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January 28, 2016

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Edison, New Jersey 08837
(electronic copy via email)

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Hudson River Field Office
187 Wolf Road, Suite 303
Albany NY 12205
(Two hard copies, electronic copy via email)

**Subject: Construction Completion Report
Dewey Loeffel Landfill Superfund Site
Removal Order (Index No. CERCLA 02-2012-2005)
Nassau, New York**

Dear Ms. Gregor and Mr. Battipaglia:

In accordance with the Administrative Settlement Agreement and Order on Consent for a Removal Action (Removal Order) for the above-referenced site, enclosed please find a Construction Completion Report for the groundwater and leachate treatment system. Arcadis of New York, Inc., has prepared this report on behalf of the General Electric Company and SI Group Inc., who are Respondents to the Removal Order. In accordance with paragraph 63 of the Removal Order, this report includes post-construction as-built drawings, data collected during the treatment system shakedown period and a final OM&M Plan. The Respondents request that the United States Environmental Protection Agency review the attached report and reply with any questions and/or comments. If there are no questions or comments, please reply with USEPA's approval.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Lewis S. Streeter'.

Lewis S. Streeter
Senior Project Manager

January 28, 2016

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cc:

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CONSTRUCTION COMPLETION REPORT

Dewey Loeffel Landfill Superfund Site
Nassau, New York

January 28, 2016

CONSTRUCTION COMPLETION REPORT

Dewey Loeffel Landfill Superfund Site
Nassau, New York

Prepared by:

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Our Ref.:

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Figure 1	Site Location Map
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Attachment A	As-Built Drawings
Attachment B	Summary of Analytical Results from Shakedown
Attachment C	Operations, Maintenance and Monitoring Plan (Bound Separately)

1 INTRODUCTION

This Construction Completion Report (CCR) has been prepared for the groundwater and leachate treatment system at the Dewey Loeffel Landfill Superfund Site located in the Town of Nassau, Rensselaer County, New York (site). The work described herein was completed pursuant to the Administrative Settlement Agreement and Order on Consent for a Removal Action (CERCLA Index No. 02-2012-2005) (Consent Order) executed by the United States Environmental Protection Agency (USEPA), General Electric Company (GE), and SI Group, Inc. (SI Group). (GE and SI Group are referred to herein as Respondents.)

This CCR has been prepared to describe the following:

- A summary of construction of the groundwater and leachate treatment system as presented in the Design Report/Implementation Plan (DR/IP), last revised September 19, 2013;
- As-built layouts and design drawings;
- Summary of the analytical results from shakedown period; and
- Final Operations, Maintenance and Monitoring Plan (OM&M Plan).

1.1 Location and Description

The Dewey Loeffel Landfill (landfill) is located along the south side at 350 Mead Road between Nassau-Averill Park Road and Central Nassau Road. A map showing the location of the landfill and surrounding area is presented on Figure 1. Key features are presented on Figure 2.

The capped area of the landfill is roughly triangular in shape and situated in a low-lying area between two wooded hills. The landfill is bound to the north by Mead Road, and to the south, west and east by undeveloped forested land. The rural area surrounding the landfill is sparsely populated and contains few residential properties and a bowhunter's club lodge.

Topography in the area generally slopes downward from east to west. Surface water at the landfill mostly drains to the west toward the Valatie Kill via Tributary T11A. The Valatie Kill flows in a southwesterly direction to Nassau Lake, located approximately three miles downstream. Surface water from a portion of the landfill flows to the south into a small unnamed tributary which discharges into Valley Stream and ultimately Nassau Lake.

The hydraulic gradient of groundwater in overburden soils in the vicinity of the landfill is generally to the west and/or southwest. The hydraulic gradient of groundwater in the bedrock is similar. However, based on the distribution of volatile organic compounds (VOCs) in a groundwater contaminant plume emanating from the landfill to the south, bedrock groundwater flows primarily to the south due to the influence of fractures within the bedrock.

1.2 History

As described in the Consent Order, from approximately 1952 to 1968, the landfill was owned and operated by several companies including the Loeffel Waste Oil and Removal Service Company (Loeffel

Companies) as a waste disposal facility. During this time, the landfill consisted of two waste lagoons located in the western and central portions of the landfill, a 6-foot deep oil pit in the east central portion of the landfill, four 30,000 gallon aboveground storage tanks, and a drum disposal area located in the southeastern portion of the landfill.

Landfill disposal operations reportedly ceased in 1968 by order of the State of New York. Between 1970 and 1975, remedial actions undertaken by the Loeffel Companies included covering and grading the drum disposal area, oil pit and lagoons, and constructing a system of drainage ditches around the landfill. From 1974 to 1980, the Loeffel Companies reportedly also operated a waste oil transfer station utilizing the four 30,000 gallon aboveground storage tanks.

On September 23, 1980, GE entered into an agreement with the New York State Department of Environmental Conservation (NYSDEC) which required GE to perform field investigations, submit an engineering report which discussed the collected data, identify remedial alternatives, and recommend a remedial alternative. A remedy was subsequently selected by NYSDEC and involved the installation of soil-bentonite cutoff wall around the landfill, an overlying clay cap, and a landfill leachate collection system below the cap within the cutoff wall. The design of the remedy was performed by GE and approved by NYSDEC. The remedy was subsequently implemented by NYSDEC using funding provided by GE, Schenectady Chemicals, Inc. (now SI Group), and Bendix Corporation (now Honeywell International, Inc.). Beginning in 1983, NYSDEC and/or GE performed a variety of response actions at the site, some of which were performed in accordance with Records of Decision (RODs) issued by NYSDEC in January 2001 and January 2002. The response actions included, but were not limited to, the following:

- Installation and operation of a bedrock groundwater recovery well system involving three extraction wells located to the south of the landfill;
- Transportation of landfill leachate and groundwater for off-site treatment;
- Installation, operation, maintenance and monitoring of point-of-use (POU) treatment systems for five residential wells (located on four properties) to remove VOCs;
- Routine VOC monitoring of other residential wells located near the landfill; and
- Routine monitoring of many groundwater monitoring wells located outside the landfill's perimeter fence.

The groundwater extraction system designed and constructed by NYSDEC was located along the approximate centerline of the VOC plume to the south of the landfill and included three bedrock extraction wells (designated EW-1, EW-2 and EW-3, see Figure 2). Beginning in late March 2008 and through 2010, NYSDEC extracted groundwater from these three extraction wells on a seasonal basis, operating during the spring, summer, and fall months. Along with leachate from the landfill, extracted groundwater was transported for off-site treatment and disposal. NYSDEC transported landfill leachate for off-site treatment and disposal each year since 1991 with the exception of 1994. NYSDEC continued operation of the landfill leachate collection system through October 2011. Operation of the groundwater extraction system by NYSDEC did not resume after shutdown in the fall of 2010 until July 2011.

At the request of NYSDEC, USEPA proposed the site for inclusion on the National Priorities List (NPL) on March 4, 2010. The site was subsequently added to the NPL on March 10, 2011.

USEPA subsequently took over operation of the landfill leachate collection system and the groundwater extraction system to the south of the landfill on October 31, 2011. USEPA winterized the system, allowing groundwater extraction to continue during the winter months.

Pursuant to the Consent Order, Respondents assumed responsibility from USEPA for continued operation and maintenance of the on-site leachate collection system and the off-site groundwater extraction system. The transition from USEPA to the Respondents occurred on August 1, 2012 and continued to December 2013. Pursuant to the Consent Order, Respondents designed and constructed an on-site treatment system to treat landfill leachate and extracted groundwater. The treatment system was started up in December 2013.

2 TREATMENT SYSTEM OVERVIEW

The Respondents determined that continued transportation of leachate and extracted groundwater for off-site treatment and disposal was not a long-term environmentally sustainable option. The purpose of the treatment system is to eliminate the need for the continued, year-round trucking of extracted groundwater and leachate from the site. The treatment system also facilitates the extraction of additional groundwater (from eight extraction wells, including five new extraction wells in addition to three original extraction wells). The treatment system was primarily designed to address VOCs and semi-volatile organic compounds (SVOCs) in the extracted groundwater and landfill leachate prior to discharge to surface water (i.e., the Valatie Kill).

The design of the treatment system was based on an average flow rate of 15 gallons per minute (gpm) and a maximum flow of 25 gpm. The treatment system consists of the following major components:

- One equalization tank for leachate;
- One equalization tank for groundwater and leachate combined;
- One aerobic fixed-film bioreactor;
- One clarifier settling tank;
- Two bag filtration systems;
- One induced draft low-profile air stripper system;
- One advanced oxidation system (i.e., HiPOx);
- Two liquid-phase granular activated carbon (GAC) adsorption units;
- Three vapor-phase GAC vessels;
- Two vapor-phase potassium permanganate impregnated zeolite (PPZ) vessels;
- One treated water storage tank; and
- A programmable logic controller (PLC)-based control system.

Groundwater is pumped from the extraction wells to an equalization tank located in the treatment building. Landfill leachate is first pumped from the underground leachate collection tank at the landfill to a leachate tank in the treatment building, and then pumped into the main equalization tank. Groundwater and landfill leachate is then pumped from the main equalization tank to an aerobic fixed-film bioreactor tank. The bioreactor consists of a submerged fixed-film growth media within a reactor tank, incorporating aeration and biological treatment. The bioreactor system is designed primarily to destroy benzene, toluene, ethylbenzene, and xylenes (BTEX), vinyl chloride, and acetone and other chlorinated VOCs and SVOCs to some extent. Inside of the bioreactor, biomass attach to the growth media, with aerators and chemical feed systems to provide sufficient oxygen and nutrients for sustaining adequate biomass within the reactor. In the course of the biological process, biomass sloughs off the growth media and exits the reactor tank. Effluent from the reactor tank, which includes this biomass and other solids that carryover from the bioreactor, flows to a clarifier. Settled solids collected at the bottom of the clarifier are periodically withdrawn and dewatered through a bag filter.

Water from the clarifier settling tank flows to a pump station tank, which is equipped with transfer pumps leading to subsequent treatment processes and a recycle pump. A recycle stream may be directed back to the main equalization tank in order to maintain a consistent flow rate through the bioreactor and clarifier. Water is then pumped through a bag filtration system (two bag filter units installed in parallel) for removal of suspended solids prior to being directed to an induced draft low-profile air stripper to address remaining or residual strippable VOCs. Vapor exhaust from the air stripper and the vented air from the bioreactor passes through three vapor-phase GAC units for adsorption of VOCs followed by two vessels containing PPZ for destruction of methylene chloride and vinyl chloride. Treated water from the air stripper may then be either recycled back to the equalization tank based on tank level to maintain a continuous flow rate through the bioreactor, clarifier and air stripper, or directed through the HiPOx unit for treatment of 1,4-dioxane. Water is then directed through two liquid-phase GAC units in series to address SVOCs, residual adsorbable VOCs, and, if present, low concentrations of polychlorinated biphenyls (PCBs). Treated effluent then flows to a treated water storage tank, which is then pumped for discharge to the Valatie Kill.

3 CONSTRUCTION COMPLETION SUMMARY

The groundwater and leachate treatment system was constructed according to the design details presented in the DR/IP, with minor modifications. Construction of the treatment system, including connection of the three original extraction wells and leachate collection tank, was started in May 2013 and substantially completed in November 2013. Installation of the five new extraction wells occurred in early 2014 while connection of these wells to the treatment system was completed in early 2015.

The following construction and installation details, as well as a summary of any modifications to the system design, are included in this section:

- Conveyance piping and related components;
- Treatment building foundation;
- Equipment construction and installation details;
- Extraction well details; and
- Summary of final construction and installation details of the system utilities, including electrical and phone line.

As-Built Drawings are provided in Attachment A.

3.1 Conveyance Piping Details

During the construction of the treatment system, a vault with piping and valves, located near the southern tip of the landfill as shown on Figure 2, was installed to allow pump and truck operations to continue in parallel with the construction activities. This installation required a brief shutdown of the three original extraction wells (EW-1, EW-2, and EW-3). Leachate removal from the leachate collection tank was not impacted by the installation of this vault and associated appurtenances.

Pipeline and conduit trenches were excavated as shown on the As-Built Drawings. Trench depth was excavated to provide a minimum of 54 inches over the top of pipe and 24 inches over the top of conduit. Temporary erosion and sedimentation control measures were put in place to limit soil erosion and soil-bearing water runoff as shown on the As-Built Drawings.

At the request of the Town of Nassau, spoil from the discharge line installation under Mead Road was not used as backfill. Based on analytical testing, this material was determined to be non-hazardous and not subject to regulation under the Toxic Substances Control Act (TSCA). This material, under Mead Road and northward approximately 160 feet, was transported in direct load dump trucks to High Acres Landfill (High Acres) in Fairport, New York, which is owned by Waste Management of New York, LLC. With the exception of this portion of the discharge pipeline, pipe trenches were backfilled with spoil material. However, spoil was inspected prior to use. Soil that was free of rock or gravel larger than 1.5 inches in any dimension was used for trench backfill within 6 inches of the pipe or conduit. If suitable spoil was not available, a naturally or artificially graded mixture of natural crushed gravel, crushed stone, and natural or crushed sand meeting American Society for Testing and Materials (ASTM) D 2940 that 100 percent passes a 1.5 inch sieve was used. Spoil with rock or gravel larger than 1.5 inches was used further than 6 inches from all buried pipe or conduit. Backfill material was placed in 6-inch to 12-inch loose lifts and

compacted using vibratory compaction equipment. Excess spoil material (including spoil that did not meet the above specifications) was used as general fill along the trench route.

3.2 Treatment Building Foundation Details

The treatment building concrete slab was constructed and tested in accordance with the procedures discussed in this section. Foundation subgrades consisted of undisturbed soil or compacted fill as shown on the As-Built Drawings.

The treatment building concrete slab was constructed to the dimensions shown on the As-Built Drawings. The materials used to construct the building slab (e.g., forms, steel reinforcement, concrete, etc.) were visually examined to confirm conformance with the DR/IP.

Testing of the concrete was performed by an independent testing firm, qualified according to ASTM C 1077 and ASTM E 329 to conduct the testing indicated, as documented according to ASTM E 548. During concrete placement, field testing consisted of, at a minimum, the following:

- Testing Frequency – Collected one composite sample for each day's pour of each concrete mix exceeding 5 cubic yards (cy), but less than 25 cy, plus one set for each additional 50 cy or fraction thereof;
- Slump (ASTM C 143) – One test at point of placement for each composite sample but not less than one test for each day's pour of each concrete mix;
- Air Content (ASTM C 231 or ASTM C 173) – One test for each composite sample, but not less than one test for each day's pour of each concrete mix;
- Concrete Temperature (ASTM C 1064) – One test hourly when air temperature was 40 degrees Fahrenheit (F) and below or when 80 degrees F and above, and one test for each concrete composite sample;
- Unit Weight (ASTM C 567) – One test for each composite sample, but not less than one test for each day's pour of each concrete mix; and
- Compression Test Specimens (ASTM C31/C 31M) - One set of five standard cylinders at 7 days and two at 28 days cast and laboratory cured. A compression test-strength test was the average compression strength from two specimens obtained from the same composite sample and tested at the age indicated.

Strength of each concrete mix was considered satisfactory if every average of any three consecutive compression-strength tests equaled or exceeded specified compressive strength and no compressive-strength test value fell below specified compressive strength by more than 500 pounds per square inch (psi).

3.3 Process Equipment Construction and Installation Details

At the completion of the treatment building erection, which was constructed to the dimensions in the As-Built Drawings, equipment delivery and installation began. The installation, testing, and start-up of the groundwater and leachate treatment system were performed in accordance with the As-Built Drawings

and the Material and Performance Specifications. The work described in the DR/IP consists of the major activities outlined below.

- Provision and installation of electric heaters, exhaust fans, and wall louvers;
- Unloading and installation of all treatment system equipment;
- Provision and installation of all treatment system piping, fittings, valves, and pressure gauges; and
- Installation of all instrumentation.

For individual process components, specifications are provided in the DR/IP and installation/start-up instructions were provided by the manufacturers. Mechanical commissioning was completed to verify that all tanks, treatment units, pumps, piping, valves, and instrumentation were installed at the appropriate locations in the treatment system. The process also verified that all valves were in the proper operating position to allow water to flow through the system as intended.

3.4 Extraction Well Details

Additional hydrogeologic investigation activities were performed during implementation of the DR/IP at each of the five new extraction wells. The hydrogeologic conditions in the bedrock were characterized using a multidisciplinary approach including the use of rock coring, borehole geophysics (including vertical flow meter testing under ambient and pumping conditions), and packer testing (for both hydraulic and water quality data). In addition, bedrock samples were collected at some of the locations for laboratory analysis of various physical parameters, and detailed hydraulic conductivity profiling was performed at one or two locations. Following completion of the hydrogeologic investigation activities, each borehole was converted into an extraction well per the As-Built Drawings. A detailed description of the activities performed during drilling and installation of the new extraction wells is presented in Appendix F of the DR/IP.

3.5 Utilities Details

Single-phase power is provided by National Grid from an existing service on Mead Road. As identified on the As-Built Drawings, a new 240 volt transformer was required to supply a 400 ampere service to the treatment building. In order to power the well pumps and treatment equipment located in the treatment building, step-up transformers were also installed to provide 480 volt single-phase service. National Grid installed the necessary utility poles and transformer for this project. The electrical work described in the DR/IP consists of the major activities outlined below.

- Installation of grounding grid around the treatment building;
- Provision and installation of motor control center in the treatment building;
- Installation of treatment building lights;
- Connection of ventilation fans and heaters;
- Installation of power and instrumentation infrastructure inside the treatment building; and

Construction Completion Report

- Installation of power and instrumentation supply to the three original extraction wells, five new extraction wells, and existing leachate underground storage tank.

