0.00051 U	0.00053 U	0.00065 U	0.00045 U	0.00048 U	0.0006 U	0.00052 U	0.00049 U
trans-1,3-Dichloropropene				0.002 U	0.0022 U	0.0023 U	0.0028 U	0.0019 U	0.002 U	0.0026 U	0.0022 U	0.0021 U
Trichloroethene	0.47	10	200	0.001 U	0.0011 U	0.0011 U	0.0014 U	0.00097 U	0.001 U	0.0013 U	0.0011 U	0.0011 U
Trichlorofluoromethane				0.00044 U	0.00047 U	0.00049 U	0.0006 U	0.00042 U	0.00044 U	0.00055 U	0.00048 U	0.00045 U
Vinyl chloride	0.02	0.21	13	0.00056 U	0.0006 U	0.00063 U	0.00077 U	0.00054 U	0.00057 U	0.00071 U	0.00062 U	0.00058 U
Xylenes, Total	0.26	100	500	0.00078 U	0.00083 U	0.00087 U	0.0011 U	0.00074 U	0.00078 U	0.00098 U	0.00085 U	0.0008 U

Table A - 1

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[2] (mg/kg)	SS-1A	SS-1B	SS-1C	SS-2A	SS-2B	SS-2C	SS-3A	SS-3B	SS-3C
Semi-Volatile Organic Compounds (8270D, 3550C) mg/kg												
2,4,5-Trichlorophenol				0.042 U	0.043 U	0.043 U	0.046 U	0.041 U	0.043 U	0.047 U	0.043 U	0.042 U
2,4,6-Trichlorophenol				0.013 U	0.013 U	0.013 U	0.014 U	0.012 U	0.013 U	0.014 U	0.013 U	0.013 U
2,4-Dichlorophenol				0.01 U	0.01 U	0.01 U	0.011 U	0.0099 U	0.01 U	0.011 U	0.01 U	0.01 U
2,4-Dimethylphenol				0.052 U	0.053 U	0.054 U	0.057 U	0.051 U	0.053 U	0.058 U	0.054 U	0.052 U
2,4-Dinitrophenol				0.068 U	0.069 U	0.069 U	0.073 U	0.066 U	0.068 U	0.075 U	0.07 U	0.068 U
2,4-Dinitrotoluene				0.03 U	0.031 U	0.031 U	0.032 U	0.029 U	0.03 U	0.033 U	0.031 U	0.03 U
2,6-Dinitrotoluene				0.047 U	0.048 U	0.048 U	0.051 U	0.046 U	0.048 U	0.052 U	0.049 U	0.047 U
2-Chloronaphthalene				0.013 U	0.013 U	0.013 U	0.014 U	0.013 U	0.013 U	0.014 U	0.013 U	0.013 U
2-Chlorophenol				0.0099 U	0.01 U	0.01 U	0.011 U	0.0096 U	0.01 U	0.011 U	0.01 U	0.0099 U
2-Methylnaphthalene				0.0023 U	0.0024 U	0.0024 U	0.0025 U	0.0023 U	0.0024 U	0.0026 U	0.0024 U	0.0024 U
2-Methylphenol				0.006 U	0.0061 U	0.0061 U	0.0064 U	0.0058 U	0.006 U	0.0066 U	0.0061 U	0.006 U
2-Nitroaniline				0.062 U	0.063 U	0.064 U	0.067 U	0.06 U	0.063 U	0.069 U	0.064 U	0.062 U
2-Nitrophenol				0.0088 U	0.009 U	0.0091 U	0.0096 U	0.0086 U	0.0089 U	0.0098 U	0.0091 U	0.0089 U
3,3'-Dichlorobenzidine				0.17 U	0.17 U *	0.17 U	0.18 U	0.16 U	0.17 U	0.19 U *	0.17 U *	0.17 U *
3-Nitroaniline				0.045 U	0.045 U	0.046 U	0.048 U	0.043 U	0.045 U	0.049 U	0.046 U	0.045 U
4,6-Dinitro-2-methylphenol				0.067 U	0.068 U	0.068 U	0.072 U	0.065 U	0.067 U	0.074 U	0.069 U	0.067 U
4-Bromophenyl phenyl ether				0.062 U	0.063 U	0.063 U	0.067 U	0.06 U	0.062 U	0.068 U	0.063 U	0.062 U
4-Chloro-3-methylphenol				0.008 U	0.0081 U	0.0082 U	0.0086 U	0.0077 U	0.008 U	0.0088 U	0.0082 U	0.008 U
4-Chloroaniline				0.057 U	0.058 U	0.058 U	0.061 U	0.055 U	0.057 U	0.063 U	0.058 U	0.057 U
4-Chlorophenyl phenyl ether				0.0041 U	0.0042 U	0.0042 U	0.0045 U	0.004 U	0.0042 U	0.0046 U	0.0042 U	0.0041 U
4-Methylphenol				0.011 U	0.011 U	0.011 U	0.012 U	0.01 U	0.011 U	0.038 J	0.011 U	0.011 U
4-Nitroaniline				0.022 U	0.022 U	0.022 U	0.023 U	0.021 U	0.022 U	0.024 U	0.022 U	0.022 U
4-Nitrophenol				0.047 U	0.048 U	0.048 U	0.051 U	0.046 U	0.047 U	0.052 U	0.048 U	0.047 U
Acenaphthene	20	100	500	0.0023 U	0.0023 U	0.0023 U	0.0025 U	0.0022 U	0.0023 U	0.0025 U	0.0023 U	0.0023 U
Acenaphthylene	100	100	500	0.0016 U	0.0016 U	0.0016 U	0.0017 U	0.0015 U	0.0016 U	0.0017 U	0.0016 U	0.0016 U
Acetophenone				0.0099 U	0.01 U	0.01 U	0.011 U	0.0096 U	0.01 U	0.011 U	0.01 U	0.01 U
Anthracene	100	100	500	0.005 U	0.005 U	0.0051 U	0.0054 U	0.0048 U	0.005 U	0.0055 U	0.0051 U	0.005 U
Atrazine				0.0086 U	0.0088 U	0.0088 U	0.0093 U	0.0084 U	0.0087 U	0.0095 U	0.0088 U	0.0086 U
Benzaldehyde				0.021 U	0.022 U	0.022 U	0.023 U	0.021 U	0.021 U	0.023 U	0.022 U	0.021 U
Benzo[a]anthracene	1	1	5.6	0.0033 U	0.0034 U *	0.0083 J	0.013 J	0.012 J	0.011 J	0.0037 U *	0.0034 U *	0.0033 U *
Benzo[a]pyrene	1	1	1	0.0047 U	0.0047 U	0.0048 U	0.01 J	0.0045 U	0.0086 J	0.027 J	0.02 J *	0.0047 U
Benzo[b]fluoranthene	1	1	5.6	0.0038 U	0.0038 U	0.0073 J	0.015 J	0.013 J	0.017 J	0.045 J	0.023 J *	0.0052 J
Benzo[g,h,i]perylene	100	100	500	0.0023 U	0.0024 U	0.0081 J	0.012 J	0.0023 U	0.015 J	0.033 J	0.02 J *	0.0023 U
Benzo[k]fluoranthene	0.8	1	56	0.0021 U	0.0022 U	0.0022 U	0.0071 J	0.0021 U	0.008 J	0.017 J	0.0092 J *	0.0041 J
Biphenyl				0.012 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U
bis (2-chloroisopropyl) ether				0.02 U	0.021 U	0.021 U	0.022 U	0.02 U	0.02 U	0.022 U	0.021 U	0.02 U
Bis(2-chloroethoxy)methane				0.011 U	0.011 U	0.011 U	0.011 U	0.01 U	0.011 U	0.012 U	0.011 U	0.011 U
Bis(2-chloroethyl)ether				0.017 U	0.017 U	0.017 U	0.018 U	0.016 U	0.017 U	0.018 U	0.017 U	0.017 U
Bis(2-ethylhexyl) phthalate				0.062 U	0.063 U *	0.064 U	0.067 U	0.061 U	0.063 U	0.069 U *	0.064 U *	0.063 U *
Butyl benzyl phthalate				0.052 U	0.053 U *	0.053 U	0.056 U	0.05 U	0.052 U	0.057 U *	0.053 U *	0.052 U *
Caprolactam				0.084 U	0.085 U	0.086 U	0.091 U	0.081 U	0.085 U	0.093 U	0.086 U	0.084 U
Carbazole				0.0022 U	0.0023 U	0.0023 U	0.0024 U	0.0022 U	0.0023 U	0.0025 U	0.0023 U	0.0022 U
Chrysene	1	1	56	0.0019 U	0.002 U *	0.002 U	0.012 J	0.0098 J	0.0085 J	0.03 J *	0.017 J *	0.0019 U *
Dibenz(a,h)anthracene	0.33	0.33	0.56	0.0023 U	0.0023 U	0.0023 U	0.0025 U	0.0022 U	0.0023 U	0.0025 U	0.0023 U *	0.0023 U
Dibenzofuran				0.002 U	0.0021 U	0.0021 U	0.0022 U	0.002 U	0.002 U	0.0022 U	0.0021 U	0.002 U
Diethyl phthalate				0.0058 U	0.006 U	0.006 U	0.0063 U	0.0057 U	0.0059 U	0.0065 U	0.006 U	0.0059 U
Dimethyl phthalate				0.005 U	0.0051 U	0.0052 U	0.0055 U	0.0049 U	0.0051 U	0.0056 U	0.0052 U	0.0051 U
Di-n-butyl phthalate				0.067 U	0.068 U	0.069 U	0.072 U	0.065 U	0.068 U	0.074 U	0.069 U	0.067 U
Di-n-octyl phthalate				0.0045 U	0.0046 U *	0.0046 U	0.0049 U	0.0044 U	0.0046 U	0.005 U *	0.0046 U *	0.0045 U *
Fluoranthene	100	100	500	0.012 J	0.0089 J	0.0053 J	0.018 J	0.012 J	0.0094 J	0.047 J	0.024 J	0.0028 U

Table A - 1

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[3] (mg/kg)	SS-1A	SS-1B	SS-1C	SS-2A	SS-2B	SS-2C	SS-3A	SS-3B	SS-3C
Semi-Volatile Organic Compounds (8270D, 3550C) mg/kg												
Fluorene	30	100	500	0.0045 U	0.0045 U	0.0046 U	0.0048 U	0.0043 U	0.0045 U	0.0049 U	0.0046 U	0.0045 U
Hexachlorobenzene				0.0056 U	0.0088 U	0.0098 U	0.01 U	0.0093 U	0.0097 U	0.011 U	0.0099 U	0.0096 U
Hexachlorobutadiene				0.0099 U	0.01 U	0.01 U	0.011 U	0.0096 U	0.01 U	0.011 U	0.01 U	0.0099 U
Hexachlorocyclopentadiene				0.059 U	0.06 U	0.06 U	0.063 U	0.057 U	0.059 U	0.065 U	0.06 U	0.059 U
Hexachloroethane				0.015 U	0.015 U	0.015 U	0.016 U	0.015 U	0.015 U	0.017 U	0.015 U	0.015 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	5.6	0.0054 U	0.0055 U	0.0055 U	0.01 J	0.012 J	0.0054 U	0.038 J	0.018 J*	0.0054 U
Isophorone				0.0097 U	0.0098 U	0.0099 U	0.01 U	0.0094 U	0.0098 U	0.011 U	0.0099 U	0.0097 U
Naphthalene	12	100	500	0.0032 U	0.0033 U	0.0033 U	0.0035 U	0.0031 U	0.0033 U	0.0036 U	0.0033 U	0.0032 U
Nitrobenzene				0.0086 U	0.0087 U	0.0088 U	0.0093 U	0.0083 U	0.0087 U	0.0095 U	0.0088 U	0.0086 U
N-Nitrosodi-n-propylamine				0.015 U	0.016 U	0.016 U	0.017 U	0.015 U	0.015 U	0.017 U	0.016 U	0.015 U
N-Nitrosodiphenylamine				0.011 U	0.011 U	0.011 U	0.011 U	0.01 U	0.011 U	0.012 U	0.011 U	0.011 U
Pentachlorophenol	0.8	2.4	6.7	0.066 U	0.068 U	0.068 U	0.072 U	0.064 U	0.067 U	0.073 U	0.068 U	0.067 U
Phenanthrene	100	100	500	0.0078 J	0.0056 J	0.0042 U	0.0088 J	0.0064 J	0.0073 J	0.018 J	0.01 J	0.0041 U
Phenol	0.33	100	500	0.02 U	0.021 U	0.021 U	0.022 U	0.02 U	0.021 U	0.023 U	0.021 U	0.02 U
Pyrene	100	100	500	0.012 J*	0.0098 J*	0.0061 J	0.017 J	0.014 J	0.011 J	0.044 J*	0.029 J*	0.0013 U*
Hexavalent Chromium (7196A, 3060A) mg/kg												
Cr (VI)	1	22	400	0.31 U	0.40 J	0.51 J	0.46 J	0.46 J	0.31 U	0.35 U	0.35 J	0.82 J
Total Cyanide (9012B, 9012B_PREP) mg/kg												
Cyanide, Total	27	27	27	0.54 U	0.56 U	1.8	0.58 U	0.52 U	0.54 U	0.58 U	0.59 J	0.55 U
Trivalent Chromium (SM 3500 CR D) mg/kg												
Cr (III)	30	36	1500	19.1	18.9	20.1	17.9	17.5	20.4	21.6	22.1	[illegible]
METALS (6010C, 3050B) mg/kg												
Aluminum, Total Recoverable				10500	10800	11600	10900	10700	11600	14300	13500	17100
Antimony, Total Recoverable				0.38 J	0.30 U	0.46 J	0.41 J	0.33 U	0.40 J	0.41 U	0.38 U	0.56 J
Arsenic, Total Recoverable	13	16	16	2.3	2.3	2.5	2.7	2.4	2.7	2.8	2.7	1.6
Barium, Total Recoverable	350	350	400	78.5	78.7	92.3	70.3	71.4	75.6	79.9	85.3	86.7
Beryllium, Total Recoverable	7.2	14	590	0.19 J	0.20 J	0.20 J	0.24 J	0.24 J	0.26 J	0.30 J	0.30 J	0.12 J
Cadmium, Total Recoverable	2.5	2.5	9.3	0.15 J	0.14 J	0.14 J	0.18 J	0.15 J	0.15 J	0.38 J	0.22 J	0.20 J
Calcium, Total Recoverable				1500	1360	1960	1310	1160	1350	1880	1070	1480
Chromium (Total)				19.1	19.3	20.6	18.4	18.0	20.4	21.6	22.4	[illegible]
Cobalt, Total Recoverable				7.1	7.1	8.2	7.0	6.3	7.9	8.0	8.4	7.5
Copper, Total Recoverable	50	270	270	15.3	15.1	16.8	14.0	12.1	14.5	19.2	18.7	16.0
Iron, Total Recoverable				16400	17100	18900	15600	15600	18000	20500	20100	18600 *
Lead, Total Recoverable	63	400	1000	8.8	8.5	6.7	11.4	10.2	9.6	18.4	14.9	9.2
Magnesium, Total Recoverable				3910	3940	4550	3480	3480	3810	4320	4310	24700
Manganese, Total Recoverable	1,600	2,000	10,000	288	349	352	317	355	353	413	392	260
Nickel, Total Recoverable	30	140	310	14.8	15.1	16.5	13.9	13.5	14.9	16.8	16.6	18.7
Potassium, Total Recoverable				1990	1930	2430	1470	1350	1500	1740	1990	2180
Selenium, Total Recoverable	3.9	36	1500	0.54 U	0.48 U	0.50 U	0.57 U	0.52 U	0.60 U	0.69 J	0.61 U	0.50 U
Silver, Total Recoverable	2	36	1500	0.077 U	0.068 U	0.071 U	0.082 U	0.074 U	0.086 U	0.13 J	0.19 J	0.17 J
Sodium, Total Recoverable				53.1 J	52.3 J	67.9 J	50.3 J	53.7 J	56.4 J	47.8 J	56.1 J	56.0 J
Thallium, Total Recoverable				0.38 U	0.36 J	0.35 U	0.40 U	0.36 U	0.42 U	0.45 U	0.43 U	0.35 U
Vanadium, Total Recoverable				28.1	28.3	31.0	27.7	26.9	30.8	31.8	33.3	40.1
Zinc, Total Recoverable	109	2200	10000	43.2 B	41.6 B	40.0 B	42.1 B	37.8 B	39.8 B	72.3 B	54.0 B	58.7 B
Mercury (7471B, 7471B_PREP) mg/kg												
Mercury, Total Recoverable	0.18	0.81	2.8	0.034 J B	0.050 B	0.030 J B	0.073 B	0.057 B	0.056 B	0.092 B	0.11 B	0.040 B

Table A - 1

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[3] (mg/kg)	SS-1A	SS-1B	SS-1C	SS-2A	SS-2B	SS-2C	SS-3A	SS-3B	SS-3C
Pesticides (8081B, 3550C) mg/kg												
4,4'-DDD	0.0033	2.6	92	0.0027 J	0.0012 J	0.00051 J	0.002 U	0.0029 J	0.00073 J	0.0016 J	0.00038 U	0.001 J
4,4'-DDE	0.0033	1.8	62	0.002 U	0.0014 J	0.0009 J	0.0033 J	0.0031 J	0.0008 J	0.0022 J	0.0013 J	0.0012 J
4,4'-DDT	0.0033	1.7	47	0.0022 U	0.00091 U	0.00047 U	0.0024 U	0.0027 JB	0.00045 U	0.0015 JB	0.00069 JB	0.00044 U
Aldrin	0.005	0.019	0.68	0.0023 U	0.00096 U	0.00049 U	0.0025 U	0.0023 U	0.00047 U	0.0011 U	0.00048 U	0.00047 U
alpha-BHC	0.02	0.097	3.4	0.0038 J	0.0007 U	0.00036 U	0.0019 U	0.0017 U	0.00035 U	0.00077 U	0.0012 JB	0.00034 U
alpha-Chlordane	0.094	0.91	24	0.0047 U	0.0019 U	0.00099 U	0.0051 U	0.0046 U	0.00096 U	0.0021 U	0.00098 U	0.00094 U
beta-BHC	0.036	0.072	3	0.0017 U	0.0007 U	0.00036 U	0.0019 U	0.0017 U	0.00035 U	0.00077 U	0.00035 U	0.00034 U
delta-BHC	0.04	100	500	0.0031 J	0.0013 JB	0.00067 JB	0.0036 JB	0.0032 JB	0.00092 JB	0.0017 JB	0.00079 JB	0.00062 JB
Dieldrin	0.005	0.039	1.4	0.0023 U	0.00093 U	0.00048 U	0.0025 U	0.0022 U	0.00046 U	0.001 U	0.0005 J	0.00045 U
Endosulfan I	2.4	4.8	200	0.0018 U	0.00075 U	0.00045 J	0.002 U	0.0018 U	0.00037 U	0.00082 U	0.00038 U	0.00036 U
Endosulfan II	2.4	4.8	200	0.0065 J	0.0007 U	0.00036 U	0.0019 U	0.0017 U	0.00035 U	0.00077 U	0.00089 J	0.00034 U
Endosulfan sulfate	2.4	4.8	200	0.0018 U	0.00073 U	0.00037 U	0.0019 U	0.0017 U	0.00036 U	0.0008 U	0.00037 U	0.00035 U
Endrin	0.014	2.2	89	0.028	0.0041	0.00039 U	0.0024 J	0.0018 U	0.00038 U	0.00085 U	0.00039 U	0.00037 U
Endrin aldehyde				0.0024 U	0.00099 U	0.00051 U	0.0026 U	0.0024 U	0.00049 U	0.0011 U	0.0005 U	0.00048 U
Endrin ketone				0.0023 U	0.00096 U	0.00049 U	0.0025 U	0.0023 U	0.00047 U	0.0011 U	0.00048 U	0.00047 U
gamma-BHC (Lindane)	0.1	0.28	9.2	0.0017 U	0.0012 J	0.00037 U	0.0032 J	0.0017 U	0.00061 J	0.00079 U	0.00036 U	0.00035 U
gamma-Chlordane				0.003 U	0.0012 U	0.00078 J	0.0033 U	0.003 U	0.00069 J	0.0014 U	0.00062 U	0.0006 U
Heptachlor	0.042	0.42	15	0.002 U	0.00084 U	0.00043 U	0.0022 U	0.002 U	0.00042 U	0.00093 U	0.00054 J	0.00041 U
Heptachlor epoxide				0.0024 U	0.001 U	0.00051 U	0.0027 U	0.0024 U	0.0005 U	0.0011 U	0.00051 U	0.00049 U
Methoxychlor				0.0019 U	0.00079 U	0.00041 U	0.0021 U	0.0019 U	0.00039 U	0.00087 U	0.0004 U	0.00039 U
Toxaphene				0.055 U	0.023 U	0.012 U	0.06 U	0.054 U	0.011 U	0.025 U	0.011 U	0.011 U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg												
PCB-1016	0.1	1	1	0.056 U	0.043 U	0.051 U	0.055 U	0.053 U	0.043 U	0.052 U	0.048 U	0.049 U
PCB-1221	0.1	1	1	0.056 U	0.043 U	0.051 U	0.055 U	0.053 U	0.043 U	0.052 U	0.048 U	0.049 U
PCB-1232	0.1	1	1	0.056 U	0.043 U	0.051 U	0.055 U	0.053 U	0.043 U	0.052 U	0.048 U	0.049 U
PCB-1242	0.1	1	1	0.056 U	0.043 U	0.051 U	0.055 U	0.053 U	0.043 U	0.052 U	0.048 U	0.049 U
PCB-1248	0.1	1	1	0.056 U	0.043 U	0.051 U	0.055 U	0.053 U	0.043 U	0.052 U	0.048 U	0.049 U
PCB-1254	0.1	1	1	0.14 U	0.1 U	0.12 U	0.13 U	0.13 U	0.1 U	0.13 U	0.12 U	0.12 U
PCB-1260	0.1	1	1	0.14 U	0.1 U	0.12 U	0.13 U	0.13 U	0.1 U	0.13 U	0.12 U	0.12 U

Table A - 1

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[3] (mg/kg)	SS-4A	SS-4B	SS-4C	SS-5A	SS-5B	SS-5C	SS-6A	SS-6B	SS-6C	SS-7A
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg													
1,1,1-Trichloroethane	0.68	100	500	0.00042 U	0.00037 U	0.0003 U	0.0005 U	0.0005 U	3E-04 U	0.0004 U	0.0003 U	0.0006 U	0.0004 U
1,1,2,2-Tetrachloroethane				0.00095 U	0.00082 U	0.0007 U	0.001 U	0.0012 U	6E-04 U	0.0008 U	0.0008 U	0.0012 U	0.0008 U
1,1,2-Trichloro-1,2,2-trifluoroethane				0.0013 U	0.0011 U	0.001 U	0.0014 U	0.0016 U	8E-04 U	0.001 U	0.0011 U	0.0017 U	0.0012 U
1,1,2-Trichloroethane				0.00076 U	0.00065 U	0.0006 U	0.0008 U	0.0009 U	5E-04 U	0.0006 U	0.0006 U	0.001 U	0.0007 U
1,1-Dichloroethane	0.27	19	240	0.00071 U	0.00061 U	0.0005 U	0.0008 U	0.0009 U	4E-04 U	0.0006 U	0.0006 U	0.0009 U	0.0006 U
1,1-Dichloroethene	0.33	100	500	0.00072 U	0.00062 U	0.0005 U	0.0008 U	0.0009 U	4E-04 U	0.0006 U	0.0006 U	0.0009 U	0.0006 U
1,2,4-Trichlorobenzene				0.00036 U	0.00031 U	0.0003 U	0.0004 U	0.0004 U	2E-04 U	0.0003 U	0.0003 U	0.0005 U	0.0003 U
1,2-Dibromo-3-Chloropropane				0.0029 U	0.0025 U	0.0022 U	0.0031 U	0.0036 U	0.002 U	0.0024 U	0.0023 U	0.0038 U	0.0025 U
1,2-Dibromoethane				0.00075 U	0.00065 U	0.0006 U	0.0008 U	0.0009 U	5E-04 U	0.0006 U	0.0006 U	0.001 U	0.0007 U
1,2-Dichlorobenzene	1.1	100	500	0.00046 U	0.00039 U	0.0004 U	0.0005 U	0.0006 U	3E-04 U	0.0004 U	0.0004 U	0.0006 U	0.0004 U
1,2-Dichloroethane	0.02	2.3	30	0.00029 U	0.00025 U	0.0002 U	0.0003 U	0.0004 U	2E-04 U	0.0002 U	0.0002 U	0.0004 U	0.0003 U
1,2-Dichloropropane				0.0029 U	0.0025 U	0.0022 U	0.0031 U	0.0036 U	0.002 U	0.0024 U	0.0023 U	0.0038 U	0.0025 U
1,3-Dichlorobenzene	2.4	17	280	0.0003 U	0.00026 U	0.0002 U	0.0003 U	0.0004 U	2E-04 U	0.0003 U	0.0002 U	0.0004 U	0.0003 U
1,4-Dichlorobenzene	1.8	9.8	130	0.00082 U	0.0007 U	0.0006 U	0.0009 U	0.001 U	5E-04 U	0.0007 U	0.0007 U	0.0011 U	0.0007 U
2-Butanone (MEK)	0.12	100	500	0.0021 U	0.0018 U	0.0016 U	0.0023 U	0.0026 U	0.001 U	0.0018 U	0.0017 U	0.0027 U	0.0019 U
2-Hexanone				0.0029 U	0.0025 U	0.0022 U	0.0031 U	0.0036 U	0.002 U	0.0024 U	0.0023 U	0.0038 U	0.0025 U
4-Methyl-2-pentanone (MIBK)				0.0019 U	0.0017 U	0.0015 U	0.002 U	0.0024 U	0.001 U	0.0016 U	0.0015 U	0.0025 U	0.0017 U
Acetone	0.05	100	500	0.14	0.0042 U	0.011 J	0.0052 U	0.006 U	0.007 J	0.0041 U	0.0039 U	0.0063 U	0.0043 U
Benzene	0.06	2.9	44	0.00029 U	0.00025 U	0.0002 U	0.0003 U	0.0004 U	2E-04 U	0.0002 U	0.0002 U	0.0004 U	0.0003 U
Bromodichloromethane				0.00078 U	0.00067 U	0.0006 U	0.0008 U	0.001 U	5E-04 U	0.0007 U	0.0006 U	0.001 U	0.0007 U
Bromoform				0.0029 U	0.0025 U	0.0022 U	0.0031 U	0.0036 U	0.002 U	0.0024 U	0.0023 U	0.0038 U	0.0025 U
Bromomethane				0.00053 U	0.00045 U	0.0004 U	0.0006 U	0.0007 U	3E-04 U	0.0004 U	0.0004 U	0.0007 U	0.0005 U
Carbon disulfide				0.0029 U	0.0025 U	0.0022 U	0.0031 U	0.0036 U	0.002 U	0.0024 U	0.0023 U	0.0038 U	0.0025 U
Carbon tetrachloride	0.76	1.4	22	0.00057 U	0.00049 U	0.0004 U	0.0006 U	0.0007 U	3E-04 U	0.0005 U	0.0005 U	0.0007 U	0.0005 U
Chlorobenzene	1.1	100	500	0.00077 U	0.00066 U	0.0006 U	0.0008 U	0.001 U	5E-04 U	0.0006 U	0.0006 U	0.001 U	0.0007 U
Chloroethane				0.0013 U	0.0011 U	0.001 U	0.0014 U	0.0016 U	8E-04 U	0.0011 U	0.001 U	0.0017 U	0.0011 U
Chloroform	0.37	10	350	0.00036 U	0.00031 U	0.0003 U	0.0004 U	0.0004 U	2E-04 U	0.0003 U	0.0003 U	0.0005 U	0.0003 U
Chloromethane				0.00035 U	0.0003 U	0.0003 U	0.0004 U	0.0004 U	2E-04 U	0.0003 U	0.0003 U	0.0005 U	0.0003 U
cis-1,2-Dichloroethene	0.25	59	500	0.00075 U	0.00064 U	0.0006 U	0.0008 U	0.0009 U	5E-04 U	0.0006 U	0.0006 U	0.001 U	0.0007 U
cis-1,3-Dichloropropene				0.00084 U	0.00072 U	0.0006 U	0.0009 U	0.001 U	5E-04 U	0.0007 U	0.0007 U	0.0011 U	0.0007 U
Cyclohexane				0.00082 U	0.0007 U	0.0006 U	0.0009 U	0.001 U	5E-04 U	0.0007 U	0.0007 U*	0.0011 U	0.0007 U
Dibromochloromethane				0.00075 U	0.00064 U	0.0006 U	0.0008 U	0.0009 U	5E-04 U	0.0006 U	0.0006 U	0.001 U	0.0007 U
Dichlorodifluoromethane				0.00048 U	0.00042 U	0.0004 U	0.0005 U	0.0006 U	3E-04 U	0.0004 U	0.0004 U	0.0006 U	0.0004 U
Ethylbenzene	1.0	30.0	390	0.0004 U	0.00035 U	0.0003 U	0.0004 U	0.0005 U	2E-04 U	0.0003 U	0.0003 U	0.0005 U	0.0004 U
Isopropylbenzene				0.00088 U	0.00076 U	0.0007 U	0.0009 U	0.0011 U	5E-04 U	0.0007 U	0.0007 U	0.0011 U	0.0008 U
Methyl acetate				0.0035 U	0.003 U	0.0027 U	0.0037 U	0.0043 U	0.002 U	0.0029 U	0.0028 U	0.0045 U	0.0031 U
Methyl tert-butyl ether	0.93	62	500	0.00057 U	0.00049 U	0.0004 U	0.0006 U	0.0007 U	4E-04 U	0.0005 U	0.0005 U	0.0007 U	0.0005 U
Methylcyclohexane				0.00089 U	0.00076 U	0.0007 U	0.0009 U	0.0011 U	5E-04 U	0.0007 U	0.0007 U	0.0011 U	0.0008 U
Methylene Chloride	0.05	51	500	0.0027 U	0.0023 U	0.002 U	0.0028 U	0.0033 U	0.002 U	0.0022 U	0.0021 U	0.0035 U	0.0023 U
Styrene				0.00029 U	0.00025 U	0.0002 U	0.0003 U	0.0004 U	2E-04 U	0.0002 U	0.0002 U	0.0004 U	0.0003 U
Tetrachloroethene	1.3	5.5	150	0.00079 U	0.00068 U	0.0006 U	0.0008 U	0.001 U	5E-04 U	0.0007 U	0.0006 U	0.001 U	0.0007 U
Toluene	0.7	100	500	0.00044 U	0.00038 U	0.0003 U	0.0005 U	0.0005 U	3E-04 U	0.0004 U	0.0004 U	0.0006 U	0.0004 U
trans-1,2-Dichloroethene	0.19	100	500	0.0006 U	0.00052 U	0.0005 U	0.0006 U	0.0007 U	4E-04 U	0.0005 U	0.0005 U	0.0008 U	0.0005 U
trans-1,3-Dichloropropene				0.0026 U	0.0022 U	0.002 U	0.0027 U	0.0032 U	0.002 U	0.0021 U	0.002 U	0.0033 U	0.0022 U
Trichloroethene	0.47	10	200	0.0013 U	0.0011 U	0.001 U	0.0014 U	0.0016 U	8E-04 U	0.0011 U	0.001 U	0.0017 U	0.0011 U
Trichlorofluoromethane				0.00055 U	0.00048 U	0.0004 U	0.0006 U	0.0007 U	3E-04 U	0.0005 U	0.0004 U	0.0007 U	0.0005 U
Vinyl chloride	0.02	0.21	13	0.00071 U	0.00061 U	0.0005 U	0.0008 U	0.0009 U	4E-04 U	0.0006 U	0.0006 U	0.0009 U	0.0006 U
Xylenes, Total	0.26	100	500	0.00098 U	0.00085 U	0.0008 U	0.001 U	0.0012 U	6E-04 U	0.0008 U	0.0008 U	0.0013 U	0.0009 U

Table A - 1

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Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[3] (mg/kg)	SS-4A	SS-4B	SS-4C	SS-5A	SS-5B	SS-5C	SS-6A	SS-6B	SS-6C	SS-7A
Semi-Volatile Organic Compounds (8270D, 3550C) mg/kg													
2,4,5-Trichlorophenol				0.24 U	0.044 U	0.043 U	0.046 U	0.042 U	0.04 U	0.045 U	0.042 U	0.04 U	0.044 U
2,4,6-Trichlorophenol				0.073 U	0.013 U	0.013 U	0.014 U	0.013 U	0.012 U	0.014 U	0.013 U	0.012 U	0.013 U
2,4-Dichlorophenol				0.058 U	0.011 U	0.01 U	0.011 U	0.01 U	0.01 U	0.011 U	0.01 U	0.0097 U	0.01 U
2,4-Dimethylphenol				0.3 U	0.055 U	0.053 U	0.057 U	0.052 U	0.05 U	0.056 U	0.052 U	0.05 U	0.054 U
2,4-Dinitrophenol				0.39 U	0.071 U	0.069 U	0.074 U	0.067 U	0.065 U	0.073 U	0.067 U	0.064 U	0.07 U
2,4-Dinitrotoluene				0.17 U	0.031 U	0.03 U	0.033 U	0.03 U	0.029 U	0.032 U	0.03 U	0.029 U	0.031 U
2,6-Dinitrotoluene				0.27 U	0.049 U	0.048 U	0.052 U	0.047 U	0.045 U	0.051 U	0.047 U	0.045 U	0.049 U
2-Chloronaphthalene				0.074 U	0.014 U	0.013 U	0.014 U	0.013 U	0.012 U	0.014 U	0.013 U	0.012 U	0.013 U
2-Chlorophenol				0.056 U	0.01 U	0.01 U	0.011 U	0.0098 U	0.009 U	0.011 U	0.0097 U	0.0094 U	0.01 U
2-Methylnaphthalene				0.013 U	0.0024 U	0.0024 U	0.0026 U	0.0023 U	0.002 U	0.0025 U	0.0023 U	0.0022 U	0.0024 U
2-Methylphenol				0.034 U	0.0062 U	0.006 U	0.0065 U	0.0059 U	0.006 U	0.0064 U	0.0059 U	0.0057 U	0.0061 U
2-Nitroaniline				0.36 U	0.065 U	0.063 U	0.068 U	0.061 U	0.059 U	0.067 U	0.061 U	0.059 U	0.064 U
2-Nitrophenol				0.051 U	0.0092 U	0.009 U	0.0097 U	0.0088 U	0.009 U	0.0095 U	0.0087 U	0.0084 U	0.0091 U
3,3'-Dichlorobenzidine				0.97 U	0.18 U	0.17 U	0.19 U	0.17 U	0.16 U	0.18 U	0.17 U*	0.16 U	0.18 U
3-Nitroaniline				0.26 U	0.046 U	0.045 U	0.049 U	0.044 U	0.043 U	0.048 U	0.044 U	0.042 U	0.046 U
4,6-Dinitro-2-methylphenol				0.38 U	0.07 U	0.068 U	0.073 U	0.066 U	0.064 U	0.072 U	0.066 U	0.064 U	0.069 U
4-Bromophenyl phenyl ether				0.35 U	0.064 U	0.062 U	0.067 U	0.061 U	0.059 U	0.066 U	0.061 U	0.059 U	0.064 U
4-Chloro-3-methylphenol				0.046 U	0.0083 U	0.0081 U	0.0087 U	0.0079 U	0.008 U	0.0085 U	0.0079 U	0.0076 U	0.0082 U
4-Chloroaniline				0.33 U	0.059 U	0.058 U	0.062 U	0.056 U	0.054 U	0.061 U	0.056 U	0.054 U	0.059 U
4-Chlorophenyl phenyl ether				0.024 U	0.0043 U	0.0042 U	0.0045 U	0.0041 U	0.004 U	0.0044 U	0.0041 U	0.0039 U	0.0043 U
4-Methylphenol				0.062 U	0.011 U	0.011 U	0.012 U	0.011 U	0.01 U	0.012 U	0.011 U	0.01 U	0.011 U
4-Nitroaniline				0.12 U	0.023 U	0.022 U	0.024 U	0.021 U	0.021 U	0.023 U	0.021 U	0.021 U	0.022 U
4-Nitrophenol				0.27 U	0.049 U	0.048 U	0.051 U	0.046 U	0.045 U	0.05 U	0.046 U	0.045 U	0.048 U
Acenaphthene	20	100	500	0.013 U	0.0024 U	0.0023 U	0.0025 U	0.0023 U	0.002 U	0.0024 U	0.0022 U	0.0022 U	0.0023 U
Acenaphthylene	100	100	500	0.0091 U	0.0017 U	0.0016 U	0.0017 U	0.0016 U	0.002 U	0.0017 U	0.0015 U	0.0015 U	0.0016 U
Acetophenone				0.057 U	0.01 U	0.01 U	0.011 U	0.0098 U	0.01 U	0.011 U	0.0098 U	0.0095 U	0.01 U
Anthracene	100	100	500	0.028 U	0.0052 U	0.005 J	0.0054 U	0.0049 U	0.005 U	0.0057 J	0.0049 U	0.0047 U	0.011 J
Atrazine				0.049 U	0.009 U	0.0087 U	0.0094 U	0.0085 U	0.008 U	0.0092 U	0.0085 U	0.0082 U	0.0089 U
Benzaldehyde				0.12 U	0.022 U	0.022 U	0.22	0.021 U	0.02 U	0.024 J	0.021 U	0.02 U	0.022 U
Benzo[a]anthracene	1	1	5.6	0.13 J	0.054 J	0.04 J	0.027 J	0.0033 U	0.003 U	0.041 J	0.0033 U*	0.0032 U	0.066 J
Benzo[a]pyrene	1	1	1	0.12 J	0.05 J	0.028 J	0.03 J	0.0046 U	0.005 U	0.045 J	0.026 J*	0.0044 U	0.068 J
Benzo[b]fluoranthene	1	1	5.6	0.17 J	0.068 J	0.053 J	0.051 J	0.0037 U	0.004 U	0.064 J	0.043 J*	0.014 J	0.11 J
Benzo[g,h,i]perylene	100	100	500	0.013 U	0.016 J	0.0083 J	0.0025 U	0.0023 U	0.002 U	0.047 J	0.039 J*	0.0022 U	0.027 J
Benzo[k]fluoranthene	0.8	1	56	0.012 U	0.0022 U	0.0022 U	0.0023 U	0.0021 U	0.002 U	0.029 J	0.017 J*	0.0089 J	0.0022 U
Biphenyl				0.069 U	0.013 U	0.012 U	0.013 U	0.012 U	0.012 U	0.013 U	0.012 U	0.011 U	0.012 U
bis (2-chloroisopropyl) ether				0.12 U	0.021 U	0.02 U	0.022 U	0.02 U	0.019 U	0.022 U	0.02 U	0.019 U	0.021 U
Bis(2-chloroethoxy)methane				0.06 U	0.011 U	0.011 U	0.012 U	0.01 U	0.01 U	0.011 U	0.01 U	0.01 U	0.011 U
Bis(2-chloroethyl)ether				0.096 U	0.017 U	0.017 U	0.018 U	0.017 U	0.016 U	0.018 U	0.016 U	0.016 U	0.017 U
Bis(2-ethylhexyl) phthalate				0.36 U	0.065 U	0.063 U	0.068 U	0.062 U	0.06 U	0.067 U	0.061 U*	0.059 U	0.064 U
Butyl benzyl phthalate				0.3 U	0.054 U	0.053 U	0.057 U	0.051 U	0.05 U	0.056 U	0.051 U*	0.049 U	0.054 U
Caprolactam				0.48 U	0.087 U	0.085 U	0.2 J	0.083 U	0.08 U	0.09 U	0.083 U	0.08 U	0.086 U
Carbazole				0.013 U	0.0023 U	0.0023 U	0.0024 U	0.0022 U	0.002 U	0.0062 J	0.0022 U	0.0021 U	0.0023 U
Chrysene	1	1	56	0.12 J	0.061 J	0.027 J	0.04 J	0.0019 U	0.002 U	0.053 J	0.035 J*	0.0018 U	0.072 J
Dibenz(a,h)anthracene	0.33	0.33	0.56	0.013 U	0.0024 U	0.0023 U	0.0025 U	0.0023 U	0.002 U	0.0024 U	0.0022 U*	0.0022 U	0.0023 U
Dibenzofuran				0.012 U	0.0021 U	0.002 U	0.0022 U	0.002 U	0.002 U	0.0022 U	0.002 U	0.0019 U	0.0021 U
Diethyl phthalate				0.034 U	0.0061 U	0.0059 U	0.0064 U	0.0058 U	0.006 U	0.0063 U	0.0058 U	0.0056 U	0.006 U
Dimethyl phthalate				0.029 U	0.0053 U	0.0051 U	0.0055 U	0.005 U	0.005 U	0.0054 U	0.005 U	0.0048 U	0.0052 U
Di-n-butyl phthalate				0.38 U	0.07 U	0.068 U	0.073 U	0.066 U	0.064 U	0.072 U	0.066 U	0.064 U	0.069 U
Di-n-octyl phthalate				0.026 U	0.0047 U	0.0046 U	0.005 U	0.0045 U	0.004 U	0.0049 U	0.0045 U*	0.0043 U	0.0047 U
Fluoranthene	100	100	500	0.19 J	0.097 J	0.065 J	0.046 J	0.022 J	0.003 U	0.068 J	0.055 J	0.011 J	0.13 J