All electrical and control equipment was provided and installed in accordance with the configuration shown on the As-Built Drawings and the Material and Performance Specifications provided in the DR/IP. Testing/inspection completed for the treatment system included the following:

- Continuity testing of all wire and cable in place but before final connections were made;
- Inspection and approval of the incoming electrical service;
- Performance of the electrical grounding system testing;
- Testing to confirm interlocks and alarm conditions provide the required result; and
- Calibration of instrumentation components.

Phone service is provided by Fairport Communications from an existing service on Mead Road. Propane used for building heat is stored in a 1,000 gallon tank located near the treatment building as shown on the As-Built Drawings. A propane-powered emergency generator with an automatic transfer switch supplies sufficient power to operate one unit heater to keep the building above freezing temperature in case of an electrical power outage.

4 TREATMENT SYSTEM START-UP AND SHAKEDOWN

Initial treatment system start-up occurred using groundwater from original extraction wells EW-1, EW-2, and EW-3, and leachate from the existing leachate storage tank at the landfill. Sampling of the treatment system was conducted to demonstrate that the discharge meets the substantive requirements established pursuant to the Consent Order (see Appendix B of the DR/IP). The treatment system discharge was sampled and analyzed for the parameters in the substantive requirements by methods described in the revised Quality Assurance Project Plan (QAPP).

As specified in Paragraph 54 of the Consent Order, treated water discharged from the system was containerized on-site in three temporary water storage tanks located near the treatment building from start-up in December 2013 through November 2014. The treated water was, with USEPA prior approval, discharged to the Valatie Kill in batches when the sampling data for a tank showed that the substantive requirements had been met. Starting in December 2014, direct discharge to the Valatie Kill began. Direct discharge began after about 880,000 gallons of water had been treated and temporarily stored prior to sampling and discharge.

In early July 2015, the first new extraction well was started up. Another new extraction well was started up every four weeks until all five new extraction wells were operating in late October 2015. Four weeks after the last extraction well was started up, the shakedown period concluded.

Tabulated analytical results from treatment system start-up, including the associated process monitoring, is provided in Attachment C. These tables have been provided weekly to USEPA and analytical data sheets were included in the Monthly Progress Reports. Complete analytical data reports have also been provided monthly to USEPA.

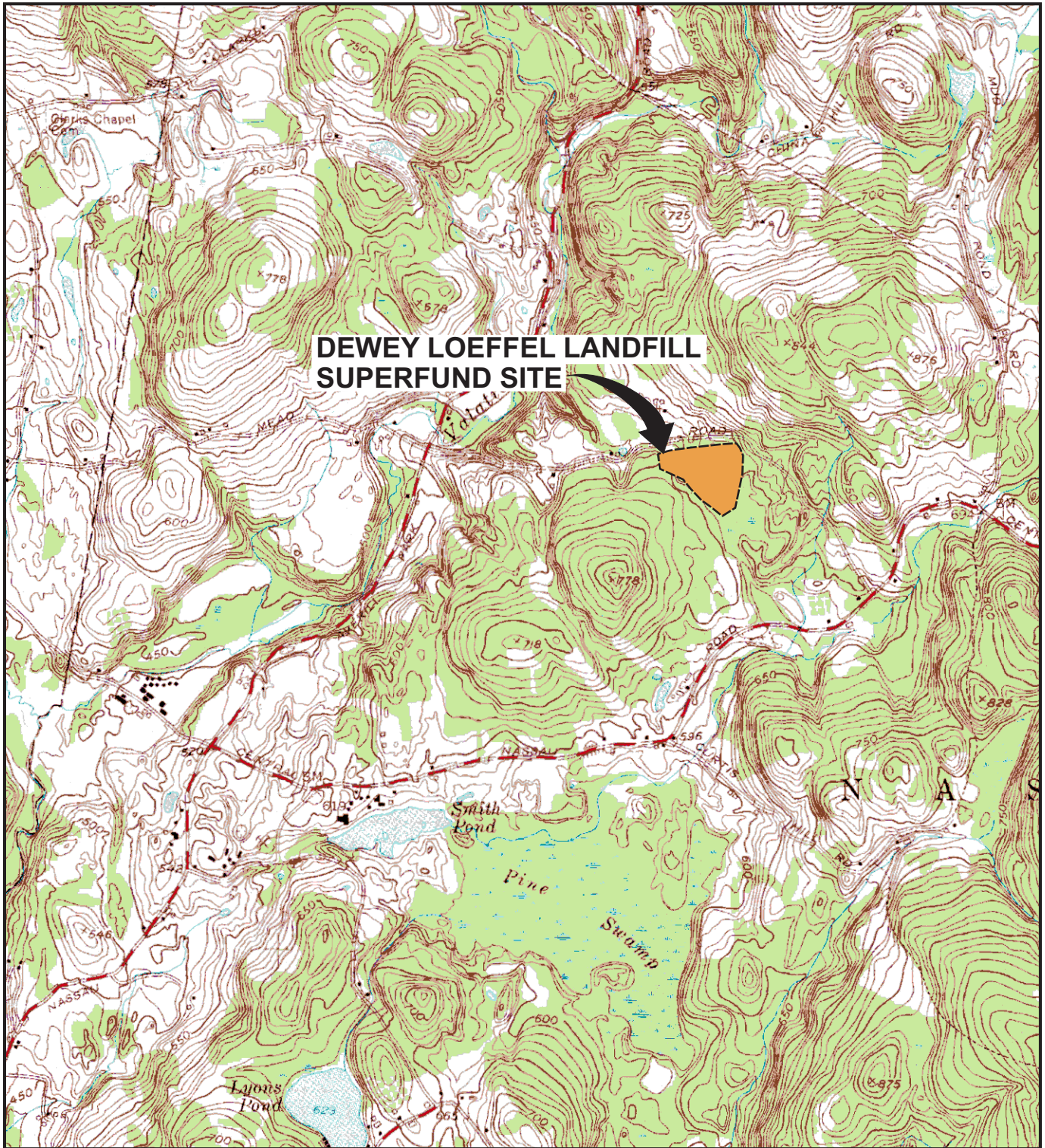
5 OPERATIONS, MAINTENANCE AND MONITORING PLAN

A final OM&M Plan has been prepared for the treatment system and is provided in Appendix C (separately bound). This plan includes the following information:

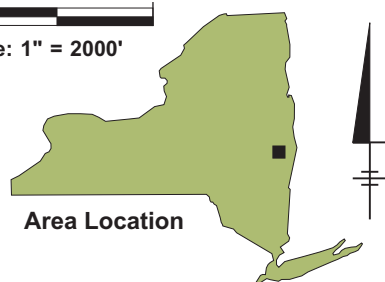
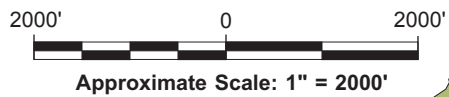
- Procedures for regular OM&M of the groundwater and leachate treatment system, including, but not limited to, inspection and maintenance checklists and schedules for inspection and maintenance activities;
- Plans for general maintenance of gravel drives, the fence surrounding the landfill, extraction wells and treatment building area, and snow removal and grass cutting as necessary to access all components of the groundwater and leachate treatment system;
- A plan for providing security measures to be taken to keep unauthorized personnel from entering restricted work areas;
- A schedule for operation of the treatment system; and
- Plans and a schedule for monitoring of the treatment system as well as a schedule for submission of the results to USEPA.

FIGURES



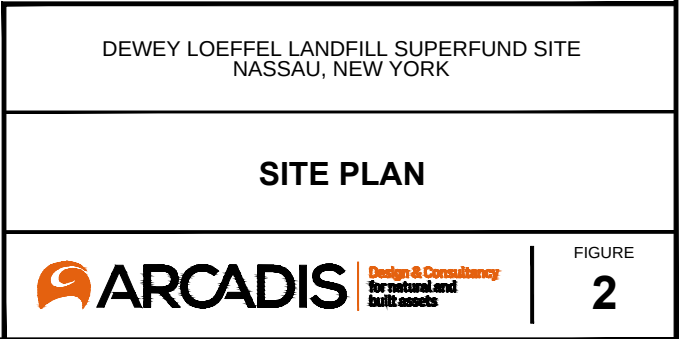


REFERENCE: BASE MAP USGS 7.5 MIN. QUAD., NASSAU, NY, 1953, PHOTOREVISED 1978.



DEWEY LOEFFEL LANDFILL SUPERFUND SITE
NASSAU, NEW YORK

SITE LOCATION MAP



ATTACHMENTS



ATTACHMENT A

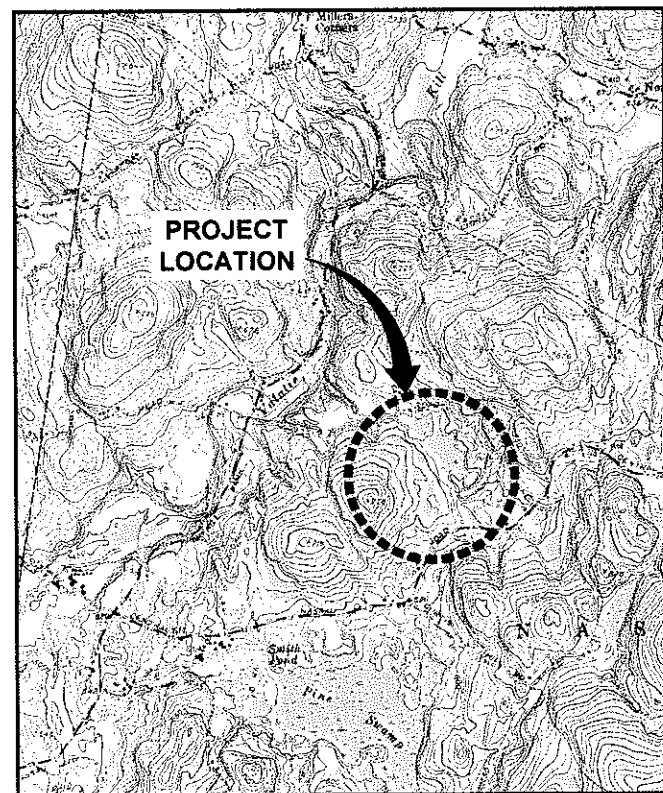
As-Built Drawings



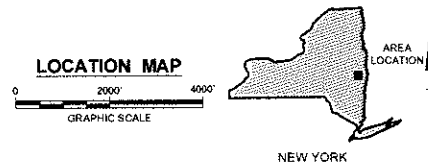
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RECORD DRAWINGS

GROUNDWATER AND LEACHATE TREATMENT SYSTEM



REFERENCE: BASE MAP USGS 7.5 MINUTE QUADRANGLE, NASSAU, N.Y. 1953, PHOTOINSPECTED 1978



DEWEY LOEFFEL LANDFILL SUPERFUND SITE NASSAU, NEW YORK

DATE ISSUED
JANUARY 2016



ARCADIS OF NEW YORK, INC.

NO ALTERATIONS PERMITTED HEREON EXCEPT AS
PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE
NEW YORK STATE EDUCATION LAW

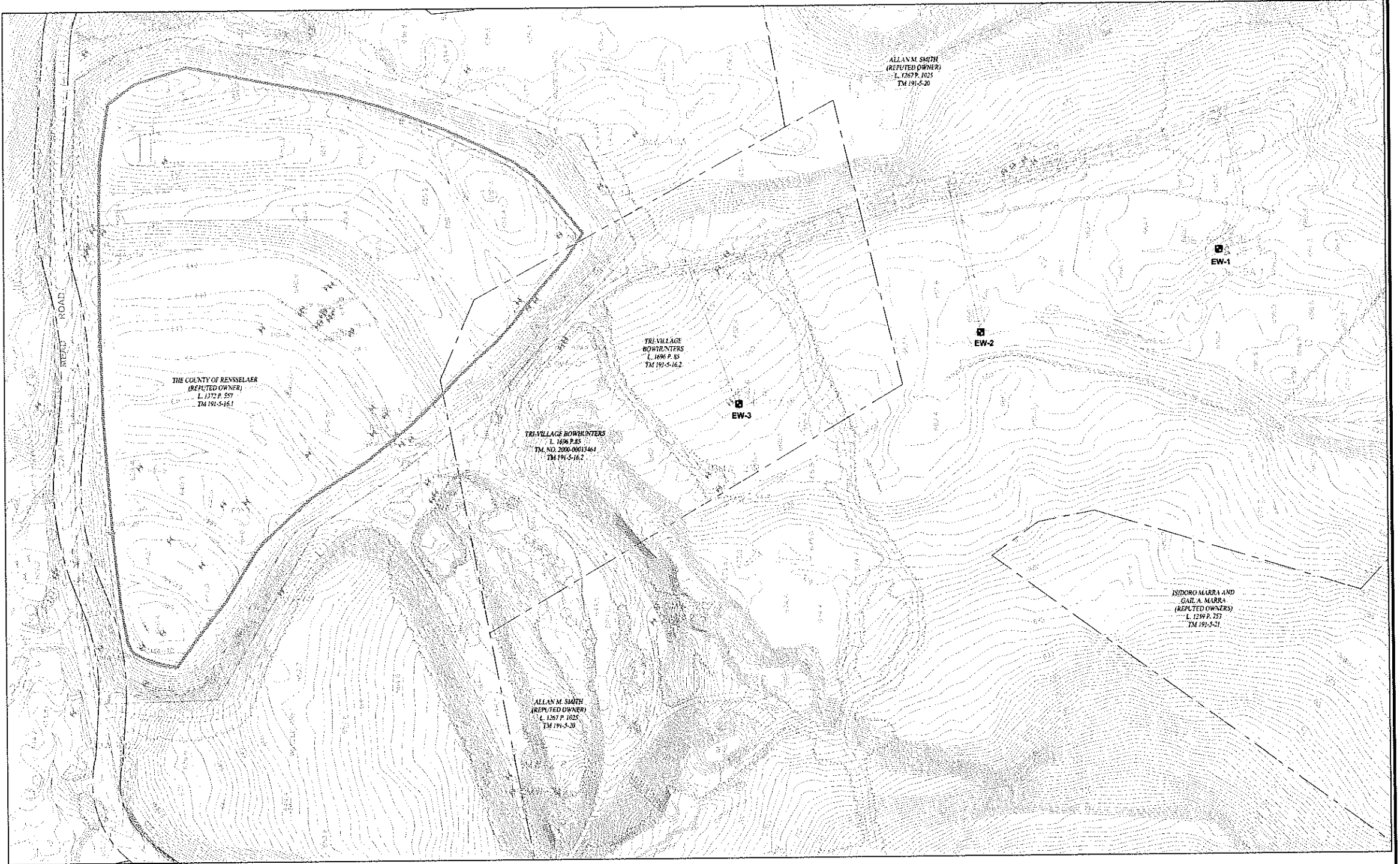
RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE,
INFORMATION AND BELIEF, THESE RECORD
DRAWINGS SUBSTANTIALLY REPRESENT THE
PROJECT AS CONSTRUCTED.
DATE 1/28/16 BY *SAUDA*

INDEX TO DRAWINGS

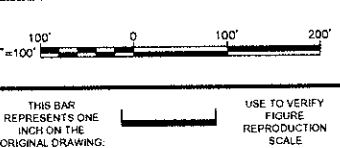
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| G1 | GENERAL SPECIFICATIONS AND EXISTING SITE CONDITIONS |
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| C1B | SITE PLAN (2 OF 2) |
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NOTES:

1. ALL WORK DESCRIBED IN THESE DRAWINGS/SPECIFICATIONS SHALL BE PERFORMED ON BEHALF OF GENERAL ELECTRIC COMPANY (GE) AND SI GROUP, INC. (SI GROUP) (COLLECTIVELY, RESPONDENTS).
2. THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE ALL OF THE PHYSICAL CONDITIONS THAT AFFECT THE FINAL BID PRICE.
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY FIELD MEASUREMENTS TO VERIFY THE ABILITY TO EXECUTE THE WORK IN ACCORDANCE WITH THESE DRAWINGS. NO ADDITIONS OR REVISIONS TO THE BID OR CONTRACT PRICE WILL BE PERMITTED BASED ON EXISTING CONDITIONS.
4. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, AND EQUIPMENT, UNLESS OTHERWISE STATED, NECESSARY TO PERFORM THIS WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL TRADE PERMITS AND APPROVALS NECESSARY TO PERFORM THIS WORK.
6. CONTRACTOR SHALL KEEP ALL INFORMATION PRESENTED IN THESE DRAWINGS REGARDING THE SITE AS CONFIDENTIAL.
7. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES WITHIN THE AREA AFFECTED BY CONSTRUCTION.
8. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING A LOG OF DAILY PROGRESSION OF WORK.
9. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORD DRAWINGS (RED LINES) SHOWING ACTUAL DETAILS, DIMENSIONS, AND OTHER PERTINENT FEATURES THAT VARY FROM THE ORIGINAL DESIGN.
10. UNLESS OTHERWISE NOTED, ALL AREAS DISTURBED BY THIS WORK SHALL BE RESTORED TO ORIGINAL CONDITION.
11. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL EXISTING FEATURES WITHIN AREAS AFFECTED BY CONSTRUCTION. DAMAGE SUSTAINED TO AN EXISTING FEATURE WILL BE REPAIRED/REPLACED AT CONTRACTOR'S EXPENSE.
12. THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH ALL COUNTY, LOCAL, STATE, AND FEDERAL REGULATIONS, INCLUDING, BUT NOT LIMITED TO, ALL APPLICABLE LOCAL, STATE, AND/OR FEDERAL (OSHA, USEPA, AND DOT, ETC.) RULES AND REGULATIONS.
13. UNLESS OTHERWISE INDICATED HEREIN, ALL MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE NEW, FREE FROM DEFECTS, AND SHALL BE GUARANTEED FOR A PERIOD OF AT LEAST ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK. THE CONTRACTOR SHALL FURNISH, AT NO COST, ALL LABOR AND MATERIALS NECESSARY TO CORRECT PROBLEMS DUE TO FAULTY WORKMANSHIP OR MATERIALS.
14. THE INFORMATION SHOWN ON THE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO AND HARM THEREFROM.
15. PIPE ROUTING SHOWN FOR CONSTRUCTION LAYOUT PURPOSES ONLY. ACTUAL ROUTING TO BE FIELD DETERMINED AND IS SUBJECT TO THE APPROVAL OF THE RESPONDENTS' REPRESENTATIVES.
16. ALL PIPING PRESSURE TESTS SHALL BE PERFORMED IN ACCORDANCE WITH ASTM F 2164 AND MADE BY THE CONTRACTOR IN THE PRESENCE OF THE RESPONDENTS' REPRESENTATIVES.
17. THE CONTRACTOR SHALL PROVIDE ALL PRODUCTS AND PROPERLY CALIBRATED TESTING EQUIPMENT REQUIRED TO PERFORM THE PIPING PRESSURE TESTING WORK.
18. TESTS MAY BE PERFORMED ON SEPARATE SECTIONS OF PIPING TO EXPEDITE CONSTRUCTION. THE CONTRACTOR SHALL NOT PERFORM PRESSURE TESTING AGAINST SYSTEM VALVES.
19. AFTER THE INITIAL PRESSURE TEST ON PIPING IS SUCCESSFULLY COMPLETED, THE CONTRACTOR SHALL BACKFILL THE TRENCHES AS SPECIFIED.
20. EXCAVATIONS SHALL BE KEPT FREE FROM STANDING WATER.
21. THE CONTRACTOR SHALL PROVIDE APPROPRIATE SAFETY BARRICADES AROUND TRENCHING AND EXCAVATION TO PREVENT ACCIDENTS OR UNAUTHORIZED ENTRY.
22. BACKFILL OF TRENCHES SHALL BE APPLIED IN 1-FOOT COMPACTED LIFTS AND COMPACTED TO 90% MODIFIED PROCTOR DENSITY.
23. CONTRACTOR'S FILL SOURCE MUST BE TESTED BY CONTRACTOR AND APPROVED BY THE RESPONDENTS' REPRESENTATIVES PRIOR TO COMMENCING THE WORK AND/OR PLACING THE MATERIAL.
24. EXCAVATIONS SHALL BE BACKFILLED AS PROMPTLY AS WORK PERMITS ONCE REQUIRED INSPECTIONS HAVE BEEN COMPLETED.
25. PRIOR TO COMMENCING WORK ON EXISTING GROUNDWATER PIPING, PIPES SHALL BE BLOWN OUT WITH COMPRESSED AIR IN ORDER TO PUSH ANY RESIDUAL WATER TO THE EXISTING FRAC TANKS IN THE POLE BARN.



CITY: SYRACUSE, NY
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BY: SAWYER, NANCY



No.	Date	Revisions	By	Ckd

Professional Engineer's Name DONALD F. SAUDA		
Professional Engineer's No. 084145		
State NY	Date Signed 2/13/2013	Project Mgr. DFS
Designed by SAB	Drawn by GHS	Checked by TEM



**ARCADIS**
Design & Consultancy
for natural and built assets

ARCADIS OF NEW YORK, INC.
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RECORD DRAWING: MADE FROM DRAWING NO. G1, G:\GE\ENV\CAD\SYRACUSE\ACT\C\B0031174\0003\00002\DWG\CONTRACT\31174G01.DWG, DATED 4/5/2013

DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM

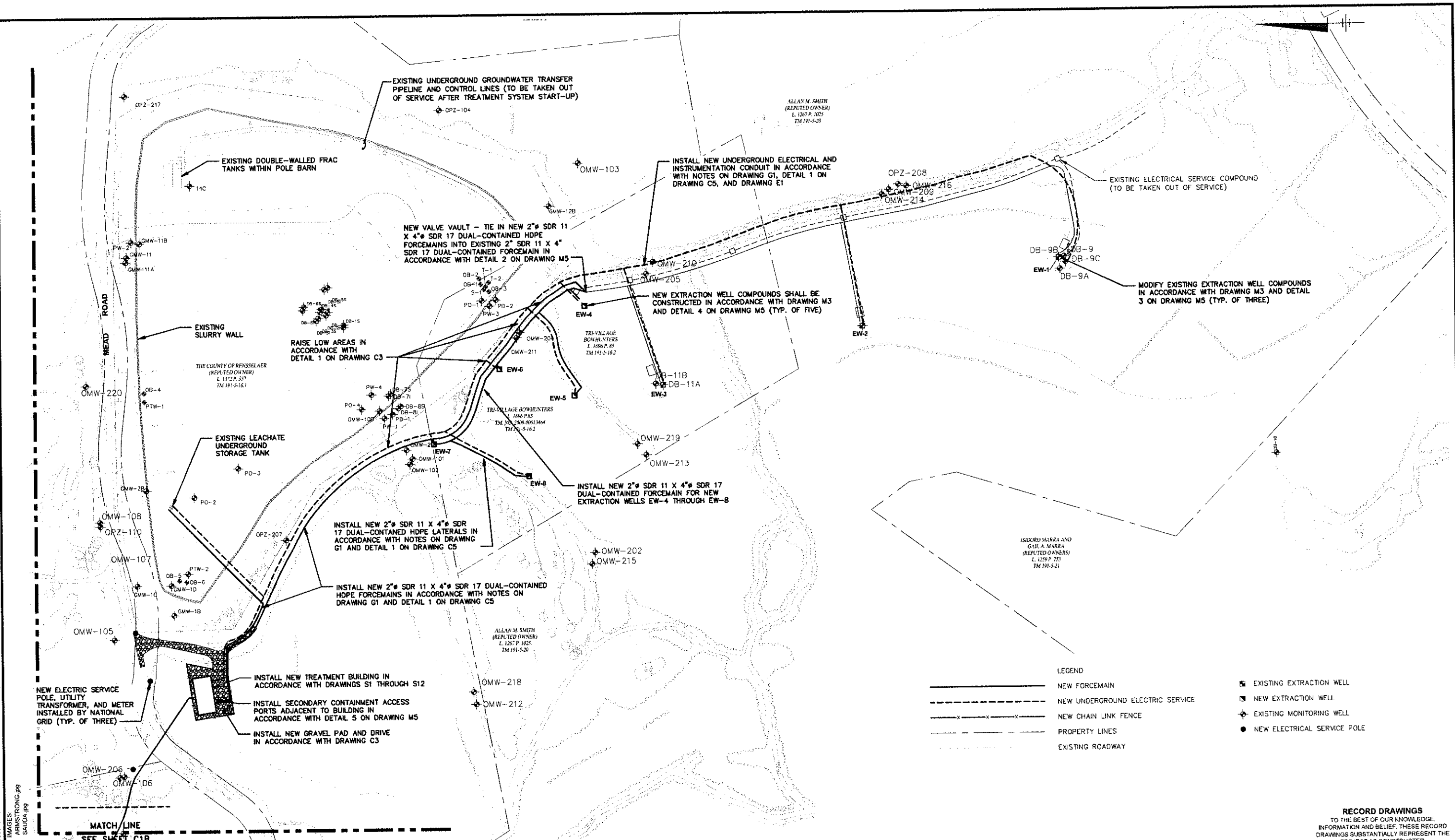
GENERAL SPECIFICATIONS AND EXISTING SITE CONDITIONS

GENERAL

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE,
INFORMATION AND BELIEF, THESE RECORD
DRAWINGS SUBSTANTIALLY REPRESENT THE
PROJECT AS CONSTRUCTED.

DATE: 1/28/16 BY: JTS

ARCADIS Project No. B0031174.0004.00014	G1
Date JANUARY 2016	
ARCADIS 6723 TOWPATH ROAD P.O. BOX 66 SYRACUSE, NY 13214 TEL: 315.446.9120	



RECORD DRAWING: MADE FROM DRAWING NO. C1A, G:\GE\ENVCAD\SYRACUSE\ACT\C\B0031174\0003\00002\DWG\CONTRACT\31174C01A.DWG, DATED 9/6/2013

DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
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SITE PLAN (1 OF 2)

CIVIL

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE,
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ARCADIS Project No.
80031174.0004.00014

Date
JANUARY 2016

ARCADIS
6723 TOWPATH ROAD
P.O. BOX 66
SYRACUSE, NY 13214
TEL: 315.446.9120

C1A

							Professional Engineer's Name		
							DONALD F. SAUDA		
							Professional Engineer's No.		
							084145		
							State	Date Signed	Project Mgr.
							NY	2/13/2013	DFS
No.	Date	Revisions				By	Ckd		
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CITY:SYRACUSE,NY DIV:GROUP-ENVCAD DB:G:STEINBERGER LG:G:STEINBERGER PIC:P:FAHR PM:D:SAUDA TMS:BATTAGLIA LYN:ON:OFF=REF*
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- LEGEND
- NEW FORCEMAIN
 - NEW UNDERGROUND ELECTRIC SERVICE
 - NEW CHAIN LINK FENCE
 - PROPERTY LINES
 - EXISTING ROADWAY
 - EXISTING EXTRACTION WELL
 - NEW EXTRACTION WELL
 - EXISTING MONITORING WELL
 - NEW ELECTRIC SERVICE POLE

31174X00
31174X01
31174X02

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING.

USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd

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Professional Engineer's Name
DONALD F. SAUDA

Professional Engineer's No.
084145

State
NY

Date Signed
2/13/2013

Project Mgr.
DFS

Designed by
SAB

Drawn by
GHS

Checked by
TEM



ARCADIS Design & Consultancy for natural and built assets

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DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM

SITE PLAN (2 OF 2)

CIVIL

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, THESE RECORD DRAWINGS SUBSTANTIALLY REPRESENT THE PROJECT AS CONSTRUCTED.

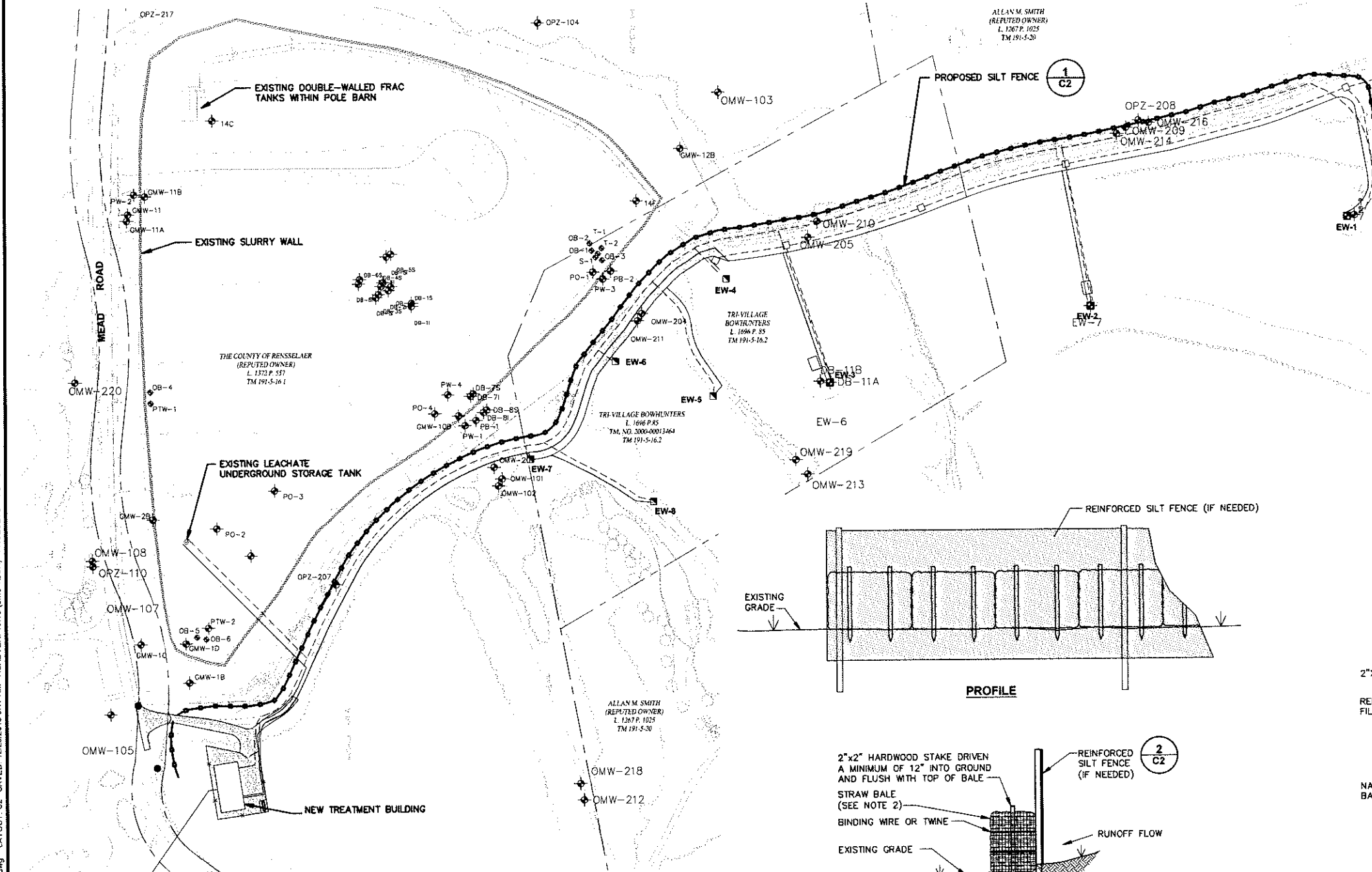
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ARCADIS Project No.
B0031174.0004.00014

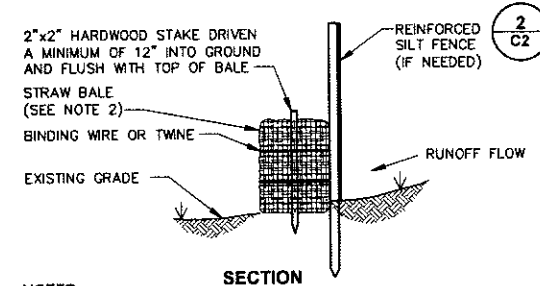
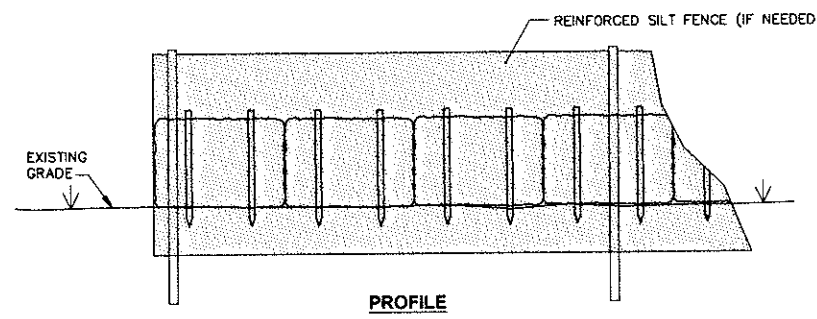
Date
JANUARY 2016

ARCADIS
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TEL: 315.446.0120

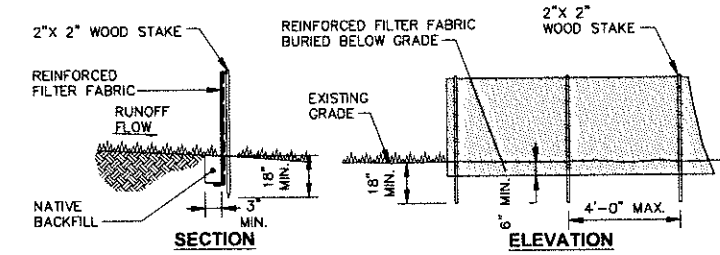
C1B



- NOTES:
1. ACTUAL LOCATIONS OF EROSION AND SEDIMENT CONTROL FEATURES MAY VARY BASED ON ACTUAL SITE CONDITIONS ENCOUNTERED AT TIME OF CONSTRUCTION.
 2. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO DISTURBANCE OF EXISTING SITE SOILS AND VEGETATION.
 3. ALL WORK SHALL BE LIMITED TO WITHIN THE DESIGNATED PROPERTY, RIGHT OF WAY, EASEMENT, OR PROJECT WORK LIMITS.
 4. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT MIGRATION OF CONSTRUCTION RELATED SILT, SEDIMENT, OR ANY OTHER MATERIALS BEYOND THE WORK LIMITS.
 5. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION ACTIVITIES. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED ONLY AFTER ESTABLISHMENT OF RESTORED SURFACES.
 6. EXISTING VEGETATION SHALL BE LEFT IN PLACE TO THE EXTENT PRACTICABLE.
 7. THE CONTRACTOR SHALL INITIATE STABILIZATION MEASURES SUCH AS TEMPORARY SEEDING, MULCHING AND/OR EROSION CONTROL MATTING PRACTICES AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED.
 8. LOCATION AND PLACEMENT OF ALL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY RESPONDENTS' REPRESENTATIVES. AT THE DISCRETION OF THE CONSTRUCTION MANAGER, ADDITIONAL OR REINFORCED EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED.
 9. ACCESS POINTS SHALL BE INSTALLED IN SILT FENCING AT ALL ACCESS ROAD CROSSINGS.