Table A - 1

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[3] (mg/kg)	SS-4A	SS-4B	SS-4C	SS-5A	SS-5B	SS-5C	SS-6A	SS-6B	SS-6C	SS-7A
Semi-Volatile Organic Compounds (8270D, 3550C) mg/kg													
Fluorene	30	100	500	0.026 U	0.0047 U	0.0045 U	0.0049 U	0.0044 U	0.004 U	0.0048 U	0.0044 U	0.0042 U	0.0046 U
Hexachlorobenzene				0.055 U	0.01 U	0.0097 U	0.011 U	0.0095 U	0.009 U	0.01 U	0.0095 U	0.0092 U	0.0099 U
Hexachlorobutadiene				0.057 U	0.01 U	0.01 U	0.011 U	0.0098 U	0.01 U	0.011 U	0.0098 U	0.0094 U	0.01 U
Hexachlorocyclopentadiene				0.34 U	0.061 U	0.059 U	0.064 U	0.058 U	0.056 U	0.063 U	0.058 U	0.056 U	0.06 U
Hexachloroethane				0.086 U	0.016 U	0.015 U	0.016 U	0.015 U	0.014 U	0.016 U	0.015 U	0.014 U	0.015 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	5.6	0.034 J	0.019 J	0.012 J	0.02 J	0.0053 U	0.005 U	0.051 J	0.0053 U *	0.016 J	0.029 J
Isophorone				0.055 U	0.01 U	0.0098 U	0.011 U	0.0096 U	0.009 U	0.01 U	0.0095 U	0.0092 U	0.01 U
Naphthalene	12	100	500	0.018 U	0.0034 U	0.0033 U	0.0035 U	0.0032 U	0.003 U	0.0035 U	0.0032 U	0.0031 U	0.0033 U
Nitrobenzene				0.049 U	0.009 U	0.0087 U	0.0094 U	0.0085 U	0.008 U	0.0092 U	0.0085 U	0.0082 U	0.0089 U
N-Nitrosodi-n-propylamine				0.088 U	0.016 U	0.016 U	0.017 U	0.015 U	0.015 U	0.016 U	0.015 U	0.015 U	0.016 U
N-Nitrosodiphenylamine				0.061 U	0.011 U	0.011 U	0.012 U	0.01 U	0.01 U	0.011 U	0.01 U	0.01 U	0.011 U
Pentachlorophenol	0.8	2.4	6.7	0.38 U	0.069 U	0.067 U	0.073 U	0.066 U	0.064 U	0.071 U	0.065 U	0.063 U	0.069 U
Phenanthrene	100	100	500	0.023 U	0.036 J	0.027 J	0.021 J	0.004 U	0.004 U	0.034 J	0.02 J	0.009 J	0.065 J
Phenol	0.33	100	500	0.12 U	0.021 U	0.021 U	0.022 U	0.02 U	0.019 U	0.022 U	0.02 U	0.019 U	0.021 U
Pyrene	100	100	500	0.14 J	0.073 J	0.047 J	0.046 J	0.0012 U	0.001 U	0.076 J	0.063 J *	0.014 J	0.097 J
Hexavalent Chromium (7196A, 3060A) mg/kg													
Cr (VI)	1	22	400	0.36 U	0.33 U	0.32 U	0.47 J	0.48 J	0.35 J	0.34 U	0.65 J	0.40 J	0.40 J
Total Cyanide (9012B, 9012B_PREP) mg/kg													
Cyanide, Total	27	27	27	0.71 J	0.58 U	0.54 U	0.61 U	0.62 J	0.53 U	0.81 J	0.90 J	0.51 U	0.58 J
Trivalent Chromium (SM 3500 CR D) mg/kg													
Cr (III)	30	36	1500	20.1	13.2	20.4	21.8	16.7	38.6	19.3	15.9	23.2	14.7
METALS (6010C, 3050B) mg/kg													
Aluminum, Total Recoverable				11200	7630	15300	11900	8740	18900	10500	11600	14700	8440
Antimony, Total Recoverable				0.61 J	0.36 U	0.44 J	0.49 J	0.47 U	0.72 J	0.38 J	0.31 U	0.49 J	0.34 U
Arsenic, Total Recoverable	13	16	16	3.1	1.9	2.6	2.6	1.6 J	1.7	2.2	2.2	3.2	1.4
Barium, Total Recoverable	350	350	400	86.9	43.5	84.7	84.4	77.7	204	87.5	67.6	79.9	69.8
Beryllium, Total Recoverable	7.2	14	590	0.23 J	0.15 J	0.42 J	0.46	0.33	0.16 J	0.28 J	0.24 J	0.28 J	0.20 J
Cadmium, Total Recoverable	2.5	2.5	9.3	0.48 J	0.20 J	0.18 J	0.14 J	0.044 J	0.17 J	0.22 J	0.17 J	0.19 J	0.18 J
Calcium, Total Recoverable				2520	734	1430	1280	1560	1640	1230	957	829	2100
Chromium (Total)	30			20.1	13.2	20.4	22.3	17.2	37.6	19.3	16.5	23.6	15.1
Cobalt, Total Recoverable				7.7	4.6	8.0	10.0	7.6	15.9	7.1	6.9	8.4	5.2
Copper, Total Recoverable	50	270	270	38.0	18.0	16.3	25.3	16.0	28.0	21.6	16.2	16.6	13.7
Iron, Total Recoverable				17700 ^	11200 ^	19100 ^	17800	14200	30200 ^	21100 ^	16100 ^	21500 ^	12400 ^
Lead, Total Recoverable	63	400	1000	102	60.5	53.2	4810	8.4	5.4	15.5	15.2	29.7	36.9
Magnesium, Total Recoverable				3730 B	2260 B	4890	4290 B	4220 B	7820 B	3960	3440	4150	3520
Manganese, Total Recoverable	1,600	2,000	10,000	530	185	322	366	301	419	340	377	355	196
Nickel, Total Recoverable	30	140	310	15.0	9.3	15.1	19.0	16.3	30.9	12.8	13.9	17.6	10.5
Potassium, Total Recoverable				1860 B	1140 B	1950	2350	2750	9080 B	2990	1450	1540	1930
Selenium, Total Recoverable	3.9	36	1500	0.63 U	0.56 U	0.57 J	0.78 J	0.47 U	0.48 U	0.74 J	0.50 U	0.63 J	0.53 U
Silver, Total Recoverable	2	36	1500	0.57	0.24 J	0.068 U	0.52 J	0.23 U	0.12 J	0.26 J	0.12 J	0.13 J	0.076 U
Sodium, Total Recoverable				58.3 J	38.8 U	65.6 U	79.9 J	86.7 J	141 J	53.3 J	47.5 J	47.2 J	91.0 J
Thallium, Total Recoverable				0.45 J	0.39 U	0.33 U	0.36 U	0.35 U	0.76 J	0.40 J	0.35 U	0.40 J	0.37 U
Vanadium, Total Recoverable				31.1	19.1	29.6	33.4	25.4	57.1	32.1	25.2	37.5	22.7
Zinc, Total Recoverable	109	2200	10000	86.1 B	41.0 B	61.3 B	63.3 B	38.2 B	66.8 B	57.9 B	46.5 B	54.2 B	44.0 B
Mercury (7471B, 7471B_PREP) mg/kg													
Mercury, Total Recoverable	0.18	0.81	2.8	0.32	0.22	0.13	0.076	0.026	0.0091 U	0.26 B	0.15 B	0.11 B	0.12

Table A - 1

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[3] (mg/kg)	SS-4A	SS-4B	SS-4C	SS-5A	SS-5B	SS-5C	SS-6A	SS-6B	SS-6C	SS-7A
Pesticides (8081B, 3550C) mg/kg													
4,4'-DDD	0.0033	2.6	92	0.0042 U	0.00039 U	0.0004 U	0.0041 U	0.0004 U	4E-04 U	0.0026 J	0.0005 J	0.003 J	0.0019 U
4,4'-DDE	0.0033	1.8	62	0.0045 U	0.00063 J	0.0006 J	0.0044 U	0.0004 J	4E-04 U	0.0045 J	0.0015 J	0.006 J	0.002 U
4,4'-DDT	0.0033	1.7	47	0.0099 J	0.0011 J	0.0006 J	0.006 J	0.0007 J	4E-04 U	0.0024 U	0.0007 J B	0.0027 J	0.004 J
Aldrin	0.005	0.019	0.68	0.0053 U	0.00049 U	0.0005 U	0.0051 U	0.0005 U	5E-04 U	0.0025 U	0.0005 U	0.0023 U	0.0024 U
alpha-BHC	0.02	0.097	3.4	0.0039 U	0.00036 U	0.0004 U	0.0038 U	0.0005 J	3E-04 U	0.0039 J	0.001 J B	0.0038 J	0.0018 U
alpha-Chlordane	0.094	0.91	24	0.011 U	0.00099 U	0.001 U	0.01 U	0.001 U	9E-04 U	0.0051 U	0.0009 U	0.0046 U	0.0048 U
beta-BHC	0.036	0.072	3	0.0039 U	0.00036 U	0.0004 U	0.0038 U	0.0003 U	3E-04 U	0.0018 U	0.0003 U	0.0017 U	0.0018 U
delta-BHC	0.04	100	500	0.004 U	0.00046 J	0.0007 J	0.0039 U	0.0004 U	3E-04 U	0.0019 U	0.0007 J B	0.0031 J	0.0018 U
Dieldrin	0.005	0.039	1.4	0.0052 U	0.00048 U	0.0005 U	0.005 U	0.0005 U	4E-04 U	0.0024 U	0.0006 J	0.0022 U	0.0023 U
Endosulfan I	2.4	4.8	200	0.0041 U	0.00038 U	0.0004 U	0.004 U	0.0004 U	4E-04 U	0.002 U	0.0004 U	0.0018 U	0.0019 U
Endosulfan II	2.4	4.8	200	0.0039 U	0.00036 U	0.0004 U	0.0038 U	0.0003 U	3E-04 U	0.0018 U	0.0003 U	0.0017 U	0.0018 U
Endosulfan sulfate	2.4	4.8	200	0.004 U	0.00037 U	0.0004 U	0.0039 U	0.0004 U	3E-04 U	0.0019 U	0.0004 U	0.0017 U	0.0018 U
Endrin	0.014	2.2	89	0.0043 U	0.00039 U	0.0004 U	0.0041 U	0.0004 U	4E-04 U	0.002 U	0.0004 U	0.0018 U	0.0019 U
Endrin aldehyde				0.0055 U	0.00051 U	0.0005 U	0.0053 U	0.0005 U	5E-04 U	0.0026 U	0.0005 U	0.0024 U	0.0025 U
Endrin ketone				0.0053 U	0.00049 U	0.0005 U	0.0051 U	0.0005 U	5E-04 U	0.0025 U	0.0005 U	0.0023 U	0.0024 U
gamma-BHC (Lindane)	0.1	0.28	9.2	0.004 U	0.00037 U	0.0006 J	0.0038 U	0.0004 U	3E-04 U	0.0019 U	0.0004 U	0.0017 U	0.0018 U
gamma-Chlordane				0.0069 U	0.00063 U	0.0006 U	0.0066 U	0.0006 U	6E-04 U	0.0032 U	0.0006 U	0.003 U	0.0031 U
Heptachlor	0.042	0.42	15	0.0047 U	0.00043 U	0.0004 U	0.0045 U	0.0004 U	4E-04 U	0.0022 U	0.0004 U	0.002 U	0.0021 U
Heptachlor epoxide				0.0056 U	0.00051 U	0.0005 U	0.0054 U	0.0005 U	5E-04 U	0.0026 U	0.0005 U	0.0024 U	0.0025 U
Methoxychlor				0.0044 U	0.00041 U	0.0004 U	0.0043 U	0.0004 U	4E-04 U	0.0021 U	0.0004 U	0.0019 U	0.002 U
Toxaphene				0.13 U	0.012 U	0.011 U	0.12 U	0.011 U	0.011 U	0.059 U	0.011 U	0.054 U	0.057 U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg													
PCB-1016	0.1	1	1	0.051 U	0.052 U	0.051 U	0.056 U	0.05 U	0.043 U	0.055 U	0.046 U	0.05 U	0.05 U
PCB-1221	0.1	1	1	0.051 U	0.052 U	0.051 U	0.056 U	0.05 U	0.043 U	0.055 U	0.046 U	0.05 U	0.05 U
PCB-1232	0.1	1	1	0.051 U	0.052 U	0.051 U	0.056 U	0.05 U	0.043 U	0.055 U	0.046 U	0.05 U	0.05 U
PCB-1242	0.1	1	1	0.051 U	0.052 U	0.051 U	0.056 U	0.05 U	0.043 U	0.055 U	0.046 U	0.05 U	0.05 U
PCB-1248	0.1	1	1	0.051 U	0.052 U	0.051 U	0.056 U	0.05 U	0.043 U	0.055 U	0.046 U	0.05 U	0.05 U
PCB-1254	0.1	1	1	0.15 U	0.13 U	0.12 U	0.13 U	0.12 U	0.1 U	0.13 U	0.11 U	0.12 U	0.12 U
PCB-1260	0.1	1	1	0.15 U	0.13 U	0.12 U	0.13 U	0.12 U	0.1 U	0.13 U	0.11 U	0.12 U	0.12 U

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	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[2] (mg/kg)	SS-7B	SS-7C	SS-8A	SS-8B	SS-8C	SS-9A	SS-9B	SS-9C	SS-10A	SS-10B
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg													
1,1,1-Trichloroethane	0.68	100	500	0.00033 U	0.0003 U	0.00058 U	0.0005 U	0.0003 U	0.0005 U	0.0003 U	0.0003 U	0.0004 U	0.0004 U
1,1,2,2-Tetrachloroethane				0.00074 U	0.00066 U	0.0013 U	0.0011 U	0.0007 U	0.001 U	0.0008 U	0.0006 U	0.001 U	0.001 U
1,1,2-Trichloro-1,2,2-trifluoroethane				0.001 U	0.00095 U	0.0018 U	0.0016 U	0.001 U	0.0014 U	0.0011 U	0.0008 U	0.0014 U	0.0014 U
1,1,2-Trichloroethane				0.00059 U	0.00054 U	0.001 U	0.0009 U	0.0006 U	0.0008 U	0.0006 U	0.0005 U	0.0008 U	0.0008 U
1,1-Dichloroethane	0.27	19	240	0.00056 U	0.00051 U	0.00097 U	0.0008 U	0.0006 U	0.0008 U	0.0006 U	0.0004 U	0.0007 U	0.0008 U
1,1-Dichloroethene	0.33	100	500	0.00056 U	0.00051 U	0.00098 U	0.0008 U	0.0006 U	0.0008 U	0.0006 U	0.0004 U	0.0007 U	0.0008 U
1,2,4-Trichlorobenzene				0.00028 U	0.00025 U	0.00048 U	0.0004 U	0.0003 U	0.0004 U	0.0003 U	0.0002 U	0.0004 U	0.0004 U
1,2-Dibromo-3-Chloropropane				0.0023 U	0.0021 U	0.004 U	0.0034 U	0.0022 U	0.0031 U	0.0023 U	0.0018 U	0.003 U	0.0031 U
1,2-Dibromoethane				0.00059 U	0.00053 U	0.001 U	0.0009 U	0.0006 U	0.0008 U	0.0006 U	0.0005 U	0.0008 U	0.0008 U
1,2-Dichlorobenzene	1.1	100	500	0.00036 U	0.00033 U	0.00062 U	0.0005 U	0.0004 U	0.0005 U	0.0004 U	0.0003 U	0.0005 U	0.0005 U
1,2-Dichloroethane	0.02	2.3	30	0.00023 U	0.00021 U	0.0004 U	0.0004 U	0.0002 U	0.0003 U	0.0002 U	0.0002 U	0.0003 U	0.0003 U
1,2-Dichloropropane				0.0023 U	0.0021 U	0.004 U	0.0034 U	0.0022 U	0.0031 U	0.0023 U	0.0018 U	0.003 U	0.0031 U
1,3-Dichlorobenzene	2.4	17	280	0.00023 U	0.00021 U	0.00041 U	0.0004 U	0.0002 U	0.0003 U	0.0002 U	0.0002 U	0.0003 U	0.0003 U
1,4-Dichlorobenzene	1.8	9.8	130	0.00064 U	0.00056 U	0.0011 U	0.001 U	0.0006 U	0.0009 U	0.0007 U	0.0005 U	0.0009 U	0.0009 U
2-Butanone (MEK)	0.12	100	500	0.0017 U	0.0015 U	0.0029 U	0.0025 U	0.0016 U	0.0023 U	0.0017 U	0.0013 U	0.0022 U	0.0022 U
2-Hexanone				0.0023 U	0.0021 U	0.004 U	0.0034 U	0.0022 U	0.0031 U	0.0023 U	0.0018 U	0.003 U	0.0031 U
4-Methyl-2-pentanone (MIBK)				0.0015 U	0.0014 U	0.0026 U	0.0023 U	0.0015 U	0.002 U	0.0015 U	0.0012 U	0.002 U	0.002 U
Acetone	0.05	100	500	0.0038 U	0.0043 J	0.0067 U	0.0058 U	0.0038 U	0.0052 U	0.0039 U	0.004 J	0.0051 U	0.0051 U
Benzene	0.06	2.9	44	0.00022 U	0.0002 U	0.00039 U	0.0003 U	0.0002 U	0.0003 U	0.0002 U	0.0002 U	0.0003 U	0.0003 U
Bromodichloromethane				0.00061 U	0.00056 U	0.0011 U	0.0009 U	0.0006 U	0.0008 U	0.0006 U	0.0005 U	0.0008 U	0.0008 U
Bromoform				0.0023 U	0.0021 U	0.004 U	0.0034 U	0.0022 U	0.0031 U	0.0023 U	0.0018 U	0.003 U	0.0031 U
Bromomethane				0.00041 U	0.00037 U	0.00072 U	0.0006 U	0.0004 U	0.0006 U	0.0004 U	0.0003 U	0.0005 U	0.0006 U
Carbon disulfide				0.0023 U	0.0021 U	0.004 U	0.0034 U	0.0022 U	0.0031 U	0.0023 U	0.0018 U	0.003 U	0.0031 U
Carbon tetrachloride	0.76	1.4	22	0.00044 U	0.0004 U	0.00077 U	0.0007 U	0.0004 U	0.0006 U	0.0005 U	0.0004 U	0.0006 U	0.0006 U
Chlorobenzene	1.1	100	500	0.0006 U	0.00055 U	0.0011 U	0.0009 U	0.0006 U	0.0008 U	0.0006 U	0.0005 U	0.0008 U	0.0008 U
Chloroethane				0.001 U	0.00094 U	0.0018 U	0.0016 U	0.001 U	0.0014 U	0.0011 U	0.0008 U	0.0014 U	0.0014 U
Chloroform	0.37	10	350	0.00028 U	0.00026 U	0.00049 U	0.0004 U	0.0003 U	0.0004 U	0.0003 U	0.0002 U	0.0004 U	0.0004 U
Chloromethane				0.00028 U	0.00025 U	0.00048 U	0.0004 U	0.0003 U	0.0004 U	0.0003 U	0.0002 U	0.0004 U	0.0004 U
cis-1,2-Dichloroethene	0.25	59	500	0.00058 U	0.00053 U	0.001 U	0.0009 U	0.0006 U	0.0008 U	0.0006 U	0.0005 U	0.0008 U	0.0008 U
cis-1,3-Dichloropropene				0.00066 U	0.0006 U	0.0011 U	0.001 U	0.0007 U	0.0009 U	0.0007 U	0.0005 U	0.0009 U	0.0009 U
Cyclohexane				0.00064 U	0.00058 U	0.0011 U	0.001 U	0.0006 U	0.0009 U	0.0007 U	0.0005 U	0.0009 U	0.0009 U
Dibromochloromethane				0.00058 U	0.00053 U	0.001 U	0.0009 U	0.0006 U	0.0008 U	0.0006 U	0.0005 U	0.0008 U	0.0008 U
Dichlorodifluoromethane				0.00038 U	0.00034 U	0.00066 U	0.0006 U	0.0004 U	0.0005 U	0.0004 U	0.0003 U	0.0005 U	0.0005 U
Ethylbenzene	1.0	30.0	390	0.00032 U	0.00029 U	0.00055 U	0.0005 U	0.0003 U	0.0004 U	0.0003 U	0.0003 U	0.0004 U	0.0004 U
Isopropylbenzene				0.00069 U	0.00063 U	0.0012 U	0.001 U	0.0007 U	0.0008 U	0.0007 U	0.0006 U	0.0009 U	0.0009 U
Methyl acetate				0.0028 U	0.0025 U	0.0048 U	0.0042 U	0.0027 U	0.0037 U	0.0026 U	0.0022 U	0.0037 U	0.0037 U
Methyl tert-butyl ether	0.93	62	500	0.00045 U	0.00041 U	0.00078 U	0.0007 U	0.0004 U	0.0006 U	0.0005 U	0.0004 U	0.0006 U	0.0006 U
Methylcyclohexane				0.00069 U	0.00063 U	0.0012 U	0.001 U	0.0007 U	0.0009 U	0.0007 U	0.0006 U	0.0009 U	0.0009 U
Methylene Chloride	0.05	51	500	0.0021 U	0.0019 U	0.0037 U	0.0032 U	0.0021 U	0.0029 U	0.0021 U	0.0017 U	0.0028 U	0.0028 U
Styrene				0.00023 U	0.00021 U	0.0004 U	0.0003 U	0.0002 U	0.0003 U	0.0002 U	0.0002 U	0.0003 U	0.0003 U
Tetrachloroethene	1.3	5.5	150	0.00061 U	0.00056 U	0.0011 U	0.0009 U	0.0006 U	0.0008 U	0.0006 U	0.0005 U	0.0008 U	0.0008 U
Toluene	0.7	100	500	0.00035 U	0.00031 U	0.0006 U	0.0005 U	0.0003 U	0.0005 U	0.0004 U	0.0003 U	0.0005 U	0.0005 U
trans-1,2-Dichloroethene	0.19	100	500	0.00047 U	0.00043 U	0.00082 U	0.0007 U	0.0005 U	0.0006 U	0.0005 U	0.0004 U	0.0006 U	0.0006 U
trans-1,3-Dichloropropene				0.002 U	0.0018 U	0.0035 U	0.003 U	0.002 U	0.0027 U	0.002 U	0.0016 U	0.0027 U	0.0027 U
Trichloroethene	0.47	10	200	0.001 U	0.00092 U	0.0018 U	0.0015 U	0.001 U	0.0014 U	0.001 U	0.0008 U	0.0013 U	0.0013 U
Trichlorofluoromethane				0.00043 U	0.00039 U	0.00075 U	0.0007 U	0.0004 U	0.0006 U	0.0004 U	0.0003 U	0.0006 U	0.0006 U
Vinyl chloride	0.02	0.21	13	0.00056 U	0.00051 U	0.00097 U	0.0008 U	0.0006 U	0.0008 U	0.0006 U	0.0004 U	0.0007 U	0.0008 U
Xylenes, Total	0.26	100	500	0.00077 U	0.0007 U	0.0013 U	0.0012 U	0.0008 U	0.001 U	0.0008 U	0.0006 U	0.001 U	0.001 U

Table A - 1

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[3] (mg/kg)	SS-7B	SS-7C	SS-8A	SS-8B	SS-8C	SS-9A	SS-9B	SS-9C	SS-10A	SS-10B
Semi-Volatile Organic Compounds (8270D, 3550C) mg/kg													
2,4,5-Trichlorophenol				0.042 U	0.041 U	0.05 U	0.049 U	0.041 U	0.048 U	0.042 U	0.04 U	0.24 U	0.045 U
2,4,6-Trichlorophenol				0.013 U	0.012 U	0.015 U	0.015 U	0.012 U	0.014 U	0.013 U	0.012 U	0.072 U	0.014 U
2,4-Dichlorophenol				0.01 U	0.0099 U	0.012 U	0.012 U	0.0099 U	0.011 U	0.01 U	0.0097 U	0.057 U	0.011 U
2,4-Dimethylphenol				0.052 U	0.051 U	0.062 U	0.061 U	0.051 U	0.056 U	0.052 U	0.05 U	0.29 U	0.056 U
2,4-Dinitrophenol				0.068 U	0.066 U	0.08 U	0.079 U	0.066 U	0.073 U	0.067 U	0.065 U	0.38 U	0.072 U
2,4-Dinitrotoluene				0.03 U	0.029 U	0.035 U	0.035 U	0.029 U	0.032 U	0.03 U	0.029 U	0.17 U	0.032 U
2,6-Dinitrotoluene				0.047 U	0.046 U	0.056 U	0.055 U	0.046 U	0.051 U	0.047 U	0.045 U	0.27 U	0.051 U
2-Chloronaphthalene				0.013 U	0.013 U	0.015 U	0.015 U	0.013 U	0.014 U	0.013 U	0.012 U	0.073 U	0.014 U
2-Chlorophenol				0.0099 U	0.0096 U	0.012 U	0.011 U	0.0096 U	0.011 U	0.0097 U	0.0094 U	0.055 U	0.011 U
2-Methylnaphthalene				0.0023 U	0.0023 U	0.0028 U	0.0027 U	0.0023 U	0.0025 U	0.0023 U	0.0022 U	0.013 U	0.0025 U
2-Methylphenol				0.006 U	0.0058 U	0.007 U	0.0069 U	0.0058 U	0.0064 U	0.0059 U	0.0057 U	0.033 U	0.0064 U
2-Nitroaniline				0.062 U	0.06 U	0.073 U	0.072 U	0.061 U	0.067 U	0.061 U	0.059 U	0.35 U	0.066 U
2-Nitrophenol				0.0089 U	0.0086 U	0.01 U	0.01 U	0.0087 U	0.0095 U	0.0087 U	0.0085 U	0.05 U	0.0095 U
3,3'-Dichlorobenzidine				0.17 U	0.17 U	0.2 U	0.2 U	0.17 U	0.18 U	0.17 U	0.16 U	0.95 U	0.18 U
3-Nitroaniline				0.045 U	0.043 U	0.052 U	0.052 U	0.044 U	0.048 U	0.044 U	0.043 U	0.25 U	0.048 U
4,6-Dinitro-2-methylphenol				0.067 U	0.065 U	0.079 U	0.078 U	0.065 U	0.072 U	0.066 U	0.064 U	0.38 U	0.072 U
4-Bromophenyl phenyl ether				0.062 U	0.06 U	0.073 U	0.072 U	0.06 U	0.066 U	0.061 U	0.059 U	0.35 U	0.066 U
4-Chloro-3-methylphenol				0.008 U	0.0077 U	0.0094 U	0.0093 U	0.0078 U	0.0086 U	0.0079 U	0.0076 U	0.045 U	0.0085 U
4-Chloroaniline				0.057 U	0.055 U	0.067 U	0.066 U	0.056 U	0.061 U	0.056 U	0.054 U	0.32 U	0.061 U
4-Chlorophenyl phenyl ether				0.0041 U	0.004 U	0.0049 U	0.0048 U	0.004 U	0.0045 U	0.0041 U	0.0039 U	0.023 U	0.0044 U
4-Methylphenol				0.011 U	0.01 U	0.013 U	0.013 U	0.011 U	0.012 U	0.011 U	0.01 U	0.061 U	0.012 U
4-Nitroaniline				0.022 U	0.021 U	0.025 U	0.025 U	0.021 U	0.023 U	0.021 U	0.021 U	0.12 U	0.023 U
4-Nitrophenol				0.047 U	0.046 U	0.055 U	0.055 U	0.046 U	0.051 U	0.046 U	0.045 U	0.26 U	0.05 U
Acenaphthene	20	100	500	0.0023 U	0.0022 U	0.0027 U	0.0027 U	0.0022 U	0.0027 J	0.0022 U	0.0022 U	0.013 U	0.0024 U
Acenaphthylene	100	100	500	0.0016 U	0.0015 U	0.0019 U	0.0018 U	0.0015 U	0.0017 U	0.0016 U	0.0015 U	0.0089 U	0.0017 U
Acetophenone				0.0099 U	0.0097 U	0.012 U	0.012 U	0.0097 U	0.011 U	0.0098 U	0.0095 U	0.056 U	0.011 U
Anthracene	100	100	500	0.005 U	0.0048 U	0.0058 U	0.0058 U	0.0048 U	0.012 J	0.0049 U	0.0047 U	0.028 U	0.0053 U
Atrazine				0.0086 U	0.0084 U	0.01 U	0.01 U	0.0084 U	0.0093 U	0.0085 U	0.0082 U	0.048 U	0.0092 U
Benzaldehyde				0.021 U	0.021 U	0.15 J	0.16 J	0.021 U	0.023 U	0.021 U	0.02 U	0.12 U	0.023 U
Benzo[a]anthracene	1	1	5.6	0.031 J	0.0032 U	0.1 J	0.059 J	0.0064 J	0.083 J*	0.0033 U*	0.0032 U*	0.12 J	0.023 J
Benzo[a]pyrene	1	1	1	0.033 J	0.0045 U	0.13 J	0.072 J	0.0046 U	0.084 J*	0.016 J*	0.0045 U*	0.099 J	0.024 J
Benzo[b]fluoranthene	1	1	5.6	0.045 J	0.0037 U	0.23	0.14 J	0.0037 U	0.11 J*	0.021 J*	0.0036 U*	0.17 J	0.026 J
Benzo[g,h,i]perylene	100	100	500	0.011 J	0.0023 U	0.046 J	0.0027 U	0.0023 U	0.082 J*	0.025 J*	0.0022 U*	0.048 J	0.012 J
Benzo[k]fluoranthene	0.8	1	56	0.0021 U	0.0021 U	0.082 J	0.049 J	0.0021 U	0.047 J*	0.0021 U*	0.002 U*	0.012 U	0.0023 U
Biphenyl				0.012 U	0.012 U	0.014 U	0.014 U	0.012 U	0.013 U	0.012 U	0.012 U	0.068 U	0.013 U
bis (2-chloroisopropyl) ether				0.02 U	0.02 U	0.024 U	0.024 U	0.02 U	0.022 U	0.02 U	0.019 U	0.11 U	0.022 U
Bis(2-chloroethoxy)methane				0.011 U	0.01 U	0.012 U	0.012 U	0.01 U	0.011 U	0.01 U	0.01 U	0.059 U	0.011 U
Bis(2-chloroethyl)ether				0.017 U	0.016 U	0.02 U	0.019 U	0.016 U	0.018 U	0.016 U	0.016 U	0.094 U	0.018 U
Bis(2-ethylhexyl) phthalate				0.062 U	0.061 U	0.074 U	0.073 U	0.061 U	0.067 U	0.062 U	0.06 U*	0.35 U	0.067 U
Butyl benzyl phthalate				0.052 U	0.051 U	0.061 U	0.061 U	0.051 U	0.056 U	0.051 U	0.05 U*	0.29 U	0.056 U
Caprolactam				0.084 U	0.081 U	0.099 U	0.096 U	0.082 U	0.09 U	0.083 U	0.08 U	0.47 U	0.09 U
Carbazole				0.0022 U	0.0022 U	0.0026 U	0.0026 U	0.0022 U	0.0069 J	0.0022 U	0.0021 U	0.013 U	0.0024 U
Chrysene	1	1	56	0.035 J	0.0019 U	0.15 J	0.11 J	0.0019 U	0.1 J*	0.016 J*	0.0019 U*	0.11 J	0.028 J
Dibenz(a,h)anthracene	0.33	0.33	0.56	0.0023 U	0.0022 U	0.0027 U	0.0027 U	0.0022 U	0.0025 U	0.0022 U*	0.0022 U*	0.013 U	0.0024 U
Dibenzofuran				0.002 U	0.002 U	0.0024 U	0.0023 U	0.002 U	0.0022 U	0.002 U	0.0019 U	0.011 U	0.0022 U
Diethyl phthalate				0.0059 U	0.0057 U	0.0069 U	0.0068 U	0.0057 U	0.0063 U	0.0058 U	0.0056 U	0.033 U	0.0063 U
Dimethyl phthalate				0.0051 U	0.0049 U	0.006 U	0.0059 U	0.0049 U	0.0054 U	0.005 U	0.0048 U	0.028 U	0.0054 U
Di-n-butyl phthalate				0.067 U	0.065 U	0.079 U	0.078 U	0.065 U	0.072 U	0.066 U	0.064 U	0.38 U	0.072 U
Di-n-octyl phthalate				0.0045 U	0.0044 U	0.0053 U	0.0053 U	0.0044 U	0.0049 U	0.0045 U	0.0043 U*	0.025 U	0.0048 U
Fluoranthene	100	100	500	0.055 J	0.0027 U	0.17 J	0.11 J	0.0027 U	0.16 J	0.025 J	0.0027 U	0.21 J	0.045 J

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	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[3] (mg/kg)	SS-7B	SS-7C	SS-8A	SS-8B	SS-8C	SS-9A	SS-9B	SS-9C	SS-10A	SS-10B
Semi-Volatile Organic Compounds (8270D, 3550C) mg/kg													
Fluorene	30	100	500	0.0045 U	0.0043 U	0.0053 U	0.0052 U	0.0044 U	0.0048 U	0.0044 U	0.0043 U	0.025 U	0.0048 U
Hexachlorobenzene				0.0096 U	0.0084 U	0.011 U	0.011 U	0.0094 U	0.01 U	0.0095 U	0.0092 U	0.054 U	0.01 U
Hexachlorobutadiene				0.0099 U	0.0096 U	0.012 U	0.012 U	0.0097 U	0.011 U	0.0098 U	0.0095 U	0.056 U	0.011 U
Hexachlorocyclopentadiene				0.059 U	0.057 U	0.069 U	0.068 U	0.057 U	0.063 U	0.058 U	0.056 U	0.33 U	0.063 U
Hexachloroethane				0.015 U	0.015 U	0.018 U	0.017 U	0.015 U	0.016 U	0.015 U	0.014 U	0.084 U	0.016 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	5.6	0.014 J	0.0052 U	0.046 J	0.028 J	0.0052 U	0.087 J *	0.0053 U *	0.0051 U *	0.047 J	0.0096 J
Isophorone				0.0097 U	0.0094 U	0.011 U	0.011 U	0.0095 U	0.01 U	0.0095 U	0.0093 U	0.054 U	0.01 U
Naphthalene	12	100	500	0.0032 U	0.0031 U	0.0038 U	0.0038 U	0.0032 U	0.0035 J	0.0032 U	0.0031 U	0.018 U	0.0034 U
Nitrobenzene				0.0086 U	0.0083 U	0.01 U	0.01 U	0.0084 U	0.0093 U	0.0085 U	0.0082 U	0.048 U	0.0092 U
N-Nitrosodi-n-propylamine				0.015 U	0.015 U	0.018 U	0.018 U	0.015 U	0.017 U	0.015 U	0.015 U	0.086 U	0.016 U
N-Nitrosodiphenylamine				0.011 U	0.01 U	0.012 U *	0.012 U	0.01 U	0.011 U	0.01 U	0.01 U	0.06 U	0.011 U
Pentachlorophenol	0.8	2.4	6.7	0.066 U	0.065 U	0.078 U	0.077 U	0.065 U	0.072 U	0.066 U	0.064 U	0.37 U	0.071 U
Phenanthrene	100	100	500	0.022 J	0.004 U	0.12 J	0.077 J	0.004 U	0.06 J	0.013 J	0.0039 U	0.063 J	0.026 J
Phenol	0.33	100	500	0.02 U	0.02 U	0.024 U	0.024 U	0.02 U	0.022 U	0.02 U	0.02 U	0.11 U	0.022 U
Pyrene	100	100	500	0.041 J	0.0012 U	0.2 J	0.14 J	0.0012 U	0.2 J *	0.026 J *	0.0012 U *	0.16 J	0.04 J
Hexavalent Chromium (7196A, 3060A) mg/kg													
Cr (VI)	1	22	400	0.31 U	0.54 J	0.37 U	0.36 U	0.35 J	0.74 J	0.67 J	0.30 U	0.42 J	0.62 J
Total Cyanide (9012B, 9012B_PREP) mg/kg													
Cyanide, Total	27	27	27	0.59 J	0.52 U	0.65 U	0.77 J	0.52 U	0.60 J	0.52 U	0.53 U	0.62 U	1.2
Trivalent Chromium (SM 3500 CR D) mg/kg													
Cr (III)	30	36	1500	20.3	17.3	15.1	20.3	18.1	29.3	24.3	21.7	21.2	20.8
METALS (6010C, 3050B) mg/kg													
Aluminum, Total Recoverable				11800	10000	10900	18300	10800	19500	14400	12100	16300	17700
Antimony, Total Recoverable				0.52 J	0.30 U	0.58 J	0.62 J	0.33 U	0.55 J	0.59 J	0.39 J	0.52 J	0.47 J
Arsenic, Total Recoverable	13	16	16	1.7	1.3	3.1	3.5	2.2	2.6	2.8	3.4	3.4	2.7
Barium, Total Recoverable	350	350	400	96.8	110	68.8	70.6	76.5	174	88.1	92.3	75.4	78.2
Beryllium, Total Recoverable	7.2	14	590	0.28 J	0.24 J	0.22 J	0.51 J	0.25 J	0.25 J	0.22 J	0.34 J	0.36 J	0.46 J
Cadmium, Total Recoverable	2.5	2.5	9.3	0.16 J	0.11 J	0.25 J	0.22 J	0.15 J	0.20 J	0.17 J	0.21 J	0.24 J	0.19 J
Calcium, Total Recoverable				2010	2090	1560	677	3080	1730	1200	921	899	742
Chromium (Total)	30			20.3	17.8	15.1	20.3	18.4	30.0	25.0	21.7	21.6	21.4
Cobalt, Total Recoverable				6.7	6.3	4.6	6.6	5.5	12.0	10.4	8.2	6.5	6.5
Copper, Total Recoverable	50	270	270	14.6	12.2	11.2	11.3	13.9	15.1	20.9	18.1	16.8	12.4
Iron, Total Recoverable				15700 ^	14500 ^	12900 ^	18300 ^	12700 ^	27700 ^	23500 ^	19200 ^	17200 ^	17600 ^
Lead, Total Recoverable	63	400	1000	48.1	2.9	38.1	20.1	4.2	8.9	7.2	8.6	46.2	19.3
Magnesium, Total Recoverable				4460	3870	2280 B	3750	3790	6750	5610	5130	4730	3860
Manganese, Total Recoverable	1,600	2,000	10,000	239	238	393	502	227	405	448	612	273	344
Nickel, Total Recoverable	30	140	310	13.7	12.6	10.1	13.5	10.8	25.5	19.4	18.2	15.3	14.5
Potassium, Total Recoverable				2960	3260	630 B	713	2260	6360	2560	2680 B	1540	1060
Selenium, Total Recoverable	3.9	36	1500	0.52 U	0.47 U	0.81 J	0.96 J	0.51 U	0.72 J	0.56 U	0.48 J	0.82 J	0.52 U
Silver, Total Recoverable	2	36	1500	0.074 U	0.067 U	0.095 U	0.091 U	0.074 U	0.085 J	0.081 U	0.064 U	0.095 J	0.074 U
Sodium, Total Recoverable				113 J	150 J	53.0 J B	87.8 U	92.0 J	91.6 J	47.9 J	152 J	87.3 U	73.4 J
Thallium, Total Recoverable				0.36 U	0.33 U	0.47 U	0.45 U	0.36 U	0.53 J	0.39 U	0.48 J	0.44 U	0.36 U
Vanadium, Total Recoverable				30.7	27.4	26.0	32.6	24.7	47.2	38.0	23.1	40.6	35.1
Zinc, Total Recoverable	109	2200	10000	42.9 B	28.2 B	46.8 B	51.3 B	33.2 B	73.0 B	49.1 B	43.8 B	47.3 B	44.2 B
Mercury (7471B, 7471B_PREP) mg/kg													
Mercury, Total Recoverable	0.18	0.81	2.8	0.087	0.016 U	0.12	0.061	0.048	0.067 B	0.035 J B	0.028 J B	0.19	0.065

Table A - 1

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[3] (mg/kg)	SS-7B	SS-7C	SS-8A	SS-8B	SS-8C	SS-9A	SS-9B	SS-9C	SS-10A	SS-10B
Pesticides (8081B, 3550C) mg/kg													
4,4'-DDD	0.0033	2.6	92	0.00037 U	0.00036 U	0.0022 U	0.0004 U	0.0004 U	0.004 U	0.0018 U	0.0004 U	0.0021 U	0.0004 U
4,4'-DDE	0.0033	1.8	62	0.00049 J	0.00039 U	0.0026 J	0.001 J	0.0004 U	0.006 J	0.004 J	0.0004 U	0.005 J	0.0004 U
4,4'-DDT	0.0033	1.7	47	0.00097 J	0.00043 U	0.0052 J	0.0008 J	0.0004 U	0.0046 U	0.0022 U	0.0004 U	0.007 J	0.0009 J
Aldrin	0.005	0.019	0.68	0.00047 U	0.00046 U	0.0028 U	0.0005 U	0.0005 U	0.0051 U	0.0023 U	0.0004 U	0.0027 U	0.0005 U
alpha-BHC	0.02	0.097	3.4	0.00034 U	0.00033 U	0.002 U	0.0004 U	0.0003 U	0.0037 U	0.0017 U	0.0003 U	0.0019 U	0.0004 U
alpha-Chlordane	0.094	0.91	24	0.00095 U	0.00092 U	0.0056 U	0.0011 U	0.0009 U	0.01 U	0.0047 U	0.0009 U	0.0054 U	0.001 U
beta-BHC	0.036	0.072	3	0.00034 U	0.00033 U	0.002 U	0.0004 U	0.0003 U	0.0037 U	0.0017 U	0.0003 U	0.0019 U	0.0004 U
delta-BHC	0.04	100	500	0.00035 U	0.00034 U	0.0021 U	0.0008 J	0.0006 J B	0.0038 U	0.0032 J B	0.0006 J B	0.0025 J	0.0008 J
Dieldrin	0.005	0.039	1.4	0.00046 U	0.00044 U	0.0027 U	0.0005 U	0.0004 U	0.0049 U	0.0023 U	0.0004 U	0.0026 U	0.0005 U
Endosulfan I	2.4	4.8	200	0.00037 U	0.00036 U	0.0021 U	0.0004 U	0.0004 U	0.004 U	0.0018 U	0.0004 U	0.0021 U	0.0004 U
Endosulfan II	2.4	4.8	200	0.00034 U	0.00033 U	0.002 U	0.0004 U	0.0003 U	0.0037 U	0.0017 U	0.0003 U	0.0019 U	0.0004 U
Endosulfan sulfate	2.4	4.8	200	0.00035 U	0.00035 U	0.0021 U	0.0004 U	0.0004 U	0.0038 U	0.0018 U	0.0003 U	0.002 U	0.0004 U
Endrin	0.014	2.2	89	0.00038 U	0.00037 U	0.0022 U	0.0004 U	0.0004 U	0.0041 U	0.0019 U	0.0004 U	0.0021 U	0.0004 U
Endrin aldehyde				0.00049 U	0.00047 U	0.0029 U	0.0006 U	0.0005 U	0.0053 U	0.0024 U	0.0005 U	0.0028 U	0.0005 U
Endrin ketone				0.00047 U	0.00046 U	0.0028 U	0.0005 U	0.0005 U	0.0051 U	0.0023 U	0.0004 U	0.0069 J	0.0005 U
gamma-BHC (Lindane)	0.1	0.28	9.2	0.00035 U	0.00034 U	0.0021 U	0.0004 U	0.0003 U	0.0038 U	0.0017 U	0.0003 U	0.002 U	0.0004 U
gamma-Chlordane				0.0006 U	0.00059 U	0.0036 U	0.0007 U	0.0006 U	0.0065 U	0.003 U	0.0006 U	0.0034 U	0.0007 U
Heptachlor	0.042	0.42	15	0.00041 U	0.0004 U	0.0024 U	0.0005 U	0.0004 U	0.0045 U	0.0021 U	0.0004 U	0.0023 U	0.0005 U
Heptachlor epoxide				0.00049 U	0.00048 U	0.0029 U	0.0006 U	0.0005 U	0.0053 U	0.0024 U	0.0005 U	0.0028 U	0.0005 U
Methoxychlor				0.00064 J	0.00038 U	0.004 J B	0.0005 U	0.0004 U	0.0042 U	0.0019 U	0.0004 U	0.0036 J B	0.0004 U
Toxaphene				0.011 U	0.011 U	0.065 U	0.013 U	0.011 U	0.12 U	0.055 U	0.01 U	0.063 U	0.012 U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg													
PCB-1016	0.1	1	1	0.047 U	0.04 U	0.064 U	0.053 U	0.04 U	0.051 U	0.049 U	0.05 U	0.056 U	0.053 U
PCB-1221	0.1	1	1	0.047 U	0.04 U	0.064 U	0.053 U	0.04 U	0.051 U	0.049 U	0.05 U	0.056 U	0.053 U
PCB-1232	0.1	1	1	0.047 U	0.04 U	0.064 U	0.053 U	0.04 U	0.051 U	0.049 U	0.05 U	0.056 U	0.053 U
PCB-1242	0.1	1	1	0.047 U	0.04 U	0.064 U	0.053 U	0.04 U	0.051 U	0.049 U	0.05 U	0.056 U	0.053 U
PCB-1248	0.1	1	1	0.047 U	0.04 U	0.064 U	0.053 U	0.04 U	0.051 U	0.049 U	0.05 U	0.056 U	0.053 U
PCB-1254	0.1	1	1	0.11 U	0.095 U	0.15 U	0.13 U	0.095 U	0.12 U	0.12 U	0.12 U	0.13 U	0.13 U
PCB-1260	0.1	1	1	0.11 U	0.095 U	0.15 U	0.13 U	0.095 U	0.12 U	0.12 U	0.12 U	0.13 U	0.13 U