- NOTES:**
1. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF OF THE HEIGHT OF THE SILT FENCE (OR LESSER HEIGHT IF SILT FENCE FILTER FABRIC IS OVER STRESSED).
 2. STRAW BALES SHALL BE OATS, WHEAT, RYE GRAIN, BROOMSAGE OR OTHER STRAW, OR NATIVE GRASS HAY.
 3. BALES SHALL BE SOUND WITH BALE TIES INTACT.



- NOTES:
1. FILTER FABRIC TO BE FASTENED SECURELY TO UPGRADIENT FACE OF WOOD STAKES WITH STAPLES.
 2. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED A MINIMUM OF 6 INCHES.

REINFORCED SILT FENCE (2)
NOT TO SCALE

NOT TO SCALE

STRAW BALE / SILT FENCE
NOT TO SCALE

NOT TO SCALE

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No.	Date	Revisions	By	Cl																	

Professional Engineer's Name DONALD F. SAUDA		
Professional Engineer's No. 084145		
State NY	Date Signed 2/13/2013	Project Mgr. DFS
Designed by SAB	Drawn by GHS	Checked by TEM



ARCADIS OF NEW YORK, INC.
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B0031174\0003\00002\DWG\CONTRACT\31174C02.DWG, DATED 9/6/2013

DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM

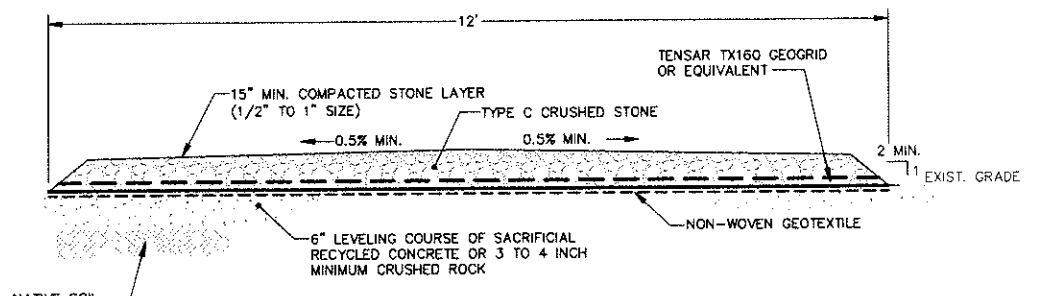
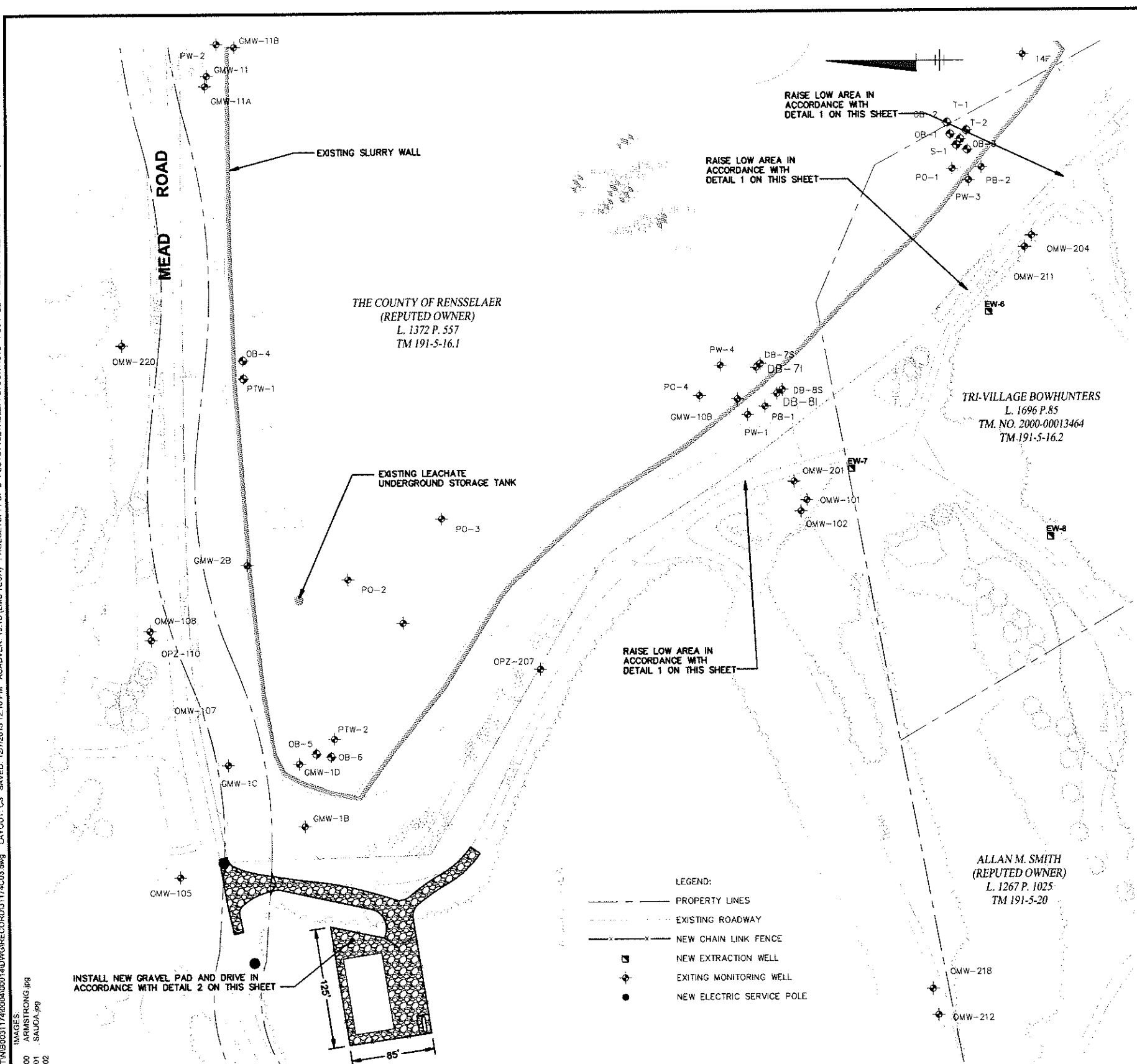
SITE SEDIMENT AND EROSION CONTROL PLAN

CIVIL

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE,
INFORMATION AND BELIEF, THESE RECORD
DRAWINGS SUBSTANTIALLY REPRESENT THE
PROJECT AS CONSTRUCTED.

DATE 1/28/16 BY <i>ALB</i>		C2
ARCADIS Project No. B0031174 0004 00014		
Date JANUARY 2016		
ARCADIS 6723 TOWPATH ROAD P.O. BOX 88 SYRACUSE, NY 13214 TEL. 315.446.9120		

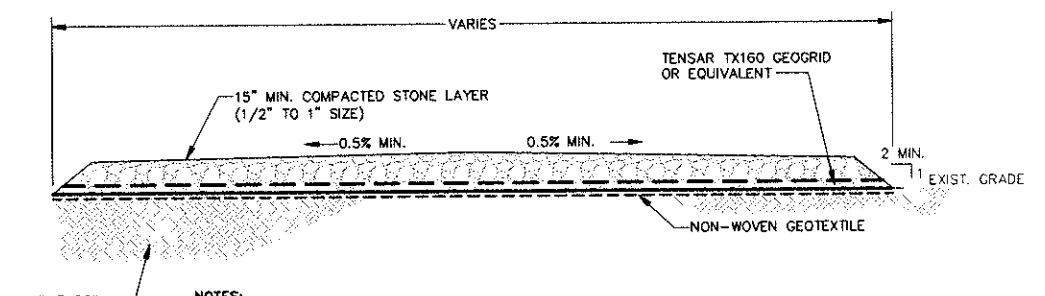
C2



- NOTES:**
1. ACTUAL THICKNESS MAY VARY BASED ON FIELD CONDITIONS ENCOUNTERED AT THE TIME OF CONSTRUCTION.
 2. GEOGRID SHALL BE PLACED APPROXIMATELY 4 INCHES ABOVE BOTTOM OF CRUSHED STONE.
 3. ACCESS ROAD SHALL BE INSTALLED IN FOUR LOW AREAS AS DEFINED ON DRAWING C1A FOR AN AVERAGE LENGTH OF 100 LINEAR FEET.

NEW ACCESS ROAD
LOW AREA SECTION

NOT TO SCALE



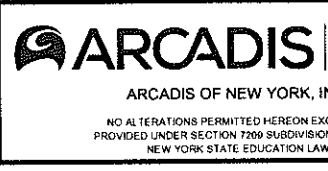
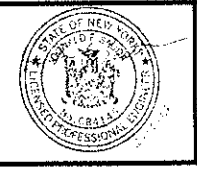
- NOTES:**
1. ACTUAL THICKNESS MAY VARY BASED ON FIELD CONDITIONS ENCOUNTERED AT THE TIME OF CONSTRUCTION.
 2. GEOGRID SHALL BE PLACED APPROXIMATELY 4 INCHES ABOVE BOTTOM OF CRUSHED STONE.

NEW GRAVEL PAD AND DRIVE SECTION

NOT TO SCALE

[illegible]

Professional Engineer's Name		
DONALD F. SAUDA		
Professional Engineer's No.		
084145		
State	Date Signed	Project Mgr.
NY	2/13/2013	DFS
Designed by	Drawn by	Checked by
SAB	GHS	TEM



Design & Consultancy
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RECORD DRAWING: MADE FROM DRAWING NO. C3, G:\GE\ENVCAD\SYRACUSE\ACT\C\B0031174\0003\00002\DWG\CONTRACT\31174C03.DWG, DATED 9/18/2013

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GROUNDWATER AND LEACHATE TREATMENT SYSTEM

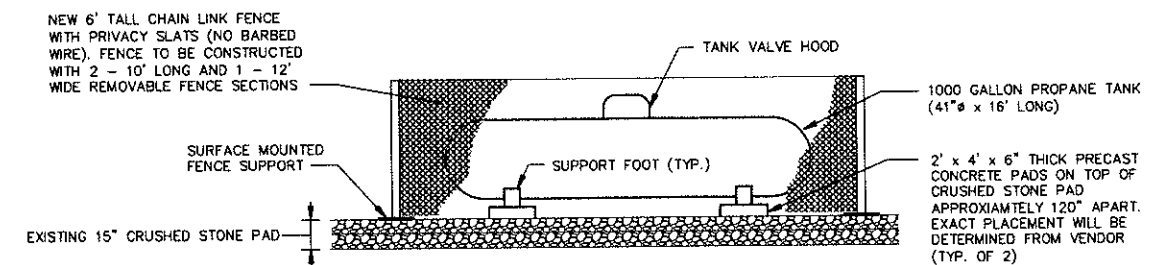
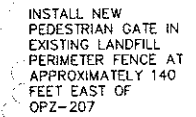
SITE GRADING AND ACCESS ROAD PLAN

CIVIL

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE,
INFORMATION AND BELIEF, THESE RECORD
DRAWINGS SUBSTANTIALLY REPRESENT THE
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DATE <u>1/28/16</u> BY <u>4/13/16</u>		
ARCADIS Project No. B0031174.0004.00014		C3
Date JANUARY 2016		
ARCADIS 8723 TOWPATH ROAD P.O. BOX 60 SYRACUSE, NY 13214 TEL: 315.446.9120		

C3



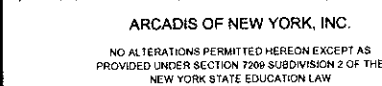
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ARCADIS Project No.
80031174.0004.00014

Date
JANUARY 2016

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C4



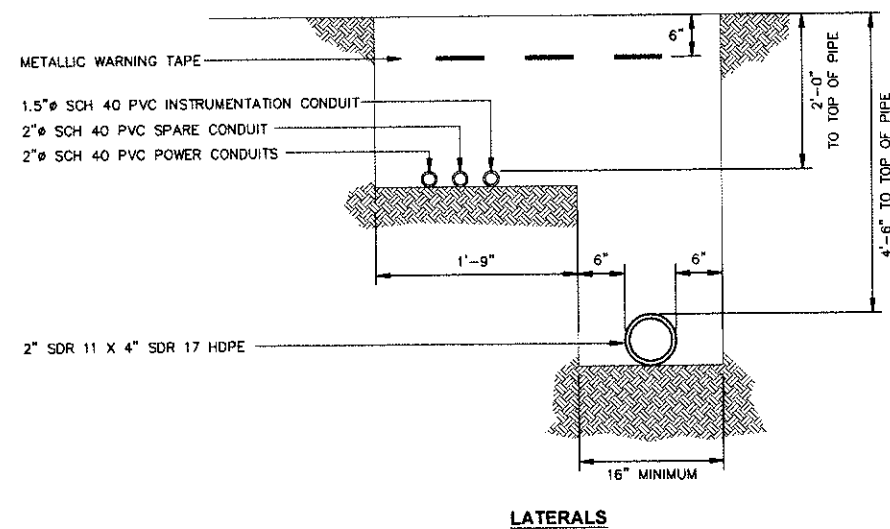
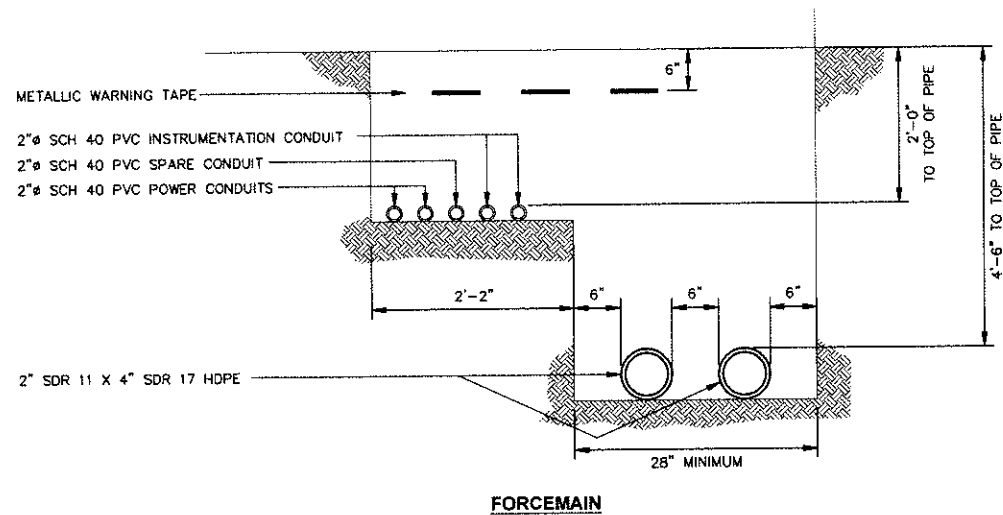
FENCING PLAN

CIVIL

CITY:SYRACUSE, NY DIV:GROUP/ENVCAD DR:G STEINBERGER LD:G STEINBERGER X:SAUTORI PIC:P.FARR PMD:SAUDA TM:S.BATTAGLIA LYN:ON-OFF=REF- PLOTTED: 1/12/2016 10:23 AM BY: SAWYER, NANCY
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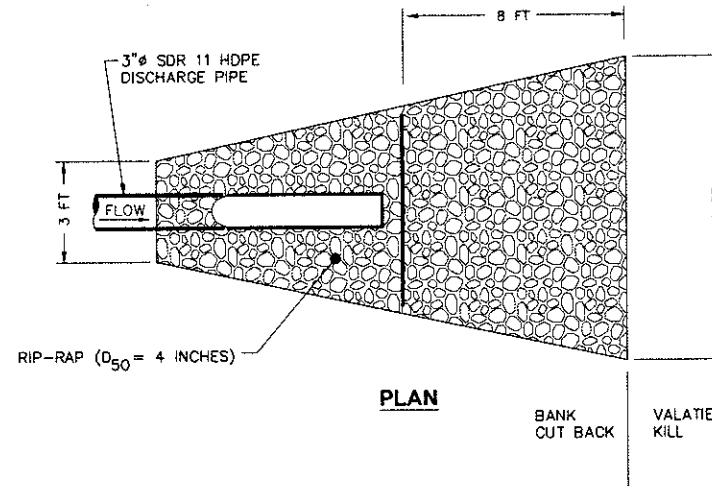
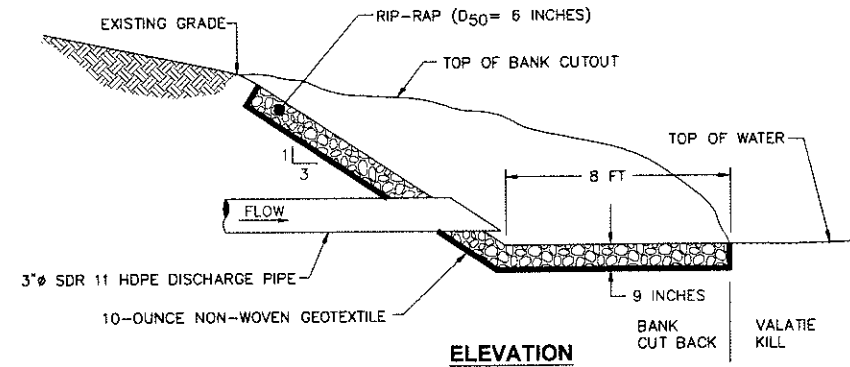


NOTES:

1. BURIED UNDERGROUND WARNING TAPE MUST BE PLACED 6 INCHES BELOW GRADE ABOVE ALL ELECTRICAL CONDUIT AND HDPE PIPE.
2. CONDUIT SHOULD HAVE AT LEAST 2 INCHES BETWEEN OTHER CONDUIT.
3. SPACING BETWEEN FINAL CONDUIT AND HDPE PIPE SHOULD BE AT LEAST 12 INCHES.
4. TRENCH DIMENSIONS SHOWN ARE MINIMUM VALUES AND MAY BE SIZED LARGER AS NECESSARY.
5. SPACING BETWEEN CONDUIT AND TRENCH WALL SHOULD BE AT LEAST 6 INCHES.
6. A NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND MEETING ASTM D 2940 THAT 100 PERCENT PASSES 1.5 INCH SIEVE WILL BE ALLOWABLE FOR USE WITHIN 6 INCHES OF ALL BURIED PIPE AND CONDUIT.
7. SOIL CLASSIFIED IN ASTM D 2487 GROUPS GC, SC, CL, ML, GW, GP, GM, SW, SP, AND SM OR A COMBINATION OF THESE GROUPS THAT IS ALSO FREE OF ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION WILL BE ALLOWABLE FOR TRENCH BACKFILL FURTHER THAN 6 INCHES FROM ALL BURIED PIPE AND CONDUIT.
8. WHERE FORCEMAIN TRENCH ONLY CONTAINS ONE HDPE PIPE, A 6-INCH SPACING SHALL BE MAINTAINED BETWEEN PIPE AND TRENCH WALL.
9. FORCEMAIN DETAIL SHALL BE UTILIZED FOR TRENCH TO OUTFALL STRUCTURE WITH 3" HDPE PIPE. NO CONDUIT WILL BE INSTALLED TO THE OUTFALL STRUCTURE.