Table A - 1

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	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[2] (mg/kg)	SS-10C	SS-11A	SS-11B	SS-11C	P1-1(Sed)	P1-2(Sed)	P2-1(Sed)	P2-2(Sed)	P2-1(S)	P2-2(S)	SDB1-1	SDB1-2	SDB2-1	SDB2-2
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg																	
1,1,1-Trichloroethane	0.68	100	500	0.0004 U	0.0006 U	0.0004 U	0.0003 U	—	—	0.0002 U	0.0004 U	0.0005 U	0.0002 U	—	—	—	—
1,1,2,2-Tetrachloroethane				0.0008 U	0.0013 U	0.0008 U	0.0007 U	—	—	0.0005 U	0.001 U	0.001 U	0.0004 U	—	—	—	—
1,1,2-Trichloro-1,2,2-trifluoroethane				0.0011 U	0.0018 U	0.0011 U	0.001 U	—	—	0.0007 U	0.0014 U	0.0014 U	0.0005 U	—	—	—	—
1,1,2-Trichloroethane				0.0006 U	0.001 U	0.0007 U	0.0006 U	—	—	0.0004 U	0.0008 U	0.0008 U	0.0003 U	—	—	—	—
1,1-Dichloroethane	0.27	19	240	0.0006 U	0.001 U	0.0006 U	0.0005 U	—	—	0.0004 U	0.0007 U	0.0008 U	0.0003 U	—	—	—	—
1,1-Dichloroethene	0.33	100	500	0.0006 U	0.001 U	0.0006 U	0.0006 U	0.0029 U	0.0029 U	0.0004 U	0.0007 U	0.0008 U	0.0003 U	0.0029 U	0.0029 U	0.0029 U	0.0029 U
1,2,4-Trichlorobenzene				0.0003 U	0.0005 U	0.0003 U	0.0003 U	—	—	0.0002 U	0.0004 U	0.0004 U	0.0001 U	—	—	—	—
1,2-Dibromo-3-Chloropropane				0.0024 U	0.004 U	0.0025 U	0.0022 U	—	—	0.0014 U	0.003 U	0.0031 U	0.0011 U	—	—	—	—
1,2-Dibromoethane				0.0006 U	0.001 U	0.0006 U	0.0006 U	—	—	0.0004 U	0.0008 U	0.0008 U	0.0003 U	—	—	—	—
1,2-Dichlorobenzene	1.1	100	500	0.0004 U	0.0006 U	0.0004 U	0.0004 U	—	—	0.0002 U	0.0005 U	0.0005 U	0.0002 U	—	—	—	—
1,2-Dichloroethane	0.02	2.3	30	0.0002 U	0.0004 U	0.0003 U	0.0002 U	0.054	0.0021 U	0.0001 U	0.0003 U	0.0003 U	0.0001 U	0.0036 J	0.0021 U	0.0021 U	0.0021 U
1,2-Dichloropropane				0.0024 U	0.004 U	0.0025 U	0.0022 U	—	—	0.0014 U	0.003 U	0.0031 U	0.0011 U	—	—	—	—
1,3-Dichlorobenzene	2.4	17	280	0.0003 U	0.0004 U	0.0003 U	0.0002 U	—	—	0.0002 U	0.0003 U	0.0003 U	0.0001 U	—	—	—	—
1,4-Dichlorobenzene	1.8	9.8	130	0.0007 U	0.0011 U	0.0007 U	0.0006 U	0.00046 U	0.00046 U	0.0004 U	0.0008 U	0.0009 U	0.0003 U	0.00046 U	0.00046 U	0.00046 U	0.00046 U
2-Butanone (MEK)	0.12	100	500	0.0018 U	0.0029 U	0.0018 U	0.0016 U	0.013 U	0.013 U	0.001 U	0.0022 U	0.0023 U	0.0008 U	0.013 U	0.013 U	0.013 U	0.013 U
2-Hexanone				0.0024 U	0.004 U	0.0025 U	0.0022 U	—	—	0.0014 U	0.003 U	0.0031 U	0.0011 U	—	—	—	—
4-Methyl-2-pentanone (MIBK)				0.0016 U	0.0026 U	0.0016 U	0.0015 U	—	—	0.0009 U	0.0019 U	0.002 U	0.0007 U	—	—	—	—
Acetone	0.05	100	500	0.0041 U	0.0067 U	0.0042 U	0.0038 U	—	—	0.0024 U	0.005 U	0.0052 U	0.0018 U	—	—	—	—
Benzene	0.06	2.9	44	0.0002 U	0.0004 U	0.0002 U	0.0002 U	0.0041 U	0.0041 U	0.0001 U	0.0003 U	0.0003 U	0.0001 U	0.0041 U	0.0041 U	0.0041 U	0.0041 U
Bromodichloromethane				0.0007 U	0.0011 U	0.0007 U	0.0006 U	-	-	0.0004 U	0.0008 U	0.0008 U	0.0003 U	—	—	—	—
Bromoform				0.0024 U	0.004 U	0.0025 U	0.0022 U	-	-	0.0014 U	0.003 U	0.0031 U	0.0011 U	—	—	—	—
Bromomethane				0.0004 U	0.0007 U	0.0005 U	0.0004 U	-	-	0.0003 U	0.0005 U	0.0006 U	0.0002 U	—	—	—	—
Carbon disulfide				0.0024 U	0.004 U	0.0025 U	0.0022 U	-	-	0.0014 U	0.003 U	0.0031 U	0.0011 U	—	—	—	—
Carbon tetrachloride	0.76	1.4	22	0.0005 U	0.0008 U	0.0005 U	0.0004 U	0.0027 U	0.0027 U	0.0003 U	0.0006 U	0.0006 U	0.0002 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
Chlorobenzene	1.1	100	500	0.0006 U	0.001 U	0.0007 U	0.0006 U	0.0075 U	0.0075 U	0.0004 U	0.0008 U	0.0008 U	0.0003 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U
Chloroethane				0.0011 U	0.0018 U	0.0011,U	0.001 U	-	-	0.0006 U	0.0013 U	0.0014 U	0.0005 U	—	—	—	—
Chloroform	0.37	10	350	0.0003 U	0.0005 U	0.0003 U	0.0003 U	0.0034 U	0.0034 U	0.0002 U	0.0004 U	0.0004 U	0.0001 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U
Chloromethane				0.0003 U	0.0005 U	0.0003 U	0.0003 U	—	—	0.0002 U	0.0004 U	0.0004 U	0.0001 U	—	—	—	—
cis-1,2-Dichloroethene	0.25	59	500	0.0006 U	0.001 U	0.0006 U	0.0006 U	—	—	0.0004 U	0.0008 U	0.0008 U	0.0003 U	—	—	—	—
cis-1,3-Dichloropropene				0.0007 U	0.0011 U	0.0007 U	0.0006 U	—	—	0.0004 U	0.0009 U	0.0009 U	0.0003 U	—	—	—	—
Cyclohexane				0.0007 U	0.0011 U	0.0007 U	0.0006 U	—	—	0.0004 U	0.0008 U	0.0009 U	0.0003 U	—	—	—	—
Dibromochloromethane				0.0006 U	0.001 U	0.0006 U	0.0006 U	—	—	0.0004 U	0.0008 U	0.0008 U	0.0003 U	—	—	—	—
Dichlorodifluoromethane				0.0004 U	0.0007 U	0.0004 U	0.0004 U	—	—	0.0002 U	0.0005 U	0.0005 U	0.0002 U	—	—	—	—
Ethylbenzene	1.0	30.0	390	0.0003 U	0.0006 U	0.0003 U	0.0003 U	—	—	0.0002 U	0.0004 U	0.0004 U	0.0002 U	—	—	—	—
Isopropylbenzene				0.0007 U	0.0012 U	0.0008 U	0.0007 U	—	—	0.0004 U	0.0009 U	0.0009 U	0.0003 U	—	—	—	—
Methyl acetate				0.0029 U	0.0048 U	0.003 U	0.0027 U	—	—	0.0017 U	0.0036 U	0.0038 U	0.0013 U	—	—	—	—
Methyl tert-butyl ether	0.93	62	500	0.0005 U	0.0008 U	0.0005 U	0.0004 U	—	—	0.0003 U	0.0006 U	0.0006 U	0.0002 U	—	—	—	—
Methylcyclohexane				0.0007 U	0.0012 U	0.0008 U	0.0007 U	—	—	0.0004 U	0.0009 U	0.0009 U	0.0003 U	—	—	—	—
Methylene Chloride	0.05	51	500	0.0022 U	0.0036 U	0.0023 U	0.0021 U	—	—	0.0013 U	0.0027 U	0.0029 U	0.001 U	—	—	—	—
Styrene				0.0002 U	0.0004 U	0.0003 U	0.0002 U	—	—	0.0001 U	0.0003 U	0.0003 U	0.0001 U	—	—	—	—
Tetrachloroethene	1.3	5.5	150	0.0007 U	0.0013 J	0.0011 J	0.0006 U	0.0036 U	0.0036 U	0.0004 U	0.0015 J	0.0008 U	0.0003 J	0.0036 U	0.0036 U	0.0036 U	0.0036 U
Toluene	0.7	100	500	0.0004 U	0.0006 U	0.0004 U	0.0003 U	—	—	0.0002 U	0.0005 U	0.0005 U	0.0002 U	—	—	—	—
trans-1,2-Dichloroethene	0.19	100	500	0.0005 U	0.0008 U	0.0005 U	0.0005 U	—	—	0.0003 U	0.0006 U	0.0006 U	0.0002 U	—	—	—	—
trans-1,3-Dichloropropene				0.0021 U	0.0035 U	0.0022 U	0.002 U	—	—	0.0012 U	0.0026 U	0.0027 U	0.001 U	—	—	—	—
Trichloroethene	0.47	10	200	0.0011 U	0.0017 U	0.0011 U	0.001 U	0.0046 U	0.0046 U	0.0006 U	0.0013 U	0.0014 U	0.0005 U	0.0046 U	0.0046 U	0.0046 U	0.0046 U
Trichlorofluoromethane				0.0005 U	0.0008 U	0.0005 U	0.0004 U	—	—	0.0003 U	0.0006 U	0.0006 U	0.0002 U	—	—	—	—
Vinyl chloride	0.02	0.21	13	0.0006 U	0.001 U	0.0006 U	0.0005 U	0.0090 U	0.0090 U	0.0004 U	0.0007 U	0.0008 U	0.0003 U	0.0090 U	0.0090 U	0.0090 U	0.0090 U
Xylenes, Total	0.26	100	500	0.0008 U	0.0013 U	0.0008 U	0.0008 U	—	—	0.0005 U	0.001 U	0.001 U	0.0004 U	—	—	—	—

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	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[3] (mg/kg)	SS-10C	SS-11A	SS-11B	SS-11C	P1-1(Sed)	P1-2(Sed)	P2-1(Sed)	P2-2(Sed)	P2-1(S)	P2-2(S)	SDB1-1	SDB1-2	SDB2-1	SDB2-2
Semi-Volatile Organic Compounds (8270D, 3550C) mg/kg																	
2,4,5-Trichlorophenol				0.04 U	0.041 U	0.05 U	0.042 U	0.00048 U	0.00048 U	0.042 U	0.044 U	0.042 U	0.042 U	0.00048 U	0.00048	0.00048 U	0.00048 U
2,4,6-Trichlorophenol				0.012 U	0.012 U	0.015 U	0.013 U	0.00061 U	0.00061 U	0.013 U	0.013 U	0.013 U	0.013 U	0.00061 U	0.00061	0.00061 U	0.00061 U
2,4-Dichlorophenol				0.0096 U	0.0098 U	0.012 U	0.01 U	—	—	0.01 U	0.011 U	0.01 U	0.01 U	—	—	—	—
2,4-Dimethylphenol				0.05 U	0.05 U	0.062 U	0.052 U	—	—	0.052 U	0.054 U	0.052 U	0.052 U	—	—	—	—
2,4-Dinitrophenol				0.064 U	0.065 U	0.08 U	0.067 U	—	—	0.067 U	0.07 U	0.067 U	0.067 U	—	—	—	—
2,4-Dinitrotoluene				0.028 U	0.029 U	0.035 U	0.03 U	0.00045 U	0.00045 U	0.03 U	0.031 U	0.03 U	0.03 U	0.00045 U	0.00045	0.00045 U	0.00045 U
2,6-Dinitrotoluene				0.045 U	0.046 U	0.056 U	0.047 U	—	—	0.047 U	0.049 U	0.047 U	0.047 U	—	—	—	—
2-Chloronaphthalene				0.012 U	0.013 U	0.015 U	0.013 U	—	—	0.013 U	0.013 U	0.013 U	0.013 U	—	—	—	—
2-Chlorophenol				0.0094 U	0.0095 U	0.012 U	0.0097 U	—	—	0.0098 U	0.01 U	0.0097 U	0.0097 U	—	—	—	—
2-Methylnaphthalene				0.0022 U	0.0023 U	0.0028 U	0.0023 U	—	—	0.0023 U	0.0024 U	0.0023 U	0.0023 U	—	—	—	—
2-Methylphenol				0.0057 U	0.0057 U	0.007 U	0.0059 U	0.00040 U	0.00040 U	0.0059 U	0.0062 U	0.0059 U	0.0059 U	0.00040 U	0.00040	0.00040 U	0.00040 U
2-Nitroaniline				0.059 U	0.06 U	0.073 U	0.061 U	—	—	0.062 U	0.065 U	0.061 U	0.061 U	—	—	—	—
2-Nitrophenol				0.0084 U	0.0085 U	0.01 U	0.0087 U	—	—	0.0088 U	0.0092 U	0.0087 U	0.0087 U	—	—	—	—
3,3'-Dichlorobenzidine				0.16 U	0.16 U	0.2 U	0.17 U	—	—	0.17 U	0.18 U	0.17 U	0.17 U	—	—	—	—
3-Nitroaniline				0.042 U	0.043 U	0.052 U	0.044 U	—	—	0.044 U	0.046 U	0.044 U	0.044 U	—	—	—	—
4,6-Dinitro-2-methylphenol				0.064 U	0.064 U	0.079 U	0.066 U	—	—	0.066 U	0.069 U	0.066 U	0.066 U	—	—	—	—
4-Bromophenyl phenyl ether				0.059 U	0.059 U	0.073 U	0.061 U	—	—	0.061 U	0.064 U	0.061 U	0.061 U	—	—	—	—
4-Chloro-3-methylphenol				0.0076 U	0.0077 U	0.0094 U	0.0078 U	—	—	0.0079 U	0.0083 U	0.0079 U	0.0079 U	—	—	—	—
4-Chloroaniline				0.054 U	0.055 U	0.067 U	0.056 U	—	—	0.056 U	0.058 U	0.056 U	0.056 U	—	—	—	—
4-Chlorophenyl phenyl ether				0.0039 U	0.004 U	0.0049 U	0.0041 U	—	—	0.0041 U	0.0043 U	0.0041 U	0.0041 U	—	—	—	—
4-Methylphenol				0.01 U	0.01 U	0.013 U	0.011 U	0.00036 U *	0.00036 U *	0.011 U	0.011 U	0.011 U	0.011 U	0.00036 U	0.00036	0.00036 U	0.00036 U *
4-Nitroaniline				0.021 U	0.021 U	0.025 U	0.021 U	—	—	0.021 U	0.022 U	0.021 U	0.021 U	—	—	—	—
4-Nitrophenol				0.045 U	0.045 U	0.055 U	0.046 U	—	—	0.047 U	0.049 U	0.046 U	0.046 U	—	—	—	—
Acenaphthene	20	100	500	0.0022 U	0.0022 U	0.0027 U	0.0022 U	—	—	0.0023 U	0.0024 U	0.0022 U	0.0022 U	—	—	—	—
Acenaphthylene	100	100	500	0.0015 U	0.0015 U	0.0019 U	0.0016 U	—	—	0.0016 U	0.0016 U	0.0016 U	0.0016 U	—	—	—	—
Acetophenone				0.0094 U	0.0096 U	0.012 U	0.0098 U	—	—	0.0099 U	0.01 U	0.0098 U	0.0098 U	—	—	—	—
Anthracene	100	100	500	0.0047 U	0.0048 U	0.0058 U	0.0049 U	—	—	0.0049 U	0.0051 U	0.0049 U	0.0049 U	—	—	—	—
Atrazine				0.0082 U	0.0083 U	0.01 U	0.0085 U	—	—	0.0085 U	0.0089 U	0.0085 U	0.0085 U	—	—	—	—
Benzaldehyde				0.02 U	0.02 U	0.025 U	0.021 U	—	—	0.021 U	0.022 U	0.021 U	0.021 U	—	—	—	—
Benzo[a]anthracene	1	1	5.6	0.0078 J	0.042 J	0.0039 U	0.0033 U	—	—	0.011 J	0.049 J	0.0033 U	0.0086 J	—	—	—	—
Benzo[a]pyrene	1	1	1	0.0044 U	0.038 J	0.0055 U	0.0095 J	—	—	0.0046 U	0.043 J	0.0046 U	0.0046 U	—	—	—	—
Benzo[b]fluoranthene	1	1	5.6	0.0083 J	0.073 J	0.0044 U	0.012 J	—	—	0.024 J	0.069 J	0.0037 U	0.0037 U	—	—	—	—
Benzo[g,h,i]perylene	100	100	500	0.0022 U	0.0022 U	0.0027 U	0.0023 U	—	—	0.0023 U	0.0024 U	0.0023 U	0.0023 U	—	—	—	—
Benzo[k]fluoranthene	0.8	1	56	0.002 U	0.023 J	0.0025 U	0.0021 U	—	—	0.012 J	0.039 J	0.0021 U	0.0021 U	—	—	—	—
Biphenyl				0.011 U	0.012 U	0.014 U	0.012 U	—	—	0.012 U	0.013 U	0.012 U	0.012 U	—	—	—	—
bis (2-chloroisopropyl) ether				0.019 U	0.019 U	0.024 U	0.02 U	—	—	0.02 U	0.021 U	0.02 U	0.02 U	—	—	—	—
Bis(2-chloroethoxy)methane				0.01 U	0.01 U	0.012 U	0.01 U	—	—	0.01 U	0.011 U	0.01 U	0.01 U	—	—	—	—
Bis(2-chloroethyl)ether				0.016 U	0.016 U	0.02 U	0.016 U	—	—	0.017 U	0.017 U	16 U	16 U	—	—	—	—
Bis(2-ethylhexyl) phthalate				0.059 U	0.06 U	0.074 U	0.061 U	—	—	0.062 U	0.065 U	62 U	62 U	—	—	—	—
Butyl benzyl phthalate				0.049 U	0.05 U	0.061 U	0.051 U	—	—	0.052 U	0.054 U	51 U	51 U	—	—	—	—
Caprolactam				0.08 U	0.081 U	0.099 U	0.083 U	—	—	0.083 U	0.087 U	83 U	83 U	—	—	—	—
Carbazole				0.0021 U	0.0022 U	0.0026 U	0.0022 U	—	—	0.0022 U	0.0023 U	2.2 U	2.2 U	—	—	—	—
Chrysene	1	1	56	0.0018 U	0.051 J	0.0023 U	0.014 J	—	—	0.0019 U	0.05 J	1.9 U	1.9 U	—	—	—	—
Dibenz(a,h)anthracene	0.33	0.33	0.56	0.0022 U	0.0022 U	0.0027 U	0.0022 U	—	—	0.0023 U	0.0024 U	2.2 U	2.2 U	—	—	—	—
Dibenzofuran				0.0019 U	0.0019 U	0.0024 U	0.002 U	—	—	0.002 U	0.0021 U	2.0 U	2.0 U	—	—	—	—
Diethyl phthalate				0.0056 U	0.0056 U	0.0069 U	0.0058 U	—	—	0.0058 U	0.0061 U	5.8 U	5.8 U	—	—	—	—
Dimethyl phthalate				0.0048 U	0.0049 U	0.006 U	0.005 U	—	—	0.005 U	0.0052 U	5.0 U	5.0 U	—	—	—	—
Di-n-butyl phthalate				0.064 U	0.064 U	0.079 U	0.066 U	—	—	0.066 U	0.07 U	66 U	66 U	—	—	—	—
Di-n-octyl phthalate				0.0043 U	0.0044 U	0.0053 U	0.0045 U	—	—	0.0045 U	0.0047 U	4.5 U	4.5 U	—	—	—	—
Fluoranthene	100	100	500	0.01 J	0.07 J	0.0033 U	0.023 J	—	—	0.021 J	0.058 J	2.8 U	2.8 U	—	—	—	—

Table A - 1

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[3] (mg/kg)	SS-10C	SS-11A	SS-11B	SS-11C	P1-1(Sed)	P1-2(Sed)	P2-1(Sed)	P2-2(Sed)	P2-1(S)	P2-2(S)	SDB1-1	SDB1-2	SDB2-1	SDB2-2
Semi-Volatile Organic Compounds (8270D, 3550C) mg/kg																	
Fluorene	30	100	500	0.0042 U	0.0043 U	0.0053 U	0.0044 U	—	—	0.0044 U	0.0046 U	0.0044 U	0.0044 U	—	—	—	—
Hexachlorobenzene				0.0091 U	0.0093 U	0.011 U	0.0095 U	0.00051 U	0.00051 U	0.0095 U	0.01 U	0.0095 U	0.0095 U	0.00051 U	0.00051 U	0.00051 U	0.00051 U
Hexachlorobutadiene				0.0084 U	0.0085 U	0.012 U	0.0098 U	0.00068 U	0.00068 U	0.0098 U	0.01 U	0.0098 U	0.0098 U	0.00068 U	0.00068 U	0.00068 U	0.00068 U
Hexachlorocyclopentadiene				0.056 U	0.056 U	0.069 U	0.058 U	—	—	0.058 U	0.061 U	0.058 U	0.058 U	—	—	—	—
Hexachloroethane				0.014 U	0.014 U	0.018 U	0.015 U	0.00059 U	0.00059 U	0.015 U	0.016 U	0.015 U	0.015 U	0.00059 U	0.00059 U	0.00059 U	0.00059 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	5.6	0.0061 U	0.01 J	0.0053 U	0.0053 U	—	—	0.0053 U	0.0056 U	0.0053 U	0.0053 U	—	—	—	—
Isophorone				0.0092 U	0.0093 U	0.011 U	0.0095 U	—	—	0.0096 U	0.01 U	0.0095 U	0.0095 U	—	—	—	—
Naphthalene	12	100	500	0.0031 U	0.0031 U	0.0038 U	0.0032 U	—	—	0.0032 U	0.0033 U	0.0032 U	0.0032 U	—	—	—	—
Nitrobenzene				0.0082 U	0.0083 U	0.01 U	0.0085 U	0.00029 U	0.00029 U	0.0085 U	0.0089 U	0.0085 U	0.0085 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U
N-Nitrosodi-n-propylamine				0.015 U	0.015 U	0.018 U	0.015 U	—	—	0.015 U	0.016 U	0.015 U	0.015 U	—	—	—	—
N-Nitrosodiphenylamine				0.01 U	0.01 U	0.012 U	0.01 U	—	—	0.011 U	0.011 U	0.01 U	0.01 U	—	—	—	—
Pentachlorophenol	0.8	2.4	6.7	0.063 U	0.064 U	0.078 U	0.065 U	0.0022 U	0.0022 U	0.066 U	0.069 U	0.065 U	0.065 U	0.0022 U	0.0022 U	0.0022 U	0.0022 U
Phenanthrene	100	100	500	0.0039 U	0.046 J	0.0048 U	0.01 J	—	—	0.023 J	0.033 J	0.004 U	0.004 U	—	—	—	—
Phenol	0.33	100	500	0.019 U	0.02 U	0.024 U	0.02 U	—	—	0.02 U	0.021 U	0.02 U	0.02 U	—	—	—	—
Pyrene	100	100	500	0.0012 U	0.068 J	0.0015 U	0.02 J	—	—	0.0012 U	0.062 J	0.0012 U	0.0012 U	—	—	—	—
Hexavalent Chromium (7196A, 3060A) mg/kg																	
Cr (VI)	1	22	400	0.51 J	0.30 U	0.46 J	0.78 J	—	—	0.31 U	0.64 J	0.78 J	0.76 J	—	—	—	—
Total Cyanide (9012B, 9012B_PREP) mg/kg																	
Cyanide, Total	27	27	27	0.54 U	0.53 U	0.64 U	0.53 U	0.0030 U	0.0030 U	0.69 J	0.57 U	0.53 U	0.55 U	0.0030 U	0.0030 U	0.0030 U	0.0030 U
Trivalent Chromium (SM 3500 CR D) mg/kg																	
Cr (III)	30	36	1500	24.3	15.0	32.1	19.3	—	—	6.4	8.9	16.8	17.7	—	—	—	—
METALS (6010C, 3050B) mg/kg																	
Aluminum, Total Recoverable				14600	9250	20400	8590	—	—	3730	4250	9130	6050	—	—	—	—
Antimony, Total Recoverable				0.64 J	0.47 U	0.59 U	0.46 J	—	—	0.44 U	0.51 U	0.50 U	0.46 U	—	—	—	—
Arsenic, Total Recoverable	13	16	16	2.2	2.2 J	2.5 J	1.2	0.0056 U	0.0056 U	0.85 J	0.72 J	2.1 J	1.7 J	0.0056 U	0.0056 U	0.0056 U	0.0056 U
Barium, Total Recoverable	350	350	400	109	40.0	86.8	82.9	1.1 B	0.80 B	67.7	37.6	90.1	58.9	0.53 B	0.56 B	0.12 B	0.23 B
Beryllium, Total Recoverable	7.2	14	590	0.32 J	0.31	0.70	0.086 J	—	—	0.14 J	0.15 J	0.36	0.23	—	—	—	—
Cadmium, Total Recoverable	2.5	2.5	9.3	0.16 J	0.052 J	0.044 U	0.11 J	0.024	0.042	0.18 J	0.18 J	0.30	0.16 J	0.053	0.16	0.0060	0.014
Calcium, Total Recoverable				1570	469	474	1170	—	—	1050	1360	1270	1690				
Chromium (Total)	30			24.8	15.0	32.6	20.1	0.027 B	0.0023 J B	8.4	9.5	17.6	16.5	0.077 B	0.020 B	0.0023 J B	0.014 B
Cobalt, Total Recoverable				8.7	3.3	9.9	6.7	—	—	2.4	20.5	7.1	4.1	—	—	—	—
Copper, Total Recoverable	50	270	270	17.6	10.6	12.8	12.2	—	—	15.5	15.0	16.7	20.4	—	—	—	—
Iron, Total Recoverable				18200	11700	25000	14300 A	—	—	7620	6560	16900	10200	—	—	—	—
Lead, Total Recoverable	63	400	1000	4.6	64.7	10.3	4.4	0.49	0.084	62.7	31.9	20.6	23.1	0.088	0.069	0.0030 U	0.048
Magnesium, Total Recoverable				4660	1850 B	4540 B	3270 B	—	—	1890 B	1990 B	3320 B	2610 B	—	—	—	—
Manganese, Total Recoverable	1,600	2,000	10,000	409	80.4	205	208	—	—	65.9	129	472	88.5	—	—	—	—
Nickel, Total Recoverable	30	140	310	16.8	9.4	21.5	13.7	—	—	6.6	9.0	19.7	9.8	—	—	—	—
Potassium, Total Recoverable				3210	492	1090	2870 B	—	—	716	1030	1340	1240	—	—	—	—
Selenium, Total Recoverable	3.9	36	1500	0.97 U	1.2 J	1.3 J	0.52 U	0.0087 U	0.0087 U	0.44 U	0.51 U	0.78 J	0.46 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U
Silver, Total Recoverable	2	36	1500	0.14 U	0.23 J	0.34 J	0.075 U	0.017	0.0017 U	1.1	0.72 J	0.49 J	1.1	0.0093	0.0021 J	0.0017 U	0.0017 J
Sodium, Total Recoverable				126 J	45.3 J	59.0 J	71.9 J B	0.0057 U	0.0104 U	74.6 J	93.2 J	86.4 J	85.5 J	—	—	—	—
Thallium, Total Recoverable				0.34 U	0.35 U	0.44 U	0.37 U	1.2 B	0.0128 B	0.33 U	0.39 U	0.38 U	0.34 U	—	—	—	—
Vanadium, Total Recoverable				36.5	27.7	48.2	27.1	—	—	12.2	11.7	22.8	19.3	—	—	—	—
Zinc, Total Recoverable	109	2200	10000	36.5 B	27.4 B	53.9 B	28.8 B	0.024	0.042	81.9 B	65.9 B	200 B	78.8 B	—	—	—	—
Mercury (7471B, 7471B_PREP) mg/kg																	
Mercury, Total Recoverable	0.18	0.81	2.8	0.0084 U	0.084	0.061	0.0096 J	0.028 B	0.0024 J B	0.66	0.39	0.17	0.22	0.00061	0.0012	0.00012 U	0.00075

Table A - 1

Summary of Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] (mg/kg)	Residential SCO[2] (mg/kg)	Commercial SCO[3] (mg/kg)	SS-10C	SS-11A	SS-11B	SS-11C	P1-1(Sed)	P1-2(Sed)	P2-1(Sed)	P2-2(Sed)	P2-1(S)	P2-2(S)	SDB1-1	SDB1-2	SDB2-1	SDB2-2
Pesticides (8081B, 3550C) mg/kg																	
4,4'-DDD	0.0033	2.6	92	0.0005 J	0.0035 U	0.0004 U	0.0004 U	—	—	0.0004 U	0.0039 U	0.0004 U	0.0004 U	—	—	—	—
4,4'-DDE	0.0033	1.8	62	0.0007 J	0.01 J	0.0008 J	0.0008 J	—	—	0.0004 J	0.0042 U	0.0007 J	0.0011 J	—	—	—	—
4,4'-DDT	0.0033	1.7	47	0.0004 U	0.013 J	0.0009 J	0.0009 J	—	—	0.0006 J	0.0046 U	0.0011 J	0.0004 U	—	—	—	—
Aldrin	0.005	0.019	0.68	0.0005 U	0.0045 U	0.0006 U	0.0005 U	—	—	0.0005 U	0.0049 U	0.0005 U	0.0005 U	—	—	—	—
alpha-BHC	0.02	0.097	3.4	0.0003 U	0.0033 U	0.0004 U	0.0003 U	—	—	0.0003 U	0.0036 U	0.0003 U	0.0003 U	—	—	—	—
alpha-Chlordane	0.094	0.91	24	0.0009 U	0.009 U	0.0011 U	0.0009 U	—	—	0.0009 U	0.0099 U	0.001 U	0.0009 U	—	—	—	—
beta-BHC	0.036	0.072	3	0.0003 U	0.0033 U	0.0004 U	0.0003 U	—	—	0.0003 U	0.0036 U	0.0004 J	0.0003 U	—	—	—	—
delta-BHC	0.04	100	500	0.0006 J B	0.0034 U	0.0004 U	0.0007 J B	—	—	0.0009 J	0.0037 U	0.0004 U	0.0004 U	—	—	—	—
Dieldrin	0.005	0.039	1.4	0.0004 U	0.0044 U	0.0006 U	0.0005 U	—	—	0.0005 U	0.0048 U	0.0005 U	0.0005 U	—	—	—	—
Endosulfan I	2.4	4.8	200	0.0004 U	0.0035 U	0.0004 U	0.0004 U	—	—	0.0004 U	0.0038 U	0.0004 U	0.0004 U	—	—	—	—
Endosulfan II	2.4	4.8	200	0.0003 U	0.0033 U	0.0004 U	0.0003 U	—	—	0.0003 U	0.0036 U	0.0003 U	0.0003 U	—	—	—	—
Endosulfan sulfate	2.4	4.8	200	0.0003 U	0.0034 U	0.0004 U	0.0004 U	—	—	0.0004 U	0.0037 U	0.0004 U	0.0004 U	—	—	—	—
Endrin	0.014	2.2	89	0.0004 U	0.0036 U	0.0005 U	0.0004 U	.000014 U	.000014 U	0.0004 U	0.0039 U	0.0004 U	0.0004 U	0.000014 U	0.000014 U	0.000014 U	0.000014 U
Endrin aldehyde				0.0005 U	0.0046 U	0.0006 U	0.0005 U	—	—	0.0005 U	0.0051 U	0.0005 U	0.0008 J	—	—	—	—
Endrin ketone				0.0005 U	0.0074 J	0.0006 U	0.0005 U	—	—	0.0005 U	0.0049 U	0.0006 J	0.0005 J	—	—	—	—
gamma-BHC (Lindane)	0.1	0.28	9.2	0.0006 J	0.0033 U	0.0004 U	0.0006 J	.000043 J B	.000043 J B	0.0003 U	0.0036 U	0.0005 J	0.0005 J	0.0000060 U	0.0000060 U	0.000042 J B	0.0000060 U
gamma-Chlordane				0.0006 U	0.0058 U	0.0007 U	0.0006 U	—	—	0.0006 U	0.0063 U	0.0006 U	0.0006 J	—	—	—	—
Heptachlor	0.042	0.42	15	0.0004 U	0.0039 U	0.0005 U	0.0004 U	.0000085 U	.0000085 U	0.0004 U	0.0043 U	0.0004 U	0.0004 U	0.0000085 U	0.0000085 U	0.0000085 U	0.0000085 U
Heptachlor epoxide				0.0005 U	0.0047 U	0.0006 U	0.0005 U	.0000053 U	.0000041 J	0.0005 U	0.0051 U	0.0005 U	0.0005 U	0.0000053 U	0.0000053 U	0.0000053 U	0.0000053 U
Methoxychlor				0.0004 U	0.0037 U	0.0005 U	0.0004 U	.000014 U	.000014 U	0.0004 U	0.004 U	0.0004 U	0.0008 J	0.000014 U	0.000014 U	0.000014 U	0.000014 U
Toxaphene				0.011 U	0.11 U	0.013 U	0.011 U	0.00012 U	0.00012 U	0.011 U	0.12 U	0.011 U	0.011 U	0.00012 U	0.00012 U	0.00012 U	0.00012 U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg																	
PCB-1016	0.1	1	1	0.04 U	0.051 U	0.056 U	0.04 U	0.061 U	0.058 U	0.049 U	0.049 U	0.043 U	0.038 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1221	0.1	1	1	0.04 U	0.051 U	0.056 U	0.04 U	0.061 U	0.058 U	0.049 U	0.049 U	0.043 U	0.038 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1232	0.1	1	1	0.04 U	0.051 U	0.056 U	0.04 U	0.061 U	0.058 U	0.049 U	0.049 U	0.043 U	0.038 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1242	0.1	1	1	0.04 U	0.051 U	0.056 U	0.04 U	0.061 U	0.058 U	0.049 U	0.049 U	0.043 U	0.038 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1248	0.1	1	1	0.04 U	0.051 U	0.056 U	0.04 U	0.061 U	0.058 U	0.049 U	0.049 U	0.043 U	0.038 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1254	0.1	1	1	0.097 U	0.12 U	0.13 U	0.095 U	2.5	0.84	0.12 U	0.12 U	0.1 U	0.092 U	0.11 U	0.091 U	0.097 U	0.10 U
PCB-1260	0.1	1	1	0.097 U	0.12 U	0.13 U	0.095 U	1.3	0.52	0.12 U	0.12 U	0.1 U	0.092 U	0.11 U	0.091 U	0.097 U	0.10 U

Notes
(1) Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(a), Unrestricted Use.
(2) Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(b), Residential Use.
(3) Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(b), Commercial Use.
Values in BOLD and highlighted in yellow indicate an exceedance of Unrestricted SCOs.
Values highlighted in orange indicate an exceedance of Unrestricted and Residential SCOs.
Values highlighted in purple indicate an exceedance of Unrestricted and Residential SCOs, Residential, Restricted Residential, and Commercial SCOs.
Values highlighted in red indicate an exceedance of Unrestricted and Residential SCOs, Residential, Restricted Residential, Commercial SCOs, and Industrial SCOs.
"—" Sample not analyzed or not detected above Unrestricted Use SCO.
J - Result is less than the Reporting Limit but less than or equal to the Method Detection Limit and the concentration is an approximate value
U - Undetected at the Method Detection Limit
B - Compound was found in the blank and sample
* ISTD Response or retention time outside acceptable limits
^ ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

S:\Sterling\Projects\2013 Projects\Mt Kisco - Kevin Young - 2013-36\Correspondence\NYCDEP WWTP Closure Comments\revised figures and tables\Table A-1

Table A-2
Summary of Pond Analytical Results - Soil and Sediment (April/May 2014)
Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] mg/kg	Residential SCO[2] mg/kg	Commercial SCO[2] mg/kg	P1-1(Sed)	P1-2(Sed)	P2-1(Sed)	P2-2(Sed)	P2-1(S)	P2-2(S)	SDB1-1	SDB1-2	SDB2-1	SDB2-2
Volatile Organic Compounds (8260C, 5035FP_CALC) mg/kg													
1,1,1-Trichloroethane	0.68	100	500	---	---	0.00021 U	0.00043 U	0.00045 U	0.00016 U	---	---	---	---
1,1,2,2-Tetrachloroethane				---	---	0.00046 U	0.00096 U	0.001 U	0.00035 U	---	---	---	---
1,1,2-Trichloro-1,2,2-trifluoroethane				---	---	0.00065 U	0.0014 U	0.0014 U	0.0005 U	---	---	---	---
1,1,2-Trichloroethane				---	---	0.00037 U	0.00077 U	0.00081 U	0.00028 U	---	---	---	---
1,1-Dichloroethane	0.27	19	240	---	---	0.00035 U	0.00072 U	0.00076 U	0.00027 U	---	---	---	---
1,1-Dichloroethene	0.33	100	500	0.0029 U	0.0029 U	0.00035 U	0.00073 U	0.00076 U	0.00027 U	0.0029 U	0.0029 U	0.0029 U	0.0029 U
1,2,4-Trichlorobenzene				---	---	0.00017 U	0.00036 U	0.00038 U	0.00013 U	---	---	---	---
1,2-Dibromo-3-Chloropropane				---	---	0.0014 U	0.003 U	0.0031 U	0.0011 U	---	---	---	---
1,2-Dibromoethane				---	---	0.00036 U	0.00076 U	0.0008 U	0.00028 U	---	---	---	---
1,2-Dichlorobenzene	1.1	100	500	---	---	0.00022 U	0.00046 U	0.00049 U	0.00017 U	---	---	---	---
1,2-Dichloroethane	0.02	2.3	30	0.054	0.0021 U	0.00014 U	0.0003 U	0.00031 U	0.00011 U	0.0036 J	0.0021 U	0.0021 U	0.0021 U
1,2-Dichloropropane				---	---	0.0014 U	0.003 U	0.0031 U	0.0011 U	---	---	---	---
1,3-Dichlorobenzene	2.4	17	280	---	---	0.00015 U	0.0003 U	0.00032 U	0.00011 U	---	---	---	---
1,4-Dichlorobenzene	1.8	9.8	130	0.00046 U	0.00046 U	0.0004 U	0.00083 U	0.00087 U	0.0003 U	0.00046 U	0.00046 U	0.00046 U	0.00046 U
2-Butanone (MEK)	0.12	100	500	0.013 U	0.013 U	0.001 U	0.0022 U	0.0023 U	0.0008 U	0.013 U	0.013 U	0.013 U	0.013 U
2-Hexanone				---	---	0.0014 U	0.003 U	0.0031 U	0.0011 U	---	---	---	---
4-Methyl-2-pentanone (MIBK)				---	---	0.00093 U	0.0019 U	0.002 U	0.00071 U	---	---	---	---
Acetone	0.05	100	500	---	---	0.0024 U	0.005 U	0.0052 U	0.0018 U	---	---	---	---
Benzene	0.06	2.9	44	0.0041 U	0.0041 U	0.00014 U	0.00029 U	0.0003 U	0.00011 U	0.0041 U	0.0041 U	0.0041 U	0.0041 U
Bromodichloromethane				---	---	0.00038 U	0.00079 U	0.00083 U	0.00029 U	---	---	---	---
Bromoform				---	---	0.0014 U	0.003 U	0.0031 U	0.0011 U	---	---	---	---
Bromomethane				---	---	0.00026 U	0.00053 U	0.00056 U	0.0002 U	---	---	---	---
Carbon disulfide				---	---	0.0014 U	0.003 U	0.0031 U	0.0011 U	---	---	---	---
Carbon tetrachloride	0.76	1.4	22	0.0027 U	0.0027 U	0.00027 U	0.00057 U	0.0006 U	0.00021 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
Chlorobenzene	1.1	100	500	0.0075 U	0.0075 U	0.00037 U	0.00078 U	0.00082 U	0.00029 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U
Chloroethane				---	---	0.00064 U	0.0013 U	0.0014 U	0.00049 U	---	---	---	---
Chloroform	0.37	10	350	0.0034 U	0.0034 U	0.00018 U	0.00037 U	0.00038 U	0.00013 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U
Chloromethane				---	---	0.00017 U	0.00036 U	0.00038 U	0.00013 U	---	---	---	---
cis-1,2-Dichloroethene	0.25	59	500	---	---	0.00036 U	0.00076 U	0.0008 U	0.00028 U	---	---	---	---
cis-1,3-Dichloropropene				---	---	0.00041 U	0.00085 U	0.00089 U	0.00031 U	---	---	---	---
Cyclohexane				---	---	0.0004 U	0.00083 U	0.00087 U	0.0003 U	---	---	---	---
Dibromochloromethane				---	---	0.00036 U	0.00076 U	0.0008 U	0.00028 U	---	---	---	---
Dichlorodifluoromethane				---	---	0.00023 U	0.00049 U	0.00051 U	0.00018 U	---	---	---	---
Ethylbenzene	1.0	30.0	390	---	---	0.0002 U	0.00041 U	0.00043 U	0.00015 U	---	---	---	---
Isopropylbenzene				---	---	0.00043 U	0.00089 U	0.00094 U	0.00033 U	---	---	---	---
Methyl acetate				---	---	0.0017 U	0.0036 U	0.0038 U	0.0013 U	---	---	---	---
Methyl tert-butyl ether	0.93	62	500	---	---	0.00028 U	0.00058 U	0.00061 U	0.00021 U	---	---	---	---
Methylcyclohexane				---	---	0.00043 U	0.0009 U	0.00094 U	0.00033 U	---	---	---	---
Methylene Chloride	0.05	51	500	---	---	0.0013 U	0.0027 U	0.0029 U	0.001 U	---	---	---	---
Styrene				---	---	0.00014 U	0.0003 U	0.00031 U	0.00011 U	---	---	---	---
Tetrachloroethene	1.3	5.5	150	0.0036 U	0.0036 U	0.00038 U	0.0015 J	0.00083 U	0.00031 J	0.0036 U	0.0036 U	0.0036 U	0.0036 U
Toluene	0.7	100	500	---	---	0.00021 U	0.00045 U	0.00047 U	0.00016 U	---	---	---	---
trans-1,2-Dichloroethene	0.19	100	500	---	---	0.00029 U	0.00061 U	0.00064 U	0.00022 U	---	---	---	---
trans-1,3-Dichloropropene				---	---	0.0012 U	0.0026 U	0.0027 U	0.00096 U	---	---	---	---
Trichloroethene	0.47	10	200	0.0046 U	0.0046 U	0.00062 U	0.0013 U	0.0014 U	0.00048 U	0.0046 U	0.0046 U	0.0046 U	0.0046 U
Trichlorofluoromethane				---	---	0.00027 U	0.00056 U	0.00059 U	0.00021 U	---	---	---	---
Vinyl chloride	0.02	0.21	13	0.0090 U	0.0090 U	0.00035 U	0.00072 U	0.00076 U	0.00027 U	0.0090 U	0.0090 U	0.0090 U	0.0090 U
Xylenes, Total	0.26	100	500	---	---	0.00048 U	0.001 U	0.001 U	0.00037 U	---	---	---	---

Table A -2
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Morgan Drive, Mount Kisco, New York