TYPICAL TRENCH DETAIL 1

NOT TO SCALE



NOTES:

1. THE SUBGRADE FOR THE STONE AND FILTER FABRIC SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES.
2. GEOTEXTILE FABRIC SHALL HAVE A MAXIMUM APPARENT OPENING SIZE OF 0.60 MM, A MINIMUM GRAB TENSILE STRENGTH OF 90 LBS, AND A MINIMUM BURST STRENGTH OF 145 PSI. THE FABRIC SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF GEOTEXTILE FABRIC OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE FABRIC. ALL OVERLAPS WHETHER FOR REPAIRS OR FOR JOINING TWO PIECES OF GEOTEXTILE FABRIC SHALL BE A MINIMUM OF ONE FOOT IN ALL DIRECTIONS.
3. ROCK FOR THE RIPRAP OUTLET MAY BE PLACED BY EQUIPMENT. THE OUTLET SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE FOR THE RIPRAP OUTLET SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. RIPRAP SHALL BE PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE FABRIC. HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE PERMANENT WORKS.
4. THE ROCK FOR RIPRAP SHALL BE PLACED SO THAT IT BLENDS WITH THE EXISTING GROUND, AND SIDES OF BANK CUT OUT.

OUTLET PROTECTION DETAIL 2

NOT TO SCALE

RECORD DRAWING: MADE FROM DRAWING NO. C5, G:\GE\ENVCAD\SYRACUSE\ACT\C\B0031174\0003\00002\DWG\CONTRACT\31174C04.DWG, DATED 9/18/2013

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GROUNDWATER AND LEACHATE TREATMENT SYSTEM

MISCELLANEOUS CIVIL DETAILS

CIVIL

RECORD DRAWINGS
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DATE: 1/24/16 BY: [Signature]

ARCADIS Project No.
B0031174.0004.00014
Date
JANUARY 2016
ARCADIS
6723 TOWPATH ROAD
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TEL: 315.446.9120

C5

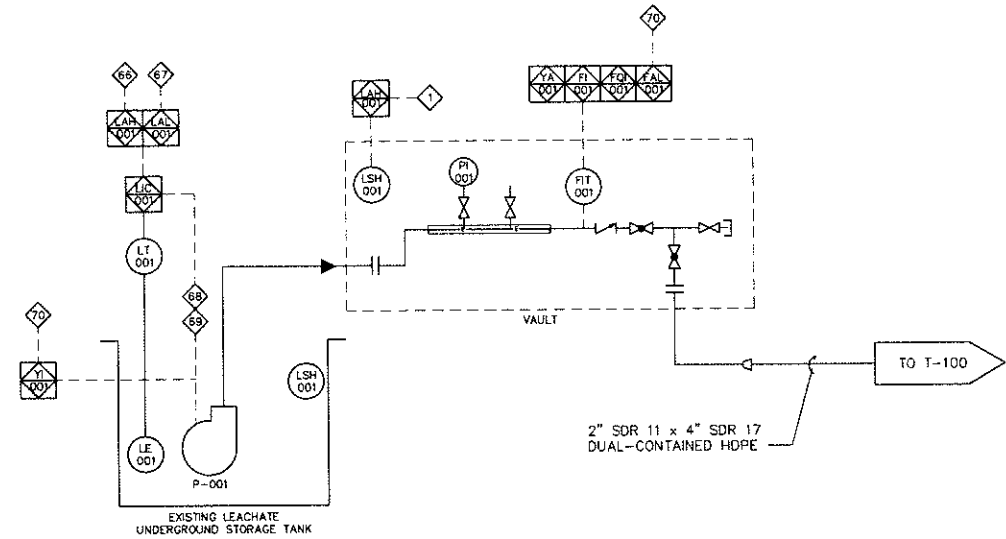
NOT TO SCALE
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USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd

Professional Engineer's Name
DONALD F. SAUDA
Professional Engineer's No.
084145
State
NY
Date Signed
2/13/2013
Project Mgr.
DFS
Designed by
SAB
Drawn by
GHS
Checked by
TEM



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for natural and built assets
ARCADIS OF NEW YORK, INC.
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DATE 1/28/16 BY JF Gann



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NEW YORK STATE EDUCATION LAW

PROCESS

P2

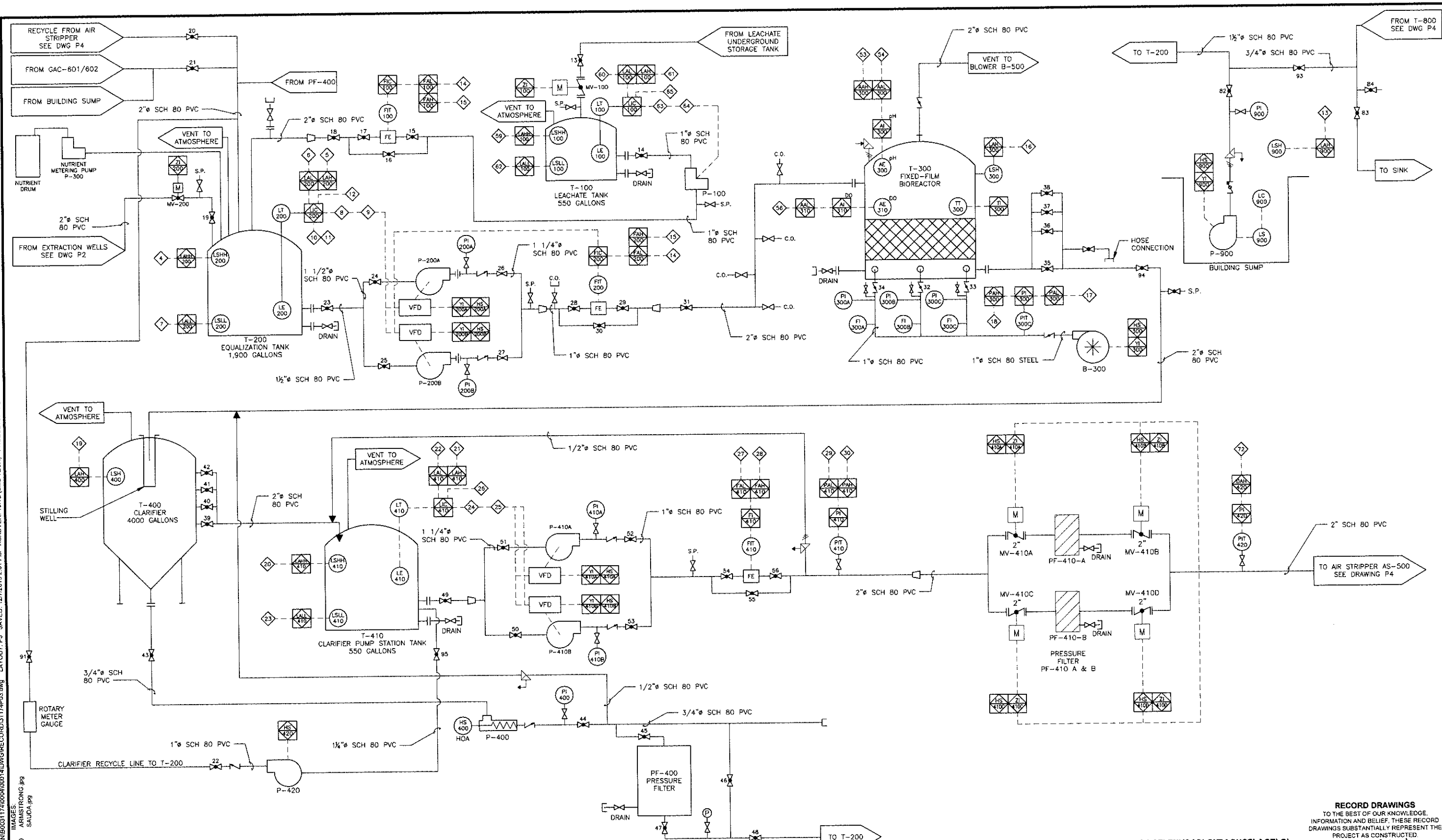
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CITY OF SYRACUSE, DIVISION OF ENVIRONMENTAL ENGINEERING, DESIGN ENGINEER: DONALD F. SAUDA, PROJECT NO. 084145, DRAWING NO. P3, DATE: 4/10/2013, SCALE: AS SHOWN, BY: J. SAUDA, CHECKED BY: J. SAUDA, APPROVED BY: J. SAUDA, PLOTTED: 11/20/2013 12:09 PM, BY: SAWYER, NANCY, PLOTSTYLE: PLT001, PLOTTER: HP DesignJet 500, PAGES: 3, PAGESETUP: PDF-D, PLOTSTYLETABLE: PLT001, PLOTSTYLE: HP DesignJet 500, PAGES: 3, PAGESETUP: PDF-D, PLOTSTYLETABLE: PLT001, PLOTSTYLE: HP DesignJet 500



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DATE: 12/16/13 BY: JF Sauda

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NOT TO SCALE		USE TO VERIFY FIGURE REPRODUCTION SCALE	Professional Engineer's Name DONALD F. SAUDA Professional Engineer's No. 084145 State NY Date Signed 2/13/2013 Project Mgr. DFS Designed by SAB Drawn by KLS Checked by TEM					 ARCADIS Design & Consultancy for natural and built assets ARCADIS OF NEW YORK, INC. NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 2209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW	TREATMENT SYSTEM PIPING AND INSTRUMENTATION DIAGRAM (2 OF 3) PROCESS	P3
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ARCADIS Project No. B0031174.0004.00014
Date: JANUARY 2016
ARCADIS
8723 TOWPATH ROAD
P.O. BOX 66
SYRACUSE, NY 13214
TEL: 315.448.9120



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DRAWINGS SUBSTANTIALLY REPRESENT THE
PROJECT AS CONSTRUCTED.

DATE 1/28/16 BY JH [Signature]

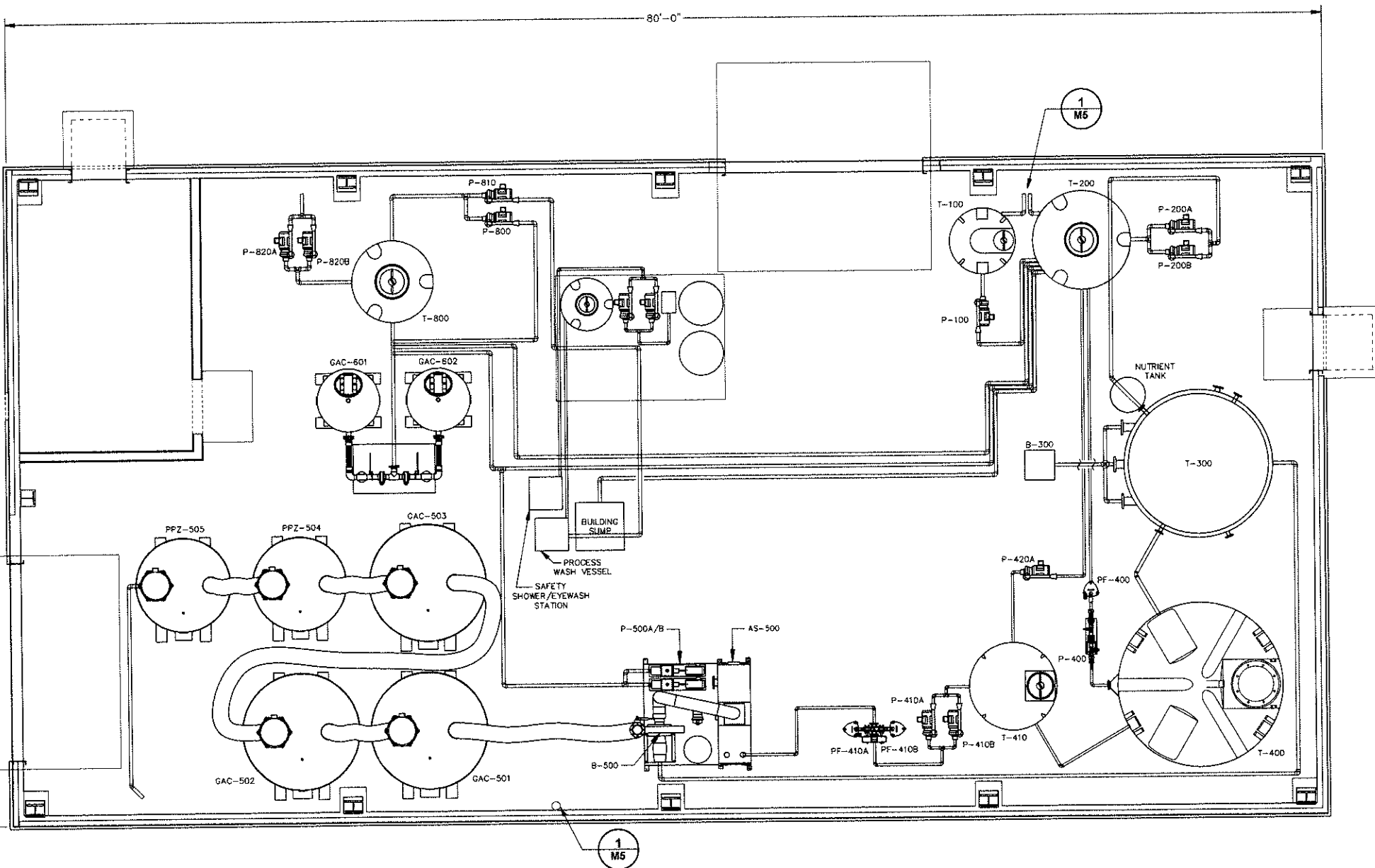
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CITY:SYRACUS DIV:GROUP 141 DE:GHS KLS NEW LD:GHS PIC: PM: TM: LVB:ON:OFF:REF: G:\ENV\CAD\SYRACUS\ACT\N00031174\0004\0001\DWG\RECORD\31174M01.DWG LAYOUT: M1 SAVED: 12/28/2015 10:09 AM ACADVER: 19.1S (LMS TECH) PAGESETUP: PDF-D PLOTSTYLETABLE: PLTCONT.CTB PLOTTED: 1/13/2016 11:56 AM BY: SAWYER, NANCY

IMAGES:
31174X00 ARMSTRONG.jpg
SAUDA.jpg

XREFS:
31174X00

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING.



- NOTES:
1. REFER TO CONTRACT DRAWING M4 FOR HVAC PLAN.
 2. REFER TO CONTRACT DRAWING E5 FOR INSTRUMENTATION PLAN.
 3. REFER TO CONTRACT DRAWINGS S1 THROUGH S12 FOR FOUNDATION AND BUILDING DETAILS AND SPECIFICATIONS.
 4. REFER TO CONTRACT DRAWINGS P3 AND P4 FOR VALVE, SAMPLE TAP, PRESSURE GAUGE, AND TEMPERATURE GAUGE LOCATIONS.
 5. REFER TO CONTRACT DRAWING M9 FOR EQUIPMENT, INSTRUMENT, AND MECHANICAL SPECIFICATIONS.
 6. REFER TO CONTRACT DRAWINGS E3, E4 AND E5 FOR EQUIPMENT POWER, LIGHTING, AND INSTRUMENTATION PLAN.
 7. ALL PROCESS PIPING SHALL BE ELEVATED WHERE POSSIBLE.
 8. NUTRIENT TANK SHALL BE STAGED WITHIN DEDICATED SECONDARY CONTAINMENT.

RECORD DRAWING: MADE FROM DRAWING NO. M1, G:\GE\ENV\CAD\SYRACUS\ACT\C\B0031174\0003\00002\DWG\CONTRACT\31174M01.DWG, DATED 2/13/2013

DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM
TREATMENT BUILDING FLOOR PLAN AND EQUIPMENT LAYOUT

MECHANICAL

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, THESE RECORD DRAWINGS SUBSTANTIALLY REPRESENT THE PROJECT AS CONSTRUCTED.