	Unrestricted SCO[1] mg/kg	Residential SCO[2] mg/kg	Commercial SCO[2] mg/kg	P1-1(Sed)	P1-2(Sed)	P2-1(Sed)	P2-2(Sed)	P2-1(S)	P2-2(S)	SDB1-1	SDB1-2	SDB2-1	SDB2-2
Semi-Volatile Organic Compounds (8270D, 3550C) mg/kg													
2,4,5-Trichlorophenol				0.00048 U	0.00048 U	0.042 U	0.044 U	0.042 U	0.042 U	0.00048 U	0.00048 U	0.00048 U	0.00048 U
2,4,6-Trichlorophenol				0.00061 U	0.00061 U	0.013 U	0.013 U	0.013 U	0.013 U	0.00061 U	0.00061 U	0.00061 U	0.00061 U
2,4-Dichlorophenol				---	---	0.01 U	0.011 U	0.01 U	0.01 U	---	---	---	---
2,4-Dimethylphenol				---	---	0.052 U	0.054 U	0.052 U	0.052 U	---	---	---	---
2,4-Dinitrophenol				---	---	0.067 U	0.07 U	0.067 U	0.067 U	---	---	---	---
2,4-Dinitrotoluene				0.00045 U	0.00045 U	0.03 U	0.031 U	0.03 U	0.03 U	0.00045 U	0.00045 U	0.00045 U	0.00045 U
2,6-Dinitrotoluene				---	---	0.047 U	0.049 U	0.047 U	0.047 U	---	---	---	---
2-Chloronaphthalene				---	---	0.013 U	0.013 U	0.013 U	0.013 U	---	---	---	---
2-Chlorophenol				---	---	0.0098 U	0.01 U	0.0097 U	0.0097 U	---	---	---	---
2-Methylnaphthalene				---	---	0.0023 U	0.0024 U	0.0023 U	0.0023 U	---	---	---	---
2-Methylphenol				0.00040 U	0.00040 U	0.0059 U	0.0062 U	0.0059 U	0.0059 U	0.00040 U	0.00040 U	0.00040 U	0.00040 U
2-Nitroaniline				---	---	0.062 U	0.065 U	0.061 U	0.061 U	---	---	---	---
2-Nitrophenol				---	---	0.0088 U	0.0092 U	0.0087 U	0.0087 U	---	---	---	---
3,3'-Dichlorobenzidine				---	---	0.17 U	0.18 U	0.17 U	0.17 U	---	---	---	---
3-Nitroaniline				---	---	0.044 U	0.046 U	0.044 U	0.044 U	---	---	---	---
4,6-Dinitro-2-methylphenol				---	---	0.066 U	0.069 U	0.066 U	0.066 U	---	---	---	---
4-Bromophenyl phenyl ether				---	---	0.061 U	0.064 U	0.061 U	0.061 U	---	---	---	---
4-Chloro-3-methylphenol				---	---	0.0079 U	0.0083 U	0.0079 U	0.0079 U	---	---	---	---
4-Chloroaniline				---	---	0.056 U	0.059 U	0.056 U	0.056 U	---	---	---	---
4-Chlorophenyl phenyl ether				---	---	0.0041 U	0.0043 U	0.0041 U	0.0041 U	---	---	---	---
4-Methylphenol				0.00036 U *	0.00036 U *	0.011 U	0.011 U	0.011 U	0.011 U	0.00036 U *	0.00036 U *	0.00036 U *	0.00036 U *
4-Nitroaniline				---	---	0.021 U	0.022 U	0.021 U	0.021 U	---	---	---	---
4-Nitrophenol				---	---	0.047 U	0.049 U	0.046 U	0.046 U	---	---	---	---
Acenaphthene	20	100	500	---	---	0.0023 U	0.0024 U	0.0022 U	0.0022 U	---	---	---	---
Acenaphthylene	100	100	500	---	---	0.0016 U	0.0016 U	0.0016 U	0.0016 U	---	---	---	---
Acetophenone				---	---	0.0099 U	0.01 U	0.0098 U	0.0098 U	---	---	---	---
Anthracene	100	100	500	---	---	0.0049 U	0.0051 U	0.0049 U	0.0049 U	---	---	---	---
Atrazine				---	---	0.0085 U	0.0089 U	0.0085 U	0.0085 U	---	---	---	---
Benzaldehyde				---	---	0.021 U	0.022 U	0.021 U	0.021 U	---	---	---	---
Benzo[a]anthracene	1	1	5.6	---	---	0.011 J	0.049 J	0.0033 U	0.0086 J	---	---	---	---
Benzo[a]pyrene	1	1	1	---	---	0.0046 U	0.043 J	0.0046 U	0.0046 U	---	---	---	---
Benzo[b]fluoranthene	1	1	5.6	---	---	0.024 J	0.069 J	0.0037 U	0.0037 U	---	---	---	---
Benzo[g,h,i]perylene	100	100	500	---	---	0.0023 U	0.0024 U	0.0023 U	0.0023 U	---	---	---	---
Benzo[k]fluoranthene	0.8	1	56	---	---	0.012 J	0.039 J	0.0021 U	0.0021 U	---	---	---	---
Biphenyl				---	---	0.012 U	0.013 U	0.012 U	0.012 U	---	---	---	---
bis (2-chloroisopropyl) ether				---	---	0.02 U	0.021 U	0.02 U	0.02 U	---	---	---	---
Bis(2-chloroethoxy)methane				---	---	0.01 U	0.011 U	0.01 U	0.01 U	---	---	---	---
Bis(2-chloroethyl)ether				---	---	0.017 U	0.017 U	16 U	16 U	---	---	---	---
Bis(2-ethylhexyl) phthalate				---	---	0.062 U	0.065 U	62 U	62 U	---	---	---	---
Butyl benzyl phthalate				---	---	0.052 U	0.054 U	51 U	51 U	---	---	---	---
Caprolactam				---	---	0.083 U	0.087 U	83 U	83 U	---	---	---	---
Carbazole				---	---	0.0022 U	0.0023 U	2.2 U	2.2 U	---	---	---	---
Chrysene	1	1	56	---	---	0.0019 U	0.05 J	1.9 U	1.9 U	---	---	---	---
Dibenz(a,h)anthracene	0.33	0.33	0.56	---	---	0.0023 U	0.0024 U	2.2 U	2.2 U	---	---	---	---
Dibenzofuran				---	---	0.002 U	0.0021 U	2.0 U	2.0 U	---	---	---	---
Diethyl phthalate				---	---	0.0058 U	0.0061 U	5.8 U	5.8 U	---	---	---	---
Dimethyl phthalate				---	---	0.005 U	0.0052 U	5.0 U	5.0 U	---	---	---	---
Di-n-butyl phthalate				---	---	0.066 U	0.07 U	66 U	66 U	---	---	---	---
Di-n-octyl phthalate				---	---	0.0045 U	0.0047 U	4.5 U	4.5 U	---	---	---	---
Fluoranthene	100	100	500	---	---	0.021 J	0.058 J	2.8 U	2.8 U	---	---	---	---

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Semi-Volatile Organic Compounds (8270D, 3550C) mg/kg													
Fluorene	30	100	500	—	—	0.0044 U	0.0046 U	0.0044 U	0.0044 U	—	—	—	—
Hexachlorobenzene	0.33	0.33		0.00051 U	0.00051 U	0.0095 U	0.01 U	0.0095 U	0.0095 U	0.00051 U	0.00051 U	0.00051 U	0.00051 U
Hexachlorobutadiene				0.00068 U	0.00068 U	0.0098 U	0.01 U	0.0098 U	0.0098 U	0.00068 U	0.00068 U	0.00068 U	0.00068 U
Hexachlorocyclopentadiene				—	—	0.058 U	0.061 U	0.058 U	0.058 U	—	—	—	—
Hexachloroethane				0.00059 U	0.00059 U	0.015 U	0.016 U	0.015 U	0.015 U	0.00059 U	0.00059 U	0.00059 U	0.00059 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	5.6	—	—	0.0053 U	0.0056 U	0.0053 U	0.0053 U	—	—	—	—
Isophorone				—	—	0.0096 U	0.01 U	0.0095 U	0.0095 U	—	—	—	—
Naphthalene	12	100	500	—	—	0.0032 U	0.0033 U	0.0032 U	0.0032 U	—	—	—	—
Nitrobenzene				0.00029 U	0.00029 U	0.0085 U	0.0089 U	0.0085 U	0.0085 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U
N-Nitrosodi-n-propylamine				—	—	0.015 U	0.016 U	0.015 U	0.015 U	—	—	—	—
N-Nitrosodiphenylamine				—	—	0.011 U	0.011 U	0.01 U	0.01 U	—	—	—	—
Pentachlorophenol	0.8	2.4	6.7	0.0022 U	0.0022 U	0.066 U	0.069 U	0.065 U	0.065 U	0.0022 U	0.0022 U	0.0022 U	0.0022 U
Phenanthrene	100	100	500	—	—	0.023 J	0.033 J	0.004 U	0.004 U	—	—	—	—
Phenol	0.33	100	500	—	—	0.02 U	0.021 U	0.02 U	0.02 U	—	—	—	—
Pyrene	100	100	500	—	—	0.0012 U	0.062 J	0.0012 U	0.0012 U	—	—	—	—
Hexavalent Chromium (7196A, 3060A) mg/kg													
Cr (VI)	1	22	400	—	—	0.31 U	0.64 J	0.78 J	0.76 J	—	—	—	—
Total Cyanide (9012B, 9012B_PREP) mg/kg													
Cyanide, Total	27	27	27	0.0030 U	0.0030 U	0.69 J B	0.57 U	0.53 U	0.55 U	0.0030 U	0.0030 U	0.0030 U	0.0030 U
Trivalent Chromium (SM 3500 CR D) mg/kg													
Cr (III)	30	36	1500	—	—	8.4	8.9	16.8	17.7	—	—	—	—
METALS (6010C, 3050B) mg/kg													
Aluminum, Total Recoverable				—	—	3730	4250	9130	6050	—	—	—	—
Antimony, Total Recoverable				—	—	0.44 U	0.51 U	0.50 U	0.46 U	—	—	—	—
Arsenic, Total Recoverable	13	16	16	0.0056 U	0.0056 U	0.85 J	0.72 J	2.1 J	1.7 J	0.0056 U	0.0056 U	0.0056 U	0.0056 U
Barium, Total Recoverable	350	350	400	1.1 B	0.80 B	67.7	37.6	90.1	58.9	0.53 B	0.56 B	0.12 B	0.23 B
Beryllium, Total Recoverable	7.2	14	590	-	-	0.14 J	0.15 J	0.36	0.23				
Cadmium, Total Recoverable	2.5	2.5	9.3	0.024	0.042	0.18 J	0.18 J	0.30	0.16 J	0.053	0.16	0.0060	0.014
Calcium, Total Recoverable				-	-	1050	1360	1270	1690				
Chromium (Total)	30			0.027 B	0.0023 J B	8.4	9.5	17.6	18.5	0.077 B	0.020 B	0.0023 J B	0.014 B
Cobalt, Total Recoverable				—	—	2.4	20.5	7.1	4.1	—	—	—	—
Copper, Total Recoverable	50	270	270	—	—	15.5	15.0	16.7	20.4	—	—	—	—
Iron, Total Recoverable				—	—	7620	6560	16900	10200	—	—	—	—
Lead, Total Recoverable	63	400	1000	0.49	0.084	62.7	31.9	20.6	23.1	0.088	0.069	0.0030 U	0.048
Magnesium, Total Recoverable				—	—	1890 B	1990 B	3320 B	2610 B	—	—	—	—
Manganese, Total Recoverable	1,600	2,000	10,000	—	—	65.9	129	472	88.5	—	—	—	—
Nickel, Total Recoverable	30	140	310	—	—	6.6	9.0	19.7	9.6	—	—	—	—
Potassium, Total Recoverable				—	—	716	1030	1340	1240	—	—	—	—
Selenium, Total Recoverable	3.9	36	1500	0.0087 U	0.0087 U	0.44 U	0.51 U	0.78 J	0.46 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U
Silver, Total Recoverable	2	36	1500	0.017	0.0017 U	1.1	0.72 J	0.49 J	1.1	0.0093	0.0021 J	0.0017 U	0.0017 J
Sodium, Total Recoverable				0.0057 U	0.0104 U	74.6 J	93.2 J	86.4 J	85.5 J	—	—	—	—
Thallium, Total Recoverable				1.2 B	0.0128 B	0.33 U	0.39 U	0.38 U	0.34 U	—	—	—	—
Vanadium, Total Recoverable				—	—	12.2	11.7	22.8	19.3	—	—	—	—
Zinc, Total Recoverable	109	2200	10000	0.024	0.042	81.9 B	65.9 B	200 B	78.8 B	—	—	—	—
Mercury (7471B, 7471B_PREP) mg/kg													
Mercury, Total Recoverable	0.18	0.81	2.8	0.028 B	0.0024 J B	0.66	0.39	0.17	0.22	0.00061	0.0012	0.00012 U	0.00075

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Pesticides (8081B, 3550C) mg/kg													
4,4'-DDD	0.0033	2.6	92	—	—	0.00036 U	0.0039 U	0.00037 U	0.00037 U	—	—	—	—
4,4'-DDE	0.0033	1.8	62	—	—	0.0004 J	0.0042 U	0.00068 J	0.0011 J	—	—	—	—
4,4'-DDT	0.0033	1.7	47	—	—	0.0006 J	0.0046 U	0.0011 J	0.00044 U	—	—	—	—
Aldrin	0.005	0.019	0.68	—	—	0.00046 U	0.0049 U	0.00047 U	0.00047 U	—	—	—	—
alpha-BHC	0.02	0.097	3.4	—	—	0.00034 U	0.0036 U	0.00034 U	0.00034 U	—	—	—	—
alpha-Chlordane	0.094	0.91	24	—	—	0.00093 U	0.0099 U	0.00095 U	0.00094 U	—	—	—	—
beta-BHC	0.036	0.072	3	—	—	0.00034 U	0.0036 U	0.00039 J	0.00034 U	—	—	—	—
delta-BHC	0.04	100	500	—	—	0.0009 J	0.0037 U	0.00035 U	0.00035 U	—	—	—	—
Dieldrin	0.005	0.039	1.4	—	—	0.00045 U	0.0048 U	0.00046 U	0.00046 U	—	—	—	—
Endosulfan I	2.4	4.8	200	—	—	0.00036 U	0.0038 U	0.00037 U	0.00036 U	—	—	—	—
Endosulfan II	2.4	4.8	200	—	—	0.00034 U	0.0036 U	0.00034 U	0.00034 U	—	—	—	—
Endosulfan sulfate	2.4	4.8	200	—	—	0.00035 U	0.0037 U	0.00036 U	0.00035 U	—	—	—	—
Endrin	0.014	2.2	89	0.000014 U	0.000014 U	0.00037 U	0.0039 U	0.00038 U	0.00038 U	0.000014 U	0.000014 U	0.000014 U	0.000014 U
Endrin aldehyde				—	—	0.00048 U	0.0051 U	0.00049 U	0.00078 J	—	—	—	—
Endrin ketone				—	—	0.00046 U	0.0049 U	0.0006 J	0.00054 J	—	—	—	—
gamma-BHC (Lindane)	0.1	0.28	9.2	0.000043 J B	0.000043 J B	0.00034 U	0.0036 U	0.00053 J	0.00052 J	0.0000060 U	0.0000060 U	0.000042 J B	0.0000060 U
gamma-Chlordane				—	—	0.0006 U	0.0063 U	0.00061 U	0.00063 J	—	—	—	—
Heptachlor	0.042	0.42	15	0.0000085 U	0.0000085 U	0.00041 U	0.0043 U	0.00041 U	0.00041 U	0.0000085 U	0.0000085 U	0.0000085 U	0.0000085 U
Heptachlor epoxide				0.0000053 U	0.000041 J	0.00048 U	0.0051 U	0.00049 U	0.00049 U	0.0000053 U	0.0000053 U	0.0000053 U	0.0000053 U
Methoxychlor				0.000014 U	0.000014 U	0.00038 U	0.004 U	0.00039 U	0.00084 J	0.000014 U	0.000014 U	0.000014 U	0.000014 U
Toxaphene				0.00012 U	0.00012 U	0.011 U	0.12 U	0.011 U	0.011 U	0.00012 U	0.00012 U	0.00012 U	0.00012 U
Polychlorinated Biphenyls (8082A, 3550C_MED) mg/kg													
PCB-1016	0.1	1	1	0.061 U	0.058 U	0.049 U	0.049 U	0.043 U	0.038 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1221	0.1	1	1	0.061 U	0.058 U	0.049 U	0.049 U	0.043 U	0.038 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1232	0.1	1	1	0.061 U	0.058 U	0.049 U	0.049 U	0.043 U	0.038 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1242	0.1	1	1	0.061 U	0.058 U	0.049 U	0.049 U	0.043 U	0.038 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1248	0.1	1	1	0.061 U	0.058 U	0.049 U	0.049 U	0.043 U	0.038 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1254	0.1	1	1	2.5	0.84	0.12 U	0.12 U	0.1 U	0.092 U	0.11 U	0.091 U	0.097 U	0.10 U
PCB-1260	0.1	1	1	1.3	0.52	0.12 U	0.12 U	0.1 U	0.092 U	0.11 U	0.091 U	0.097 U	0.10 U

Notes
(1) Soil Cleanup Objectives (SCOs) from 6 NYCRR Subpart 375-6.8(a), Unrestricted Use.
Values in BOLD and highlighted in yellow indicate an exceedance of Unrestricted SCOs.
Values highlighted in orange indicate an exceedance of Unrestricted and Residential SCOs.
Values highlighted in purple indicate an exceedance of Unrestricted and Residential SCOs, Residential, Restricted Residential, and Commercial SCOs.
Values highlighted in red indicate an exceedance of Unrestricted and Residential SCOs, Residential, Restricted Residential, Commercial SCOs, and Industrial SCOs.
'—' Sample not analyzed or not detected above Unrestricted Use SCO.
J - Result is less than the Reporting Limit but less than or equal to the Method Detection Limit and the concentration is an approximate value
U - Undetected at the Method Detection Limit
B - Compound was found in the blank and sample
* ISTD Response or retention time outside acceptable limits

S:\Sterling\Projects\2013 Projects\Mt Kisco - Kevin Young - 2013-36\Correspondence\WYCDEP WWTP Closure Comments\revised figures and tables\Table A-2

Table A-3
Summary of Water Sample Results (April 2014)
Morgan Drive, Mount Kisco, New York

	NYSDEC TOGs 1.1.1 Water Quality		PT1-1(L)	PT2-1(L)	P1-1(L)	P1-2(L)	P2-1(L)	P2-2(L)
	Standards (µg/L)	Guidance Value (µg/L)						
Volatile Organic Compounds (8260C, 5035FP_CALC) µg/L								
1,1,1-Trichloroethane	5	—	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
1,1,2,2-Tetrachloroethane	5	—	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,1,2-Trichloroethane	1	—	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
1,1-Dichloroethane	5	—	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U
1,1-Dichloroethene	5	—	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
1,2-Dichlorobenzene	3	—	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,2-Dichloroethane	0.6	—	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
1,2-Dichloroethene, Total	5	—	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U
1,2-Dichloropropane	1	—	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
1,3-Dichlorobenzene	3	—	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
1,4-Dichlorobenzene	3	—	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
2-Chloroethyl vinyl ether	—	—	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Acrolein	5	—	17 U	17 U	17 U	17 U	17 U	17 U
Acrylonitrile	5	—	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Benzene	1	—	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
Bromoform	—	50	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
Bromomethane	5	—	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Carbon tetrachloride	5	—	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Chlorobenzene	5	—	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
Chlorodibromomethane	—	—	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Chloroethane	5	—	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U
Chloroform	7	—	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
Chloromethane	—	—	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
cis-1,3-Dichloropropene	0.4	—	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Dichlorobromomethane	—	—	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
Ethylbenzene	5	—	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Methylene Chloride	5	—	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
Tetrachloroethene	5	—	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Toluene	5	—	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
trans-1,2-Dichloroethene	5	—	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U
trans-1,3-Dichloropropene	0.4	—	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Trichloroethene	5	—	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
Vinyl chloride	2	—	0.75 U	0.75 U	0.39 U	0.75 U	0.75 U	0.75 U

Table A-3
Summary of Water Sample Results (April 2014)
Morgan Drive, Mount Kisco, New York

	NYSDEC TOGs 1.1.1 Water Quality		PT1-1(L)	PT2-1(L)	P1-1(L)	P1-2(L)	P2-1(L)	P2-2(L)
	Standards (µg/L)	Guidance Value (µg/L)						
Semi-Volatile Organic Compounds (8270D, 3550C) µg/L								
1,2,4-Trichlorobenzene	5	—	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.50 U
1,2-Dichlorobenzene	3	—	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.15 U
1,2-Diphenylhydrazine	—	—	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.064 U
1,3-Dichlorobenzene	3	—	0.065 U	0.065 U	0.066 U	0.066 U	0.066 U	0.070 U
1,4-Dichlorobenzene	3	—	0.085 U	0.085 U	0.085 U	0.086 U	0.086 U	0.092 U
2,4,6-Trichlorophenol	—	—	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.24 U
2,4-Dichlorophenol	—	—	0.28 U	0.28 U	0.29 U	0.29 U	0.29 U	0.31 U
2,4-Dimethylphenol	—	50	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14 U
2,4-Dinitrophenol	10	—	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.86 U
2,4-Dinitrotoluene	5	—	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.27 U
2,6-Dinitrotoluene	5	—	0.68 U	0.68 U	0.68 U	0.68 U	0.69 U	0.73 U
2-Chloronaphthalene	—	10	0.064 U	0.064 U	0.064 U	0.065 U	0.065 U	0.069 U
2-Chlorophenol	—	—	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.16 U
2-Nitrophenol	—	—	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.15 U
3,3'-Dichlorobenzidine	5	—	0.78 U	0.78 U	0.78 U	0.79 U	0.79 U	0.84 U
4,6-Dinitro-2-methylphenol	—	—	0.72 U	0.72 U	0.73 U	0.73 U	0.73 U	0.78 U
4-Bromophenyl phenyl ether	—	—	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.12 U
4-Chloro-3-methylphenol	—	—	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.57 U
4-Chlorophenyl phenyl ether	—	—	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.21 U
4-Nitrophenol	—	—	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.4 U
Acenaphthene	—	20	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U	0.061 U
Acenaphthylene	—	—	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.035 U
Anthracene	—	50	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.054 U
Benzidine	5	—	2.4 U	2.4 U *	2.4 U	2.4 U	2.4 U	2.6 U
Benzo[a]anthracene	—	0.002	0.041 U	0.041 U	0.041 U	0.041 U	0.041 U	0.044 U
Benzo[a]pyrene	—	—	0.055 U	0.055 U	0.055 U	0.055 U	0.055 U	0.059 U
Benzo[b]fluoranthene	—	0.002	0.058 U	0.058 U	0.059 U	0.059 U	0.059 U	0.063 U
Benzo[g,h,i]perylene	—	—	0.095 U	0.095 U	0.096 U	0.096 U	0.096 U	0.10 U
Benzo[k]fluoranthene	—	0.002	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.043 U
bis (2-chloroisopropyl) ether	—	—	0.081 U	0.081 U	0.082 U	0.082 U	0.082 U	0.088 U
Bis(2-chloroethoxy)methane	5	—	0.080 U	0.081 U	0.081 U	0.081 U	0.081 U	0.087 U
Bis(2-chloroethyl)ether	1	—	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U
Bis(2-ethylhexyl) phthalate	5	—	0.82 U	0.82 U	0.82 U	2.9 J	0.83 U	0.88 U
Butyl benzyl phthalate	—	50	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3 U
Chrysene	—	0.002	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U
Dibenz(a,h)anthracene	—	—	0.052 U	0.053 U	0.053 U	0.053 U	0.053 U	0.057 U
Diethyl phthalate	—	—	0.16 U	0.16 U	0.16 U	0.17 U	0.17 U	0.18 U
Dimethyl phthalate	—	50	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.17 U
Di-n-butyl phthalate	—	—	0.89 U	0.89 U	0.89 U	0.89 U	0.90 U	0.96 U
Di-n-octyl phthalate	—	50	4.2 U	4.2 U	4.3 U	4.3 U	4.3 U	4.6 U
Fluoranthene	—	50	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U
Fluorene	—	50	0.041 U	0.041 U	0.041 U	0.041 U	0.041 U	0.044 U
Hexachlorobenzene	0.04	—	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.28 U
Hexachlorobutadiene	0.5	—	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.63 U
Hexachlorocyclopentadiene	5	—	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.46 U
Hexachloroethane	5	—	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.49 U
Indeno[1,2,3-cd]pyrene	—	0.002	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.19 U
Isophorone	—	50	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.16 U
Naphthalene	—	10	0.076 U	0.076 U	0.076 U	0.077 U	0.077 U	0.082 U
Nitrobenzene	0.4	—	0.10 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
N-Nitrosodimethylamine	—	—	0.91 U	0.91 U	0.92 U	0.92 U	0.92 U	0.98 U
N-Nitrosodi-n-propylamine	—	—	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.24 U
N-Nitrosodiphenylamine	—	50	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Pentachlorophenol	1	—	0.39 U	0.39 U	0.39 U	0.39 U	0.40 U	0.42 U
Phenanthrene	—	50	0.067 U	0.067 U	0.068 U	0.068 U	0.068 U	0.073 U
Phenol	1	—	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U	0.12 U
Pyrene	—	50	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.042 U

Table A-3
Summary of Water Sample Results (April 2014)
Morgan Drive, Mount Kisco, New York

	NYSDEC TOGs 1.1.1 Water Quality		PT1-1(L)	PT2-1(L)	P1-1(L)	P1-2(L)	P2-1(L)	P2-2(L)
	Standards (mg/L)	Guidance Value (mg/L)						
Hexavalent Chromium (7196A, 3060A) mg/L								
Cr (VI)	0.05	---	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Total Cyanide (9012B, 9012B_PREP) mg/L								
Cyanide, Total	0.2	---	0.0050 U	0.0050 U	0.0069 J	0.0050 U	0.0050 U	0.0050 U
METALS (6010C, 3050B) mg/L								
Arsenic, Total Recoverable	0.025	---	0.0056 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U
Barium, Total Recoverable	1	---	0.030	0.025	0.046	0.041	0.086	0.085
Cadmium, Total Recoverable	0.005	---	0.00050 U	0.00050 U	0.00071 J	0.00050 U	0.00050 U	0.00050 U
Chromium, Total Recoverable	0.05	---	0.0010 U	0.0010 U	0.0012 J	0.0010 U	0.0010 U	0.0010 U
Copper, Total Recoverable	0.2	---	0.0016 U	0.0019 J	0.050	0.025	0.0044 J	0.0039 J
Lead, Total Recoverable	0.025	---	0.0030 U	0.0030 U	0.0095 J	0.0042 J	0.0030 U	0.0030 U
Nickel, Total Recoverable	0.1	---	0.0013 U	0.0013 U	0.0028 J	0.0026 J	0.0016 J	0.0015 J
Selenium, Total Recoverable	0.02	---	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U
Silver, Total Recoverable	0.05	---	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U
Zinc, Total Recoverable	---	2	0.023	0.034	0.12 B	0.090 B	0.029 B	0.025 B
Mercury (7471B, 7471B_PREP) mg/L								
Mercury, Total Recoverable	0.0007	---	0.00012 U	0.00012 U	0.00012 U	0.00012 U	0.00012 U	0.00012 U

Table A-3
Summary of Water Sample Results (April 2014)
Morgan Drive, Mount Kisco, New York

	NYSDEC TOGs 1.1.1 Water Quality		PT1-1(L)	PT2-1(L)	P1-1(L)	P1-2(L)	P2-1(L)	P2-2(L)
	Standards (µg/L)	Guidance Value (µg/L)						
Pesticides (8081B, 3550C) µg/L								
4,4'-DDD	0.3	—	0.087 U	0.0087 U	0.0088 U	0.0089 U	0.0088 U	0.0088 U
4,4'-DDE	0.2	—	0.11 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
4,4'-DDT	0.2	—	0.10 U	0.010 U	0.011 U	0.018 J	0.016 J	0.010 U
Aldrin	—	—	0.063 U	0.0063 U	0.0063 U	0.0064 U	0.0063 U	0.0063 U
alpha-BHC	—	—	0.063 U	0.012 J	0.011 J	0.011 J	0.011 J	0.011 J
beta-BHC	—	—	0.24 U	0.024 U	0.024 U	0.024 U	0.024 U	0.024 U
Chlordane (technical)	0.05	—	2.8 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
delta-BHC	—	—	0.095 J B	0.0098 J B	0.011 J	0.012 J	0.0096 U	0.013 J
Dieldrin	0.04	—	0.093 U	0.0093 U	0.0094 U	0.0095 U	0.0094 U	0.0093 U
Endosulfan I	—	—	0.10 U	0.010 U	0.011 U	0.011 U	0.011 U	0.010 U
Endosulfan II	—	—	0.11 U	0.011 U	0.011 U	0.012 U	0.011 U	0.011 U
Endosulfan sulfate	—	—	0.15 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U
Endrin	—	—	0.13 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
Endrin aldehyde	5	—	0.15 U	0.015 U	0.016 U	0.016 U	0.016 U	0.016 U
gamma-BHC (Lindane)	—	—	0.096 J	0.012 J	0.0057 U	0.011 J	0.0057 U	0.0057 U
Heptachlor	0.04	—	0.081 U	0.0081 U	0.0081 U	0.0082 U	0.0081 U	0.0081 U
Heptachlor epoxide	0.03	—	0.050 U	0.0050 U	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Toxaphene	0.06	—	1.1 U	0.11 U	0.11 U	0.12 U	0.11 U	0.11 U
Polychlorinated Biphenyls (8082A, 3550C_MED) µg/L								
PCB-1016	0.09	—	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U
PCB-1221	0.09	—	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U
PCB-1232	0.09	—	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U
PCB-1242	0.09	—	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U
PCB-1248	0.09	—	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U
PCB-1254	0.09	—	0.029 U	0.029 U	0.030 U	0.030 U	0.030 U	0.030 U
PCB-1260	0.09	—	0.029 U	0.029 U	0.030 U	0.030 U	0.030 U	0.030 U

Notes:

Reg 1: NYSDEC TOGs 1.1.1: Water Quality Standards: GA Water Class for Standard Values; Eff. June 2004
Reg 2: NYSDEC TOGs 1.1.1: Water Quality Guidance Values; Eff. June 2004
Bold values indicate exceedances
— :No standard or guidance value provided
U : No detection above minimum instrument detection limit

Table A - 4

Summary of Water Quality Results (April 2014), Compared to Westchester County Local Sewer Limitations

Morgan Drive, Mount Kisco, New York

Regulated Pollutant	Average Daily Limit (mg/L)	PT1-1 (L) mg/L	PT2-1 (L) mg/L	P1-1 (L) mg/L	P1-2 (L) mg/L	P2-1 (L) mg/L	P2-2 (L) mg/L
pH	5.5-9.5	8.16 H	7.34 H	7.03 H	7.27 H	7.65 H	7.46 H
Arsenic	0.2	0.0056 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U
Barium	2	0.030	0.025	0.046	0.041	0.086	0.085
Cadmium	0.7	0.00050 U	0.00050 U	0.00071 J	0.00050 U	0.00050 U	0.00050 U
Chromium (Total)	3	0.0010 U	0.0010 U	0.0012 J	0.0010 U	0.0010 U	0.0010 U
Chromium (Hex)	2	0.005 U	0.005 U	0.005 U	0.005 U	---	---
Copper	2.8	0.0016 U	0.0019 J	0.050	0.025	0.0044 J	0.0039 J
Cyanide (Total)	0.8	0.0050 U	0.0050 U	0.0069 J	0.0050 U	0.0050 U	0.0050 U
Lead	0.4	0.0030 U	0.0030 U	0.0095 J	0.0042 J	0.0030 U	0.0030 U
Mercury	0.2	0.00012 U	0.00012 U	0.00012 U	0.00012 U	0.00012 U	0.00012 U
Nickel	2.8	0.0013 U	0.0013 U	0.0028 J	0.0026 J	0.0016 J	0.0015 J
Oil & Grease	100	1.4 U	2.7 J	1.4 U	2.5 U	1.4 U	1.4 U
Phenols	4	0.0050 U	0.0050 U	0.0068 J	0.0088 J	0.0063 J	0.0050 U
Selenium	0.2	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U
Silver	0.8	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U
Total Toxic Organics	2.1	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Zinc	1.8	0.023	0.034	0.12 B	0.090 B	0.029 B	0.025 B

Notes

J - Result is less than the Reporting Limit but less than or equal to the Method Detection Limit and the concentration is an approximate value

U - Undetected at the Method Detection Limit

B - Compound was found in the blank and sample

* ISTD Response or retention time outside acceptable limits

^ ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Average Daily Limit provided by Westchester County Local Sewer Limitations

L = liquid sample

S:\Sterling\Projects\2013 Projects\Mt Kisco - Kevin Young - 2013-36\Correspondence\WYCDEP WWTP Closure Comments\revised figures and tables\Table A-4_July 16 2014

Table A-4a
Summary of Sediment Sample Results (April/May 2014), Compared to Characteristic Wastes and Uniform Treatment Standards
Morgan Drive, Mount Kisco, New York

Client Sample Date Sampled	Uniform Treatment Standards (mg/L)	P1-1(Sed) 04/25/2014	P1-2(Sed) 04/25/2014	P2-1(Sed) 04/25/2014	P2-2(Sed) 04/25/2014	SDB1-1 05/06/2014	SDB1-2 05/06/2014	SDB2-1 05/06/2014	SDB2-2 05/06/2014
Characteristic Wastes									
Corrosivity (pH ≤ 2.0 or ≥ 12.5 s.u.) by 9045D (SOLID) SU		5.34	5.73	5.82	6.58	6.45	6.46	6.49	5.78
Ignitability (Flashpoint <140 °F) by 1010A (SOLID) °F		>176.0	>176.0	>176.0	>176.0	>176.0	>176.0	>176.0	>176.0
Reactivity (positive: >2 mg/kg; negative: <2 mg/kg)									
Cyanide, Reactive by 9012, 7.3.3 (SOLID) MG/KG		0.0030 U	0.0030 U	0.0030 U	0.0030 U	0.0030 U	0.0030 U	0.0030 U	0.0030 U
Sulfide, Reactive by 9034, 7.3.4 (SOLID) MG/KG		0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	40.8	0.57 U	0.57 U
TCLP Volatile Organic Compounds by 8260C (SOLID) MG/L									
1,1-Dichloroethene	0.06	0.0029 U	0.0029 U	0.0029 U	0.0029 U	0.0029 U	0.0029 U	0.0029 U	0.0029 U
1,2-Dichloroethane	0.21	0.054	0.0021 U	0.0075 J	0.0021 U	0.0036 J	0.0021 U	0.0021 U	0.0021 U
2-Butanone (MEK)	0.28	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
Benzene	0.14	0.0041 U	0.0041 U	0.0041 U	0.0041 U	0.0041 U	0.0041 U	0.0041 U	0.0041 U
Carbon tetrachloride	0.057	0.0027 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
Chlorobenzene	0.057	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U
Chloroform	0.046	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U
Tetrachloroethene	0.056	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U
Trichloroethene	0.054	0.0046 U	0.0046 U	0.0046 U	0.0046 U	0.0046 U	0.0046 U	0.0046 U	0.0046 U
Vinyl chloride	0.27	0.0090 U	0.0090 U	0.0090 U	0.0090 U	0.0090 U	0.0090 U	0.0090 U	0.0090 U
TCLP Semi-Volatile Organic Compounds by 8270D, 3510C (SOLID) MG/L									
1,4-Dichlorobenzene	0.09	0.00046 U	0.00046 U	0.00046 U	0.00046 U	0.00046 U	0.00046 U	0.00046 U	0.00046 U
2,4,5-Trichlorophenol	0.18	0.00048 U	0.00048 U	0.00048 U	0.00048 U	0.00048 U	0.00048 U	0.00048 U	0.00048 U
2,4,6-Trichlorophenol	0.035	0.00061 U	0.00061 U	0.00061 U	0.00061 U	0.00061 U	0.00061 U	0.00061 U	0.00061 U
2,4-Dinitrotoluene	0.32	0.00045 U	0.00045 U	0.00045 U	0.00045 U	0.00045 U	0.00045 U	0.00045 U	0.00045 U
2-Methylphenol		0.00040 U	0.00040 U	0.00040 U	0.00040 U	0.00040 U	0.00040 U	0.00040 U	0.00040 U
3-Methylphenol		0.00040 U *	0.00040 U *	0.00040 U *	0.00040 U *	0.00040 U *	0.00040 U *	0.00040 U *	0.00040 U *
4-Methylphenol		0.00036 U *	0.00036 U *	0.00036 U *	0.00036 U *	0.00036 U *	0.00036 U *	0.00036 U *	0.00036 U *
Hexachlorobenzene	0.055	0.00051 U	0.00051 U	0.00051 U	0.00051 U	0.00051 U	0.00051 U	0.00051 U	0.00051 U
Hexachlorobutadiene	0.055	0.00068 U	0.00068 U	0.00068 U	0.00068 U	0.00068 U	0.00068 U	0.00068 U	0.00068 U
Hexachloroethane	0.055	0.00059 U	0.00059 U	0.00059 U	0.00059 U	0.00059 U	0.00059 U	0.00059 U	0.00059 U
Nitrobenzene	0.068	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U
Pentachlorophenol	0.089	0.0022 U	0.0022 U	0.0022 U	0.0022 U	0.0022 U	0.0022 U	0.0022 U	0.0022 U
Pyridine	0.014	0.00041 U	0.00041 U	0.00041 U	0.00041 U	0.00041 U	0.00041 U	0.00041 U	0.00041 U
Chlordane (technical)	0.0033	0.00051 J	0.00052 J	0.000029 U	0.000029 U	0.000029 U	0.000029 U	0.000029 U	0.000029 U
Endrin	0.0028	0.000014 U	0.000014 U	0.000014 U	0.000014 U	0.000014 U	0.000014 U	0.000014 U	0.000014 U
gamma-BHC (Lindane)	0.0017	0.000043 J B	0.000043 J B	0.0000060 U	0.0000060 U	0.0000060 U	0.0000060 U	0.000042 J B	0.0000060 U
Heptachlor	0.0012	0.0000085 U	0.0000085 U	0.0000085 U	0.0000085 U	0.0000085 U	0.0000085 U	0.0000085 U	0.0000085 U
Heptachlor epoxide	0.016	0.0000053 U	0.000041 J	0.0000053 U	0.0000053 U	0.0000053 U	0.0000053 U	0.0000053 U	0.0000053 U
Methoxychlor	0.25	0.000014 U	0.000014 U	0.000014 U	0.000014 U	0.000014 U	0.000014 U	0.000014 U	0.000014 U
Toxaphene	0.0095	0.00012 U	0.00012 U	0.00012 U	0.00012 U	0.00012 U	0.00012 U	0.00012 U	0.00012 U
TCLP Metals by 6010C, 3010A (SOLID) MG/L									
Arsenic, Total Recoverable	5.0	0.0056 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U
Barium, Total Recoverable	21	1.1 B	0.80 B	0.46 B	0.40 B	0.12 B	0.23 B	0.53 B	0.56 B
Cadmium, Total Recoverable	0.11	0.024	0.042	0.0026	0.0026	0.0060	0.014	0.053	0.16
Chromium, Total Recoverable	0.60	0.027 B	0.0023 J B	0.0017 J B	0.0016 J B	0.0023 J B	0.014 B	0.077 B	0.020 B
Lead, Total Recoverable	0.75	0.49	0.084	0.18	0.092	0.0030 U	0.048	0.088	0.069
Selenium, Total Recoverable	5.7	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U
Silver, Total Recoverable	0.14	0.017	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 J	0.0093	0.0021 J
TCLP Mercury by 7470A, 7470A_PREP_L (SOLID) MG/L									
Mercury, Total Recoverable	0.025	0.0081 *	0.00014 J *	0.00022 *	0.00012 J *	0.00012 U	0.00075	0.0012	0.00061
TCLP Herbicides by 8151, 8151A_AP (SOLID) MG/L									
2,4-D		0.00040 U	0.00040 U	0.00040 U	0.00040 U	0.00040 U	0.00040 U	0.00040 U	0.00040 U
Silvex (2,4,5-TP)	0.72	0.00036 U	0.00036 U	0.00036 U	0.00036 U	0.00036 U	0.00036 U	0.00036 U	0.00036 U

Table A-4a
Summary of Sediment Sample Results (April/May 2014), Compared to Characteristic Wastes and Uniform Treatment Standards
Morgan Drive, Mount Kisco, New York

PCBs by 8082A, 3550C_1YR (SOLID) MG/KG	PCB Remediation Waste Criteria (mg/kg)	P1-1(Sed)	P1-2(Sed)	P2-1(Sed)	P2-2(Sed)	SDB1-1	SDB1-2	SDB2-1	SDB2-2
PCB-1016	50	0.061 U	0.058 U	0.052 U	0.046 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1221	50	0.061 U	0.058 U	0.052 U	0.046 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1232	50	0.061 U	0.058 U	0.052 U	0.046 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1242	50	0.061 U	0.058 U	0.052 U	0.046 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1248	50	0.061 U	0.058 U	0.052 U	0.046 U	0.044 U	0.038 U	0.040 U	0.042 U
PCB-1254	50	2.5	0.84	0.12 U	0.11 U	0.11 U	0.091 U	0.097 U	0.10 U
PCB-1260	50	1.3	0.52	0.12 U	0.11 U	0.11 U	0.091 U	0.097 U	0.10 U

Notes
(1) Universal Treatment Standards from 6 NYCRR Part 376.4(j).
Values in BOLD and highlighted in yellow indicate an exceedance of Universal Treatment Standards.
J - Result is less than the Reporting Limit but less than or equal to the Method Detection Limit and the concentration is an approximate value
U - Undetected at the Method Detection Limit
B - Compound was found in the blank and sample

S:\Sterling\Projects\2013 Projects\Mt Kisco - Kevin Young - 2013-36\Correspondence\WYCDEP WWTP Closure Comments\revised figures and tables\Table A-4a_July 16 2014

EXHIBIT C

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Office of the Director
625 Broadway, 12th Floor, Albany, New York 12233-7011
P: (518) 402-9706 I F: (518) 402-9020
www.dec.ny.gov

Address of Respondent

RE: Satisfactory Completion Letter/No Further Action Letter

Site No.:
Site Name:

Dear Respondent:

This letter is sent to notify Respondent that it has satisfactorily completed the ***Site Characterization/Interim Remedial Measure*** of the remediation project that Respondent undertook under the Consent Order Index No _____ for 2 Morgan Drive, Town and Village of Mount Kisco, Westchester County, New York (Tax Map/Parcel No.: 80.55-1-2.1/4) ("Site"). The New York State Department of Environmental Conservation ("Department") has determined, subject to the Department's reservation of rights outlined below, contained in the Consent Order, or existing at law, based upon our inspection of the above-referenced Site and upon our review of the documents you have submitted, that you completed the project in accordance with the terms and conditions of the above-referenced Order and no further remedial action (other than implementation of the Site Management Plan if required) is necessary. As a result, the Department is issuing this Satisfactory Completion /No Further Action Letter for the project.

Notwithstanding that the Department has determined that no further remedial action is necessary with the respect to the Site, the Department reserves any and all rights and authority, including rights concerning any claim for natural resource damages or the authority to engage in or require any further investigation or remediation the Department deems necessary. The Department retains all its respective rights concerning circumstances where Respondent, their lessees, sublessees, successors, or assigns cause or permit a Release or threat of Release at the site of any hazardous substance (as that term is defined at 42 USC 9601[14]) or petroleum (as that term is defined in Navigation Law § 172[15]).

Additionally, with respect to the site, nothing contained in this letter shall be construed to:

- preclude the State of New York on behalf of the New York State Environmental Protection and Spill Compensation Fund from recovering a claim of any kind or nature against any party;

- prejudice any rights of the Department to take any investigatory action or remediation or corrective measures it may deem necessary if

Respondent fails to comply with the Order or if contamination other than contamination within the present knowledge of the Department is encountered at the Site;

- prohibit the Commissioner or his duly authorized representative from exercising any summary abatement powers.

In conclusion, the Department is pleased to be part of this effort to return the site to productive use and benefit to the entire community.

If you have any questions, please do not hesitate to contact Daniel Lanners, site project manager, at (518) 402-9662.