DATE 1/28/16 BY JFSA

ARCADIS Project No.
B0031174.0004.00014
Date
JANUARY 2016
ARCADIS
8723 TOWPATH ROAD
P.O. BOX 68
SYRACUSE, NY 13214
TEL: 315.446.9120

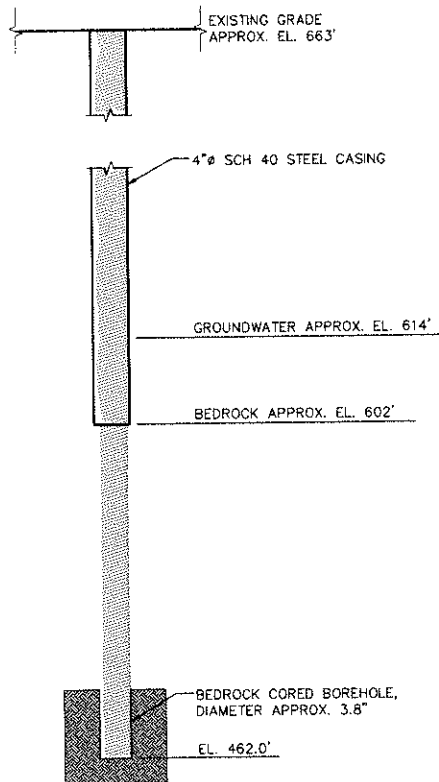
M1

Professional Engineer's Name
DONALD F. SAUDA
Professional Engineer's No.
084145
State
NY
Date Signed
2/13/2013
Project Mgr.
OFS
Designed by
SAB
Drawn by
Checked by
TEM

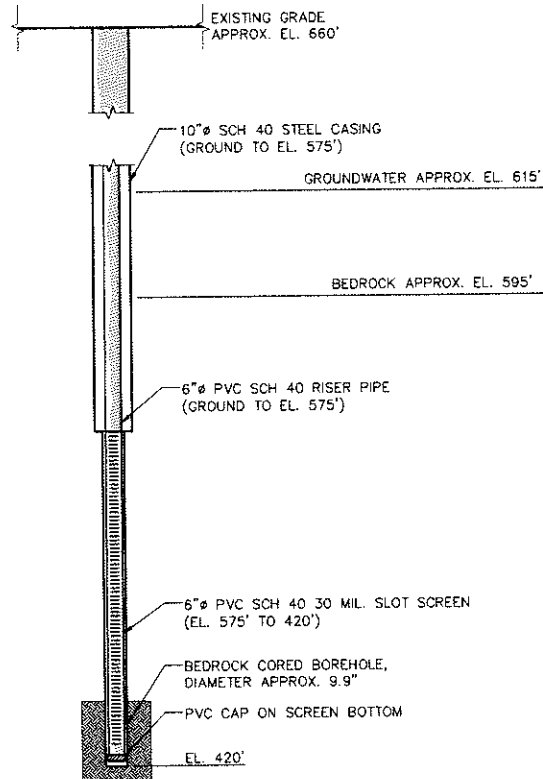


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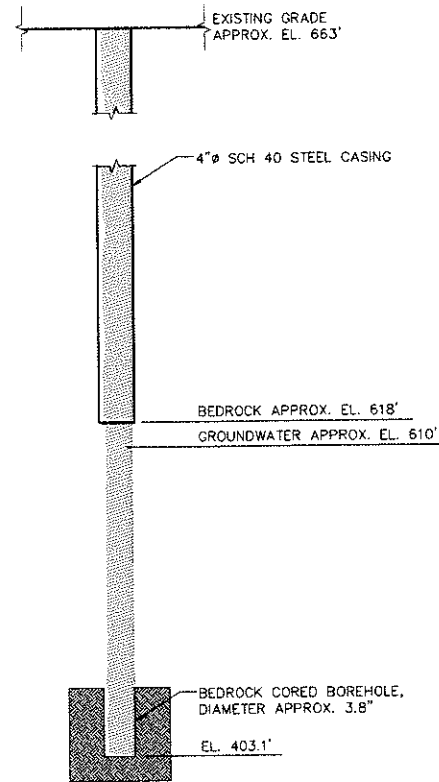
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XREFS: 31174X00 ARMSTRONG.JPG SAUDA.JPG
IMAGES: 31174X00



EXTRACTION WELL EW-1
(FORMER MONITORING WELL DB-9B)
NOT TO SCALE



EXTRACTION WELL EW-2
NOT TO SCALE



EXTRACTION WELL EW-3
(FORMER MONITORING WELL DB-11A)
NOT TO SCALE

NOTES:

1. SEE DETAIL 3 ON DRAWING M5 FOR EXISTING CONDITIONS AT THE SURFACE OF THESE WELLS.
2. SEE DETAILS 1 AND 2 ON DRAWING M3 FOR INFORMATION ON NEW EQUIPMENT TO BE INSTALLED AT THE SURFACE OF THESE WELLS.

RECORD DRAWING: MADE FROM DRAWING NO. M2, G:\GE\ENVCAD\SYRACUSE\ACT\C\B0031174\0003\00002\DWG\CONTRACT\31174M02.DWG, DATED 4/9/2013

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GROUNDWATER AND LEACHATE TREATMENT SYSTEM

EXISTING EXTRACTION WELL DETAILS

MECHANICAL

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DRAWINGS SUBSTANTIALLY REPRESENT THE
PROJECT AS CONSTRUCTED.

DATE 1/26/16 BY *DF Sauda*

ARCADIS Project No.
B0031174.0004.00014

Date
JANUARY 2016

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6723 TOWNPATH ROAD
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SYRACUSE, NY 13214
TEL: 315.448.9120

M2

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PERMISSION OF SAME.

Professional Engineer's Name
DONALD F. SAUDA

Professional Engineer's No.
084145

Date	Date Signed	Project Mgr.
NY	2/13/2013	DFS
Designed by	Drawn by	Checked by
SAB	KLS	TEM



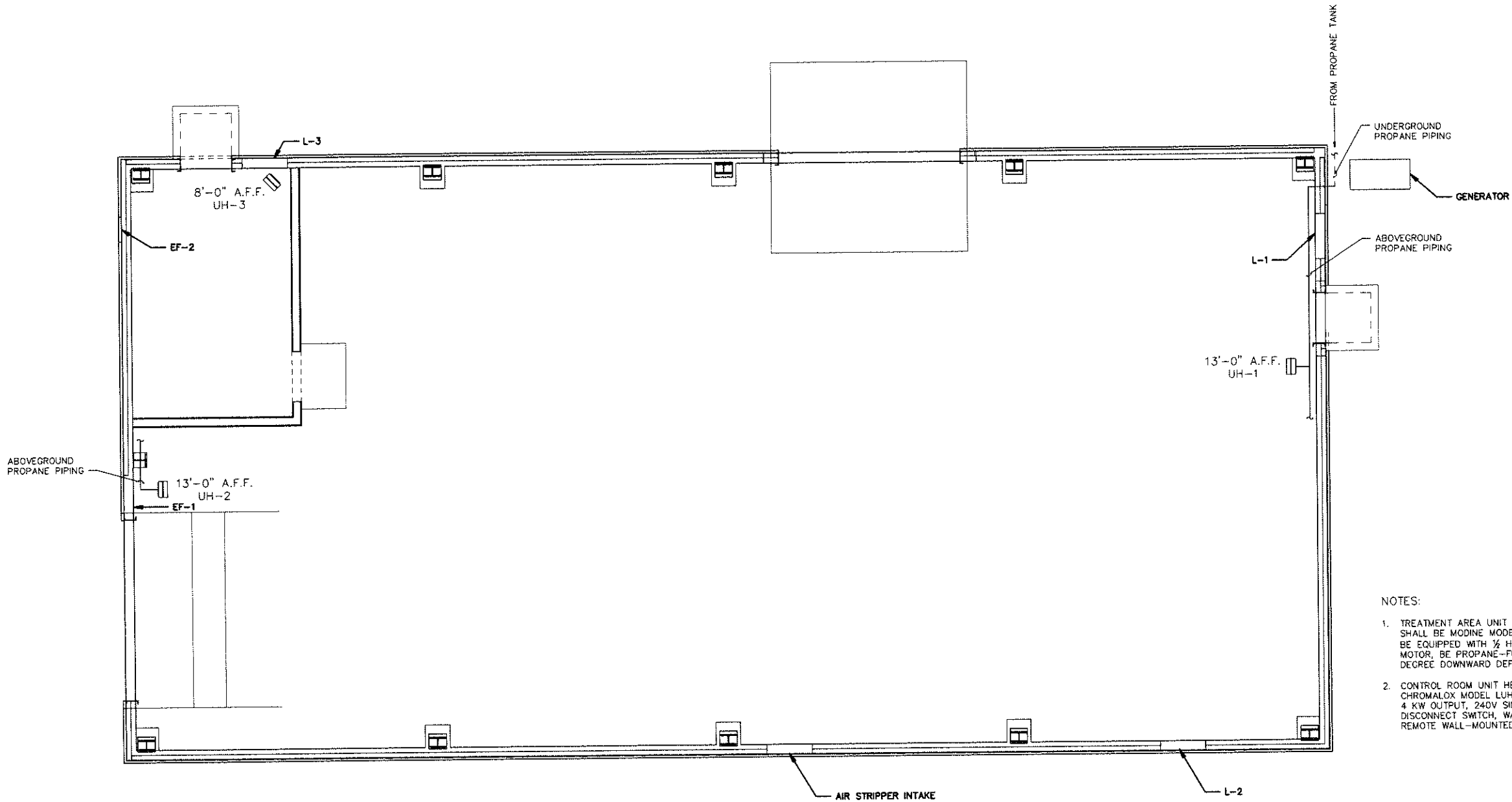
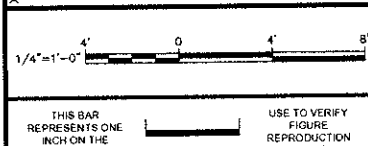
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31174X00
ARMSTRONG JFJ
SAUDA JFJ



NOTES:

1. TREATMENT AREA UNIT HEATERS (UH-1 AND UH-2) SHALL BE MODINE MODEL BDP 150 OR EQUAL AND BE EQUIPPED WITH 1/2 HP 230 V SINGLE-PHASE MOTOR, BE PROPANE-FIRED GAS, AND HAVE A 40 DEGREE DOWNWARD DEFLECTOR HOOD.
2. CONTROL ROOM UNIT HEATER (UH-3) SHALL BE CHROMALOX MODEL LUH-04-21-34 OR EQUAL WITH 4 KW OUTPUT, 240V SINGLE PHASE, INTEGRAL DISCONNECT SWITCH, WALL HANGER BRACKET, AND REMOTE WALL-MOUNTED THERMOSTAT.

RECORD DRAWING: MADE FROM DRAWING NO. M4, G:\GE\ENVCAD\SYRACUSE\ACT\C\80031174\0003\00002\DWG\CONTRACT\31174M04.DWG, DATED 9/18/2013

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GROUNDWATER AND LEACHATE TREATMENT SYSTEM

HVAC PLAN

MECHANICAL

RECORD DRAWINGS
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INFORMATION AND BELIEF, THESE RECORD
DRAWINGS SUBSTANTIALLY REPRESENT THE
PROJECT AS CONSTRUCTED.

DATE 1/28/16 BY *[Signature]*

ARCADIS Project No.
80031174.0004.00014

Date
JANUARY 2016

ARCADIS
6723 TOWPATH ROAD
P.O. BOX 66
SYRACUSE, NY 13214
TEL: 315.446.9120

M4

Professional Engineer's Name
DONALD F. SAUDA
Professional Engineer's No.
084145
State
NY
Date Signed
2/13/2013
Project Mgr
DFS
Designed by
SAB
Drawn by
KLS
Checked by
TEM

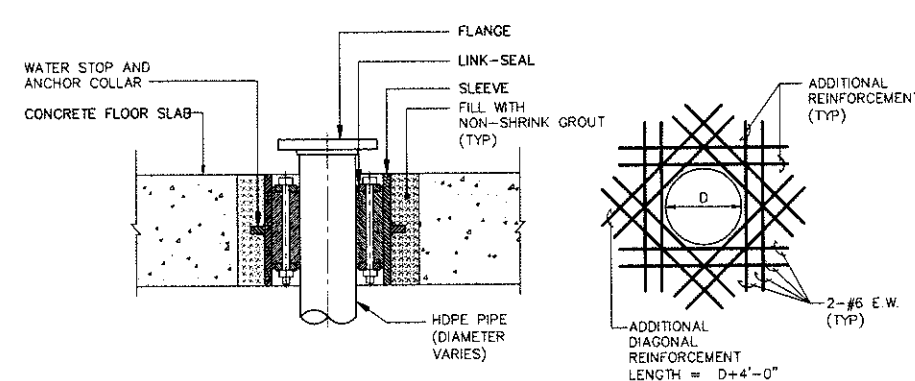


ARCADIS
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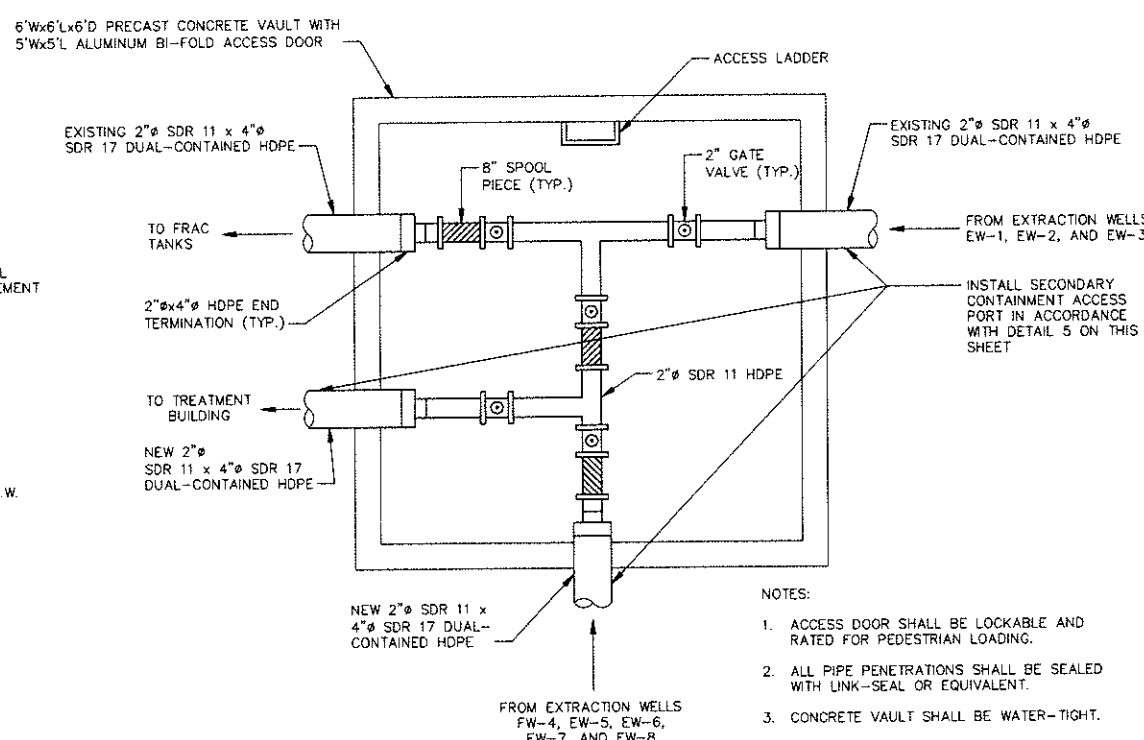
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NEW YORK STATE EDUCATION LAW

CITY:SYRACUSE, NY DIV:GROUP ENV/CAD DR:G:STEINBERGER LD:G:STEINBERGER PIC:P:FAIR PMD:SAUDA TMS:BATTAGLIA LYN:ONE-OFF-REF*
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XREFS: 31174X00 ARMSTRONG JPB SAUDA JPB
IMAGES: 31174X00



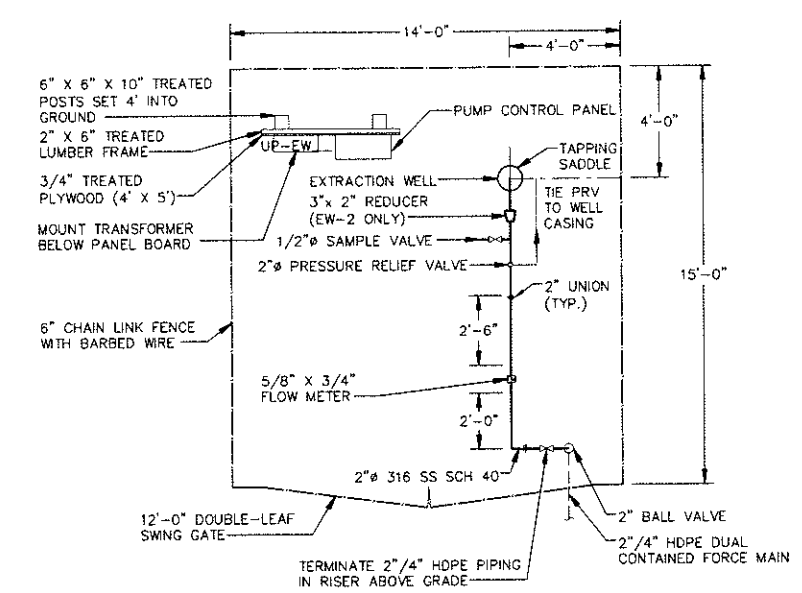
NOTE:
EXTEND REINFORCEMENT A MINIMUM OF 48 BAR DIAMETERS
BEYOND THE FACE OF THE OPENING.