Sincerely,

Robert Schick
Director
Division of Environmental Remediation

cc: K. Anders – NYSDOH

ec: Kevin Young, Young Sommer

bec: M. Ryan
G. Heitzman
J. Candiloro
L. Oliva
A. Guglielmi
L. Zeppetelli
D. Lanners/decdocs

bcc: D. Lanners /file

APPENDIX B

RADIOLOGICAL IMPACT STUDIES

LiRo Engineers, Inc.
A LiRo Group Company
Three Aerial Way, Syosset, NY 11791 Telephone 516.938.5476 Facsimile 516.937.5421 www.liro.com

February 15, 2018

Sandra Klepacki, REHS/RS
Chief, Environmental Projects
NYC Environmental Protection Bureau of Water Supply
Environmental, Health & Safety Directorate
465 Columbus Avenue
Valhalla, New York 10595

Subject: **Contract DEL 378C – Site Investigation and Remedy Development Services**
Task Order #12
Groundwater Sample Analysis Results
Former Mt. Kisco Wastewater Treatment Plant
Morgan Drive
Mt. Kisco, New York

Dear Ms. Klepacki:

This letter report summarizes the results of groundwater sampling of MW-01, MW-04 and MW-05, on October 24, 2018 at the Former Mt. Kisco Wastewater Treatment Plant (WWTP), Morgan Drive in Mt. Kisco, New York. The sampling and laboratory analysis was completed as per the Initial Site Visit (ISV) Work Plan for Site Investigation for Radiological Impacts dated September 14, 2018 and approved by the New York State Department of Environmental Conservation (DEC) on October 18, 2018.

Background

LiRo Engineers Inc. (LiRo) has prepared this Letter Report for Site Investigation for Radiological Impacts pursuant to Task Order No.12 of Contract DEL-378C. The purpose of this investigation is to obtain data to assess for radiological impacts potentially associated with the Former Mt. Kisco WWTP Site. The WWTP ceased operation in the mid-1980s. Work is being performed under DEC Consent Order 3-20180709 for the former Mount. Kisco WWTP.

Based on the ISV Work Plan, LiRo visited the Site on October 24, 2018 to obtain samples from the monitoring wells located on 2 Morgan Drive for analytical laboratory analysis. In addition to radiological parameters, the DEC has committed to analyzing representative groundwater samples at remediation sites for emerging contaminants (1,4-dioxane and PFAS) as described in *Groundwater Sampling for Emerging Contaminants*, DEC dated April 2018.

A Site Location Map is provided as Figure 1 and a 2018 Sampling Location Plan is presented as Figure 2. Sampling results are summarized on Tables 1 and 2. Well Purge Logs are provided in Attachment A and the Data Usability Summary Reports (DUSR), Laboratory Analytical Data Report, and Chain-of-Custody documentation are presented in Attachment B. References are listed in Attachment C.

Previous Groundwater Investigation

Great Lakes Environmental and Safety Consultants, Inc. (GLESC) conducted groundwater sampling at the Site in early 2018. The purpose of the sampling was to determine the presence of radiological contamination in groundwater at the Site. A total of four (4) aqueous samples were collected from the existing monitoring wells on

the 6 Morgan Drive site (MW-6-1, MW-6-2, MW-6-3, and MW-6-4) using low-flow pumps. Monitoring wells on 2 Morgan Drive were unable to be sampled as part of the sampling event due to sampling equipment that was not compatible with the wells.

On April 9, 2018, GLESC obtained groundwater samples from each of four (4) existing monitoring wells on the Site using low-flow pumping equipment. The water samples were transferred to laboratory-provided containers and transported under chain-of-custody control to Pace Analytical Services, LLC (Pace) for analysis. Samples were analyzed for Ra-226 (USEPA Method 903.1 for aqueous samples) and Ra-228 (USEPA Method 904.0 for aqueous samples). All samples obtained exhibited levels below the thresholds established in the DEC's Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Groundwater Sampling

In accordance with the ISV Work Plan, CoPhysics Corporation (CoPhysics) provided a radiation technician with a gamma scintillation system meter (Ludlum 3000) to screen radiation levels of the monitoring wells prior to sampling by LiRo personnel. Radiation levels above background were not detected. The monitoring wells, located on 2 Morgan Drive, were constructed of 1.5-inch diameter polyvinyl chloride (PVC) piping. Groundwater samples were collected from MW-1, MW-4 and MW-5 using a peristaltic pump, dedicated and disposable high density polyethylene tubing and a flow through cell to monitor field parameters.

Each well was redeveloped by pumping until the measured turbidity in the recovered water was less than 50 Nephelometric Turbidity Units (NTU). Development and purge water was discharged to the ground surface near the well and allowed to infiltrate. No evidence of contamination, i.e. visual, or olfactory, was noted.

Each well was purged before sampling by evacuating a minimum of 3 well volumes of groundwater and until the field parameters stabilized. Water purged during development was counted in the purge volume since the sampling occurred on the same day as development. Field parameters were recorded on Well Purge Logs (Attachment A).

LiRo personnel followed the requirements for PFAS sampling, including NYSDEC sample protocols for Collection of Groundwater Samples for Perfluorooctanoic Acid (PFOA) and Perfluorinated Compounds (PFCs) from Monitoring Wells. PFAS samples were not allowed to flow through the flow through cell during collection. The peristaltic pump internal flexible tubing was a PFAS acceptable sampling material.

Filtered/dissolved radium sample aliquots were filtered using a disposable 0.45 micron groundwater in-line filter. The filter was not used during the collection of unfiltered PFAS and 1,4-dioxane samples. The Radium-226 and Radium-228 samples were collected in separate filtered and unfiltered sample aliquots, and analyzed for RA-226 (USEPA Method 903.1 for aqueous samples) and Radium-228 (USEPA Method 904.0 for aqueous samples). PFAS was measured by USEPA Method 537 and 1,4-dioxane was measured by USEPA Method 522.

Only limited water was available from MW-01 due to poor recovery, therefore the 1,4-dioxane and PFAS samples were collected first per the approved ISV Work Plan. The work plan hierarchy for sample collection prioritize the collection of emerging contaminates samples over Radium samples in the event of limited well recovery. The well did not recover sufficiently to facilitate sample collection for RA-226 and RA-228 analysis.

Sampling containers supplied by Pace contained preservatives appropriate to the analysis performed. Analytical samples were, cooled to 4^{o}C, preserved per the method requirements, packaged, and transmitted under chain-of-custody to Pace. Groundwater samples were submitted to Pace, which subcontracted TestAmerica Laboratories, Inc. (TestAmerica) for 1,4-dioxane and PFAS parameters analysis. Pace and TestAmerica are each a NYSDOH Analytical Services Protocol (ASP) certified laboratory. The laboratories provided Category B data deliverables;

however, the standard lab report is attached to this letter report. The Category B data deliverables have been uploaded to the DEC Environmental Information Management System.

Turbidity Results

Individual turbidity measurements were recorded on the field purge log included in Attachment A. The turbidity levels during the October 2018 sampling event are summarized below.

Well No.	Date	Initial Turbidity Level (NTU)	Final Turbidity Level (NTU)	Comments
MW-01	October 24, 2018	10.3	192	Well dry after 2.2 gallons
MW-04	October 24, 2018	148	7.2	Water noted as clear
MW-05	October 24, 2018	628	2.2	Water noted as clear

Note:
NTUs = Nephelometric Turbidity Units

Data Validation

Analytical data deliverables were reviewed using DEC ASP and United States Environmental Protection Agency (USEPA) National Functional Guidelines by Vali-Data of WNY, LLC (Vali-Data). The review is documented in two (2) DUSRs, which are provided in Attachment B.

The ASP Category B data package provided by Pace for sample delivery group (SDG) #7069130 was reviewed for data completeness, narrative and data reporting forms, chain-of-custody and traffic reports, holding times, method blank, laboratory control samples, MS/MSDs, and calibration. The items previously listed were technically in compliance with the method and standard operating procedures (SOP) criteria with exception to the following:

- Chain of Custody and Traffic Reports - All criteria were met except MK-WWTP-RAD226-05-FILT MS could not be analyzed due to a login error and insufficient sample volume. Sample, MK-WWTP-RAD226-04 FILT was not received by Pace. These samples could not be validated. The lab failed to transfer Sample 7069130009 (MK-WWTP-RAD226-04 FILT) from Pace Melville to Pace Pittsburgh.

Based on the audit of SDG #7069130, the data are acceptable for use. Validator qualifiers did not affect the data and were not added to Table 1.

The ASP Category B data package provided by TestAmerica for SDG #320-44591-1 was reviewed for data completeness, narrative and data reporting forms, chain-of-custody and traffic reports, holding times, surrogate recoveries, method blank, laboratory control samples, matric spike/matrix spike duplicates (MS/MSDs), compound quantitation, initial and continuing calibration. The items previously listed were technically in compliance with the method and SOP criteria with exception to the following:

- Surrogate Recoveries - All criteria were met except the percent recovery of M2-6:2 FTS was outside quality control (QC) limits, high in MK-WWTP-PFAS-01 and should be qualified as estimated high. Associated target analytes in this sample should be qualified as estimate low if detected or estimated if undetected.

- Method Blank - All the criteria were met except PFHxS was detected above the method detection level (MDL), below the reporting limit and is qualified as estimated in MB 320-257200/1-A. This target analyte should be qualified as undetected at the reporting limit if it is detected in the samples below the reporting limit. This target analyte should be qualified as estimated high if detected in the samples above the reporting limit.

- Compound Quantitation - All the criteria were met except PFHxS was detected above the MDL, below the reporting limit and is qualified as estimated in MK-WWTP-PFAS-EQUIP BL and MK-WWTP-PFAS-FLD BL. This target analyte should be qualified as undetected at the reporting limit if it is detected in the samples below the reporting limit. This target analyte should be qualified as estimated high if detected in the samples above the reporting limit.

Based on the audit of SDG #320-44591-1, the data are acceptable for use except where qualified. Validator qualifiers that affected the data samples were reviewed and relevant footnotes qualifying the data are provided on Table 2.

The ASP Category B data package provided by Pace for SDG #7069129 was reviewed for data completeness, narrative and data reporting forms, chain-of-custody and traffic reports, holding times, Internal Standard (IS), surrogate spike recoveries, method blank, field duplicate sample precision, laboratory control samples, MS/MSD, compound quantitation, initial calibration, continuing calibration and GC/MS performance check. The items previously listed were technically in compliance with the method and SOP criteria with exception to the following:

- Chain of Custody and Traffic Reports - All criteria were met except sample MK-WWTP-1,4-Dioxane-11 (MK-WWTP-1,4-Dioxane-EQUIP BL) was noted as not received by Pace, however it appears that this sample was improperly logged in and not analyzed.

- Internal Standard (IS) - All criteria were met except the area of 1,4-Dioxane-d8 was outside QC limits, low in all of the samples, spikes and blank. 1,4-Dioxane should be qualified as estimated high in the samples, spikes and blank in which it was detected. 1,4-Dioxane-d8 should be qualified as estimated in the samples, spikes and blank.

Based on the audit of SDG #7069129, the data are acceptable for use. The Validator qualified results did not impact the data as reported, and therefore not on Table 2.

QA/QC Procedures

Standard chain-of-custody procedures were implemented to track the possession of all samples from the time of collection through all transfers of custody to the reception of the samples at the laboratory. Analyses was performed using the methods, preservation procedures, and holding times as required by the DEC ASP and USEPA National Functional Guidelines.

Field Quality Assurance and Quality Control (QA/QC) samples were collected at a frequency equal to or greater than what was noted in the ISV Work Plan. Field duplicate samples, MS (Matrix Spike) / MSD (Matrix Spike Duplicate) samples, Field Blank samples and an Equipment Blank (EB) sample were collected.

The Field Duplicates, and MS (Matrix Spike) / MSD (Matrix Spike Duplicate) for SDG #7069130 were reviewed by the independent validator; any exceptions are noted in the MS/MSD/Duplicate sections of the SDG DUSR. The Validator did not note any exceptions, issues or qualifications and all data can be used as stated in the laboratory package. For the Field Duplicate sample precision, all criteria were met and for MS/MSD all percent recoveries and relative percent differences (RPDs) were within acceptance criteria with no exceptions.

Since they are also samples, the Field and Equipment Blanks included in SDG #320-44591-1 were reviewed, and any exceptions are noted in the Compound Quantitation section of the SDG DUSR. The field and equipment blanks do not require qualifications and the data can be used as stated in the laboratory package.

Groundwater Sample Results

Groundwater samples collected from monitoring wells MW-04 and MW-05 were analyzed for Radium-226 by USEPA Method 903.1, and Radium-228 by USEPA Method 904.0. Analytical results are provided in Table 1. Laboratory results were compared to New York State Ambient Water Quality Standards (AWQS) for Class GA groundwater, Division of Water Technical and Operational Guidance Series (TOGS 1.1.1).

The samples exhibited levels below their respective Class GA AWQS for Radium-226 and Radium-228. Total Radium-226 ranged from 0.242 to 0.314 picocuries per liter (pCi/L) and dissolved Radium-226 measured 0.949 pCi/L. Total Radium-228 ranged from -0.537 to 0.548 pCi/L and dissolved Radium-228 ranged from 0.257 to 0.370 pCi/L.

Groundwater samples collected from monitoring well MW-01, MW-04 and MW-05 were analyzed for 1,4-dioxane by USEPA Method 522, and PFAS by USEPA Method 537. Analytical results are provided in Table 2. Laboratory results were screened against the New York State Drinking Water Quality Council Recommended Maximum Contaminant Levels for PFOA, PFOS and 1,4-dioxane (December 2018).

The 1,4-dioxane results were all not detected at or above the adjusted reporting limit of 0.25 ug/L.

The samples from MW-01 and MW-05 exhibited PFOA results of 18 and 11 nanograms per liter (ng/L), respectively, which exceed the PFOA screening level of 10 ng/L. The samples from MW-04 and MW-05 exhibited PFOS results of 16 and 17 ng/L, respectively, which exceed the PFOS screening level of 10 ng/L. Total PFAS measured 32.64, 44.44 ng/L and 58.70 ng/L in MW-01, MW-04 and MW-05, respectively.

Summary and Conclusions

Groundwater samples were collected on October 24, 2018 from three (3) onsite monitoring wells located on the 2 Morgan Drive parcel. The samples from MW-04 and MW-05 were analyzed for 1,4-dioxane, PFAS, Radium-226, and Radium-228. Due to insufficient well volume, the sample from MW-01 was analyzed only for 1,4-dioxane and PFAS.

Based on comparison of samples analyzed for Radium-226 and Radium-228 to AWQS for Class GA groundwater, there appears to be no evidence that groundwater collected from the onsite monitoring wells is adversely impacted above natural radiological groundwater conditions.

Sincerely,
LiRo Engineers, Inc.

Bruce Przybyl
Project Manager

Attachments

Tables	1 - Summary of Groundwater Results (Radium-226 and Radium 228)
	2 - Summary of Groundwater Results [1,4-Dioxane and Per- and (PFAS)]
Figures	1 - Site Location Map
	2 – 2018 Sample Location Plan
Attachment A	Well Purge Logs
Attachment B	Data Usability Summary Reports, Laboratory Analytical Data Report, and Chain-of-Custody Documentation
Attachment C	List of References

TABLES

Table 1 Summary of Groundwater Results (Radium-226 and Radium 228)
Table 2 Summary of Groundwater Results (1,4-Dioxane and Per- and PFAS)

TABLE 1
Summary of Groundwater Results
(Radium-226 and Radium 228)
NYCDEP Former Mt. Kisco WWTP Site
Morgan Drive, Mt. Kisco, NY

Sample ID			MK-WWTP-RAD226-05-FILT		MK-WWTP-RAD226-05 UNFILT		MK-WWTP-RAD228-05 FILT		MK-WWTP-RAD228-05 UNFILT		MK-WWTP-RAD226-04-UNFILT		MK-WWTP-RAD228-04 FILT		MK-WWTP-RAD228-04 UNFILT	
Location			MW-05		MW-05		MW-05		MW-05		MW-04		MW-04		MW-04	
Method			EPA 903.1		EPA 903.1		EPA 904.0		EPA 904.0		EPA 903.1		EPA 904.0		EPA 904.0	
Date Time			10/24/2018 11:30		10/24/2018 11:30		10/24/2018 11:30		10/24/2018 11:30		10/24/2018 11:30		10/24/2018 11:30		10/24/2018 11:30	
Parameter	units	***AWQS/ SGV**	Act	±Unc**	Act	±Unc**	Act	±Unc**	Act	±Unc**	Act	±Unc**	Act	±Unc**	Act	±Unc**
Radium-226	pCi/L	3	0.949	0.783	0.314	0.616					0.242	0.570				
Radium-228	pCi/L	5					0.370	0.644	0.548	0.496			0.257	0.722	-0.537	0.600

Bold / Shaded = Concentration is above the NYS Ambient Water Quality Standards/Guidance Values (SGV)

*NYS Ambient Water Quality Standards/Guidance Values (SGV) for Class GA Ground Water, Division of Water Technical and Operational Guidance Series (1.1.1)
** Safe Drinking Water Act Standard is 1.96 sigma (±) count uncertainty
Act = Activity
FILT = Filtered sample (dissolved)
pCi/L = picocuries per liter
Unc = Uncertainty
UNFILT = Unfiltered sample (total)
Independent Validator Qualifiers appear in [ ]

TABLE 2
Summary of Groundwater Results
[1,4-Dioxane and Per- and Polyfluoroalkyl Substances (PFAS)]
NYCDEP Former Mt. Kisco WWTP Site
Morgan Drive, Mt. Kisco, NY

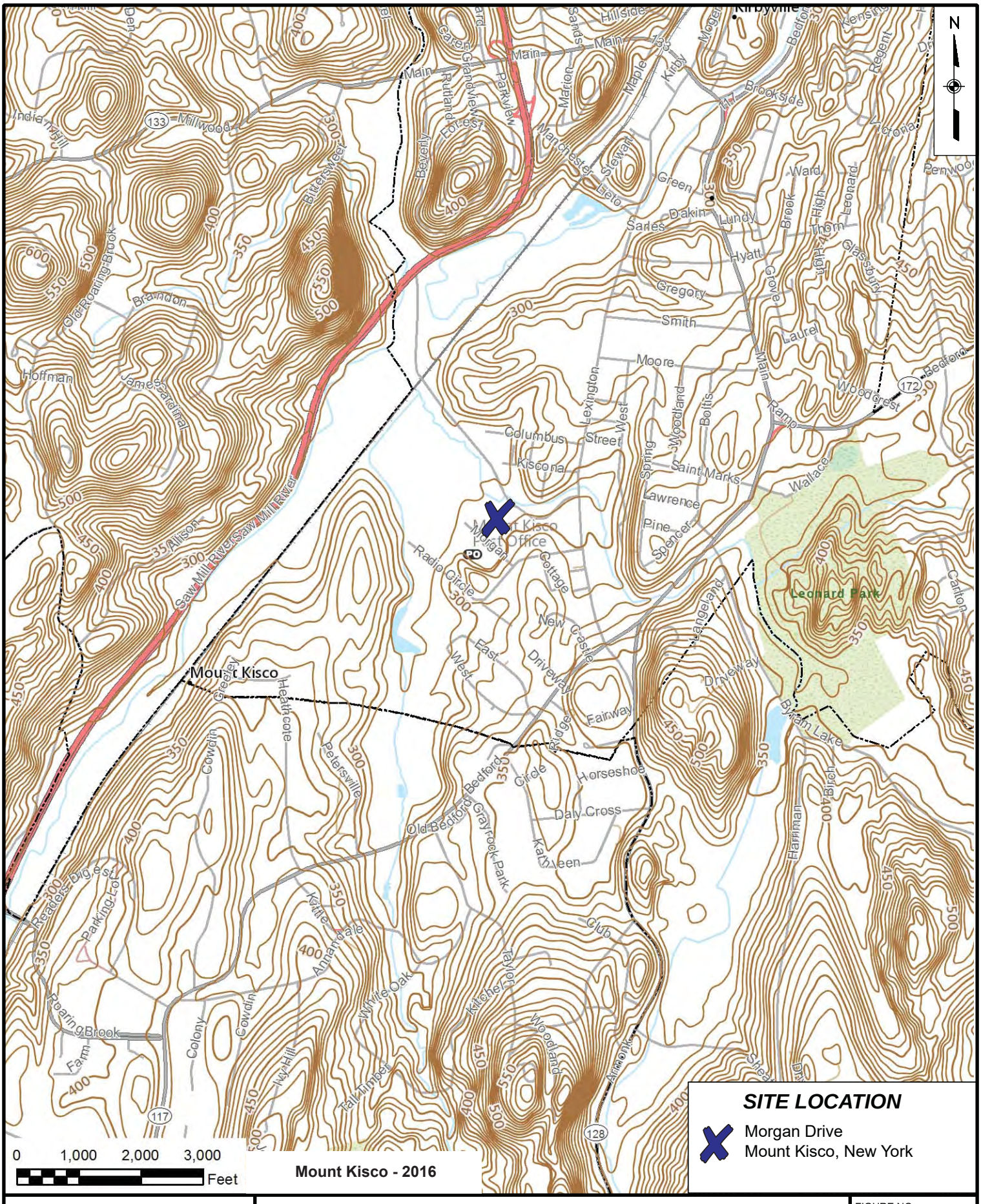
Sample ID			MK-WWTP-1,4 DIOXANE-05	MK-WWTP-1,4 DIOXANE-04	MK-WWTP-1,4 DIOXANE-01	MK-WWTP-PFAS-05	MK-WWTP-PFAS-04	MK-WWTP-PFAS-01
Location			MW-05	MW-04	MW-01	MW-05	MW-04	MW-01
Method			EPA 8270D	EPA 8270D	EPA 8270D	EPA 537 Modified	EPA 537 Modified	EPA 537 Modified
Date Time			10/24/2018 11:00	10/24/2018 13:25	10/24/2018 14:00	10/24/2018 11:00	10/24/2018 13:25	10/24/2018 14:00
Parameter	units	***NYS MCL**						
1,4-Dioxane (SIM)	µg/L	1	<0.25	<0.25	<0.25			
Perfluorobutanoic acid (PFBA)	ng/L	NE				7.8	4.1	2.0 J
Perfluoropentanoic acid (PFPeA)	ng/L	NE				3.2	2.3	3.3
Perfluorohexanoic acid (PFHxA)	ng/L	NE				3.4	1.9 J	4.1
Perfluoroheptanoic acid (PFHpA)	ng/L	NE				3.2	1.4 J	3.5
Perfluorooctanoic acid (PFOA) ****	ng/L	10				**18**	8.5	**11**
Perfluorononanoic acid (PFNA)	ng/L	NE				0.96 J	0.82 J	ND
Perfluorodecanoic acid (PFDA)	ng/L	NE				0.44 J	0.32 J	0.38 J
Perfluorobutanesulfonic acid (PFBS)	ng/L	NE				3.4	1.4 J	2.3
Perfluorohexanesulfonic acid (PFHxS)	ng/L	NE				2.3 B [JH]	0.73 J B [U]	0.76 J B [U]
Perfluorooctanesulfonic acid (PFOS)	ng/L	10				**16**	**17**	5.3
Perfluorooctanesulfonamide (FOSA)	ng/L	NE				ND	0.47 J	ND
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ng/L	NE				ND	5.5 J	ND
Total PFAS	ng/L	NE				58.70	44.44	32.64

Bold / Shaded = Concentration exceeds recommended screening level

*New York State MCLs are from New York State Drinking Water Quality Council Recommended MCLs (December 2018)
µg/L = Micrograms per liter
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
MCL = Maximum Contaminant Level
ND = Not Detected at or above adjusted reporting limit
NE = Not Established
ng/L = Nanograms per liter (equivalent to parts per trillion)
PFAS = Per- and Polyfluoroalkyl Substances
Independent Validator Qualifiers appear in [ ]
[U] - Indicates the compound was analyzed for, but not detected
[JH] - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

FIGURES

1 – Site Location Map
2 – 2018 Sample Location Plan



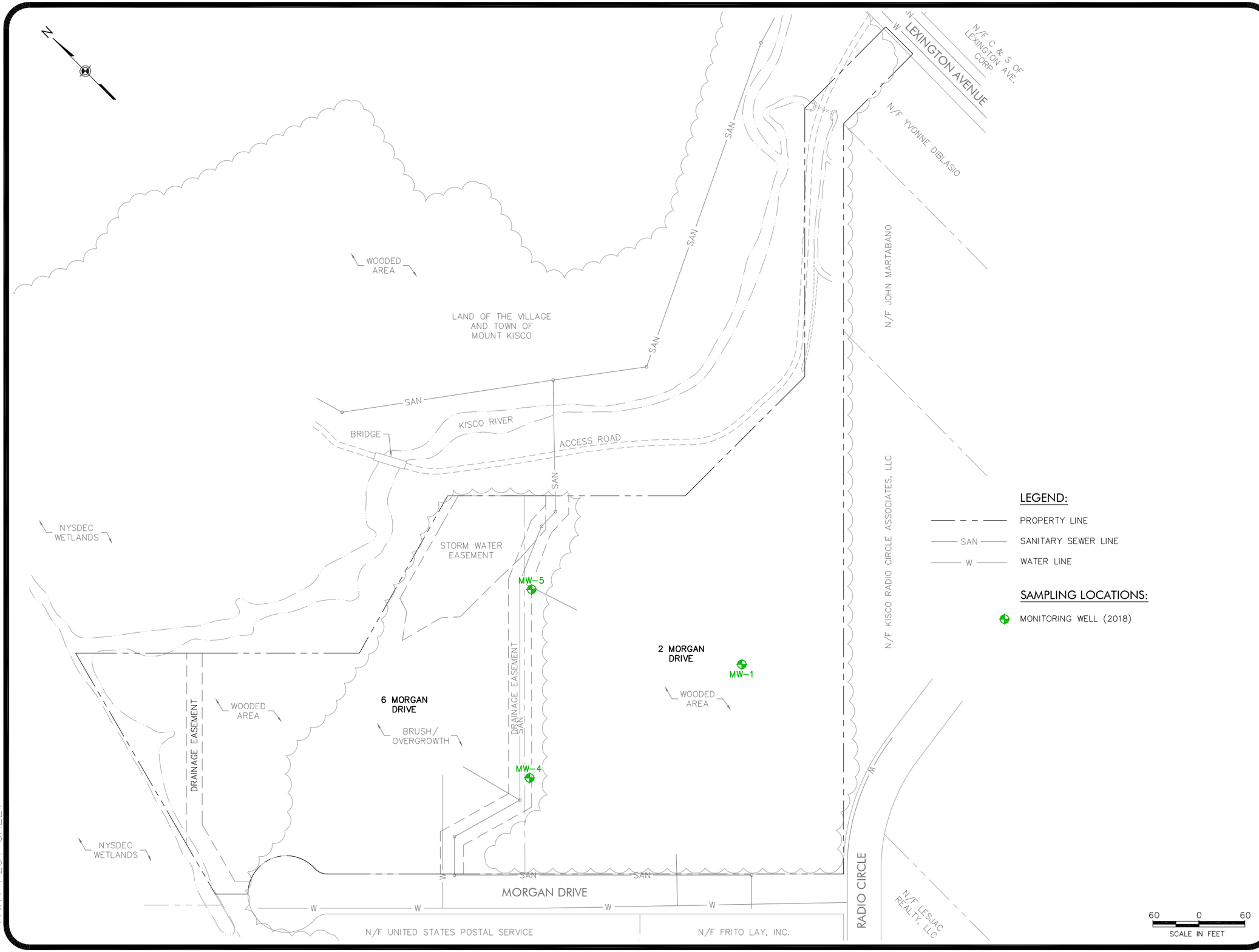
J:\14-104-0267 NYCDEP Watershed\CAD\MT KISCO\Mt Kisco Location Map.AI

LiRo-Engineers, Inc.
3 Aerial Way
Syossett, New York

FORMER MOUNT KISCO WWTP SITE
SITE LOCATION MAP

FIGURE NO.

1



17x11 PLOT SHEET

NYC Environmental Protection

CONSULTANTS

LIRo Engineers, Inc.
3 Aerial Way, Syosset, New York

SITE INVESTIGATION FOR RADIOLOGICAL IMPACTS
FORMER MT. KISCO WASTEWATER TREATMENT SITE

FORMER MT. KISCO WASTEWATER TREATMENT SITE
MORGAN DRIVE
MT. KISCO, WESTCHESTER COUNTY, NY

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION

MARK	DATE	DESCRIPTION

PROJECT NUMBER:	
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	

SHEET TITLE

2018 SAMPLE LOCATION PLAN

FIGURE 2

ATTACHMENT A

Well Purge Logs

WELL PURGE LOG

LiRo Engineers, Inc.

Project Title: NYCDEP MT. KISCO WWTP, MT KISCO, NY Well Number: MW-01

Site Name: Former Mt. Kisco Wastewater Treatment Site Date: 10/24/2018

Staff: S. Swanson / E. Jakubowska (Personnel On-Site) Time: 1400 (of sample collection)

Initials of Sampler: EJ / SS (Person Collecting Sample)

A). Total casing and screen length in feet: 17.57'

B). Water level below top of casing in feet: 8.56'

C). Number of feet standing water [A-B]: 9.01

D). Volume of water/foot of casing (gal.): 0.147

E). Volume of water in casing (gal. [CxD]: 1.3

F). Volume of water to remove (gal.) [Ex3]: 3.9

G). Volume of water actually removed (gal.): ≈ 2.2 gallons

Well ID	Volume (gal/ft)
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60
1.5	0.147

PURGE DATA

Volume Purged (Gallons)	pH (SU)	Conductivity (uS/m)	Dissolved Oxygen (mg/L)	Temperature (°C)	Salinity	ORP (mV)	Turbidity (NTU)	Appearance
initial	7.72	0.485	5.38	11.50	0.2	198	10.3	clear
0.25	6.82	0.266	6.16	12.34	0.1	187	23.0	↓
0.5	6.47	0.218	5.99	12.66	0.1	187	24.7	
1.0	6.45	0.204	10.69	12.58	0.1	190	82.4	
1.5	6.51	0.382	10.58	12.48	0.2	192	98.4	
2.0	6.62	0.466	7.93	12.33	0.2	193	156	
2.2	6.72	0.606	3.81	10.72	0.3	204	196	
last	6.77	0.518	6.88	11.12	0.2	203	192	

Comments: Dry @ 0940 @ ≈ 2.2 gall. Slow recharge 16.72' @ 0950 16.64' @ 0955 16.52 @ 1008

Sampling ID:

Sampling Parameters: (check one)
- ☐ CP-51 VOCs
- ☐ CP-51 VOCs & SVOCs
- ☐ Full List TCL & CP-51 VOCs
- ☒ Other (list parameters below): PFAS & 1,4-Dioxane only

WELL PURGE LOG

LiRo Engineers, Inc.

Project Title: NYCDEP MT. KISCO WWTP, MT KISCO, NY

Well Number: MW-04

Site Name: former Mt. Kisco Wastewater Treatment site

Date: 10/24/2018

Staff: S. Swanson & E. Jakubowska (Personnel On-Site)

Time: 1325 to 1350 (of sample collection)

Initials of Sampler: EJ/SS (Person Collecting Sample)

A). Total casing and screen length in feet: 13.38'

B). Water level below top of casing in feet: 4.81'

C). Number of feet standing water [A-B]: 8.57

D). Volume of water/foot of casing (gal.): 0.147

E). Volume of water in casing (gal. [CxD]: 1.2

F). Volume of water to remove (gal.) [Ex3]: 3.7

G). Volume of water actually removed (gal.): 4.0

Well ID	Volume (gal/ft)
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60
1.5"	0.147

PURGE DATA

Volume Purged (Gallons)	pH (SU)	Conductivity (uS/m)	Dissolved Oxygen (mg/L)	Temperature (°C)	Salinity	ORP (mV)	Turbidity (NTU)	Appearance	TDS
initial	6.63	0.759	5.00	13.31	0.4	-58	148	slightly cloudy	0.497
0.5	6.50	0.808	0.00	14.33	0.4	-88	18.2	clear	0.527
1.0	6.50	0.805	0.00	14.46	0.4	-89	13.3	clear	0.515
2.0	6.50	0.798	2.7	14.62	0.4	-90	9.4	clear	0.513
2.5	6.50	0.805	2.22	14.66	0.4	-90	9.5	clear	0.513
3.0	6.50	0.805	1.80	14.77	0.4	-90	10.1	clear	0.513
3.5	6.50	0.803	0.00	14.83	0.4	-90	9.5	clear	0.513
4.0	6.49	0.808	0.00	14.90	0.4	-90	7.2	clear	0.517

Comments: EB-1255 Equip. Blank Sample @ 1325
FB-1300 Field Blank

Sampling ID:

Sampling Parameters: (check one)
- ☐ CP-51 VOCs
- ☐ CP-51 VOCs & SVOCs
- ☐ Full List TCL & CP-51 VOCs
- ☑ Other (list parameters below): RAD 226, RAD 228, PFAS, 1,4-Dioxane

WELL PURGE LOG

LiRo Engineers, Inc.

Project Title: NYCDEP MT. KISCO WWTP, MT KISCO, NY

Well Number: MW-05

Site Name: Former Mt. Kisco Wastewater Treatment site.

Date: 10/24/2018

Staff: S. Swanson & E. Jakubowska
(Personnel On-Site)

Time: 1100
(of sample collection)

Initials of Sampler: EJ/SS
(Person Collecting Sample)

A). Total casing and screen length in feet: 13.71'

B). Water level below top of casing in feet: 6.28'

C). Number of feet standing water [A-B]: 7.43

D). Volume of water/foot of casing (gal.): 0.147

E). Volume of water in casing (gal. [CxD]: 1.09

F). Volume of water to remove (gal.) [Ex3]: 3.2

G). Volume of water actually removed (gal.): 3.5

Well ID	Volume (gal/ft)
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60
1.5"	0.147

PURGE DATA

Volume Purged (Gallons)	pH (SU)	Conductivity (uS/m)	Dissolved Oxygen (mg/L)	Temperature (°C)	Salinity	ORP (mV)	Turbidity (NTU)	Appearance	TDD
initial	6.98	0.529	0.00	12.78	0.0	4	6.28	Black	.337
0.5	6.95	0.525	0.00	13.42	0.0	37	84.5	clear	.336
1.0	6.78	0.508	0.00	13.38	0.0	29	14.0	clear	.322
2.0	6.25	0.479	0.00	13.33	0.2	14	3.3	clear	.310
2.5	6.17	0.474	0.00	13.37	0.2	9	2.9	clear	.309
3.0	6.12	0.473	0.00	13.46	0.2	7	2.8	clear	.307
3.5	6.09	0.471	0.00	13.45	0.2	8	2.2	clear	.306

Comments:

Sampling ID:

Sampling Parameters: (check one)
- ☐ CP-51 VOCs
- ☐ CP-51 VOCs & SVOCs
- ☐ Full List TCL & CP-51 VOCs
- ☒ Other (list parameters below): RAD 226, RAD 228, PFAS, 1,4-Dioxane

ATTACHMENT B

Data Usability Summary Reports, Laboratory Analytical Data Report, and Chain-of-Custody Documentation

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Mt. Kisco
TestAmerica Laboratories, Inc. SDG#320-44591-1
Pace Analytical SDG#7069129
February 14, 2019
Sampling date: 10/24/2018

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data packages for LiRo Engineers, TestAmerica Laboratories, Inc., SDG#320-44591-1, submitted to Vali-Data of WNY, LLC on December 6, 2018 and Pace Analytical (Pace), SDG#7069129, submitted to Vali-Data of WNY, LLC on February 6, 2019. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Perfluorinated Hydrocarbons (537 modified) and SVOC (8270D-SIM).

PFAS IDA

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Surrogate Spike Recoveries, Method Blank and Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES
All holding times were met.

SURROGATE RECOVERIES
All criteria were met except the %Rec of M2-6:2 FTS was outside QC limits, high in MK-WWTP-PFAS-01 and should be qualified as estimated high. Associated target analytes in this sample should be qualified as estimate low if detected or estimated if undetected.

METHOD BLANK
All the criteria were met except PFHxS was detected above the MDL, below the reporting limit and is qualified as estimated in MB 320-257200/1-A. This target analyte should be qualified as undetected at the reporting limit if it is detected in the samples below the reporting limit. This target analyte should be qualified as estimated high if detected in the samples above the reporting limit.

FIELD DUPLICATE SAMPLE PRECISION
All criteria were met.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
All criteria were met.

COMPOUND QUANTITATION
All the criteria were met except PFHxS was detected above the MDL, below the reporting limit and is qualified as estimated in MK-WWTP-PFAS-EQUIP BL and MK-WWTP-PFAS-FLD BL. This target analyte should be qualified as undetected at the reporting limit if it is detected in the samples below the reporting limit. This target analyte should be qualified as estimated high if detected in the samples above the reporting limit.

INITIAL CALIBRATION
All criteria were met.

CONTINUING CALIBRATION
All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS)
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use except where qualified below in Internal Standard.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met except sample MK-WWTP-1,4-Dioxane-11 was not received by Pace.

HOLDING TIMES
All holding times for the sample were met.

INTERNAL STANDARD (IS)
All criteria were met except the area of 1,4-Dioxane-d_8 was outside QC limits, low in all of the samples, spikes and blank. 1,4-Dioxane should be qualified as estimated high in the samples, spikes and blank in which it was detected. 1,4-Dioxane-d_8 should be qualified as estimated in the samples, spikes and blank.

SURROGATE SPIKE RECOVERIES
All criteria were met.

METHOD BLANK
All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION
All criteria were met.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
All the criteria were met.

COMPOUND QUANTITATION
All criteria were met.

INITIAL CALIBRATION
All criteria were met.

CONTINUING CALIBRATION
All criteria were met.

GC/MS PERFORMANCE CHECK
All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Mt. Kisco
Pace Analytical Laboratories SDG#7069130
January 11, 2019
Reissued; January 17, 2019
Sampling date: 10/24/2018

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package (reissued January 17, 2019) for LiRo Engineers, Pace Analytical Laboratories (Pace), SDG#7069130, submitted to Vali-Data of WNY, LLC on December 21, 2018. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Radium 226 (903.1) and Radium 228 (904).

RADIUM 226

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use except where indicated below in Chain of Custody and Traffic Reports.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met except MK-WWTP-RAD226-05-FILT MS could not be analyzed due to a login error and insufficient sample volume. Sample, MK-WWTP-RAD226-04 FILT was not received by Pace. These samples could not be validated.

HOLDING TIMES
All holding times were met.

METHOD BLANK
All the criteria were met.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
All criteria were met.

CALIBRATION
All criteria were met.

RADIUM 228

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met.

METHOD BLANK
All the criteria were met.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
All criteria were met.

CALIBRATION
All criteria were met.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

November 28, 2018

Daniel Sheldon
The LiRo Group
690 Deleware Avenue
Buffalo, NY 14209

RE: Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069129

Dear Daniel Sheldon:
Enclosed are the analytical results for sample(s) received by the laboratory on October 24, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

Samples were subcontracted to Pace Analytical Services, Inc., 1700 Elm Street, Minneapolis, MN 55414 for 1,4 Dioxane analysis.

Samples were subcontracted to Test Ameroca-Sacramento, 800 Riverside Pkwy, West Sacramento, CA 95605 for PFA analysis.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Danielle Williams

Danielle Williams
danielle.williams@pacelabs.com
(631)694-3040
Project Manager

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

Enclosures

cc: Martha DeLozier, The LiRo Group
Steve Frank, 690 Deleware Avenue
Craig Taylor, The Lro Group

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069129

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon NwTPH Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia DEP Certification #: 382
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

SAMPLE ANALYTE COUNT

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069129

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
7069129003	**MK-WWTP-1,4 DIOXANE-05**	EPA 8270D by SIM	AT1	2	PASI-M
7069129004	**MK-WWTP-1,4 DIOXANE-05-FD**	EPA 8270D by SIM	AT1	2	PASI-M
7069129006	**MK-WWTP-1,4 DIOXANE-04**	EPA 8270D by SIM	AT1	2	PASI-M
7069129008	**MK-WWTP-1,4 DIOXANE-01**	EPA 8270D by SIM	AT1	2	PASI-M
7069129012	**MK-WWTP-1,4 DIOXANE-FLD BL**	EPA 8270D by SIM	AT1	2	PASI-M

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069129

Sample: MK-WWTP-1,4 DIOXANE-05 **Lab ID: 7069129003** Collected: 10/24/18 11:00 Received: 10/24/18 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV 14 Dioxane By SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510							
1,4-Dioxane (SIM)	**<0.25**	ug/L	0.25	1	10/31/18 15:14	11/13/18 11:24	123-91-1	
Surrogates								
1,4-Dioxane-d8 (S)	41	%.	30-125	1	10/31/18 15:14	11/13/18 11:24		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069129

Sample: MK-WWTP-1,4 DIOXANE-05-FD **Lab ID: 7069129004** Collected: 10/24/18 11:00 Received: 10/24/18 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV 14 Dioxane By SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510							
1,4-Dioxane (SIM)	**<0.25**	ug/L	0.25	1	10/31/18 15:14	11/13/18 12:25	123-91-1	
Surrogates								
1,4-Dioxane-d8 (S)	42	%.	30-125	1	10/31/18 15:14	11/13/18 12:25		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069129

Sample: MK-WWTP-1,4 DIOXANE-04 **Lab ID: 7069129006** Collected: 10/24/18 13:25 Received: 10/24/18 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV 14 Dioxane By SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510							
1,4-Dioxane (SIM)	**<0.25**	ug/L	0.25	1	10/31/18 15:14	11/13/18 12:46	123-91-1	
Surrogates								
1,4-Dioxane-d8 (S)	41	%.	30-125	1	10/31/18 15:14	11/13/18 12:46		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069129

Sample: MK-WWTP-1,4 DIOXANE-01 **Lab ID: 7069129008** Collected: 10/24/18 14:00 Received: 10/24/18 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV 14 Dioxane By SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510							
1,4-Dioxane (SIM)	**<0.25**	ug/L	0.25	1	10/31/18 15:14	11/13/18 13:06	123-91-1	
Surrogates								
1,4-Dioxane-d8 (S)	41	%.	30-125	1	10/31/18 15:14	11/13/18 13:06		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069129

Sample: MK-WWTP-1,4 DIOXANE-FLD BL **Lab ID: 7069129012** Collected: 10/24/18 13:00 Received: 10/24/18 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV 14 Dioxane By SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510							
1,4-Dioxane (SIM)	**<0.25**	ug/L	0.25	1	10/31/18 15:14	11/13/18 13:27	123-91-1	
Surrogates								
1,4-Dioxane-d8 (S)	43	%.	30-125	1	10/31/18 15:14	11/13/18 13:27		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069129

QC Batch: 572612 Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3510 Analysis Description: 8270D Water 14 Dioxane by SIM
Associated Lab Samples: 7069129003, 7069129004, 7069129006, 7069129008, 7069129012

METHOD BLANK: 3106720 Matrix: Water
Associated Lab Samples: 7069129003, 7069129004, 7069129006, 7069129008, 7069129012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (SIM)	ug/L	<0.25	0.25	11/13/18 10:43	
1,4-Dioxane-d8 (S)	%.	34	30-125	11/13/18 10:43	

LABORATORY CONTROL SAMPLE: 3106721

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (SIM)	ug/L	10	9.5	95	69-125	
1,4-Dioxane-d8 (S)	%.			42	30-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3106854 3106855

Parameter	Units	7069129003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,4-Dioxane (SIM)	ug/L	<0.25	10	10	10.8	10.6	107	105	70-130	2	
1,4-Dioxane-d8 (S)	%.						40	41	30-125		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069129

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069129

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7069129003	**MK-WWTP-1,4 DIOXANE-05**	EPA 3510	572612	EPA 8270D by SIM	574609
7069129004	**MK-WWTP-1,4 DIOXANE-05-FD**	EPA 3510	572612	EPA 8270D by SIM	574609
7069129006	**MK-WWTP-1,4 DIOXANE-04**	EPA 3510	572612	EPA 8270D by SIM	574609
7069129008	**MK-WWTP-1,4 DIOXANE-01**	EPA 3510	572612	EPA 8270D by SIM	574609
7069129012	**MK-WWTP-1,4 DIOXANE-FLD BL**	EPA 3510	572612	EPA 8270D by SIM	574609

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be comp

WO#:7069129

7069129

Section A Required Client Information:

Company: LIRO ENGINEERS
Address: 690 DELAWARE AVE
BUFFALO, NY 14209
Email To: PTZBYL@LIRO.COM
Phone: 716-882-5476 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: SAME
Copy To:
Purchase Order No.:
Project Name: Former Mt. Kisco Wastewater Treatment Site
Project Number:

Section C Invoice Information:

Attention: SAME
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NY

Section D Required Client Information

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other ICE	Y/N	Analysis Test: PFAS	1,4 DIOXANE	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MK-WWTP-PFAS-05	WT		10/24/18	11:00				2	X							X		X			001
2	-MS																		X			
3	-MSD																		X			
4	-FD																		X			002
5	MK-WWTP-1,4 DIOXANE-05																			X		003
6	-MS																			X		
7	-MSD																			X		
8	-FD																			X		004
9	MK-WWTP-PFAS-04				13:25														X			005
10	MK-WWTP-1,4 DIOXANE-04																			X		006
11	MK-WWTP-PFAS-01				14:00														X			007
12	MK-WWTP-1,4 DIOXANE-01				14:00															X		008

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	[signature] LIRO	10/24/18	3:15	[signature] Pace	10/24/18	3:15				
	[signature] Pace	10/24/18	6:00	[signature]	10/24/18	1800	5.3	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: SCOTT SWANSON
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/24/18

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be comple

WO#: 7069129

PM: DW1 Due Date: 11/15/18
CLIENT: LIRO-B

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: LIRO ENGINEERS	Report To:	Attention:
Address: 690 DELAWARE AVE BUFFALO, NY 14209	Copy To:	Company Name:
Email To: PRZBYL@liro.com	Purchase Order No.:	Address:
Phone: Fax:	Project Name:	Pace Quote Reference:
Requested Due Date/TAT:	Project Number:	Pace Project Manager:
		Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NY

Section D Required Client Information

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: PFAS	1,4 DIOXANE	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MK-WWTP-PFAS-EQUIP BL	WT		10/24/18	12:55														X			009
2	↓ ↓ 1,4 DIOXANE-11	↓		↓	↓															X		016
3	MK-WWTP-PFAS-FLD BL				13:00														X			011
4	↓ ↓ 1,4 DIOXANE-FLD BL	↓		↓	↓															X		012
5																						
6																						
7																						
–																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	LIRO	10/24/18	3:15	P/C	10/24/18	3:15	
	Pace	10/24/18	GPM		102418	1800	534 W Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Scott Swanson

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/24/18

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical

Sample Condition Upo

WO#:7069129

PM: DW1 Due Date: 11/15/18
CLIENT: LIRO-B

Client Name: LIRO

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No **Seals intact:** ☐ Yes ☐ No **Temperature Blank Present:** ☐ Yes ☒ No

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ Ziploc ☐ None ☐ Other **Type of Ice:** Wet Blue None

Thermometer Used: TH091 **Correction Factor:** 0.0 ☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 5.3 **Cooler Temperature Corrected (°C):** 5.3 **Date/Time 5035A kits placed in freezer**

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☒ N/A, water sample) **Date and Initials of person examining contents:** OK 10/24/18

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑ Yes	☐ No		1.
Chain of Custody Filled Out:	☑ Yes	☐ No		2.
Chain of Custody Relinquished:	☑ Yes	☐ No		3.
Sampler Name & Signature on COC:	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time:	☑ Yes	☐ No		5.
Short Hold Time Analysis (<72hr):	☐ Yes	☑ No		6.
Rush Turn Around Time Requested:	☐ Yes	☑ No		7.
Sufficient Volume: (Triple volume provided for MS/MSD)	☑ Yes	☐ No		8.
Correct Containers Used:	☑ Yes	☐ No		9.
-Pace Containers Used:	☑ Yes	☐ No		
Containers Intact:	☑ Yes	☐ No		10.
Filtered volume received for Dissolved tests	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix SL WT OIL	☑ Yes	☐ No		12.
All containers needing preservation have been checked pH paper Lot #	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water) Per Method, VOA pH is checked after analysis	☐ Yes	☐ No	☑ N/A	Sample #
				Initial when completed: / Lot # of added preservative: / Date/Time preservative added
Samples checked for dechlorination: KI starch test strips Lot # Residual chlorine strips Lot #	☐ Yes	☐ No	☑ N/A	14. Positive for Res. Chlorine? Y N
Headspace in VOA Vials (>6mm):	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Present:	☐ Yes	☐ No	☑ N/A	16.
Trip Blank Custody Seals Present	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution: Sample ID MK-WWTP-1,4 DIOXANE-11 WAS not received

* PM (Project Manager) review is documented electronically in LIMS.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

TestAmerica Job ID: 320-44591-1
Client Project/Site: Pace PFAS Testing

For:
Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, New York 11747

Attn: Danielle Williams

Authorized for release by:
11/27/2018 5:17:59 PM

Jill Kellmann, Manager of Project Management
(916)374-4402
jill.kellmann@testamericainc.com

Table of Contents

Qualifiers

LCMS

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.
B	Compound was found in the blank and sample.
*	Isotope Dilution analyte is outside acceptance limits.