TYPICAL FLOOR SLAB PENETRATION 1
NOT TO SCALE



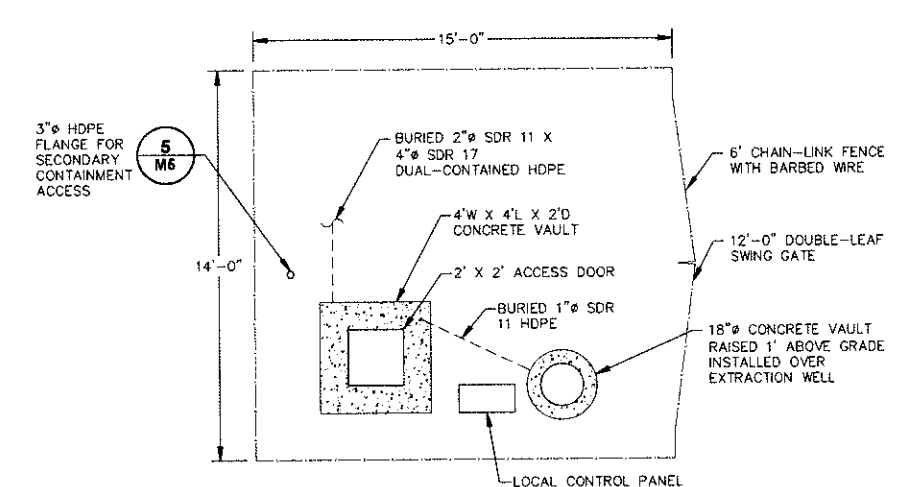
NOTES:
1. ACCESS DOOR SHALL BE LOCKABLE AND RATED FOR PEDESTRIAN LOADING.
2. ALL PIPE PENETRATIONS SHALL BE SEALED WITH LINK-SEAL OR EQUIVALENT.
3. CONCRETE VAULT SHALL BE WATER-TIGHT.
4. ALL PIPING AND VALVES SHALL BE PROPERLY SUPPORTED.
5. GATE VALVES SHALL BE WHEEL-OPERATED.

VALVE VAULT DETAIL 2
NOT TO SCALE

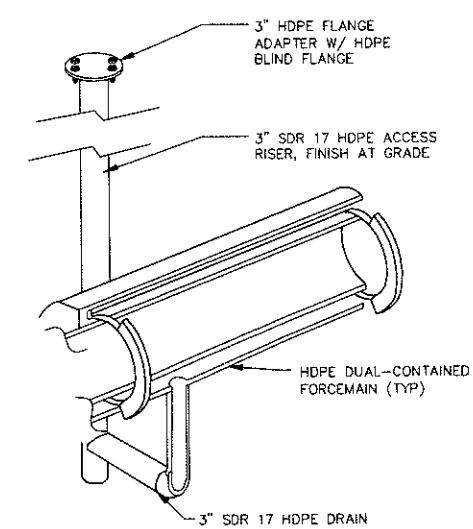


NOTES:
1. ALL EXISTING ABOVE GRADE EQUIPMENT AND PIPING SHALL BE REMOVED FROM THE COMPOUND.
2. NEW VAULTS, CONTROL PANEL, AND SECONDARY CONTAINMENT ACCESS SHALL BE INSTALLED IN ACCORDANCE WITH DETAIL 4 ON THIS SHEET.
3. EXISTING BURIED 2 1/4" HDPE PIPING SHALL BE EXPOSED AND CONNECTED TO NEW HDPE PIPING FROM NEW WELL VAULT.

TYPICAL EXISTING EXTRACTION WELL COMPOUND 3
SCALE: 1" = 40'



TYPICAL PROPOSED EXTRACTION WELL COMPOUND 4
SCALE: 1" = 40'



TYPICAL SECONDARY CONTAINMENT ACCESS PORTS 5
NOT TO SCALE

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DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM

MECHANICAL DETAILS

MECHANICAL

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE,
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PROJECT AS CONSTRUCTED.

DATE: 1/28/16 BY: [Signature]

ARCADIS Project No. B0031174.0004.00014	M5
Date JANUARY 2016	
ARCADIS 6723 TOWNSHIP ROAD P.O. BOX 66 SYRACUSE, NY 13214 TEL: 315.448.9120	

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Revisions	
By	Ckd
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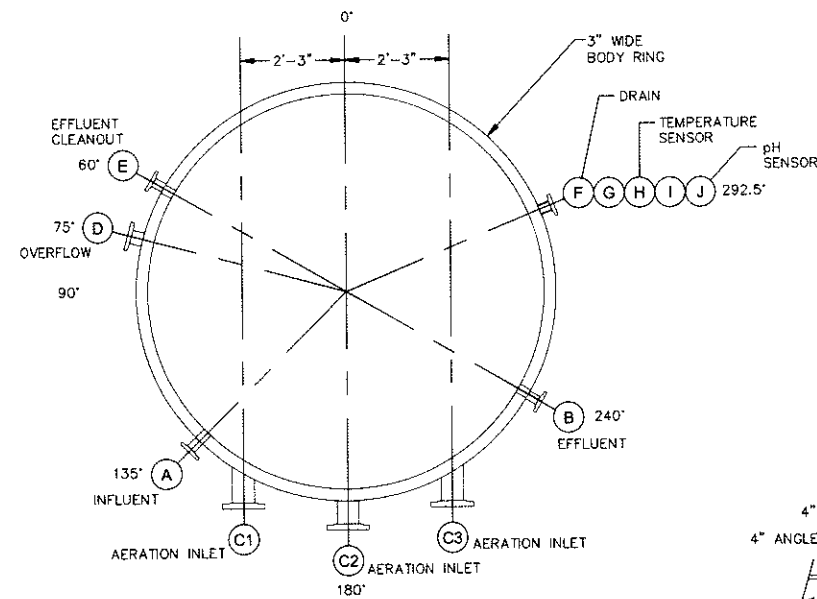
Professional Engineer's Name DONALD F. SAUDA		
Professional Engineer's No. 084145		
State NY	Date Signed 2/13/2013	Project Mgr. DFS
Designed by SAB	Drawn by KLS	Checked by TEM



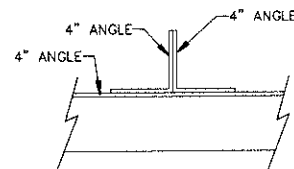
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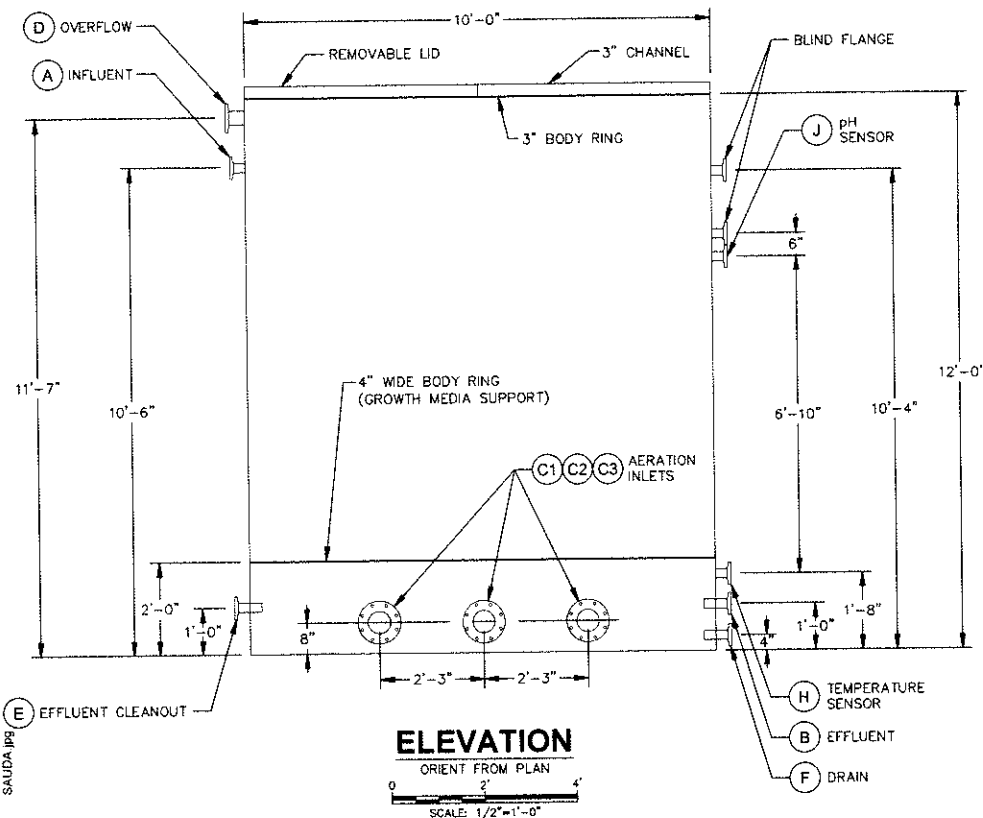
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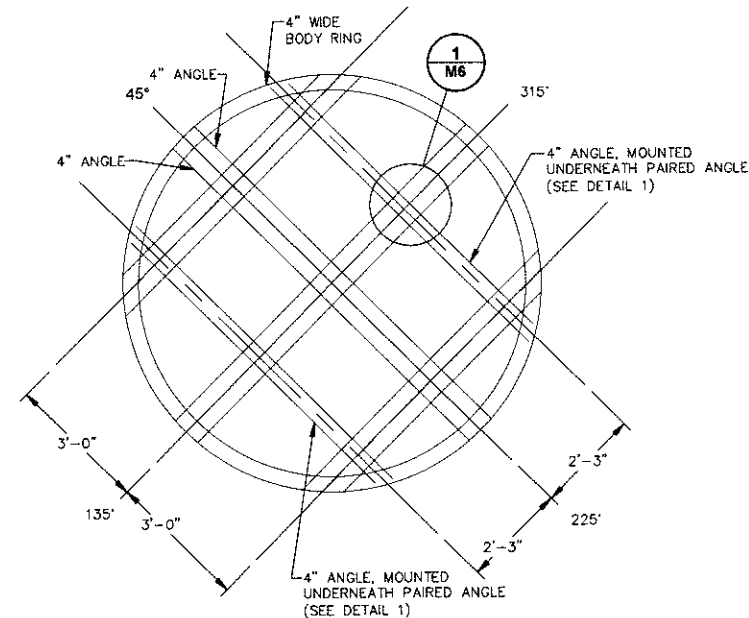
NOZZLE PLAN
NOT TO SCALE



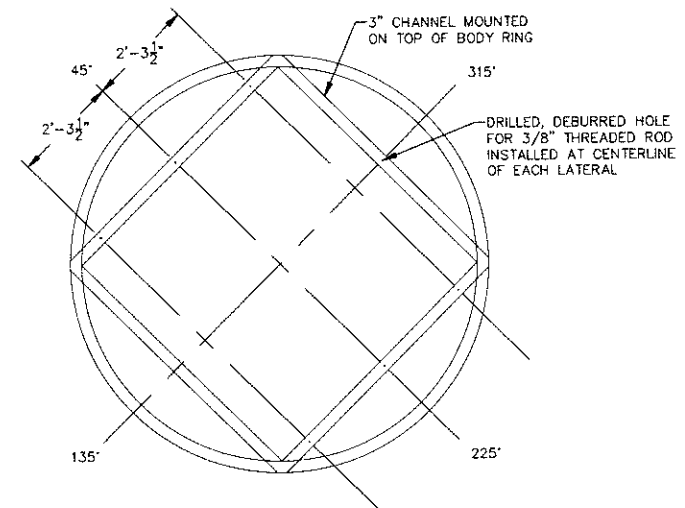
PACKING SUPPORT DETAIL 1
NOT TO SCALE



ELEVATION
ORIENT FROM PLAN
0 2'
SCALE: 1/2"=1'-0"



PACKING SUPPORT PLAN



INFLUENT LATERAL SUPPORT PLAN
NOT TO SCALE

DESIGN DATA	
OPERATING PRESSURE:	ATMOSPHERIC
DESIGN PRESSURE:	ATMOSPHERIC
OPERATING TEMPERATURE:	50'-100' F
DESIGN TEMPERATURE:	150' F
CORROSION ALLOWANCE:	1/8"
RADIOGRAPHY REQ'D.	☒ NONE ☐ SPOT XRAY
WIND EXPOSURE:	NA, VESSEL LOCATED INDOORS
SEISMIC:	NASSAU, NEW YORK
SP. GR. CONTENTS:	1.00
SHELL:	5/16" CARBON STEEL (VESSEL BOTTOM 1/2" C.S.)
LADDER, PLATFORMS AND CAGES:	NONE
TESTING REQ'D.:	HYDROSTATIC LEAK TEST @ FULL CONDITION
INSPECTION:	☒ REQUIRED ☐ NOT REQUIRED
LINING:	NONE
INSULATION:	NONE
JACKET:	NONE
PAINTING:	INTERIOR/EXTERIOR EPOXY COATING

[illegible]

NOZZLE NOTES:

1. NOZZLES C1, 2 AND C3 SHALL HAVE A 6" BLIND FLANGE CONFIGURED WITH A 1" NPT FULL COUPLING LOCATED AT THE CENTER.
2. NOZZLES A, B, AND E: PIPE EXTENDS 3" INTO BIOREACTOR VESSEL AS A SUPPORT FOR THE INFLUENT/EFFLUENT LATERALS. SEE DRAWING M7.
3. 3" FLANGED NOZZLES AND SMALLER SHALL PROJECT 4" FROM VESSEL.
4. 4" FLANGED NOZZLES AND LARGER SHALL PROJECT 6" FROM VESSEL.

RECORD DRAWING: MADE FROM DRAWING NO. M6, G:\GE\ENVCAD\SYRACUSE\ACT\C\B0031174\0003\00002\DWG\CONTRACT\31174M06.DWG, DATED 2/12/2013

DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM

FIXED-FILM BIOREACTOR VESSEL INTERNALS DETAIL

MECHANICAL

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE,
INFORMATION AND BELIEF, THESE RECORD
DRAWINGS SUBSTANTIALLY REPRESENT THE
PROJECT AS CONSTRUCTED.

DATE 1/28/16 BY O/Swed

ARCADIS Project No.
B0031174.0004.00014

Date
JANUARY 2016

ARCADIS
6723 TOWPATH ROAD
P.O. BOX 66
SYRACUSE, NY 13214
TEL: 315.446.9120

M16

SCALE AS INDICATED

THIS BAR
REPRESENTS ONE
INCH ON THE
ORIGINAL DRAWING:



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FIGURE
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SCALE

USE TO VERIFY
FIGURE
REPRODUCTION
SCALE

No.	Date	Revisions	By
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Professional Engineer's Name	
DONALD F. SAUDA	
Professional Engineer's No.	
084145	
State	Date Signed
NY	2/13/2013
Designed by	Drawn by
SAB	GHS



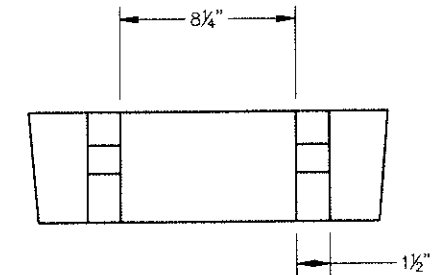
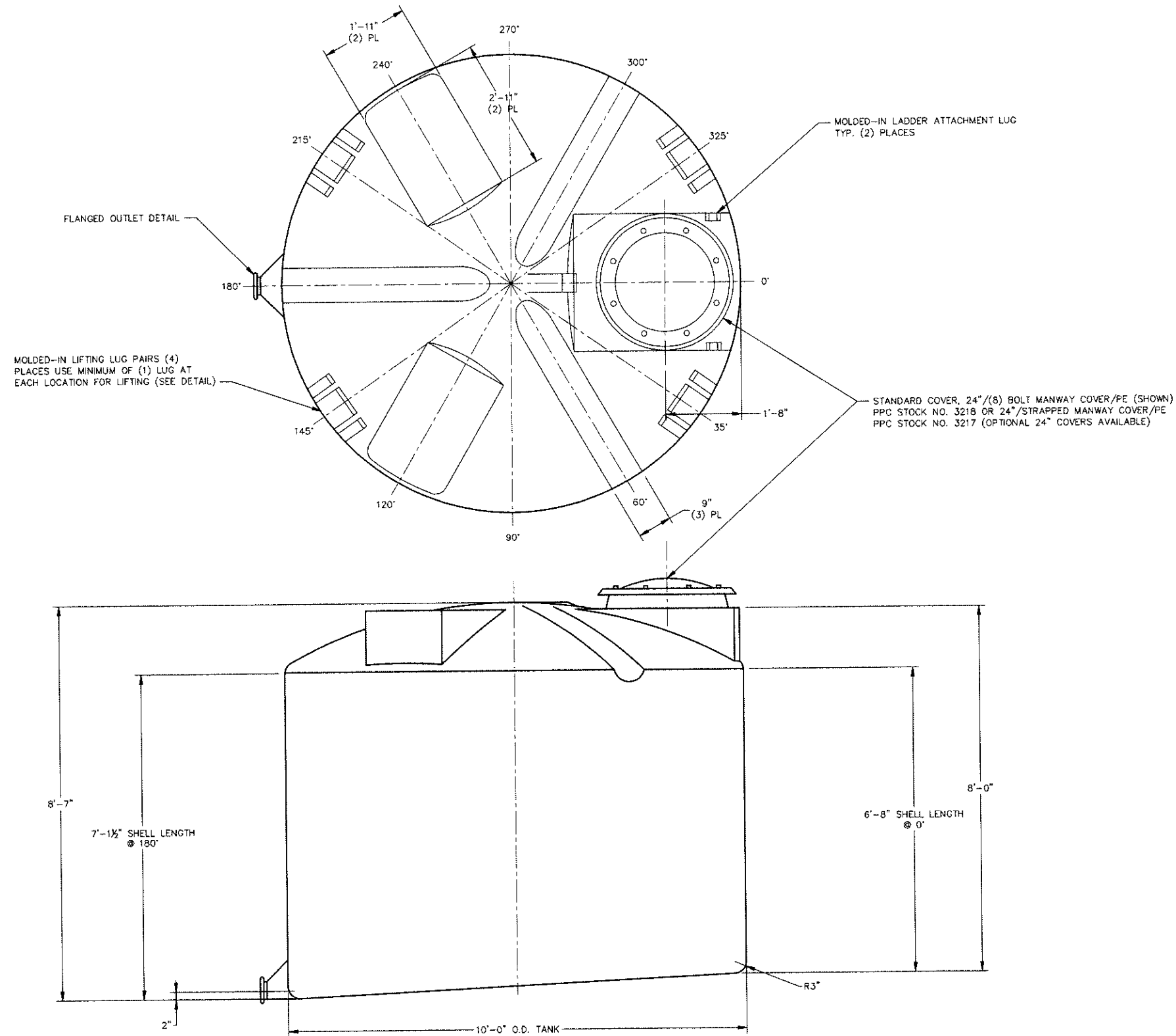
**Design & Consultancy
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built assets**

ARCADIS OF NEW YORK, INC.