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: 320-44591-1

Laboratory: TestAmerica Sacramento

Narrative

Receipt

The samples were received on 10/27/2018 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.1° C.

LCMS

Method(s) 537 (modified): The isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-6:2 FTS in the following sample: MK-WWTP-PFAS-04 (320-44591-3). Re-analysis was performed with concurring results. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

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

Organic Prep

Method(s) 3535: Elevated reporting limits are provided for the following samples due to insufficient sample provided for preparation: MK-WWTP-PFAS-05 (320-44591-1[MS]), MK-WWTP-PFAS-05 (320-44591-1[MSD]), MK-WWTP-PFAS-05-FD (320-44591-2), MK-WWTP-PFAS-01 (320-44591-4), MK-WWTP-PFAS-EQUIP BL (320-44591-5) and MK-WWTP-PFAS-FLD BL (320-44591-6).

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

Detection Summary

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

Client Sample ID: MK-WWTP-PFAS-05 — Lab Sample ID: 320-44591-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.8		2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.2		2.0	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.4		2.0	0.58	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.2		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	18		2.0	0.85	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.96	J	2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.44	J	2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.4		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.3	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	16		2.0	0.54	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MK-WWTP-PFAS-05-FD — Lab Sample ID: 320-44591-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.5		2.1	0.36	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.8		2.1	0.51	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.2		2.1	0.60	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.9		2.1	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	17		2.1	0.88	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.76	J	2.1	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.7		2.1	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.0	J B	2.1	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	16		2.1	0.56	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MK-WWTP-PFAS-04 — Lab Sample ID: 320-44591-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.1		2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.3		2.0	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.9	J	2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.4	J	2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	8.5		2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.82	J	2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.32	J	2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.4	J	2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.73	J B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	17		2.0	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.47	J	2.0	0.35	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.5	J	20	1.9	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MK-WWTP-PFAS-01 — Lab Sample ID: 320-44591-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.0	J	2.1	0.36	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.3		2.1	0.51	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	4.1		2.1	0.60	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.5		2.1	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	11		2.1	0.88	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.38	J	2.1	0.32	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.3		2.1	0.21	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MK-WWTP-PFAS-01 (Continued) — Lab Sample ID: 320-44591-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	0.76	J B	2.1	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.3		2.1	0.56	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MK-WWTP-PFAS-EQUIP BL — Lab Sample ID: 320-44591-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	0.26	J B	2.1	0.17	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MK-WWTP-PFAS-FLD BL — Lab Sample ID: 320-44591-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	0.27	J B	2.0	0.17	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

Client Sample ID: MK-WWTP-PFAS-05
Date Collected: 10/24/18 11:00
Date Received: 10/27/18 09:00

Lab Sample ID: 320-44591-1
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.8**		2.0	0.35	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluoropentanoic acid (PFPeA)	**3.2**		2.0	0.49	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluorohexanoic acid (PFHxA)	**3.4**		2.0	0.58	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluoroheptanoic acid (PFHpA)	**3.2**		2.0	0.25	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluorooctanoic acid (PFOA)	**18**		2.0	0.85	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluorononanoic acid (PFNA)	**0.96**	**J**	2.0	0.27	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluorodecanoic acid (PFDA)	**0.44**	**J**	2.0	0.31	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluorobutanesulfonic acid (PFBS)	**3.4**		2.0	0.20	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluorohexanesulfonic acid (PFHxS)	**2.3**	**B**	2.0	0.17	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluorooctanesulfonic acid (PFOS)	**16**		2.0	0.54	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/06/18 08:27	11/07/18 10:21	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0	0.35	ng/L		11/06/18 08:27	11/07/18 10:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20	3.1	ng/L		11/06/18 08:27	11/07/18 10:21	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20	1.9	ng/L		11/06/18 08:27	11/07/18 10:21	1
6:2 FTS	ND		20	2.0	ng/L		11/06/18 08:27	11/07/18 10:21	1
8:2 FTS	ND		20	2.0	ng/L		11/06/18 08:27	11/07/18 10:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*70*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
13C5 PFPeA	*79*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
13C2 PFHxA	*81*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
13C4 PFHpA	*92*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
13C4 PFOA	*90*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
13C5 PFNA	*87*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
13C2 PFDA	*89*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
13C2 PFUnA	*86*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
13C2 PFDoA	*77*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
13C2 PFTeDA	*73*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
13C3 PFBS	*78*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
18O2 PFHxS	*86*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
13C4 PFOS	*87*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
13C8 FOSA	*81*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
d3-NMeFOSAA	*92*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
d5-NEtFOSAA	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
M2-6:2 FTS	*103*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*
M2-8:2 FTS	*91*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:21*	*1*

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

Client Sample ID: MK-WWTP-PFAS-05-FD
Date Collected: 10/24/18 11:00
Date Received: 10/27/18 09:00

Lab Sample ID: 320-44591-2
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.5**		2.1	0.36	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluoropentanoic acid (PFPeA)	**2.8**		2.1	0.51	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluorohexanoic acid (PFHxA)	**3.2**		2.1	0.60	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluoroheptanoic acid (PFHpA)	**2.9**		2.1	0.26	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluorooctanoic acid (PFOA)	**17**		2.1	0.88	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluorononanoic acid (PFNA)	**0.76**	**J**	2.1	0.28	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluorodecanoic acid (PFDA)	ND		2.1	0.32	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluoroundecanoic acid (PFUnA)	ND		2.1	1.1	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluorododecanoic acid (PFDoA)	ND		2.1	0.57	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluorotridecanoic acid (PFTriA)	ND		2.1	1.3	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.1	0.30	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluorobutanesulfonic acid (PFBS)	**2.7**		2.1	0.21	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluorohexanesulfonic acid (PFHxS)	**2.0**	**J B**	2.1	0.18	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.1	0.20	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluorooctanesulfonic acid (PFOS)	**16**		2.1	0.56	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.1	0.33	ng/L		11/06/18 08:27	11/07/18 10:50	1
Perfluorooctanesulfonamide (FOSA)	ND		2.1	0.36	ng/L		11/06/18 08:27	11/07/18 10:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		21	3.2	ng/L		11/06/18 08:27	11/07/18 10:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		21	2.0	ng/L		11/06/18 08:27	11/07/18 10:50	1
6:2 FTS	ND		21	2.1	ng/L		11/06/18 08:27	11/07/18 10:50	1
8:2 FTS	ND		21	2.1	ng/L		11/06/18 08:27	11/07/18 10:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*67*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
13C5 PFPeA	*78*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
13C2 PFHxA	*81*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
13C4 PFHpA	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
13C4 PFOA	*90*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
13C5 PFNA	*84*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
13C2 PFDA	*85*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
13C2 PFUnA	*85*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
13C2 PFDoA	*79*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
13C2 PFTeDA	*76*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
13C3 PFBS	*72*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
18O2 PFHxS	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
13C4 PFOS	*84*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
13C8 FOSA	*81*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
d3-NMeFOSAA	*87*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
d5-NEtFOSAA	*92*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
M2-6:2 FTS	*109*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*
M2-8:2 FTS	*99*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:50*	*1*

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

Client Sample ID: MK-WWTP-PFAS-04
Date Collected: 10/24/18 13:25
Date Received: 10/27/18 09:00

Lab Sample ID: 320-44591-3
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.1**		2.0	0.35	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluoropentanoic acid (PFPeA)	**2.3**		2.0	0.49	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluorohexanoic acid (PFHxA)	**1.9**	**J**	2.0	0.57	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluoroheptanoic acid (PFHpA)	**1.4**	**J**	2.0	0.25	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluorooctanoic acid (PFOA)	**8.5**		2.0	0.84	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluorononanoic acid (PFNA)	**0.82**	**J**	2.0	0.27	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluorodecanoic acid (PFDA)	**0.32**	**J**	2.0	0.31	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluorobutanesulfonic acid (PFBS)	**1.4**	**J**	2.0	0.20	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluorohexanesulfonic acid (PFHxS)	**0.73**	**J B**	2.0	0.17	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluorooctanesulfonic acid (PFOS)	**17**		2.0	0.53	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/06/18 08:27	11/07/18 10:58	1
Perfluorooctanesulfonamide (FOSA)	**0.47**	**J**	2.0	0.35	ng/L		11/06/18 08:27	11/07/18 10:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20	3.1	ng/L		11/06/18 08:27	11/07/18 10:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**5.5**	**J**	20	1.9	ng/L		11/06/18 08:27	11/07/18 10:58	1
6:2 FTS	ND		20	2.0	ng/L		11/06/18 08:27	11/07/18 10:58	1
8:2 FTS	ND		20	2.0	ng/L		11/06/18 08:27	11/07/18 10:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*54*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
13C5 PFPeA	*71*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
13C2 PFHxA	*78*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
13C4 PFHpA	*84*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
13C4 PFOA	*91*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
13C5 PFNA	*92*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
13C2 PFDA	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
13C2 PFUnA	*95*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
13C2 PFDoA	*92*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
13C2 PFTeDA	*80*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
13C3 PFBS	*70*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
18O2 PFHxS	*84*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
13C4 PFOS	*86*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
13C8 FOSA	*82*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
d3-NMeFOSAA	*99*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
d5-NEtFOSAA	*104*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
M2-6:2 FTS	*177*	*	*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*
M2-8:2 FTS	*137*		*25 - 150*	*11/06/18 08:27*	*11/07/18 10:58*	*1*

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

Client Sample ID: MK-WWTP-PFAS-01
Date Collected: 10/24/18 14:00
Date Received: 10/27/18 09:00

Lab Sample ID: 320-44591-4
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.0**	**J**	2.1	0.36	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluoropentanoic acid (PFPeA)	**3.3**		2.1	0.51	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluorohexanoic acid (PFHxA)	**4.1**		2.1	0.60	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluoroheptanoic acid (PFHpA)	**3.5**		2.1	0.26	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluorooctanoic acid (PFOA)	**11**		2.1	0.88	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluorononanoic acid (PFNA)	ND		2.1	0.28	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluorodecanoic acid (PFDA)	**0.38**	**J**	2.1	0.32	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluoroundecanoic acid (PFUnA)	ND		2.1	1.1	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluorododecanoic acid (PFDoA)	ND		2.1	0.57	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluorotridecanoic acid (PFTriA)	ND		2.1	1.3	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.1	0.30	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluorobutanesulfonic acid (PFBS)	**2.3**		2.1	0.21	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluorohexanesulfonic acid (PFHxS)	**0.76**	**J B**	2.1	0.18	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.1	0.20	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluorooctanesulfonic acid (PFOS)	**5.3**		2.1	0.56	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.1	0.33	ng/L		11/06/18 08:27	11/07/18 11:05	1
Perfluorooctanesulfonamide (FOSA)	ND		2.1	0.36	ng/L		11/06/18 08:27	11/07/18 11:05	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		21	3.2	ng/L		11/06/18 08:27	11/07/18 11:05	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		21	2.0	ng/L		11/06/18 08:27	11/07/18 11:05	1
6:2 FTS	ND		21	2.1	ng/L		11/06/18 08:27	11/07/18 11:05	1
8:2 FTS	ND		21	2.1	ng/L		11/06/18 08:27	11/07/18 11:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*82*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
13C5 PFPeA	*90*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
13C2 PFHxA	*90*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
13C4 PFHpA	*89*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
13C4 PFOA	*91*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
13C5 PFNA	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
13C2 PFDA	*86*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
13C2 PFUnA	*84*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
13C2 PFDoA	*81*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
13C2 PFTeDA	*77*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
13C3 PFBS	*82*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
18O2 PFHxS	*89*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
13C4 PFOS	*92*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
13C8 FOSA	*83*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
d3-NMeFOSAA	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
d5-NEtFOSAA	*90*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
M2-6:2 FTS	*99*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*
M2-8:2 FTS	*86*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:05*	*1*

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

Client Sample ID: MK-WWTP-PFAS-EQUIP BL
Date Collected: 10/24/18 12:55
Date Received: 10/27/18 09:00

Lab Sample ID: 320-44591-5
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.1	0.36	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluoropentanoic acid (PFPeA)	ND		2.1	0.50	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluorohexanoic acid (PFHxA)	ND		2.1	0.60	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluoroheptanoic acid (PFHpA)	ND		2.1	0.26	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluorooctanoic acid (PFOA)	ND		2.1	0.87	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluorononanoic acid (PFNA)	ND		2.1	0.28	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluorodecanoic acid (PFDA)	ND		2.1	0.32	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluoroundecanoic acid (PFUnA)	ND		2.1	1.1	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluorododecanoic acid (PFDoA)	ND		2.1	0.57	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluorotridecanoic acid (PFTriA)	ND		2.1	1.3	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.1	0.30	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.1	0.21	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluorohexanesulfonic acid (PFHxS)	**0.26**	**J B**	2.1	0.17	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.1	0.20	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.1	0.56	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.1	0.33	ng/L		11/06/18 08:27	11/07/18 11:13	1
Perfluorooctanesulfonamide (FOSA)	ND		2.1	0.36	ng/L		11/06/18 08:27	11/07/18 11:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		21	3.2	ng/L		11/06/18 08:27	11/07/18 11:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		21	2.0	ng/L		11/06/18 08:27	11/07/18 11:13	1
6:2 FTS	ND		21	2.1	ng/L		11/06/18 08:27	11/07/18 11:13	1
8:2 FTS	ND		21	2.1	ng/L		11/06/18 08:27	11/07/18 11:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*71*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
13C5 PFPeA	*84*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
13C2 PFHxA	*85*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
13C4 PFHpA	*87*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
13C4 PFOA	*94*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
13C5 PFNA	*86*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
13C2 PFDA	*83*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
13C2 PFUnA	*86*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
13C2 PFDoA	*81*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
13C2 PFTeDA	*79*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
13C3 PFBS	*85*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
18O2 PFHxS	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
13C4 PFOS	*87*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
13C8 FOSA	*81*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
d3-NMeFOSAA	*86*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
d5-NEtFOSAA	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
M2-6:2 FTS	*95*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*
M2-8:2 FTS	*89*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:13*	*1*

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

Client Sample ID: MK-WWTP-PFAS-FLD BL
Date Collected: 10/24/18 13:00
Date Received: 10/27/18 09:00

Lab Sample ID: 320-44591-6
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.35	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluorohexanesulfonic acid (PFHxS)	**0.27**	**J B**	2.0	0.17	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/06/18 08:27	11/07/18 11:20	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0	0.35	ng/L		11/06/18 08:27	11/07/18 11:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20	3.1	ng/L		11/06/18 08:27	11/07/18 11:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20	1.9	ng/L		11/06/18 08:27	11/07/18 11:20	1
6:2 FTS	ND		20	2.0	ng/L		11/06/18 08:27	11/07/18 11:20	1
8:2 FTS	ND		20	2.0	ng/L		11/06/18 08:27	11/07/18 11:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
13C5 PFPeA	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
13C2 PFHxA	*87*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
13C4 PFHpA	*91*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
13C4 PFOA	*91*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
13C5 PFNA	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
13C2 PFDA	*86*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
13C2 PFUnA	*86*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
13C2 PFDoA	*80*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
13C2 PFTeDA	*78*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
13C3 PFBS	*80*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
18O2 PFHxS	*91*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
13C4 PFOS	*90*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
13C8 FOSA	*82*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
d3-NMeFOSAA	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
d5-NEtFOSAA	*85*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
M2-6:2 FTS	*96*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*
M2-8:2 FTS	*87*		*25 - 150*	*11/06/18 08:27*	*11/07/18 11:20*	*1*

Isotope Dilution Summary

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	PFHpA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-44591-1	MK-WWTP-PFAS-05	70	79	81	92	90	87	89	86
320-44591-1 MS	MK-WWTP-PFAS-05	62	80	80	94	90	89	89	89
320-44591-1 MSD	MK-WWTP-PFAS-05	57	78	85	88	91	90	93	85
320-44591-2	MK-WWTP-PFAS-05-FD	67	78	81	88	90	84	85	85
320-44591-3	MK-WWTP-PFAS-04	54	71	78	84	91	92	88	95
320-44591-4	MK-WWTP-PFAS-01	82	90	90	89	91	88	86	84
320-44591-5	MK-WWTP-PFAS-EQUIP BL	71	84	85	87	94	86	83	86
320-44591-6	MK-WWTP-PFAS-FLD BL	96	88	87	91	91	88	86	86
LCS 320-257200/2-A	Lab Control Sample	85	87	87	91	93	91	91	88
LCSD 320-257200/3-A	Lab Control Sample Dup	87	89	90	94	94	88	89	90
MB 320-257200/1-A	Method Blank	86	90	89	92	92	88	86	88

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	3C3-PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	-NMeFOSA (25-150)	-NEtFOSA (25-150)
320-44591-1	MK-WWTP-PFAS-05	77	73	78	86	87	81	92	88
320-44591-1 MS	MK-WWTP-PFAS-05	79	70	76	85	89	79	89	91
320-44591-1 MSD	MK-WWTP-PFAS-05	79	70	75	89	86	79	93	91
320-44591-2	MK-WWTP-PFAS-05-FD	79	76	72	88	84	81	87	92
320-44591-3	MK-WWTP-PFAS-04	92	80	70	84	86	82	99	104
320-44591-4	MK-WWTP-PFAS-01	81	77	82	89	92	83	88	90
320-44591-5	MK-WWTP-PFAS-EQUIP BL	81	79	85	88	87	81	86	88
320-44591-6	MK-WWTP-PFAS-FLD BL	80	78	80	91	90	82	88	85
LCS 320-257200/2-A	Lab Control Sample	78	77	80	87	90	82	87	89
LCSD 320-257200/3-A	Lab Control Sample Dup	82	78	81	89	88	84	88	90
MB 320-257200/1-A	Method Blank	83	77	83	88	90	83	89	91

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)
320-44591-1	MK-WWTP-PFAS-05	103	91
320-44591-1 MS	MK-WWTP-PFAS-05	114	111
320-44591-1 MSD	MK-WWTP-PFAS-05	119	117
320-44591-2	MK-WWTP-PFAS-05-FD	109	99
320-44591-3	MK-WWTP-PFAS-04	177 *	137
320-44591-4	MK-WWTP-PFAS-01	99	86
320-44591-5	MK-WWTP-PFAS-EQUIP BL	95	89
320-44591-6	MK-WWTP-PFAS-FLD BL	96	87
LCS 320-257200/2-A	Lab Control Sample	84	78
LCSD 320-257200/3-A	Lab Control Sample Dup	87	79
MB 320-257200/1-A	Method Blank	87	77

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
PFHpA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA

Isotope Dilution Summary

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
13C3-PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3-NMeFOSAA = d3-NMeFOSAA
d5-NEtFOSAA = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-257200/1-A
Matrix: Water
Analysis Batch: 257459

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 257200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.35	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluorohexanesulfonic acid (PFHxS)	0.508	J	2.0	0.17	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/06/18 08:27	11/07/18 07:59	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0	0.35	ng/L		11/06/18 08:27	11/07/18 07:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20	3.1	ng/L		11/06/18 08:27	11/07/18 07:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20	1.9	ng/L		11/06/18 08:27	11/07/18 07:59	1
6:2 FTS	ND		20	2.0	ng/L		11/06/18 08:27	11/07/18 07:59	1
8:2 FTS	ND		20	2.0	ng/L		11/06/18 08:27	11/07/18 07:59	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*86*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
13C5 PFPeA	*90*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
13C2 PFHxA	*89*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
13C4 PFHpA	*92*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
13C4 PFOA	*92*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
13C5 PFNA	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
13C2 PFDA	*86*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
13C2 PFUnA	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
13C2 PFDoA	*83*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
13C2 PFTeDA	*77*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
13C3 PFBS	*83*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
18O2 PFHxS	*88*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
13C4 PFOS	*90*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
13C8 FOSA	*83*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
d3-NMeFOSAA	*89*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
d5-NEtFOSAA	*91*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
M2-6:2 FTS	*87*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*
M2-8:2 FTS	*77*		*25 - 150*	*11/06/18 08:27*	*11/07/18 07:59*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-257200/2-A
Matrix: Water
Analysis Batch: 257459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 257200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	38.3		ng/L		96	70 - 130
Perfluoropentanoic acid (PFPeA)	40.0	38.0		ng/L		95	66 - 126
Perfluorohexanoic acid (PFHxA)	40.0	38.7		ng/L		97	66 - 126
Perfluoroheptanoic acid (PFHpA)	40.0	37.3		ng/L		93	66 - 126
Perfluorooctanoic acid (PFOA)	40.0	38.2		ng/L		95	64 - 124
Perfluorononanoic acid (PFNA)	40.0	36.9		ng/L		92	68 - 128
Perfluorodecanoic acid (PFDA)	40.0	36.8		ng/L		92	69 - 129
Perfluoroundecanoic acid (PFUnA)	40.0	43.1		ng/L		108	60 - 120
Perfluorododecanoic acid (PFDoA)	40.0	37.1		ng/L		93	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	39.8		ng/L		99	72 - 132
Perfluorotetradecanoic acid (PFTeA)	40.0	33.8		ng/L		84	68 - 128
Perfluorobutanesulfonic acid (PFBS)	35.4	36.8		ng/L		104	73 - 133
Perfluorohexanesulfonic acid (PFHxS)	36.4	31.4		ng/L		86	63 - 123
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.1		ng/L		100	68 - 128
Perfluorooctanesulfonic acid (PFOS)	37.1	33.7		ng/L		91	67 - 127
Perfluorodecanesulfonic acid (PFDS)	38.6	34.7		ng/L		90	68 - 128
Perfluorooctanesulfonamide (FOSA)	40.0	38.2		ng/L		95	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.9		ng/L		100	67 - 127
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	39.7		ng/L		99	65 - 125
6:2 FTS	37.9	36.1		ng/L		95	66 - 126
8:2 FTS	38.3	37.3		ng/L		97	67 - 127

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*85*		*25 - 150*
13C5 PFPeA	*87*		*25 - 150*
13C2 PFHxA	*87*		*25 - 150*
13C4 PFHpA	*91*		*25 - 150*
13C4 PFOA	*93*		*25 - 150*
13C5 PFNA	*91*		*25 - 150*
13C2 PFDA	*91*		*25 - 150*
13C2 PFUnA	*88*		*25 - 150*
13C2 PFDoA	*78*		*25 - 150*
13C2 PFTeDA	*77*		*25 - 150*
13C3 PFBS	*80*		*25 - 150*
18O2 PFHxS	*87*		*25 - 150*
13C4 PFOS	*90*		*25 - 150*
13C8 FOSA	*82*		*25 - 150*
d3-NMeFOSAA	*87*		*25 - 150*
d5-NEtFOSAA	*89*		*25 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-257200/2-A
Matrix: Water
Analysis Batch: 257459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 257200

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	84		25 - 150
M2-8:2 FTS	78		25 - 150

Lab Sample ID: LCSD 320-257200/3-A
Matrix: Water
Analysis Batch: 257459

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 257200

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	38.3		ng/L		96	70 - 130	0	30
Perfluoropentanoic acid (PFPeA)			40.0	39.2		ng/L		98	66 - 126	3	30
Perfluorohexanoic acid (PFHxA)			40.0	37.4		ng/L		93	66 - 126	4	30
Perfluoroheptanoic acid (PFHpA)			40.0	37.2		ng/L		93	66 - 126	0	30
Perfluorooctanoic acid (PFOA)			40.0	38.9		ng/L		97	64 - 124	2	30
Perfluorononanoic acid (PFNA)			40.0	40.0		ng/L		100	68 - 128	8	30
Perfluorodecanoic acid (PFDA)			40.0	38.1		ng/L		95	69 - 129	3	30
Perfluoroundecanoic acid (PFUnA)			40.0	43.9		ng/L		110	60 - 120	2	30
Perfluorododecanoic acid (PFDoA)			40.0	36.5		ng/L		91	71 - 131	2	30
Perfluorotridecanoic acid (PFTriA)			40.0	38.2		ng/L		95	72 - 132	4	30
Perfluorotetradecanoic acid (PFTeA)			40.0	36.4		ng/L		91	68 - 128	8	30
Perfluorobutanesulfonic acid (PFBS)			35.4	35.8		ng/L		101	73 - 133	3	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	30.8		ng/L		85	63 - 123	2	30
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	41.1		ng/L		108	68 - 128	8	30
Perfluorooctanesulfonic acid (PFOS)			37.1	34.1		ng/L		92	67 - 127	1	30
Perfluorodecanesulfonic acid (PFDS)			38.6	37.6		ng/L		98	68 - 128	8	30
Perfluorooctanesulfonamide (FOSA)			40.0	39.0		ng/L		98	70 - 130	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			40.0	39.4		ng/L		99	67 - 127	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			40.0	39.9		ng/L		100	65 - 125	0	30
6:2 FTS			37.9	34.9		ng/L		92	66 - 126	3	30
8:2 FTS			38.3	38.1		ng/L		99	67 - 127	2	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	87		25 - 150
13C5 PFPeA	89		25 - 150
13C2 PFHxA	90		25 - 150
13C4 PFHpA	94		25 - 150
13C4 PFOA	94		25 - 150
13C5 PFNA	88		25 - 150
13C2 PFDA	89		25 - 150
13C2 PFUnA	90		25 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-257200/3-A
Matrix: Water
Analysis Batch: 257459

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 257200

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2 PFDoA	*82*		*25 - 150*
13C2 PFTeDA	*78*		*25 - 150*
13C3 PFBS	*81*		*25 - 150*
18O2 PFHxS	*89*		*25 - 150*
13C4 PFOS	*88*		*25 - 150*
13C8 FOSA	*84*		*25 - 150*
d3-NMeFOSAA	*88*		*25 - 150*
d5-NEtFOSAA	*90*		*25 - 150*
M2-6:2 FTS	*87*		*25 - 150*
M2-8:2 FTS	*79*		*25 - 150*

Lab Sample ID: 320-44591-1 MS
Matrix: Water
Analysis Batch: 257459

Client Sample ID: MK-WWTP-PFAS-05
Prep Type: Total/NA
Prep Batch: 257200

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	7.8		41.0	46.1		ng/L		94	70 - 130
Perfluoropentanoic acid (PFPeA)	3.2		41.0	40.3		ng/L		90	66 - 126
Perfluorohexanoic acid (PFHxA)	3.4		41.0	46.0		ng/L		104	66 - 126
Perfluoroheptanoic acid (PFHpA)	3.2		41.0	37.4		ng/L		83	66 - 126
Perfluorooctanoic acid (PFOA)	18		41.0	57.8		ng/L		96	64 - 124
Perfluorononanoic acid (PFNA)	0.96	J	41.0	40.6		ng/L		97	68 - 128
Perfluorodecanoic acid (PFDA)	0.44	J	41.0	40.6		ng/L		98	69 - 129
Perfluoroundecanoic acid (PFUnA)	ND		41.0	40.3		ng/L		98	60 - 120
Perfluorododecanoic acid (PFDoA)	ND		41.0	37.4		ng/L		91	71 - 131
Perfluorotridecanoic acid (PFTriA)	ND		41.0	39.6		ng/L		96	72 - 132
Perfluorotetradecanoic acid (PFTeA)	ND		41.0	37.1		ng/L		90	68 - 128
Perfluorobutanesulfonic acid (PFBS)	3.4		36.3	40.6		ng/L		103	73 - 133
Perfluorohexanesulfonic acid (PFHxS)	2.3	B	37.3	36.0		ng/L		90	63 - 123
Perfluoroheptanesulfonic Acid (PFHpS)	ND		39.0	39.1		ng/L		100	68 - 128
Perfluorooctanesulfonic acid (PFOS)	16		38.1	49.3		ng/L		86	67 - 127
Perfluorodecanesulfonic acid (PFDS)	ND		39.5	36.0		ng/L		91	68 - 128
Perfluorooctanesulfonamide (FOSA)	ND		41.0	39.4		ng/L		96	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		41.0	41.9		ng/L		102	67 - 127
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		41.0	40.1		ng/L		98	65 - 125
6:2 FTS	ND		38.9	36.4		ng/L		94	66 - 126
8:2 FTS	ND		39.3	37.2		ng/L		95	67 - 127

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C4 PFBA	62		25 - 150
13C5 PFPeA	80		25 - 150
13C2 PFHxA	80		25 - 150
13C4 PFHpA	94		25 - 150
13C4 PFOA	90		25 - 150
13C5 PFNA	89		25 - 150
13C2 PFDA	89		25 - 150
13C2 PFUnA	89		25 - 150
13C2 PFDoA	79		25 - 150
13C2 PFTeDA	70		25 - 150
13C3 PFBS	76		25 - 150
18O2 PFHxS	85		25 - 150
13C4 PFOS	89		25 - 150
13C8 FOSA	79		25 - 150
d3-NMeFOSAA	89		25 - 150
d5-NEtFOSAA	91		25 - 150
M2-6:2 FTS	114		25 - 150
M2-8:2 FTS	111		25 - 150

Lab Sample ID: 320-44591-1 MSD
Matrix: Water
Analysis Batch: 257459

Client Sample ID: MK-WWTP-PFAS-05
Prep Type: Total/NA
Prep Batch: 257200

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	7.8		40.1	46.5		ng/L		96	70 - 130	1	30
Perfluoropentanoic acid (PFPeA)	3.2		40.1	41.4		ng/L		95	66 - 126	3	30
Perfluorohexanoic acid (PFHxA)	3.4		40.1	39.8		ng/L		91	66 - 126	15	30
Perfluoroheptanoic acid (PFHpA)	3.2		40.1	42.3		ng/L		97	66 - 126	12	30
Perfluorooctanoic acid (PFOA)	18		40.1	56.3		ng/L		94	64 - 124	3	30
Perfluorononanoic acid (PFNA)	0.96	J	40.1	39.5		ng/L		96	68 - 128	3	30
Perfluorodecanoic acid (PFDA)	0.44	J	40.1	38.0		ng/L		94	69 - 129	7	30
Perfluoroundecanoic acid (PFUnA)	ND		40.1	43.0		ng/L		107	60 - 120	6	30
Perfluorododecanoic acid (PFDoA)	ND		40.1	37.0		ng/L		92	71 - 131	1	30
Perfluorotridecanoic acid (PFTriA)	ND		40.1	38.6		ng/L		96	72 - 132	2	30
Perfluorotetradecanoic acid (PFTeA)	ND		40.1	38.7		ng/L		96	68 - 128	4	30
Perfluorobutanesulfonic acid (PFBS)	3.4		35.5	40.7		ng/L		105	73 - 133	0	30
Perfluorohexanesulfonic acid (PFHxS)	2.3	B	36.5	32.8		ng/L		84	63 - 123	9	30
Perfluoroheptanesulfonic Acid (PFHpS)	ND		38.2	39.7		ng/L		104	68 - 128	1	30
Perfluorooctanesulfonic acid (PFOS)	16		37.2	52.1		ng/L		96	67 - 127	5	30
Perfluorodecanesulfonic acid (PFDS)	ND		38.7	36.0		ng/L		93	68 - 128	0	30
Perfluorooctanesulfonamide (FOSA)	ND		40.1	38.9		ng/L		97	70 - 130	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		40.1	40.1		ng/L		100	67 - 127	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		40.1	40.9		ng/L		102	65 - 125	2	30
6:2 FTS	ND		38.0	34.6		ng/L		91	66 - 126	5	30
8:2 FTS	ND		38.4	38.6		ng/L		100	67 - 127	4	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFBA	57		25 - 150
13C5 PFPeA	78		25 - 150
13C2 PFHxA	85		25 - 150
13C4 PFHpA	88		25 - 150
13C4 PFOA	91		25 - 150
13C5 PFNA	90		25 - 150
13C2 PFDA	93		25 - 150
13C2 PFUnA	85		25 - 150
13C2 PFDoA	79		25 - 150
13C2 PFTeDA	70		25 - 150
13C3 PFBS	75		25 - 150
18O2 PFHxS	89		25 - 150
13C4 PFOS	86		25 - 150
13C8 FOSA	79		25 - 150
d3-NMeFOSAA	93		25 - 150
d5-NEtFOSAA	91		25 - 150
M2-6:2 FTS	119		25 - 150
M2-8:2 FTS	117		25 - 150

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

LCMS

Prep Batch: 257200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-44591-1	MK-WWTP-PFAS-05	Total/NA	Water	3535	
320-44591-2	MK-WWTP-PFAS-05-FD	Total/NA	Water	3535	
320-44591-3	MK-WWTP-PFAS-04	Total/NA	Water	3535	
320-44591-4	MK-WWTP-PFAS-01	Total/NA	Water	3535	
320-44591-5	MK-WWTP-PFAS-EQUIP BL	Total/NA	Water	3535	
320-44591-6	MK-WWTP-PFAS-FLD BL	Total/NA	Water	3535	
MB 320-257200/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-257200/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-257200/3-A	Lab Control Sample Dup	Total/NA	Water	3535	
320-44591-1 MS	MK-WWTP-PFAS-05	Total/NA	Water	3535	
320-44591-1 MSD	MK-WWTP-PFAS-05	Total/NA	Water	3535	

Analysis Batch: 257459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-44591-1	MK-WWTP-PFAS-05	Total/NA	Water	537 (modified)	257200
320-44591-2	MK-WWTP-PFAS-05-FD	Total/NA	Water	537 (modified)	257200
320-44591-3	MK-WWTP-PFAS-04	Total/NA	Water	537 (modified)	257200
320-44591-4	MK-WWTP-PFAS-01	Total/NA	Water	537 (modified)	257200
320-44591-5	MK-WWTP-PFAS-EQUIP BL	Total/NA	Water	537 (modified)	257200
320-44591-6	MK-WWTP-PFAS-FLD BL	Total/NA	Water	537 (modified)	257200
MB 320-257200/1-A	Method Blank	Total/NA	Water	537 (modified)	257200
LCS 320-257200/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	257200
LCSD 320-257200/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	257200
320-44591-1 MS	MK-WWTP-PFAS-05	Total/NA	Water	537 (modified)	257200
320-44591-1 MSD	MK-WWTP-PFAS-05	Total/NA	Water	537 (modified)	257200

Client Sample ID: MK-WWTP-PFAS-05
Lab Sample ID: 320-44591-1
Date Collected: 10/24/18 11:00
Matrix: Water
Date Received: 10/27/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			250.1 mL	10.00 mL	257200	11/06/18 08:27	MYV	TAL SAC
Total/NA	Analysis	537 (modified)		1			257459	11/07/18 10:21	S1M	TAL SAC

Client Sample ID: MK-WWTP-PFAS-05-FD
Lab Sample ID: 320-44591-2
Date Collected: 10/24/18 11:00
Matrix: Water
Date Received: 10/27/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			241.1 mL	10.00 mL	257200	11/06/18 08:27	MYV	TAL SAC
Total/NA	Analysis	537 (modified)		1			257459	11/07/18 10:50	S1M	TAL SAC

Client Sample ID: MK-WWTP-PFAS-04
Lab Sample ID: 320-44591-3
Date Collected: 10/24/18 13:25
Matrix: Water
Date Received: 10/27/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			252.5 mL	10.00 mL	257200	11/06/18 08:27	MYV	TAL SAC
Total/NA	Analysis	537 (modified)		1			257459	11/07/18 10:58	S1M	TAL SAC

Client Sample ID: MK-WWTP-PFAS-01
Lab Sample ID: 320-44591-4
Date Collected: 10/24/18 14:00
Matrix: Water
Date Received: 10/27/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			242.1 mL	10.00 mL	257200	11/06/18 08:27	MYV	TAL SAC
Total/NA	Analysis	537 (modified)		1			257459	11/07/18 11:05	S1M	TAL SAC

Client Sample ID: MK-WWTP-PFAS-EQUIP BL
Lab Sample ID: 320-44591-5
Date Collected: 10/24/18 12:55
Matrix: Water
Date Received: 10/27/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			243.2 mL	10.00 mL	257200	11/06/18 08:27	MYV	TAL SAC
Total/NA	Analysis	537 (modified)		1			257459	11/07/18 11:13	S1M	TAL SAC

Client Sample ID: MK-WWTP-PFAS-FLD BL
Lab Sample ID: 320-44591-6
Date Collected: 10/24/18 13:00
Matrix: Water
Date Received: 10/27/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			249.9 mL	10.00 mL	257200	11/06/18 08:27	MYV	TAL SAC
Total/NA	Analysis	537 (modified)		1			257459	11/07/18 11:20	S1M	TAL SAC

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

Laboratory: TestAmerica Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11666	03-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	6:2 FTS
537 (modified)	3535	Water	8:2 FTS
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: Pace PFAS Testing

TestAmerica Job ID: 320-44591-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-44591-1	MK-WWTP-PFAS-05	Water	10/24/18 11:00	10/27/18 09:00
320-44591-2	MK-WWTP-PFAS-05-FD	Water	10/24/18 11:00	10/27/18 09:00
320-44591-3	MK-WWTP-PFAS-04	Water	10/24/18 13:25	10/27/18 09:00
320-44591-4	MK-WWTP-PFAS-01	Water	10/24/18 14:00	10/27/18 09:00
320-44591-5	MK-WWTP-PFAS-EQUIP BL	Water	10/24/18 12:55	10/27/18 09:00
320-44591-6	MK-WWTP-PFAS-FLD BL	Water	10/24/18 13:00	10/27/18 09:00

Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 7069129 Workorder Name: FORMER MT KISCO WW TREAT.10/24 Results Requested By: 11/15/2018

Report / Invoice To	Subcontract To
Danielle Williams Pace Analytical Melville 575 Broad Hollow Road Melville, NY 11747 Phone (631)694-3040 Email: danielle.williams@pacelabs.com	Test America Sacramento P.O. 7069129DW1

State of Sample Origin: NY

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Subbed - PFAs	Requested Analysis	LAB USE ONLY
1	MK-WWTP-PFAS-05	10/24/2018 11:00	7069129001	Water	6	X		MS/MSD
2	MK-WWTP-PFAS-05-FD	10/24/2018 11:00	7069129002	Water	2	X		
3	MK-WWTP-PFAS-04	10/24/2018 13:25	7069129005	Water	2	X		
4	MK-WWTP-PFAS-01	10/24/2018 14:00	7069129007	Water	2	X		
5	MK-WWTP-PFAS-EQUIP BL	10/24/2018 12:55	7069129009	Water	2	X		
6	MK-WWTP-PFAS-FLD BL	10/24/2018 13:00	7069129011	Water	2	X		

320-44591 Chain of Custody

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	10/26/18 10:40	[signature]	10/27/18 9:00 am
2				
3				

Comments: 2.1°C

Cooler Temperature on Receipt 2.1 °C | Custody Seal Y or (N) | Received on Ice (Y) or N | Samples Intact (Y) or N

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 320-44591-1

Login Number: 44591
List Number: 1
Creator: Her, David A

List Source: TestAmerica Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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 containers received 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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

November 27, 2018

Daniel Sheldon
The LiRo Group
690 Deleware Avenue
Buffalo, NY 14209

RE: Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Dear Daniel Sheldon:
Enclosed are the analytical results for sample(s) received by the laboratory on October 24, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Danielle Williams
danielle.williams@pacelabs.com
(631)694-3040
Project Manager

Enclosures

cc: Martha DeLozier, The LiRo Group
Steve Frank, 690 Deleware Avenue
Craig Taylor, The Lro Group

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

SAMPLE ANALYTE COUNT

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
7069130001	**MK-WWTP-RAD226-05-FILT**	EPA 903.1	MK1	1	PASI-PA
7069130002	**MK-WWTP-RAD226-05-FD**	EPA 903.1	MK1	1	PASI-PA
7069130003	**MK-WWTP-RAD226-05 UNFILT**	EPA 903.1	MK1	1	PASI-PA
7069130004	**MK-WWTP-RAD226-05 FD**	EPA 903.1	MK1	1	PASI-PA
7069130005	**MK-WWTP-RAD228-05 FILT**	EPA 904.0	JLW	1	PASI-PA
7069130006	**MK-WWTP-RAD228-05-FD**	EPA 904.0	JLW	1	PASI-PA
7069130007	**MK-WWTP-RAD228-05 UNFILT**	EPA 904.0	JLW	1	PASI-PA
7069130008	**MK-WWTP-RAD228-05 FD**	EPA 904.0	JLW	1	PASI-PA
7069130010	**MK-WWTP-RAD226-04-UNFILT**	EPA 903.1	MK1	1	PASI-PA
7069130011	**MK-WWTP-RAD228-04 FILT**	EPA 904.0	JLW	1	PASI-PA
7069130012	**MK-WWTP-RAD228-04 UNFILT**	EPA 904.0	JLW	1	PASI-PA
7069130014	**MK-WWTP-RAD226-05-FILT MSD**	EPA 903.1	MK1	1	PASI-PA
7069130015	**MK-WWTP-RAD226-05 UNFILT MS**	EPA 903.1	MK1	1	PASI-PA
7069130016	**MK-WWTP-RAD226-05 UNFILT MSD**	EPA 903.1	MK1	1	PASI-PA
7069130017	**MK-WWTP-RAD228-05 FILT MS**	EPA 904.0	JLW	1	PASI-PA
7069130018	**MK-WWTP-RAD228-05 FILT MSD**	EPA 904.0	JLW	1	PASI-PA
7069130019	**MK-WWTP-RAD228-05 UNFILT MS**	EPA 904.0	JLW	1	PASI-PA
7069130020	**MK-WWTP-RAD228-05 UNFILT MSD**	EPA 904.0	JLW	1	PASI-PA

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD226-05-FILT **Lab ID: 7069130001** Collected: 10/24/18 11:30 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.949 ± 0.783 (1.13) C:NA T:89%**	pCi/L	11/19/18 22:12	13982-63-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD226-05-FD **Lab ID: 7069130002** Collected: 10/24/18 11:30 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.316 ± 0.491 (0.850) C:NA T:87%**	pCi/L	11/19/18 22:12	13982-63-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD226-05 UNFILT **Lab ID: 7069130003** Collected: 10/24/18 11:30 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.314 ± 0.616 (1.11) C:NA T:95%**	pCi/L	11/19/18 22:12	13982-63-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD226-05 FD **Lab ID: 7069130004** Collected: 10/24/18 11:30 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**1.02 ± 0.647 (0.813) C:NA T:101%**	pCi/L	11/19/18 22:12	13982-63-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD228-05 FILT **Lab ID: 7069130005** Collected: 10/24/18 11:30 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-228	EPA 904.0	**0.370 ± 0.644 (1.40) C:66% T:86%**	pCi/L	11/19/18 16:39	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD228-05-FD **Lab ID: 7069130006** Collected: 10/24/18 11:30 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-228	EPA 904.0	**0.696 ± 0.424 (0.789) C:74% T:89%**	pCi/L	11/19/18 16:39	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD228-05 UNFILT **Lab ID: 7069130007** Collected: 10/24/18 11:30 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-228	EPA 904.0	**0.548 ± 0.496 (1.00) C:72% T:90%**	pCi/L	11/19/18 16:39	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD228-05 FD **Lab ID: 7069130008** Collected: 10/24/18 11:30 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-228	EPA 904.0	**0.645 ± 0.441 (0.840) C:73% T:83%**	pCi/L	11/19/18 16:39	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD226-04-UNFILT **Lab ID: 7069130010** Collected: 10/24/18 13:50 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.242 ± 0.570 (1.06) C:NA T:90%**	pCi/L	11/19/18 22:12	13982-63-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD228-04 FILT **Lab ID: 7069130011** Collected: 10/24/18 13:50 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-228	EPA 904.0	**0.257 ± 0.722 (1.62) C:67% T:87%**	pCi/L	11/19/18 21:06	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD228-04 UNFILT **Lab ID: 7069130012** Collected: 10/24/18 13:50 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-228	EPA 904.0	**-0.537 ± 0.600 (1.52) C:68% T:86%**	pCi/L	11/19/18 21:06	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD226-05-FILT MSD **Lab ID: 7069130014** Collected: 10/24/18 11:00 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.549 ± 0.675 (1.10) C:NA T:88%**	pCi/L	11/19/18 22:12	13982-63-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD226-05 UNFILT MS **Lab ID: 7069130015** Collected: 10/24/18 11:00 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**94.21 %REC ± NA (NA) C:NA T:NA**	pCi/L	11/19/18 22:25	13982-63-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD226-05 UNFILT MSD **Lab ID: 7069130016** Collected: 10/24/18 11:00 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**87.72 %REC 7.14 RPD ± NA (NA) C:NA T:NA**	pCi/L	11/19/18 22:25	13982-63-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD228-05 FILT MS **Lab ID: 7069130017** Collected: 10/24/18 11:00 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-228	EPA 904.0	**69.85 %REC ± NA (NA) C:NA T:NA**	pCi/L	11/19/18 21:07	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD228-05 FILT MSD **Lab ID: 7069130018** Collected: 10/24/18 11:00 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-228	EPA 904.0	**76.87 %REC 9.57 RPD ± NA (NA) C:NA T:NA**	pCi/L	11/19/18 21:07	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD228-05 UNFILT MS **Lab ID: 7069130019** Collected: 10/24/18 11:00 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-228	EPA 904.0	**70.28 %REC ± NA (NA) C:NA T:NA**	pCi/L	11/19/18 21:07	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Sample: MK-WWTP-RAD228-05 UNFILT MSD **Lab ID: 7069130020** Collected: 10/24/18 11:00 Received: 10/24/18 18:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-228	EPA 904.0	**80.87 %REC 14.01 RPD ± NA (NA) C:NA T:NA**	pCi/L	11/19/18 21:08	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

QC Batch: 320616 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 7069130001, 7069130002, 7069130003, 7069130004, 7069130010, 7069130014, 7069130015, 7069130016

METHOD BLANK: 1563707 Matrix: Water
Associated Lab Samples: 7069130001, 7069130002, 7069130003, 7069130004, 7069130010, 7069130014, 7069130015, 7069130016

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0820 ± 0.374 (0.761) C:NA T:92%	pCi/L	11/19/18 21:57	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL - RADIOCHEMISTRY

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

QC Batch: 320618 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 7069130005, 7069130006, 7069130007, 7069130008, 7069130011, 7069130012, 7069130017, 7069130018, 7069130019, 7069130020

METHOD BLANK: 1563709 Matrix: Water
Associated Lab Samples: 7069130005, 7069130006, 7069130007, 7069130008, 7069130011, 7069130012, 7069130017, 7069130018, 7069130019, 7069130020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.557 ± 0.326 (0.584) C:74% T:96%	pCi/L	11/19/18 16:38	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

WORKORDER QUALIFIERS

WO: 7069130

[1] The MS for Sample 7069130013 could not be analyzed due to a login error and low volume.

[2] Sample 7069130009 was not received for analyses.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORMER MT KISCO WW TREAT.10/24
Pace Project No.: 7069130

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7069130001	**MK-WWTP-RAD226-05-FILT**	EPA 903.1	320616		
7069130002	**MK-WWTP-RAD226-05-FD**	EPA 903.1	320616		
7069130003	**MK-WWTP-RAD226-05 UNFILT**	EPA 903.1	320616		
7069130004	**MK-WWTP-RAD226-05 FD**	EPA 903.1	320616		
7069130010	**MK-WWTP-RAD226-04-UNFILT**	EPA 903.1	320616		
7069130014	**MK-WWTP-RAD226-05-FILT MSD**	EPA 903.1	320616		
7069130015	**MK-WWTP-RAD226-05 UNFILT MS**	EPA 903.1	320616		
7069130016	**MK-WWTP-RAD226-05 UNFILT MSD**	EPA 903.1	320616		
7069130005	**MK-WWTP-RAD228-05 FILT**	EPA 904.0	320618		
7069130006	**MK-WWTP-RAD228-05-FD**	EPA 904.0	320618		
7069130007	**MK-WWTP-RAD228-05 UNFILT**	EPA 904.0	320618		
7069130008	**MK-WWTP-RAD228-05 FD**	EPA 904.0	320618		
7069130011	**MK-WWTP-RAD228-04 FILT**	EPA 904.0	320618		
7069130012	**MK-WWTP-RAD228-04 UNFILT**	EPA 904.0	320618		
7069130017	**MK-WWTP-RAD228-05 FILT MS**	EPA 904.0	320618		
7069130018	**MK-WWTP-RAD228-05 FILT MSD**	EPA 904.0	320618		
7069130019	**MK-WWTP-RAD228-05 UNFILT MS**	EPA 904.0	320618		
7069130020	**MK-WWTP-RAD228-05 UNFILT MSD**	EPA 904.0	320618		

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be co

WO#:7069130

7069130

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: LiRO ENGINEERS	Report To: SAME	Attention: SAME
Address: 690 DELAWARE AVE BUFFALO, NY 14209	Copy To:	Company Name:
Email To: PRZBYLB@liro.com	Purchase Order No.:	Address:
Phone: 716 882 5476 Fax:	Project Name:	Pace Quote Reference:
Requested Due Date/TAT:	Project Number:	Pace Project Manager:
		Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NY

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes — MATRIX / CODE
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): RADIUM 226	RADIUM 228	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MK-WWTP-RAD 226-05-FILT	WT	10/24/18	11:00		11:30					X							X			001
2	-FD	FILT																X			002
3	-MS	FILT																X			001
4	MK-WWTP-RAD226-05	UNFILTERED																X			003
5	-FD																	X			004
6	-MS																	X			003
7	MK-WWTP-RAD228-05	FILT																	X		003
8	-FD	FILT																	X		006
9	-MS	FILT																	X		005
10	MK-WWTP-RAD228-05	UNFILT																	X		007
11	FD																		X		008
12	MS																		X		001

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
		10/24/18	3:15	Pace	10/24/18	3:15	
	LIRO	10/24/18	6PM		10/24/18	1800	5.0 Y N Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: SCOTT SWANSON

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/24/18

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
5.0	Y	N	Y

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-C-010-rev.00, 09Nov2017

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Reques

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be c

WO#: 7069130

PM: DW1 Due Date: 11/15/18
CLIENT: LIRO-B

Section A Required Client Information:

Company:	LIRO ENGINEERS
Address:	680 DELAWARE AVE BUFFALO NY 14209
Email To:	PRZBYLS@LIRO.COM
Phone:	716-882-5476
Fax:	
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	SAME
Copy To:	
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	SAME
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

22OCT21

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: RADIUM 226	RADIUM 228	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MK-WWTP RAD226-04-FILT	WT		10/24/18	13:25		13:50		2			X					X	X			009
2	MK-WWTP RAD226-04-UNFILT																X	X			010
3	MK-WWTP-RAD228-04FILT.																X		X		011
4	MK-WWTP-RAD228-04-UNFILT.																X		X		012
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ICE

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature] / LIRO	10/24/18	3:15	[signature] Pace	10/24/18	3:15	
	[signature] / Pace	10/24/18	6pm	[signature]	10/25/18	18:00	5.0 4 N Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: SCOTT SWANSON

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/24/18

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
5.0	4	N	Y

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical
Long Island Laboratory

Sample Condition Upon Receipt

WO#: 7069130
PM: DW1 Due Date: 11/15/18
CLIENT: LIRO-B

Client Name: LIRO

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No **Seals intact:** ☐ Yes ☐ No

Temperature Blank Present: ☐ Yes ☑ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ Ziploc ☑ None ☐ Other

Type of Ice: Wet Blue None

Thermometer Used: TH091 **Correction Factor:** 0.0

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 5.0 **Cooler Temperature Corrected (°C):** 5.0

Date/Time 5035A kits placed in freezer _____

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☑ N/A, water sample)

Date and Initials of person examining contents: JK 10/24/18

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples orignate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑Yes	☐No		1.
Chain of Custody Filled Out:	☑Yes	☐No		2.
Chain of Custody Relinquished:	☑Yes	☐No		3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No		6.
Rush Turn Around Time Requested:	☐Yes	☑No		7.
Sufficient Volume: (Triple volume provided for MS/MSD	☑Yes	☐No		8.
Correct Containers Used:	☑Yes	☐No		9.
-Pace Containers Used:	☑Yes	☐No		
Containers Intact:	☑Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	☑Yes	☐No		12.
-Includes date/time/ID/Analysis Matrix SL WT OIL				
All containers needing preservation have been checked	☐Yes	☐No	☑N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot #				
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	☐Yes	☐No	☑N/A	Sample #
				Initial when completed: / Lot # of added preservative: / Date/Time preservative added:
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
KI starch test strips Lot #				
Residual chlorine strips Lot #				Positive for Res. Chlorine? Y N
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

* PM (Project Manager) review is documented electronically in LIMS.

F-LI-C-002-rev.02

ATTACHMENT C

List of References

Groundwater Sampling for Emerging Contaminants, New York State Department of Environmental Conservation (DEC), dated April 2018.

LiRo, Work Plan for Site Investigation for Radiological Impacts Former Mt. Kisco Wastewater Treatment Site Morgan Drive Mt. Kisco, Westchester County, New York, dated April 23, 2018.

Great Lakes Environmental & Safety Consultants, Inc. (GLESC), Groundwater Sampling, 6 Morgan Drive, Mt Kisco, NY, dated May 2018

CoPhysics Corporation (CoPhysics) Initial Site Visit Radiological Survey at the Former Mt. Kisco Wastewater Treatment Site Morgan Drive Mt. Kisco, Westchester County, New York, dated November 6, 2018.

Mt. Kisco WWTP Radiological Characterization Report

August, 2019

Prepared for:

New York City Department of Environmental Protection
465 Columbus Avenue
Valhalla, New York 10595

and

LiRo Engineers, Inc.
3 Aerial Way
Syosset, New York 11791

Prepared by:

CoPhysics Corporation
1 Commercial Drive, Unit 1,
Florida, NY 10921

TABLE OF CONTENTS

LIST OF ATTACHMENTS

LIST OF APPENDICES

1. INTRODUCTION

1.1. PURPOSE

A radiological characterization survey of the former Mt. Kisco Wastewater Treatment Plant (WWTP) was performed on various days from October 22, 2018 to June 5, 2019. The survey consisted of overland gamma radiation measurements and surface soil sampling of selected locations based on the magnitude of gamma radiation levels found. The survey was performed pursuant to Contract DEL-378CR on behalf of the New York City Department of Environmental Protection (DEP). The purpose of the investigation was to estimate the magnitude and areal extent of radium-contaminated soil on the property.

1.2. OVERVIEW

An overland, GPS-based gamma scan of the site was the main method of delineating the areal extent of radium soil contamination. Soil sampling with subsequent radioanalysis was also used to quantify the magnitude of radium concentrations existing at the site.

The "Initial Site Visit Work Plan for Radiological Impacts" located in Appendix A contains additional information regarding site preparation performed before this survey was conducted. Such preparation included brush cutting and fence installation with radiation safety support, and an initial scoping survey of the access road and "dogleg" portion of the property.

2. SCOPE AND DESCRIPTION OF CHARACTERIZATION

2.1. GENERAL AREA DESCRIPTION

The former Mt. Kisco Wastewater Treatment Plant (WWTP) is located on Morgan Drive in Mt. Kisco, NY. The Site, as defined by the September 2018 NYSDEC Order on Consent Order Index No. CO 3-20180709-131 is comprised of five deeded parcels and is approximately 21 acres in size (NYSDEC, 2018). From 1913 until 1964, the WWTP received sewage from the Village of Mt. Kisco including the Canadian Uranium and Radium Corporation facility located about 3 miles north of the plant. Three of the five parcels are undeveloped with one of the parcels still housing former WWTP structures as well as former drying beds and ponds. Two of the five parcels are developed and have active businesses (Frito-Lay and the US Post Office). Of these, only the Post Office parcel was surveyed during this project due to the lack of permission from the property owner to survey the Frito-Lay property. The existing structures on the undeveloped parcels were not surveyed due to safety considerations. Figure 1 depicts the proposed survey area and the underlying parcels.

2.2. PREVIOUS INVESTIGATIONS

In 2017, Great Lakes Environmental and Safety Consultants, Inc. (GLESC) conducted a limited radiological walkover survey and sampling of the 2 Morgan Drive parcel. A report titled

"Radiological Survey & Sampling Results Morgan Drive Lot 3, Mt. Kisco, NY" was issued in October 2017.

Of 14 samples collected, three (3) hot spot samples exhibited elevated levels of radium-226 ranging from 25.53 pCi/g to 65.04 pCi/g and six (6) other soil samples analyzed exhibited elevated levels of radium-226 ranging from 13.24 pCi/g to 21.05 pCi/g.

Two (2) water samples were collected from Pond #'s 1 and 2. Gross alpha activity from the Pond #1 sample (P1-W1) was 317 pCi/L and radium-226 at 11.3 pCi/L. The Pond #2 sample (P2-W1) did not exceed the established drinking water limits of 15 pCi/L gross alpha and 3 pCi/L Ra-226.

Gamma walkovers performed by GLESC of remaining structural components of the WWTP or other accessible land areas were not significantly greater than background levels. Significantly elevated activity levels were observed, however, in three hotspots taken from areas between the Primary Tank and Sprinkling Filter Bed (HS-1), an area on the northwestern edge of Pond #2 (HS-2) and an area along the northwestern boundary of the site between Pond #1 and Pond #2 (HS-3).

On April 9, 2018, both NYSDEC and Great Lakes collected groundwater samples from 4 existing wells located on the 6 Morgan Drive property. The May 9, 2018 Groundwater Sampling report from Great Lakes indicates that their sample results were below the NYS groundwater standard of 3 pCi/L for Ra-226.

On February 15, 2019, LiRO performed additional groundwater sampling on 2 Morgan Drive. The samples resulted in Ra-226 and Ra-228 concentrations below the NYS groundwater standard of 3 pCi/L.

On December 20, 2017 and April 9, 2018, NYSDEC performed limited gamma walkover surveys of areas of interest on and around the Morgan Drive properties. Additional readings above background were detected to the north of the access road between the 6 Morgan Drive property and the Kisco River. Elevated readings were also detected on 2 Morgan Drive near the edge of Morgan Drive.

Figure 1. Proposed Survey Area and Underlaying Parcels

3. DATA QUALITY OBJECTIVES

3.1. STATE THE PROBLEM

- The location, extent, identity and concentration of radiological contaminants must be determined to allow planning of future decommissioning and waste disposal efforts.

3.2. IDENTIFY THE DECISION

- Determine if data collected and process knowledge can adequately specify the locations,

type, and extent of contamination for decommissioning planning and waste characterization.

3.3. IDENTIFY INPUTS TO THE DECISION

- Newly collected data from this survey as well as prior characterization data obtained from other surveys.
- Facility and process knowledge germane to the construction, operation, and history of the site.
- New York State Department of Environmental Conservation (NYSDEC) regulatory guidance

3.4. DEFINE BOUNDARIES OF THE STUDY

The proposed survey area consisted of portions of the following parcels:

Tax Map/Parcel No.: 80.55-1-2.1/1
1 Morgan Drive, Mt. Kisco, NY
Owner: AKT One Realty (not surveyed; access not gained from owner)

Tax Map/Parcel No.: 80.55-1 -2.1/2
3 Morgan Drive, Mt. Kisco, NY
Owner: United States Postal Service (surveyed)

Tax Map/Parcel No.: 80 .55-1 -2.1/3
6 Morgan Drive
Owner: Creme de la Crème (surveyed)

Tax Map/Parcel No.: 80.55-1-2.1/4
2 Morgan Drive
Owner: Radio City Ventures, LLC (surveyed)

Tax Map/Parcel No.: 80.55-1-2.2
Portion of 1 Lexington Ave., including Access Road
Owner: Village of Mt. Kisco (surveyed)

The original proposed survey area is specified by the NYSDEC in the Consent Order as the gray area in Figure 1 above.

3.5. STATE THE DECISION RULES

The effectiveness of the characterization survey in localizing and quantifying contamination depends on two general considerations:

- The quantity and placement of sampling/measurement locations must be sufficient to spatially characterize the area. This was easily accomplished by the use of a GPS-based gamma radiation measurement system which collected over 30,000 data points.
- The quantity and types of measurements and analyses performed must be sufficient to radiologically characterize the contaminants. Soil sample locations were specified to encompass the entire range of gamma radiation levels found from background (7 uR/hr) to 830 uR/hr. Only one radionuclide of interest was suspected, radium-226, and was thus confirmed by soil analyses. However, an additional radionuclide of interest was detected during this survey: thorium-230. This will be discussed in later sections.

3.6. LIMITS ON DECISION ERRORS

- Statistical constraints on decision errors are not applicable to this survey because subjective rather than statistical techniques are used, i.e., this is a characterization survey not a final status survey.

3.7. OPTIMIZATION OF THE SURVEY DESIGN FOR COLLECTING DATA

There are a few alternatives for determining contaminant concentrations in soil. The options are summarized as follows:

- **Delineating areas of soil contamination on the surface:** In the past, the main method of performing a characterization survey of a land area was to overlay a grid over the area and manually record readings within each grid square. However, with the advent of GPS-based radiation data collection systems, the entire survey area can now be walked-over along transects or elevation contours with count rates and GPS coordinates being recorded approximately every 1-second. In this way, thousands of data points can be collected within a reasonable period of time allowing 2-dimensional plots of gamma activity to be created.
- **Obtaining contaminant data from soil:** After areas of elevated surface gamma activity were mapped using the GPS-based system, surface soil sampling with subsequent laboratory analysis was performed to determine the type and concentrations of radionuclides present at those spots. The radionuclide concentration data is useful for comparison to regulatory limits, for worker health / safety considerations, and for survey considerations which a correlation between gamma count rate and radium concentration may be calculated. As part of a later phase of assessment, core sampling and *in situ* measurement (i.e., gamma-logging) could be performed to measure the depth of contamination.
- **Analysis of surface soil samples:** For this survey, analysis of the Ac-228 gamma emission to estimate radium-228 (and thorium-232 and -228) and analysis of the Bi-214 gamma emission after at least 21 days of in-growth to estimate radium-226 were the key radioanalysis parameters. Gross alpha and beta counts were also performed to be consistent with prior surveys. The elevated gross alpha

results obtained were cause to add isotopic thorium analysis of which only thorium-230 was detected, at relatively high concentrations.

4. METHODS

4.1. GAMMA SCAN

The Former Mt. Kisco WWTP Radiological Site Characterization Work Plan (Appendix B) contains specifications of the gamma scan methodology. In summary, the scan consisted of performing 1-second gamma counts using a Ludlum 44-10 (2x2-inch) scintillation detector coupled to a Model 2221 ratemeter and GPS-based localization and recording system. The detector count rates were converted to a gamma exposure rate using the detector's calibration factor.

4.1.1. Background Area

The originally proposed background area was a portion of the Village of Mt. Kisco property beyond the bridge over the Kisco River. However, that area was found to be affected. Therefore, an alternative background area was chosen. The location is the southeastern-most portion of 2 Morgan Drive in a heavily-wooded area near the adjoining school (see Attachment 1). The large size of the trees and the elevated topography relative to the WWTP indicate that this area has been undisturbed for over 100 years. The distance from the contaminated areas and the consistent, low readings in the 6000 cpm (7 uR/hr) range indicate that this area is unaffected by the former WWTP.

4.2. SURFACE SOIL SAMPLING

Soil samples were collected from 16 locations exhibiting gamma emission from background to the maximum observed level (830 uR/hr).

5. RESULTS

5.1. GAMMA SCAN

5.1.1. Gamma Scan Results Summary

The results of the gamma scan are shown in Attachment 1. The following statistics summarize the gamma scan data collected:

Background Area:

Number of Readings: 395
Mean: 101.6 CPS 7.1 uR/hr
SD: 8.4 CPS 0.6 uR/hr
Max: 132 CPS 9.2 uR/hr
Min: 79 CPS 5.5 uR/hr

Survey Area:

Number of Readings: 30636
Mean: 187.2 CPS 13.1 uR/hr
SD: 280.6 CPS 19.6 uR/hr
Max: 11863 CPS 830 uR/hr
Min: 67 CPS 4.7 uR/hr

As can be observed from the Gamma Map shown in Attachment 1, most of the contaminated areas exist in the northern portion of the survey area in mainly marshy areas. The area of contamination north of the bridge is estimated at ¾ acres. The area of contamination shown as a "marsh" in the northwest portion of the site is also estimated at ¾ acre. While depth measurements have not yet been performed, if we estimate the depth of contamination from observation of the surrounding marsh depth to be 6 feet, then the total estimated volume of contaminated soil in marshy areas would be approximately 15,000 cubic yards.

The pile of contaminated soil just south of the marshy areas is estimated to be 100' x 80' x 30' high, or about 6000 cubic yards. Small isolated hotspots scattered throughout the remainder of the site may add approximately 1000 cubic yards.

Thus, the total rough estimate of the volume of contaminated soil is 22,000 cubic yards. Note that this is a very rough estimate given that depth measurements have not been performed and that additional contamination may exist beyond the presently surveyed areas.

5.2. SOIL SAMPLING

The results of soil analyses and the gamma readings associated with the soil sample locations are list in Table 5.1 below. Sample locations are shown in Attachment 2, laboratory results can be found in Attachment C.

Table 5.1 – Soil Sampling Results (0 to 6" Collection Depth)

	Laboratory Results					Field Readings		
Sample ID	(pCi/g)							
	Ra-226	Ra-228	Th-230	Gross Alpha	Gross Beta	GM Reading of Core (cpm)		Reading at Collection Pt. (uR/hr)
06051902-01	19.4 +-2.7	0.9+-0.5	381 +-61	713 +- 133	47.7 +- 12.7	200		32
06051902-02	37.3 +- 5.1	0.8 +- 0.8	580 +- 92	862 +- 160	49.0 +- 13.6	250		97
06051902-03	48.9 +- 6.6	1.8 +- 0.9	606 +- 95	893 +- 165	48.1 +- 13.3	200		73
06051902-04	54.4 +- 7.4	1.6 +- 1.2	891 +- 142	1446 +- 264	39.1 +- 13.7	200		150
06051902-05	29.7 +- 4.0	1.0 +- 0.7	582 +- 92	896 +- 166	28.0 +- 10.7	150		34
06051902-06	11.6 +- 1.7	1.4 +- 0.6	157 +- 25	267 +- 52	29.3 +- 7.6	150		20
06051902-07	0.7 + - 0.2	0.9 +- 0.3	2.7 +- 1.1	11.8 +- 5.9	12.4 +- 4.3	150		11
06051902-08	22.5 +- 3.2	1.4 +- 0.6	346 +- 57	687 +- 128	29.0 +- 10.3	200		33
06051902-09	14.2 +- 2.0	1.4 +- 0.6	231 +- 39	405 +- 78	10.7 +- 6.9	150		25
06051902-10	19.1 +- 2.7	1.4 +- 0.6	298 + - 48	504 +- 96	30.1 +- 9.4	200		35
06051902-11	55.8 +- 7.6	0.0 +- 0.6	222 +- 36	719 +- 134	224 +- 42	250		67
06051902-12	5.0 +- 0.8	1.4 +- 0.5	55 +- 10	118 +- 26	18.6 +- 5.2	200		24
06051902-13	22.6 +- 3.1	1.3 +- 0.6	266 +- 43	408 +- 78	42.5 +- 10.6	200		18
06051902-14	420 +- 56	10.4 +- 2.3	6738 +- 1059	11160 +- 2000	713 +- 132	1200		660
06051902-15	10.2 +- 1.5	1.5 +- 0.5	115 +- 20	330 +- 64	38 +- 10	100		22
06051902-16	1.3 +- 0.3	0.9 +- 0.6	4.6 +- 1.3	19.5 +- 7.8	16.1 +- 4.6	50		8

5.3. CORRELATION

The radium-226 concentration in soil and the associated gamma scan readings were plotted to estimate the conversion factor uR/hr per pCi/g (see Figure 5.1 below). Note: the highest reading (sample 14) was discarded from this analysis because the area of high activity was small (not uniform under the detector's field of view). The resulting conversion factor of 1.76 uR/hr per pCi/g is in fair agreement with the 2.5 uR/hr per pCi/g estimated by Schiager ("Analysis of Radiation Exposures on or Near Uranium Mill Tailings Piles" in Radiation Data and Reports, July, 1974). The main sources of deviation from the published conversion factor is the lack of uniformity of the contamination and differences in self-shielding due to varying soil density and moisture content throughout the WWTP area.

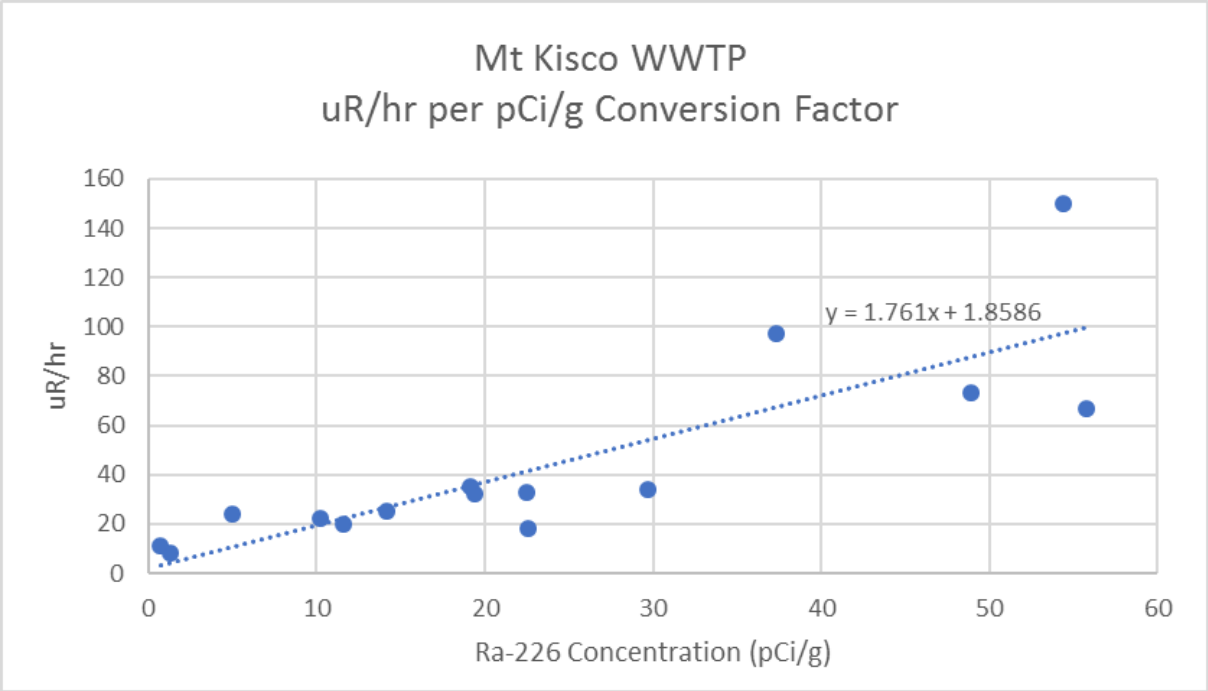


Figure 5.1 – uR/hr per pCi/g Conversion Factor

For the purposes of discussion, the following calculation assumes a cleanup guideline of 5 pCi/g Ra-226 as given in 40CFR192 for uranium mill tailings. However, in the future, the NYSDEC will have to provide site-specific guidance that may result in different cleanup criteria. For this site, the background exposure rate is 8 uR/hr and the background Ra-226 concentration is approximately 1.3 pCi/g. Given these data and after review of the above chart, we conclude that gamma exposure rates greater than 20 uR/hr (17,000 cpm with a 44-10 detector) most definitely indicate soil with greater than 5 pCi/g Ra-226. Exposure rates in the 15-20 uR/hr (13,000 to 17,000 cpm) would be suspect and could indicate greater than 5 pCi/g in the soil. Exposure rates less than 15 uR/hr (13,000 cpm) would have less than 5 pCi/g Ra-226 above background.

However, the recent discovery of high Th-230 levels in the soil may significantly affect the eventual release criteria. Dose-based release criteria would have to be developed during the remedial investigation phase of the project and further correlation study performed.

The Th-230 concentration versus Ra-226 concentration relationship is shown in Figure 5.2 below. On average, the Th-230 concentration was 12.6 times the Ra-226 concentration.

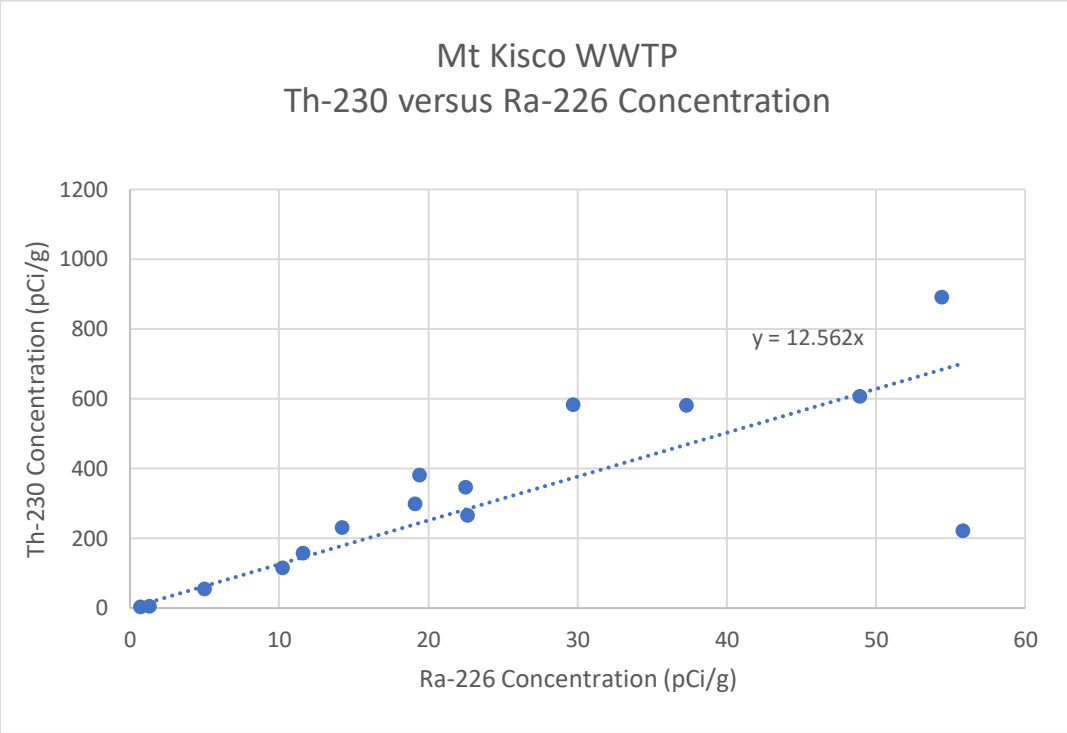


Figure 5.2 –Th-230 Concentration versus Ra-226 Concentration

6. DISCUSSION AND CONCLUSION

The characterization survey of the former Mt Kisco Wastewater Treatment Plant has shown that approximately 2 acres of the land area has radium-226 concentrations in surface soil that exceed typical release limits for the general public (i.e., exceed 5 pCi/g per 40 CFR192). The levels present are not immediately dangerous to health to casual visitors, but would preclude safe long-term occupancy or development.

Most of the contamination exists in the marshy areas north of the former treatment facilities. These areas apparently had been filled with processed sewage sludge that contained radium from the upstream radium processing plant. One pile of material existing above grade, measuring approximately 100' x 60' x 30' high, also exhibited elevated gamma levels and radium concentrations. Additionally, numerous small hotspot areas exist within the main processing area of the former WWTP. The total area of the contamination is estimated at 2 acres.

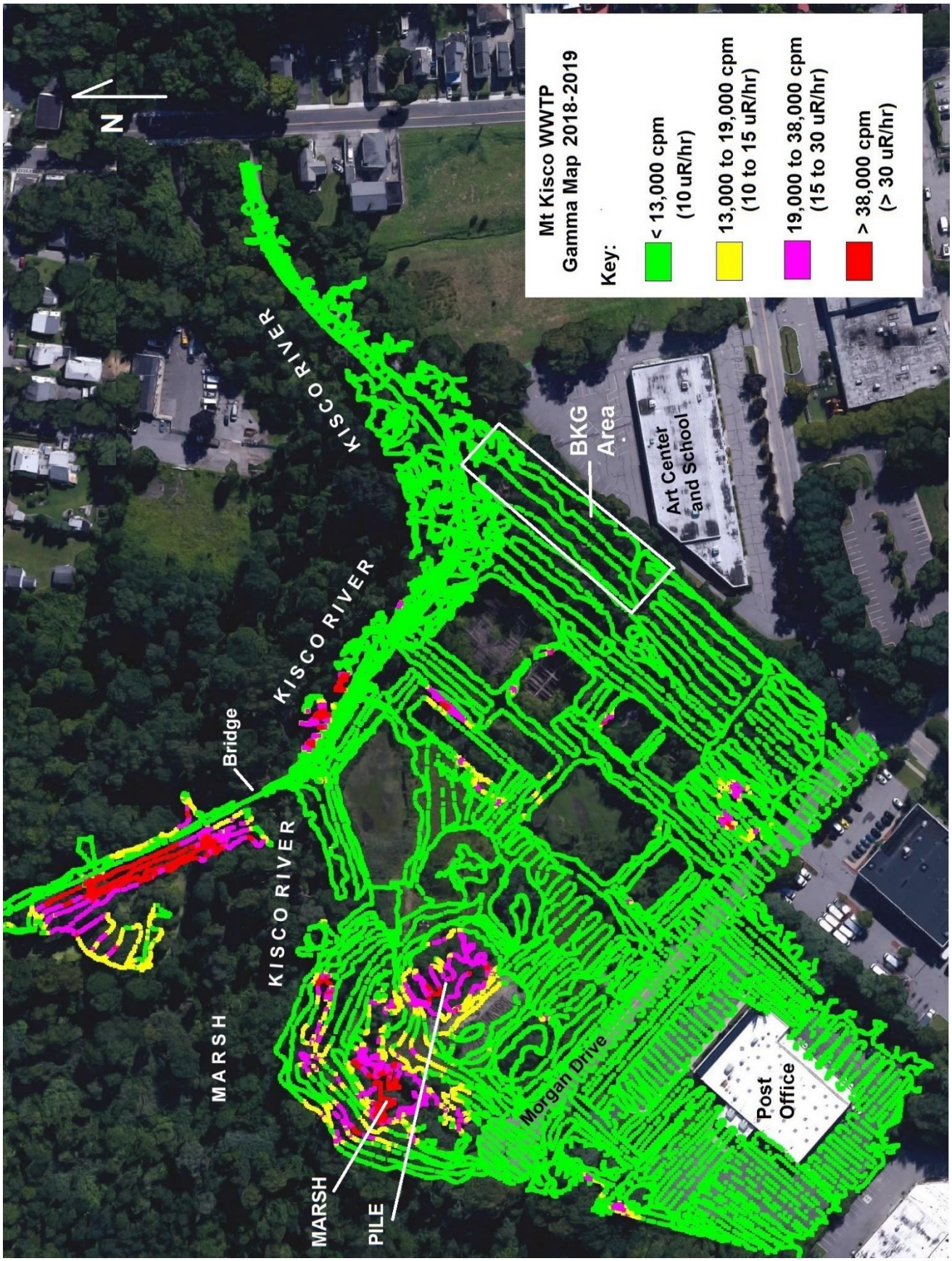
A rough estimate of the depth of contamination has been made by review of the topography and surrounding marsh lands. If one estimates the average depth of contamination to be 6 feet, then the resultant volume of contaminated soil would be approximately 22,000 cubic yards (including the pile). This estimate only considers the area surveyed presently.

The discovery of elevated Th-230 concentrations during this survey, averaging 12.6 times the Ra-226 concentration, may significantly affect dose-based release criteria. Such criteria should be developed with NYSDEC guidance during the remedial investigation phase of the project. This could also increase the contaminated volume estimate accordingly.

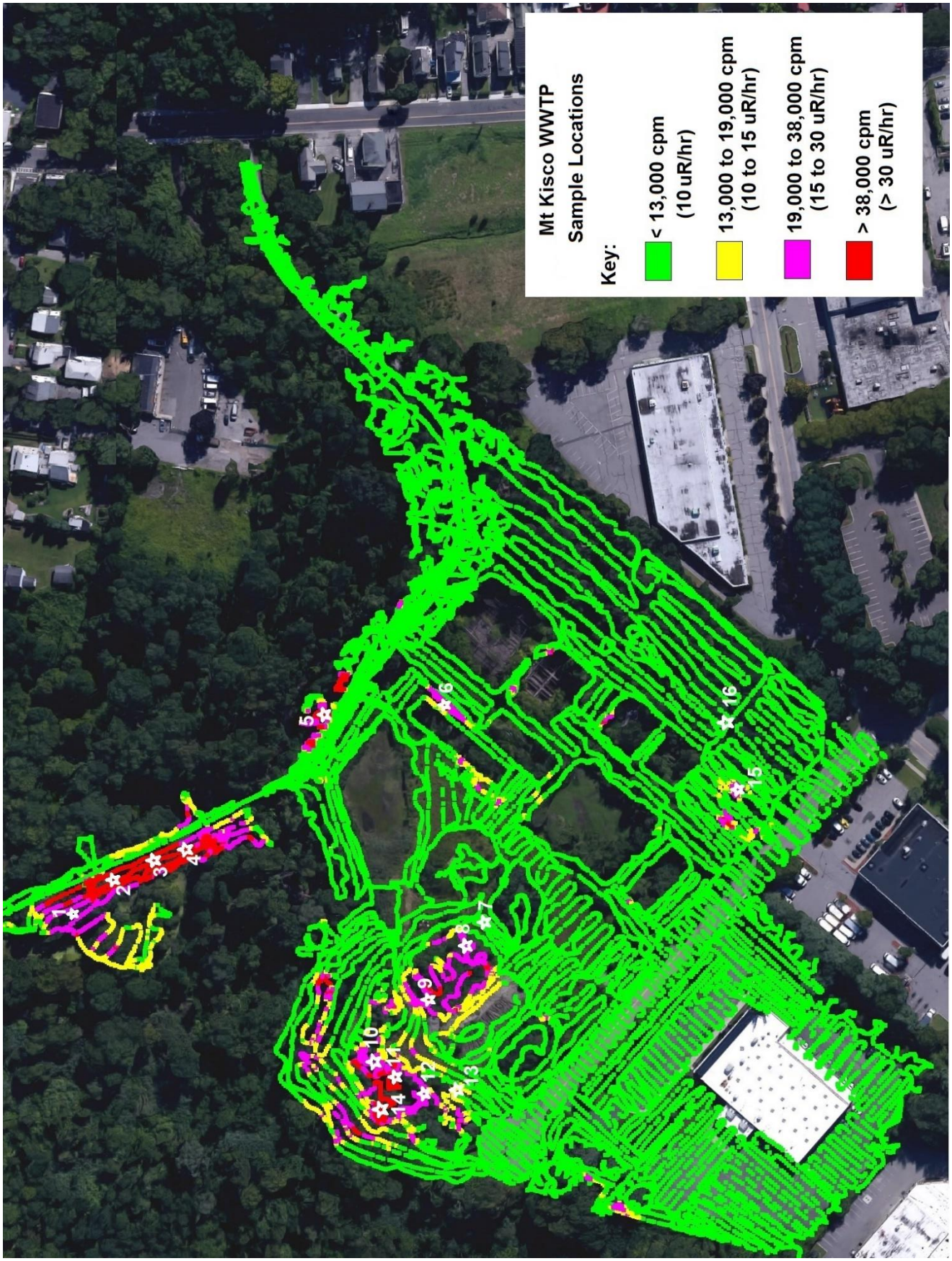
Recommended future work, which could be performed within the remedial investigation phase, includes:

- development of dose-based release criteria, taking into account Th-230 and, potentially, other alpha emitters such as uranium;
- further correlation between gamma levels and the chosen release criteria;
- sub-surface measurements to determine more accurately the depth of contamination;
- investigation of the area further north of the present survey area, including the underwater sediment in the wetlands, and areas further up the access road which may have received fill;
- gamma survey within structures after being made safe for entry;
- further investigation into the high gross alpha results including isotopic thorium and uranium analysis of soil, surface water, and groundwater in addition to the analysis of Ra-226, Ra-228, gross alpha, and gross beta.

Attachment 1 – Characterization Survey Gamma Map


Mt Kisco WWTP
Gamma Map 2018-2019
Key:
< 13,000 cpm
(10 uR/hr)
13,000 to 19,000 cpm
(10 to 15 uR/hr)
19,000 to 38,000 cpm
(15 to 30 uR/hr)
> 38,000 cpm
(> 30 uR/hr)
N
KISCO RIVER
KISCO RIVER
KISCO RIVER
BKG
Area
Art Center
and School
Bridge
MARSH
MARSH
PILE
Morgan Drive
Post
Office

Attachment 2 – Sample Locations


Mt Kisco WWTP
Sample Locations
Key:
< 13,000 cpm
(10 uR/hr)
13,000 to 19,000 cpm
(10 to 15 uR/hr)
19,000 to 38,000 cpm
(15 to 30 uR/hr)
> 38,000 cpm
(> 30 uR/hr)
1
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8
9
10
11
12
13
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15
16

Appendix A
Initial Site Visit Work Plan for Radiological Impacts

Appendix B
Former Mt. Kisco WWTP Radiological Site Characterization

Appendix C
Soil Sample Results

GREAT LAKES ENVIRONMENTAL
& SAFETY CONSULTANTS, INC.

September 20, 2019

Mr. Kevin Young
Radio City Ventures, LLC
c/o Young/Sommer, LLC
Executive Woods, Five Palisades Drive
Albany, NY 12205

Re: Site A Subdivision

Mr. Young:

The radiological activity encountered on Site A is significantly lower and isolated compared to the rest of the property and adjacent properties, and can be managed by safety precautions during excavation and construction to ensure no occupational health or environmental impacts. For this reason, we support the owner's request to subdivide Site A in furtherance of its objective to amend the Order on Consent.

On April 9, 2018, Great Lakes Environmental & Safety Consultants, Inc. ("Great Lakes") completed a radiological walkover survey of the accessible areas of the upland southeastern ~1.0 acre of Morgan Drive Lot 3, 2 Morgan Drive, Mount Kisco, New York 10549 ("Site A").

The focused gamma walkover of accessible areas of Site A observed average activity levels not significantly greater than background levels, which were observed at ~8,000 counts per minute ("cpm"). One area ("HS-4") exhibited relatively significant elevated activity levels (~29,000 cpm), about 100 feet southeast of the Primary Tank 1. HS-4 appears to be isolated, with some activity levels to the north ranging from 10-15,000 cpm, and activity levels receding to background levels within 10-20 feet from the highest reading. Great Lakes did not obtain a sample from HS-4 during its survey.

Relative to other Hot Spots found across the Site, HS-4 did not exhibit gamma activity to the same orders of magnitude (HS-4 was only 3-4x background activity levels, while the other Hot Spots ranged from 15-20x background levels). This suggests the potential for HS-4 to be a lower level, naturally occurring radioactive material, or a much smaller volume of similar contamination found across the greater site.

The walkover and sampling performed by CoPhysics confirms the findings of the 4/9/18 survey. The walkover identified the same generalized hot spot ranging from 13,000 to 38,000 cpm, and samples #15 and #16 exhibit Ra-226 activity of ~1.3 and ~10.2 pCi/g, respectively. Sample #16 was taken from the same location as the Hot Spot identified in the 4/9/18 survey, and the laboratory results confirm a slightly elevated level of activity, but relatively low compared to those sampled on adjacent properties.

It is Great Lakes' opinion that construction activity on Site A can be performed in a safe manner, with no impact to worker and public safety or wildlife and vegetation, by adhering to simple precautions and screening of soil excavated from the site. The observed activity levels present no danger to the life and health of on-site workers. Great Lakes recommends on-site radiological screening for all intrusive site activity, with an increased focus near the identified hotspot, to ensure no possible contamination leaves site. A site-specific health and safety plan would be developed that addresses the following precautions: training of all site workers on health hazards of radiological exposure and work practices to mitigate exposure, screening of excavated soil for disposal purposes, and screening of any equipment leaving site to ensure no contamination leaves the site. Action levels will be determined above which excavated material must be disposed of at an approved facility.

The subdivision of Site A would be consistent with the spirit of the Order on Consent, and Great Lakes support the owner in its request for modification.

Sincerely,

Colin C. Casey
Vice President

Final Status Survey

Of

2 Morgan Drive Lot A

Mt. Kisco, NY

Prepared For:

Radio City Ventures, LLC

Richard Breck, 203-733-2224

Prepared by:

CoPhysics Corporation

Theodore E. Rahon, Ph.D.

Certified Health Physicist

Site Work: August 2020

Report: December 2020

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TABLES

FIGURES

1.0 EXECUTIVE SUMMARY

The property known as 2 Morgan Drive Lot A, comprising 2.67 acres in Mt. Kisco, NY, is part of the former Mt. Kisco Waste Water Treatment Plant (WWTP). The former WWTP is known to be partially contaminated with the radioactive materials: radium-226 and thorium-230. However, an in-depth scoping survey conducted in 2019 showed that the area of the WWTP known as Lot A did not show any elevated radiation levels on the surface of the ground. To supplement the 2019 data, CoPhysics Corporation, in consultation with the NYS DEC, conducted additional measurements of Lot A in August, 2020 including sub-surface measurements. The results of these measurements show that the soil in Lot A does not contain elevated levels of radium-226 or thorium-230. Therefore, this Final Status Survey Report concludes that the property may be released from radiological controls and may be developed without the need for radiological precautions.

A small area of elevated radioactivity on the adjacent Lot-B has not affected the soil in Lot-A and does not pose a radiological safety problem for construction workers on Lot-A. However, for liability purposes, the property line between the two lots should be fenced.

2.0 INTRODUCTION

2.1 Background

Radioactive contamination has been detected on the property of the former Mt. Kisco Wastewater Treatment Plant (WWTP) located on Morgan Drive in Mt. Kisco, NY. From 1913 until 1964, the WWTP received sewage from the Village of Mt. Kisco including the Canadian Uranium and Radium Corporation facility located about 3 miles north of the plant. This led to elevated concentrations of radium-226 and thorium-230 being deposited in numerous spots across the property. To study the problem, in 2019, the New York City Department of Environmental Protection and CoPhysics Corporation performed gamma radiation measurements over the entire property. The results of the 2019 surface radiation survey (shown in Figure 2.1) showed that the parcel known as 2 Morgan Drive, Lot A had no detectable radioactive contamination.

2.2 Objective

Therefore, the objective of this project was to perform a final status survey (FSS) of Lot A so that it can be released from radiological safety controls and be developed. This final status survey extends the original surface survey by performing additional surface readings, collecting and analyzing sub-surface soil samples, and performing a more in-depth statistical analysis to prove that the lot is free of any residual radioactive contamination. The radiation measurements and the analysis of results for this FSS were performed per the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM, NUREG 1575, EPA 402-R-97-016).

2.3 Site Location

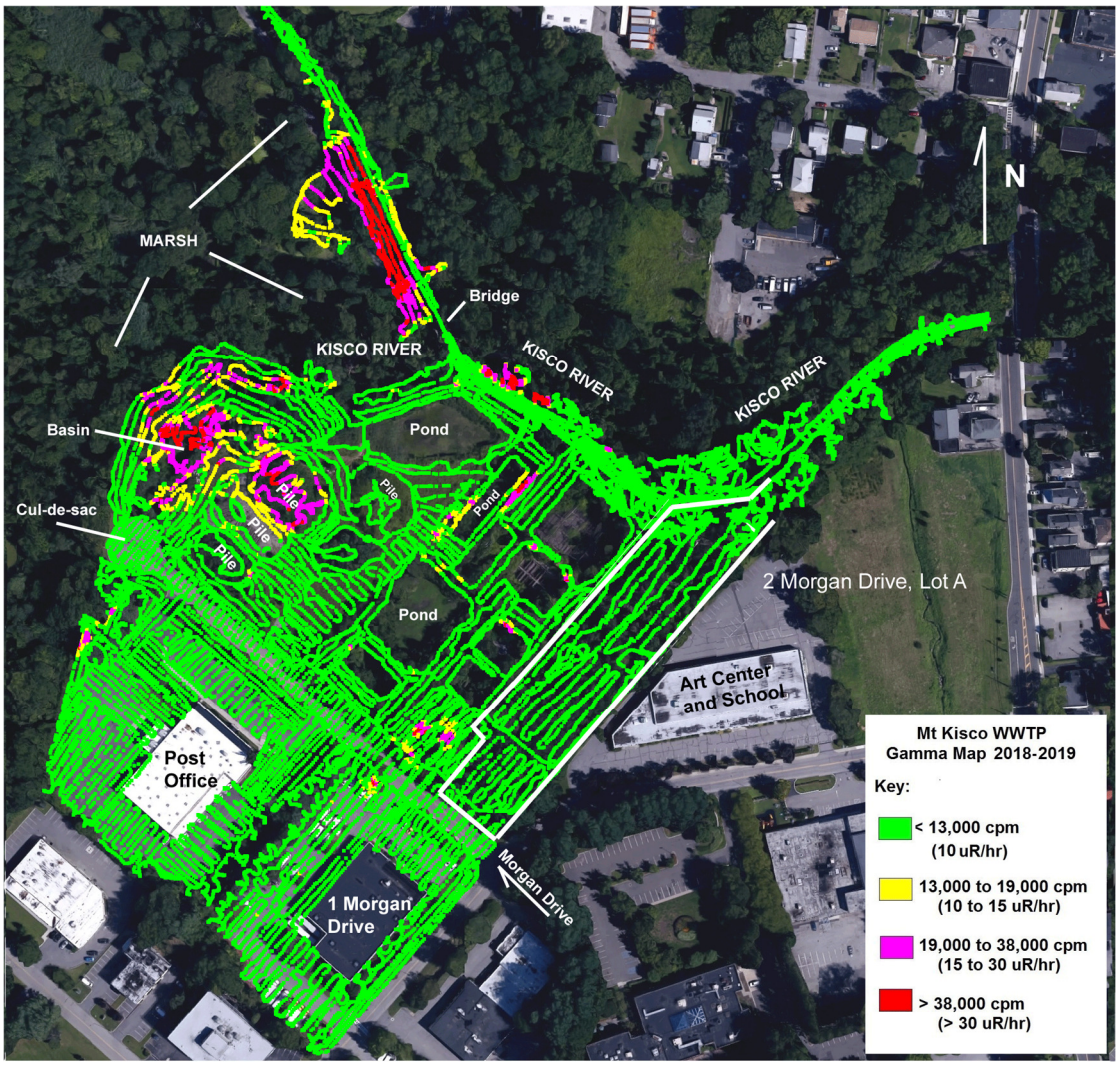
Lot A of 2 Morgan Drive comprises 2.67 acres and lays on the southern-most boundary of the WWTP site. The lot has no vehicle access and is heavily wooded with many large 100+ year-old trees.

The gamma map of the FWWTP with Lot A outlined in white is shown in Figure 2-1.

2.4 Expected Radiation Levels

Scoping gamma radiation measurements performed in 2019 showed only normal background radiation levels (6 to 10 uR/hr at the surface).

Figure 2-1– Gamma Map of FWWTP Site (2 Morgan Drive Lot-A Shown in White)



3.0 REGULATORY REQUIREMENTS AND GUIDELINES

While the NYSDEC has not specified an exact cleanup goal for the former WWTP site, a radium-226 concentration limit of 5 pCi/g and thorium-230 limit of 60 pCi/g is proposed here. (The WWTP Characterization Survey Report (August, 2019) indicated that Th-230 levels were approximately 12 times the radium-226 levels, therefore this ratio is maintained in the proposed limits.) 5 pCi/g of Ra-226 is a typical Derived Concentration Guideline Level (DCGL) used by the USEPA at its Superfund cleanup sites in Region 2 (NY and NJ).

In addition, the regulatory prescribed dose limits for decommissioned sites is 15 mrem/yr (USEPA) or 25 mrem/yr (USNRC). To determine if the above proposed DCGL's fall within these limits and are protective of health, a RESRAD analysis was performed (see results in Appendix A of the Lot A Survey Plan 07-2020). The radiation dose to future occupants living on soil containing 5 pCi/g Ra-226 and 60 pCi/g Th-230 was calculated. The results show a total radiation dose from all pathways of 14.2 mrem/yr (This occurred at the 300-year mark and assumed the entire property had radionuclide levels at the DCGL.) If only 1% of the property had radionuclide concentrations at the DCGL, the prospective annual dose would be only 0.14 mrem/yr. This prospective dose is quite insignificant considering a chest X-ray is about 10 mrem per shot and NY to LA airline flight passenger received about 5 mrem from cosmic-ray exposure.

In-field Guideline for Surface Gamma Measurements using a Ludlum 44-10 Detector

To convert the above DCGL's into gamma count rates from a Ludlum 44-10 detector, a count rate Investigation Level (IL) is defined as the count rate under which the surveyor would be 95% confident that the underlying radium or thorium concentrations are less than the cleanup criteria (DCGL). If count rates exceed the IL additional measurements would be performed to determine if the area would pass MARSSIM statistical tests. Per the WWTP Characterization Survey Report (August, 2019), gamma count rates less than 16,000 cpm are indicative of soil containing less than 5 pCi/g of radium-226. Therefore, the investigation level for gamma measurements at the site is specified as 16,000 cpm (on the Ludlum 44-10 detector). This level is consistent with the Investigation Level used at the WGGM Superfund Site, EPA Region 2.

In-field Guideline for Gamma Logging using a Ludlum 44-62 Detector

To convert the above DCGL's into gamma count rates from a Ludlum 44-62 downhole gamma logging detector, a count rate Investigation Level (IL) is defined as the count rate for which the surveyor would be 95% confident that the radionuclide concentrations in the soil surrounding the hole are less than the cleanup criteria (DCGL). If count rates exceed the IL additional measurements such as soil sampling would be performed to determine the exact concentration of specific radionuclides in the soil and if those concentrations

would pass the MARSSIM statistical tests. The downhole gamma logging technique is further discussed in an EPA Superfund site publication (WGGM Superfund Site, "The Use of Gamma Logging Measurements to Conduct Subsurface Release Surveys", T. Rahon, 2007). That document concludes that Ludlum Model 44-62 gamma count rates less than 1100 counts per 30 seconds are indicative of soil containing less than 5 pCi/g of radium-226. Therefore, the investigation level for downhole gamma logging measurements at the Mt Kisco site is also specified as 1100 counts per 30 seconds (on the Ludlum 44-62 detector).

4.0 METHODOLOGY

4.1 Data Quality Objectives

4.1.1 Step 1: State the Problem

Elevated concentrations of radioactivity in soil may reside on the property due to disposal of contaminated sewage sludge. The objective of the methodology is to obtain data of sufficient quality and quantity to prove that no residual contamination resides on the property that may exceed applicable guidelines.

4.1.2 Step 2: Identify the Decision

Principal Study Question

> *Does the survey area pass MARSSIM-specified analyses of scan, systematic, and biased measurement results?*

Decision Statements

The decision whether the property complies with the release criteria or not is described by MARSSIM as either the null hypothesis or the alternate hypothesis as follows:

a. Null hypothesis (H_0), which states "*the median concentration in the survey unit exceeds the median concentration in the background reference area by more than the DCGL.*"
b. Alternate hypothesis (H_a) which states "*the median concentration in the survey unit does not exceed the median concentration in the background reference area by more than the DCGL.*"

4.1.3 Step 3: Identify Inputs to the Decision

This section lists the data needed to resolve the applicable decision statements, including the means of obtaining the required data.

The main data inputs are:

1. Information regarding the locations and levels of radionuclide concentrations provided by historical / geotechnical information; and

2. Results of measurements of residual radioactivity by means of:

- Direct ground level measurements for gamma radiation (both scans and systematic, gridded readings)
- Laboratory analysis of soil samples
- Downhole gamma measurements to reveal sources of subsurface radioactivity not detected by surface scans.

4.1.4 Step 4: Define the Study Boundaries

The key area of interest is the Lot A with boundaries as specified by the land surveyor map of the property.

4.1.5 Step 5: State the Decision Rules

The results of this study will be used to determine the eventual fate of the property (release for unrestricted use or designated for cleanup).

4.1.6 Step 6: Define Acceptable Decision Errors

NRC guidance in MARSSIM provides a discussion regarding possible decision errors. The guidance discusses the concept of acceptable error rates, which balance the need to make appropriate decisions with the financial costs of achieving higher degrees of certainty for Final Status Surveys. As discussed in Section 3.0 above, the Investigation Level (IL) is the count rate under which the surveyor would be 95% confident that the underlying radium or thorium concentrations are less than the cleanup criteria (referred to as the DCGL).

4.2 Survey Design and Methodology

The survey design follows the guidance of the Multi Agency Radiation Survey and Site Investigation Manual (MARSSIM) (NRC 2000). A summary of this design is provided in the following subsections.

4.2.1 Determine Impacted or Non-Impacted

Lot A is considered to be potentially impacted due to its proximity to a known area of contamination (see Figure 2-1).

4.2.2 Survey Unit Breakdown

For this Survey, the entire property is considered to be one Class 2 survey unit. Per MARSSIM, survey units thought to be clean that adjoin Class 1 (potentially-contaminated) units shall be classified as Class 2.

4.2.3 Background Area

A nearby lawn area of a commercial building on the corner of Lexington Ave. and Radio Circle Drive was chosen to obtain background readings.

4.2.4 Scanning

Per MARSSIM, at least 50 % of the exterior of a Class 2 property must be scanned. For Lot-A, we estimate that 75% of the ground surface was scanned during the 2019 survey. The ground surface under a large pile of logs which was not scanned in 2019 with the GPS-based system was manually scanned during the 2020 Lot-A effort with a gamma probe attached to a long pole.

4.3 Gamma Scan

The gamma scan was performed by the collection of 1-second gamma counts using a Ludlum 44-10 (2x2-inch) scintillation detector coupled to a Model 2221 ratemeter and GPS-based localization and recording system. Additional readings were manually collected under the log pile during this recent effort. The surface gamma scan is useful in finding any areas of elevated soil radioactivity. (For this survey, none were found.)

4.4 Systematic Gamma Readings

To perform the regulatory-based MARSSIM statistical tests for residual contamination, one-minute gamma radiation counts using a Ludlum 44-10 (2x2-inch) scintillation detector coupled to a Model 2221 ratemeter were performed at each grid point shown in Appendix B of the Survey Plan.

Background Area

9 background points were collected in an area assumed to be unaffected by the WWTP, i.e., in a nearby commercial building lawn. These reference area data are necessary for comparison to the data collected in the survey area.

4.5 Downhole Gamma Logging and Soil Sampling

Boreholes were dug into the ground at 5 selected locations at the boundary of Lot A nearest an area of elevated radioactivity on the adjoining Lot-B (see Appendix C of the Survey Plan). This was done to determine if the elevated radioactivity levels could exist underground extending into Lot A.

To install the boreholes, a 4-inch diameter manual soil sampler was used. The soil collected at each 1-foot depth increment was staged on poly sheeting. The boreholes were

then gamma logged in 6-inch depth increments using a Ludlum 44-62 (1/2x3/4-inch) scintillation detector coupled to a Model 2221 ratemeter. The detector count rates provided a depth profile of radioactivity. After the gamma profile of each hole was obtained, the staged soil collected from the depth of maximum count rate was containerized for later shipment to Pace Laboratories (ELAP certified) for radioactivity analysis.

The laboratory analyzed the samples for radium-226, radium-228, thorium-230, gross alpha, and gross beta. While gross alpha and beta activities in soil are not specifically-regulated, such results are useful in detecting any other radionuclide that might be present other than the 3 main radionuclides of concern.

4.6 Instruments

Instrumentation used in this survey is shown below:

Table 4-1 Specific Instrumentation used in the Survey

Manufacture	Meter Model	Meter Serial	Probe Model	Probe Serial	Use	Calibration Date
Ludlum	3000	15307	44-10	373552	GPS Gamma Scan and Stationary Counts	5/5/20
Ludlum	2241	316729	44-62	273614	Downhole Gamma Logging	1/23/20

Calibration certificates are shown in Appendix B.

All instruments were calibrated with 1 year of use and were background- and source-check daily when in use.

5.0 RESULTS

5.1 Overland Gamma Scan

The gamma scan consisted of 7294 1-second counts continually collected by the field computer and mapped in real-time. The resultant color-coded gamma map is shown in Figure 5.1.

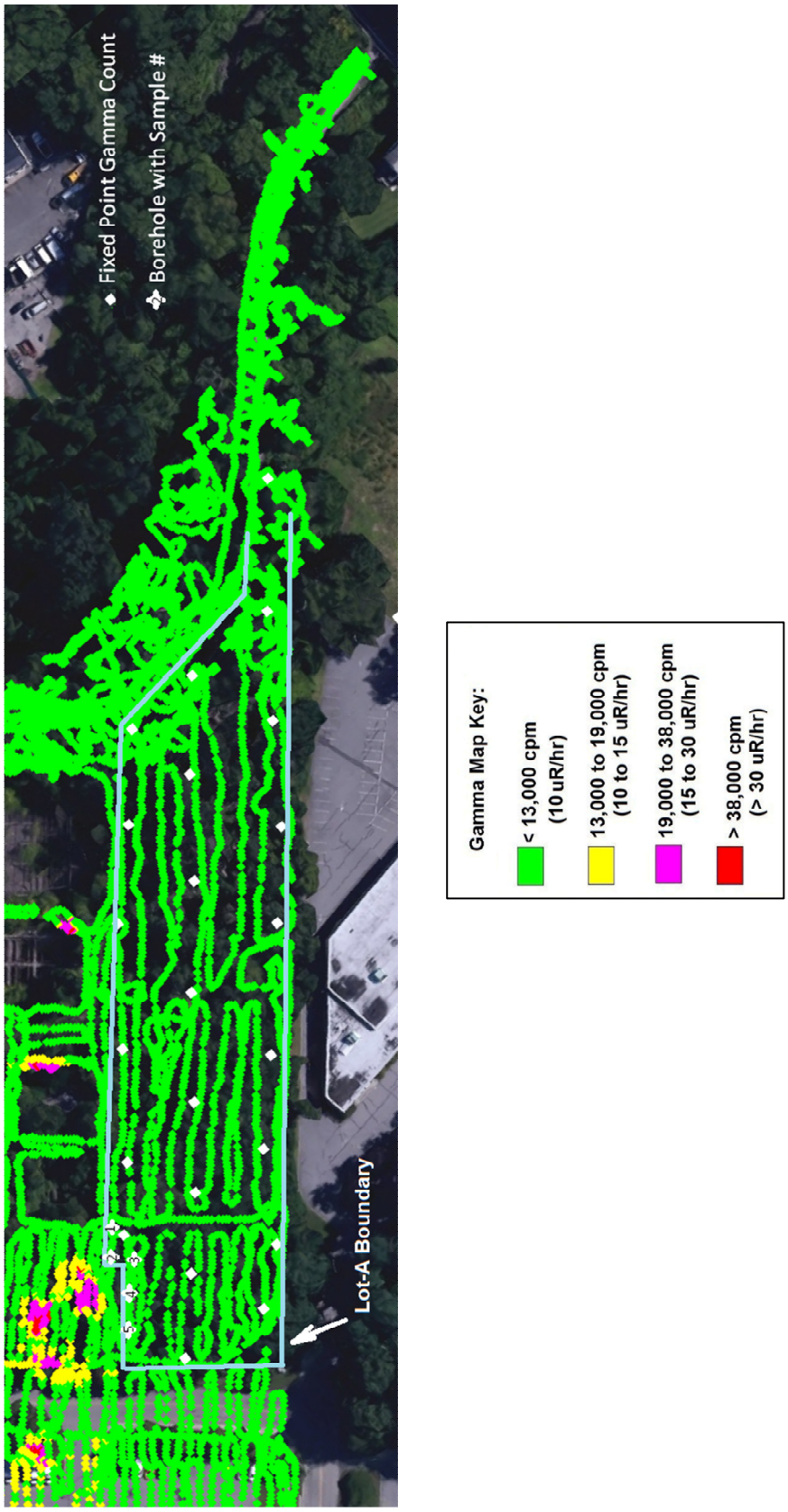
The summary statistics are shown in the following table:

Table 5-1 Summary of Surface Gamma Scan Results (Ludlum 44-10 Detector)

	cps	cpm	uR/hr
mean	113	6780	5.5
SD	15	875	0.7
min	67	4020	3.3
max	204	12240	10.0

The mean (average) radiation level is 5.5 uR/hr with a range of 3.3 to 10 uR/hr. This is consistent with normal, natural background radiation levels on the east coast US of 6 to 10 uR/hr (Ref: NRCP-45)

Figure 5-1 - Gamma Map and Sampling Locations - Lot-A 2 Morgan Dr.



5.2 Systematic Gamma Readings

The gridded, systematic gamma reading locations are shown in Figure 5.1 as white diamonds. The numeric results of these readings are shown in Appendix A. Typically, systematic readings of a survey area are statistically compared to readings obtained from a background, or reference, area using a Wilcoxon Rank Sum (WRS) Test per MARSSIM. However, MARSSIM also states that if the maximum reading from the survey minus the minimum reading from the background (reference) area is less than the DCGL (or IL), then the survey unit will certainly pass the WRS test and therefore performance of the WRS test is not necessary. This is the case for Lot-A – see calculation in Appendix A.

5.3 Downhole Gamma Logging Results

Downhole gamma logging readings were performed in 5 boreholes (locations shown in Figure 5.1 as numbered "plus" signs) located about 20 to 30 feet from the elevated radioactivity area of the adjoining lot. The results (shown in Table 5.2 below) are indicative of normal gamma levels in sub-surface soil. All sub-surface readings were well under the investigation level of 1100 cts/30 seconds indicating that none of the radioactivity on the adjoining lot is affecting soil in Lot-A.

Table 5-2 - Downhole Gamma Logging Results (Ludlum 44-62 Detector)

Biasd Boreholes to Investigate Possible Effect of Hotspot on Neighboring Lot

	Hole ID#s & Gamma Logging Count Rate (cts/30s) using Ludlum 44-62 Probe				
Depth (inches)	1	2	3	4	5
surface 44-10*	8.4 kcpm	8.1 kcpm	8.5 kcpm	8.0 kcpm	7.6 kcpm
0-6	278	268	304	258	249
`6-12	399	338	379	326	309
`12-18	491	412	431	388	380
18-24	512	433	527 sample	461 sample	463
24-30	533	508	523	508	505
30-36	591 sample	516	refusal	refusal	515 sample
36-42	547	540			496
42-48	558	575 sample			refusal
48-54	569	543			
54-60	511	533			
Ave (cts/30s)	499	467	433	388	417
Max (cts/30s)	591	575	527	508	515
Min (cts/30s)	278	268	304	258	249

Gamma Log Investigation Level: 1100 cts per 30-seconds

* Surface reading was performed with a Ludlum 44-10 probe - reading is in cpm (counts per minute)

5.4 Soil Sampling Results

A summary of the laboratory analysis results is shown in Table 5-3 below. These samples were collected along with the gamma logging subsurface investigation discussed in Section 5.3. The complete listing of results with uncertainty and Minimum Detectable Concentration is included in Appendix C.

Table 5-3 – Soil Analysis Results

		Radionuclide Concentration in Soil (pCi/g)				
Sample #	Depth (inches)	Ra-226	Ra-228	Th-230	Gross alpha	Gross beta
Lot A-1	30-36	0.785	1.402	0.339	12.7	16.3
Lot A-2	42-48	0.714	1.358	0.841	20.0	18.3
Lot A-3	18-24	1.267	0.841	0.924	17.7	12.7
Lot A-4	18-24	0.705	0.676	0.597	9.49	18.9
Lot A-5	30-36	0.624	0.714	0.263	8.86	13.4
Typical Natural BKG in Soil		0.5-1 pCi/g	0.5-1 pCi/g	0.5-1 pCi/g	10-20 pCi/g	10-20 pCi/g
Investigation Level:		5 pCi/g over BKG (sum of Ra-226 & Ra-228)		60 pCi/g	n/a	n/a

These results show that all samples contained normal, natural background concentrations of radionuclides.

5.5 Discussion of Elevated Readings on Lot-B

The area of elevated radiation readings on Lot-B near Morgan Drive is the closest elevated area to Lot-A. The Lot-B elevated area is not a pile but actually is a depression in the soil, about 2 to 3 feet lower than the surrounding ground. It is relatively small in size, about 20'x20'. It had been marked off during the 2019 survey, but the tape has degraded since then.

In preparation for this survey, CoPhysics and the NYSDEC discussed that in addition to performing a standard Final Status Survey of Lot-A, some additional special assessment of the soil near the Lot-B elevated area would be useful to determine if any radionuclide migration had occurred. Therefore, sub-surface measurements and soil sampling were performed on the Lot A-B boundary nearest to the Lot-B elevated area.

The results are shown in Sections 5.3 and 5.4 above. These results are all indicative of normal unaffected soil. The elevated area of radioactivity on Lot B (near Morgan Drive) has not affected the soil in Lot-A.

Furthermore, the levels of radiation emitted by the Lot-B elevated area are not immediately hazardous to health should anyone walk through it. The levels there are only considered to be "elevated" in the event of building a long-term residence, garden, etc. right on that spot. No special radiation safety precautions would be necessary for construction personnel working on Lot-A, although fencing off the area for liability purposes is recommended.

6.0 CONCLUSION

A radiological final status survey was conducted on Lot-A of 2 Morgan Drive, Mt. Kisco, NY per the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). The survey utilized an overland gamma radiation scan, systematic gamma counts, and subsurface investigation via gamma logging of boreholes along with soil sampling and laboratory analysis.

The results of these tests show that no elevated levels of radioactivity exist on the property. The elevated area of radioactivity on Lot B (near Morgan Drive) has not affected the soil in Lot-A. All readings throughout Lot-A are indicative of normal, natural background radiation levels. Therefore, the survey manager recommends that the NYSDEC release the property from any radiological controls.

APPENDIX A – MARSSIM ANALYSIS OF SYSTEMATIC GAMMA READINGS

Longitude	Latitude	1-MIN CNT (cpm)	Note	Type
-73.7359655	41.1926826	8397	hole1	biased
-73.73602	41.1926298	8091	hole2	biased
-73.735975	41.192593	8507	hole3	biased
-73.736059	41.192536	8001	hole4	biased
-73.736137	41.1924761	7629	hole5	biased
-73.7360463	41.1923426	8416		sys.
-73.735764	41.192316	7932		sys.
-73.7358679	41.1924839	8012		sys.
-73.735951	41.192651	8463		sys.
-73.735608	41.19241	8386		sys.
-73.735698	41.192622	8263		sys.
-73.7358	41.192775	8027		sys.
-73.73559	41.192982	7805		sys.
-73.735355	41.193212	6779		sys.
-73.73494	41.193536	7572		sys.
-73.73509	41.193176	7303		sys.
-73.73459	41.193344	7199		sys.
-73.734777	41.193144	6266		sys.
-73.734693	41.193542	6178		sys.
-73.735316	41.192982	7288		sys.
-73.734976	41.19298	7322		sys.
-73.735135	41.193371	7065		sys.
-73.735524	41.192784	7200		sys.
-73.73525	41.192755	7525		sys.
-73.735451	41.1926	7566		sys.
-73.734891	41.193371	7199		sys.
-73.734389	41.193547	7420		sys.
-73.734127	41.193781	6972		sys.
-73.732919	41.19248	5322	bk1	ref.
-73.732885	41.192446	5413	bk2	ref.
-73.732879	41.192418	6072	bk3	ref.
-73.732885	41.192385	6202	bk4	ref.
-73.732873	41.192298	5818	bk5	ref.
-73.732845	41.192258	5421	bk6	ref.
-73.732825	41.192198	5987	bk7	ref.
-73.732817	41.192103	6139	bk8	ref.
-73.732914	41.19251	6446	bk9	ref.

SURVEY AREA	
mean:	7485
min:	6178
max	8463
SD:	626
N:	23

REFERENCE AREA	
mean:	5869
min:	5322
max	6446
SD:	400
N:	9

Investigation Level corresponding to DCGL: 16000 cpm

Conclusion: Max count from Survey Area - Min Count from Ref. Area = 3141

3141 is < 16,000 cpm, therefore no WRS test necessary
Survey Unit passes

APPENDIX B – CALIBRATION CERTIFICATES

CoPhysics

CoPhysics Corporation
1 Commercial Drive, Unit 1, Florida, NY 10921
www.cophysics.com
845-783-4402

CERTIFICATE OF INSTRUMENT CALIBRATION

Co./Institute: CoPhysics Corporation **Calibration Date:** 05/05/20
Contact: BLUE **Phone:** **Due Date:** 05/05/21
Address: 1 Commercial Drive, Suite 1 Florida, NY 10921

Instrument Manufacturer: LUDLUM MEASUREMENTS, INC. **Detector Type:** SCINTILLATION
Meter Model: 3000 **Meter Serial #:** 15307 **Probe Model:** 44-10 **Probe Serial #:** 373552

Temperature (deg.C): 24 Relative Humidity (%): 31 Barometric Pressure (mbar): 1048
Mechanical Chk: OK Bat. Chk: OK Zero Chk: OK F/S Chk: OK Alarm Chk: NA Audio Chk: OK Plateau Chk: NA
Operating Voltage (V): 800 Input Sensitivity (mV): 10 Threshold Setting: - Window Setting: -
Repairs : BLUE SYSTEM, 4 AA BATTERIES

CALIBRATION DATA

	Source	Type or Attenuator	Dist.(cm)	Cal. Reference	Units	Scale	Net Reading	Units	Correction Factor	Efficiency
1	PULSE		0.0	300,000.00	CPM	RATE	299,000.00	CPM	1.0033	-
2	PULSE		0.0	30,000.00	CPM	RATE	29,600.00	CPM	1.0135	-
3	PULSE		0.0	3,000.00	CPM	RATE	2,970.00	CPM	1.0101	-
4	PULSE		0.0	300.00	CPM	RATE	300.00	CPM	1.0000	-
6	CS137A	100	207.0	499.79	uR/hr	RATE	421,000.00	CPM	0.0011 uR/hr/CPM	-
7	CS137A	100	293.0	249.46	uR/hr	RATE	211,000.00	CPM	0.0011 uR/hr/CPM	-
8	CS137D		41.0	99.21	uR/hr	RATE	82,000.00	CPM	0.0012 uR/hr/CPM	-
9	CS137D		82.0	24.80	uR/hr	RATE	20,400.00	CPM	0.0012 uR/hr/CPM	-

Usage Notes: 5 FOOT C TO C CABLE, APPROX. 834 CPM PER uR/hr

STANDARD DATA

Source/Nuclide	Manufacturer	Model#	Serial#	Type	Activity	As of	Geometry
CS137A Cs-137	JL Shepherd & Assoc, Inc.	28-6A	10287	Gamma	713.855 mCi	05/05/20	Parallel
CS137D Cs-137	DuPont-NEN	NES9017	083-01	Gamma	0.051 mCi	05/05/20	Parallel

Certification: This instrument has been calibrated to standards traceable to the National Institute of Standards and Technology and conforms to the requirements of ANSI N323-1978 and 10CFR35. The calibration is performed under New York State Radioactive Materials License # C2691.

Calibrated by: _____ Date: 05/05/20
Quality Assurance: Theodore C Rahon

CoPhysics

CoPhysics Corporation
1 Commercial Drive, Unit 1, Florida, NY 10921
www.cophysics.com
845-783-4402

CERTIFICATE OF INSTRUMENT CALIBRATION

Co./Institute: CoPhysics Corporation **Calibration Date:** 01/23/20
Contact: **Phone:** **Due Date:** 01/22/21
Address: 1 Commercial Drive, Suite 1 Florida, NY 10921

Instrument Manufacturer: LUDLUM MEASUREMENTS, INC. **Detector Type:** 1/2x1 NaI Scint.
Meter Model: 2241 **Meter Serial #:** 316729 **Probe Model:** 44-62 **Probe Serial #:** 273614

Temperature (deg.C): 27 Relative Humidity (%): 22 Barometric Pressure (mbar): 1066
Mechanical Chk: OK Bat. Chk: OK Zero Chk: OK F/S Chk: NA Alarm Chk: NA Audio Chk: OK Plateau Chk: OK
Operating Voltage (V): 900 Input Sensitivity (mV): 10 Threshold Setting: 100 Window Setting: -
Repairs :

CALIBRATION DATA

	Source	Type or Attenuator	Dist.(cm)	Cal. Reference	Units	Scale	Net Reading	Units	Correction Factor	Efficiency
1	CS137D		127.0	10.41	uR/hr	dig	436.00	CPM	0.0238 uR/hr/CPM	-
2	CS137D		87.0	22.18	uR/hr	dig	954.00	CPM	0.0232 uR/hr/CPM	-
3	CS137D		52.0	62.08	uR/hr	dig	2,792.00	CPM	0.0222 uR/hr/CPM	-
4	CS137D		36.0	129.52	uR/hr	dig	5,310.00	CPM	0.0243 uR/hr/CPM	-
5	CS137A	100	329.0	199.14	uR/hr	dig	8,064.00	CPM	0.0246 uR/hr/CPM	-
6	CS137A	10	457.0	1,056.08	uR/hr	dig	51,702.00	CPM	0.0204 uR/hr/CPM	-

Usage Notes: CALIBRATION FOR USE WITH 20 FOOT CABLE ONLY. Approx. 43.4 CPM per uR/hr

STANDARD DATA

Source/Nuclide	Manufacturer	Model#	Serial#	Type	Activity	As of	Geometry
CS137A Cs-137	JL Shepherd & Assoc, Inc.	28-6A	10287	Gamma	718.454 mCi	01/23/20	Parallel
CS137D Cs-137	DuPont-NEN	NES9017	C83-01	Gamma	0.051 mCi	01/23/20	Parallel

Certification: This instrument has been calibrated to standards traceable to the National Institute of Standards and Technology and conforms to the requirements of ANSI N323-1978 and 10CFR35. The calibration is performed under New York State Radioactive Materials License # C2691.

Calibrated by: _____ Date: 01/23/20
Quality Assurance: Theodore C Rahon

APPENDIX C – SOIL ANALYSIS RESULTS

(Analytical Results pages only. Contact author for complete report)

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Lot-A
Pace Project No.: 30377832

Sample: Lot A-1 **Lab ID: 30377832001** Collected: 08/07/20 12:00 Received: 08/14/20 10:00 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 901.1	**0.785 ± 0.201 (0.155) C:NA T:NA**	pCi/g	09/10/20 15:24	13982-63-3	Ra
Radium-228	EPA 901.1	**1.402 ± 0.370 (0.241) C:NA T:NA**	pCi/g	09/10/20 15:24	15262-20-1	
	Pace Analytical Services - Greensburg					
Gross Alpha	EPA 9310	**12.7 ± 5.78 (5.38) C:NA T:NA**	pCi/g	08/21/20 07:29	12587-46-1	
Gross Beta	EPA 9310	**16.3 ± 4.11 (3.69) C:NA T:NA**	pCi/g	08/21/20 07:29	12587-47-2	
	Pace Analytical Services - Greensburg					
Thorium-230	HSL-300	**0.339 ± 0.221 (0.162) C:NA T:54%**	pCi/g	08/31/20 12:51	14269-63-7	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Lot-A
Pace Project No.: 30377832

Sample: Lot A-2 **Lab ID: 30377832002** Collected: 08/07/20 12:00 Received: 08/14/20 10:00 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 901.1	**0.714 ± 0.256 (0.412) C:NA T:NA**	pCi/g	09/10/20 15:23	13982-63-3	Ra
Radium-228	EPA 901.1	**1.358 ± 0.439 (0.559) C:NA T:NA**	pCi/g	09/10/20 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Gross Alpha	EPA 9310	**20.0 ± 8.68 (11.5) C:NA T:NA**	pCi/g	08/21/20 07:50	12587-46-1	
Gross Beta	EPA 9310	**18.3 ± 5.16 (5.10) C:NA T:NA**	pCi/g	08/21/20 07:50	12587-47-2	
	Pace Analytical Services - Greensburg					
Thorium-230	HSL-300	**0.841 ± 0.364 (0.165) C:NA T:52%**	pCi/g	08/31/20 12:51	14269-63-7	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Lot-A
Pace Project No.: 30377832

Sample: Lot A-3 **Lab ID: 30377832003** Collected: 08/07/20 12:00 Received: 08/14/20 10:00 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 901.1	**1.267 ± 0.396 (0.305) C:NA T:NA**	pCi/g	09/09/20 09:19	13982-63-3	Ra
Radium-228	EPA 901.1	**0.841 ± 0.342 (0.306) C:NA T:NA**	pCi/g	09/09/20 09:19	15262-20-1	
	Pace Analytical Services - Greensburg					
Gross Alpha	EPA 9310	**17.7 ± 6.93 (6.40) C:NA T:NA**	pCi/g	08/21/20 07:30	12587-46-1	
Gross Beta	EPA 9310	**12.7 ± 3.61 (3.42) C:NA T:NA**	pCi/g	08/21/20 07:30	12587-47-2	
	Pace Analytical Services - Greensburg					
Thorium-230	HSL-300	**0.924 ± 0.347 (0.161) C:NA T:68%**	pCi/g	08/31/20 12:51	14269-63-7	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Lot-A
Pace Project No.: 30377832

Sample: Lot A-4 **Lab ID: 30377832004** Collected: 08/07/20 12:00 Received: 08/14/20 10:00 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 901.1	**0.705 ± 0.200 (0.235) C:NA T:NA**	pCi/g	09/10/20 15:40	13982-63-3	Ra
Radium-228	EPA 901.1	**0.676 ± 0.560 (0.594) C:NA T:NA**	pCi/g	09/10/20 15:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Gross Alpha	EPA 9310	**9.49 ± 5.09 (6.80) C:NA T:NA**	pCi/g	08/21/20 07:49	12587-46-1	
Gross Beta	EPA 9310	**18.9 ± 4.48 (3.03) C:NA T:NA**	pCi/g	08/21/20 07:49	12587-47-2	
	Pace Analytical Services - Greensburg					
Thorium-230	HSL-300	**0.597 ± 0.280 (0.141) C:NA T:58%**	pCi/g	08/31/20 12:51	14269-63-7	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Lot-A
Pace Project No.: 30377832

Sample: Lot A-5 **Lab ID: 30377832005** Collected: 08/07/20 12:00 Received: 08/14/20 10:00 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 901.1	**0.624 ± 0.148 (0.202) C:NA T:NA**	pCi/g	09/10/20 15:41	13982-63-3	Ra
Radium-228	EPA 901.1	**0.714 ± 0.319 (0.239) C:NA T:NA**	pCi/g	09/10/20 15:41	15262-20-1	
	Pace Analytical Services - Greensburg					
Gross Alpha	EPA 9310	**8.86 ± 5.19 (7.40) C:NA T:NA**	pCi/g	08/21/20 07:30	12587-46-1	
Gross Beta	EPA 9310	**13.4 ± 4.17 (4.85) C:NA T:NA**	pCi/g	08/21/20 07:30	12587-47-2	
	Pace Analytical Services - Greensburg					
Thorium-230	HSL-300	**0.263 ± 0.175 (0.150) C:NA T:70%**	pCi/g	08/31/20 12:51	14269-63-7	N2

REPORT OF LABORATORY ANALYSIS

APPENDIX C

RI/FS LABORATORY DATA

APPENDIX D

DATA USABILITY SUMMARY REPORT