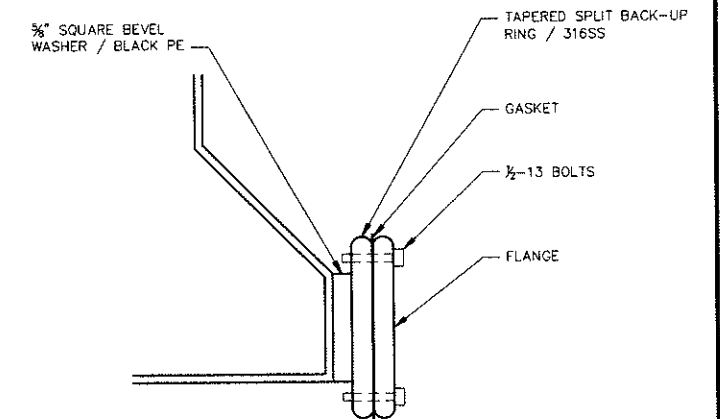
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NEW YORK STATE EDUCATION LAW

State	Date Signed	Project Mgr
NY	2/13/2013	DFS
Designed by	Drawn by	Checked by
SAB	GHS	TEM

State	Date Signed	Project Mgr
NY	2/13/2013	DFS
Designed by	Drawn by	Checked by
SAB	GHS	TEM



LIFTING LUG DETAIL
NOT TO SCALE



FLANGED OUTLET DETAIL
NOT TO SCALE

NOTE:
DETAILS FOR CONCRETE PAD
PROVIDED IN STRUCTURAL DRAWINGS.

RECORD DRAWING: MADE FROM DRAWING NO. M8, G:\GE\ENVCAD\SYRACUSE\ACT\C\
B0031174\0003\00002\DWG\CONTRACT\31174M08.DWG, DATED 9/18/2013

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GROUNDWATER AND LEACHATE TREATMENT SYSTEM

CLARIFIER DETAILS

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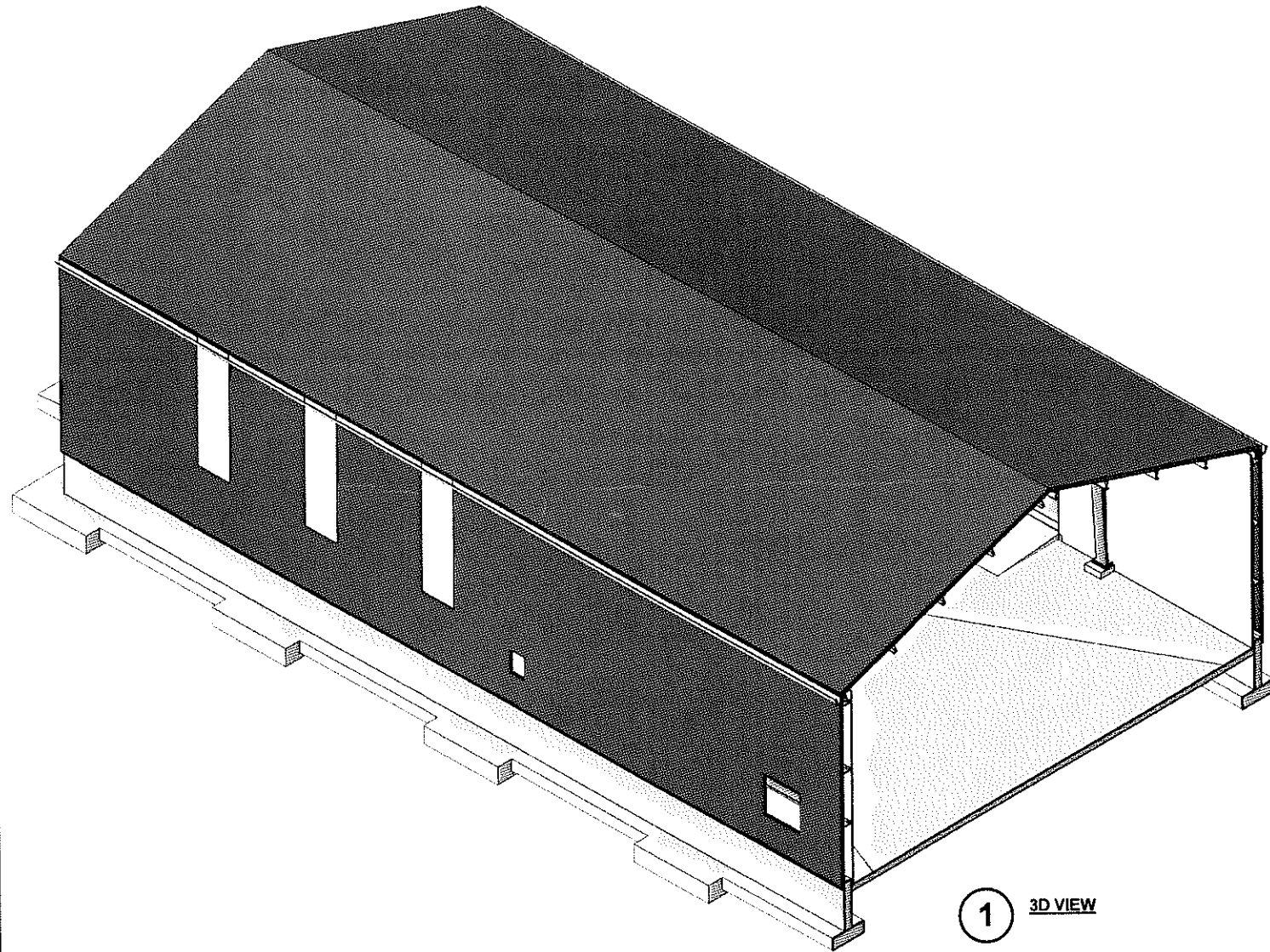
DATE 1/28/16 BY JH Sant

ARCADIS Project No.
B0031174.0004.00014

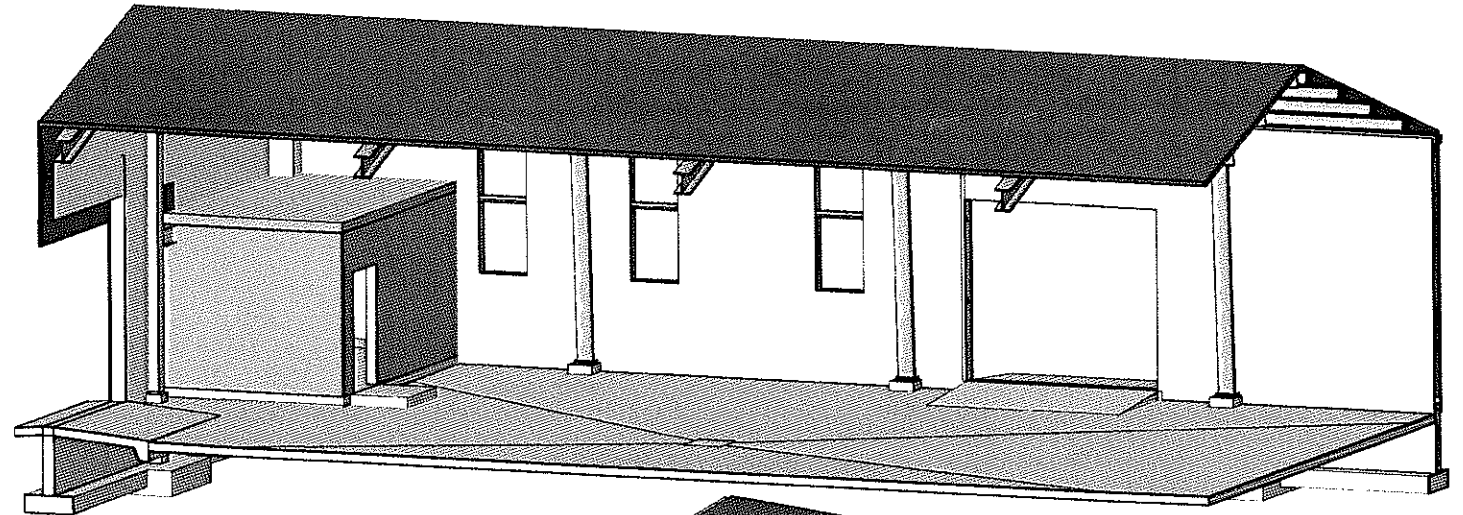
Date
JANUARY 2016
ARCADIS
8723 TOWPATH ROAD
P.O. BOX 66
SYRACUSE, NY 13214
TEL: 315.446.9120

M18

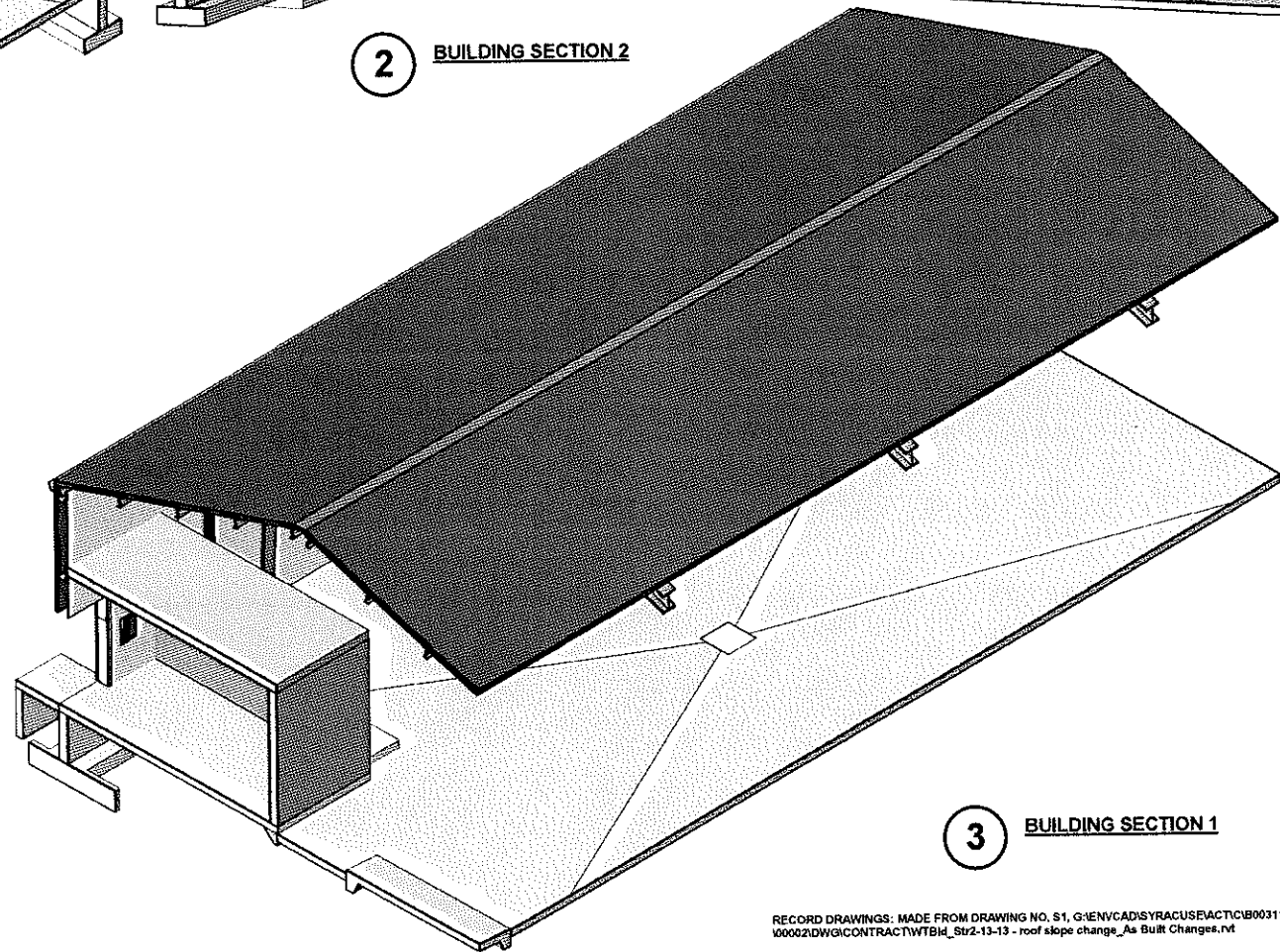
SCALE AS INDICATED										Professional Engineer's Name DONALD F. SAUDA				 ARCADIS Design & Consultancy for natural and built assets		DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK GROUNDWATER AND LEACHATE TREATMENT SYSTEM		ARCADIS Project No. B0031174.0004.00014		Date JANUARY 2016		M8											
										Professional Engineer's No. 084145																							
THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING.		USE TO VERIFY FIGURE REPRODUCTION SCALE		No.		Date		Revisions		By		Ckd		State		Date Signed		Project Mgr		Designed by		Drawn by		Checked by		ARCADIS OF NEW YORK, INC.		NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7009 SUBDIVISION 7 OF THE NEW YORK STATE EDUCATION LAW		MECHANICAL		ARCADIS 8723 TOWPATH ROAD P.O. BOX 66 SYRACUSE, NY 13214 TEL: 315.446.9120	
				NY		2/13/2013		DFS		SAB		KLS		TEM																			



1 3D VIEW



2 BUILDING SECTION 2



3 BUILDING SECTION 1

DESIGN INFORMATION 2010 BUILDING CODE NEW YORK STATE (BCNYS)			
DESIGN ROOF LIVE LOAD	20 psf	DESIGN WIND LOAD BCNYS 2010 SECTION 1609 BASIC WIND SPEED 90 MPH WIND LOAD IMPORTANCE FACTOR = 1.0 OCCUPANCY CATEGORY II WIND EXPOSURE 'C' INTERNAL PRESSURE COEFFICIENT 0.18 COMPONENTS AND CLADDING LOADS	
DESIGN ROOF COLLATERAL LOAD (APPLY PURLINS AND FRAMES)	2 psf		
NET ALLOWABLE DESIGN SOIL BEARING PRESSURE		1500 psf	
DESIGN SNOW LOAD		DESIGN SEISMIC LOADS BCNYS 2010 SECTION 1613 SEISMIC LOAD IMPORTANCE FACTOR = 1.0 MAPPED SPECTRAL RESPONSE ACCELERATIONS Ss 0.182 S1 0.07 SITE CLASS D SPECTRAL RESPONSE COEFFICIENTS Sds 0.194 Sd1 0.112 SEISMIC DESIGN CATEGORY B BASIC SEISMIC FORCE RESISTING SYSTEM: TO BE DETERMINED DESIGN BASE SHEAR: TO BE DETERMINED SEISMIC RESPONSE COEFFICIENT Cs: TO BE DETERMINED RESPONSE MODIFICATION FACTOR: TO BE DETERMINED ANALYSIS PROCEDURE USED: TO BE DETERMINED	
BCNYS 2010 SECTION 1608			
GROUND SNOW LOAD	40 PSF		
SNOW EXPOSURE FACTOR, Ce	0.9		
SNOW LOAD IMPORTANCE FACTOR, Is	1.0		
THERMAL FACTOR, ct	1.0		
FLAT ROOF SNOW LOAD, Pf	25.2 psf		
SLOPED ROOF SNOW LOAD, Ps	25.2 psf		

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE,
INFORMATION AND BELIEF, THESE RECORD
DRAWINGS SUBSTANTIALLY REPRESENT THE
PROJECT AS CONSTRUCTED.
DATE 1/28/16 BY J. J. J.

RECORD DRAWINGS: MADE FROM DRAWING NO. S1, G:\ENV\CAD\SYRACUSE\ACT\CB0031174
00002\DWG\CONTRACT\WTBH_S1r2-13-13 - roof slope change_As Built Changes.rvt

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STATE EDUCATION LAW

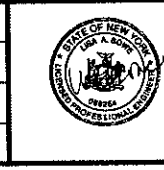
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3/16"=1'-0"

0 5 12

Professional Engineer's Name			
LISA A. BOWE			
Professional Engineer's No.			
086254			
State			
NY			
Date Signed			
2/13/2013			
Project Mgr.			
DFS			
Designed by			
AAH			
Drawn by			
AAH			
Checked by			
LAB			
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Professional Engineer's Name
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Professional Engineer's No.
086254
State
NY
Date Signed
2/13/2013
Project Mgr.
DFS
Designed by
AAH
Drawn by
AAH
Checked by
LAB



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for natural and
built assets
ARCADIS OF NEW YORK, INC.

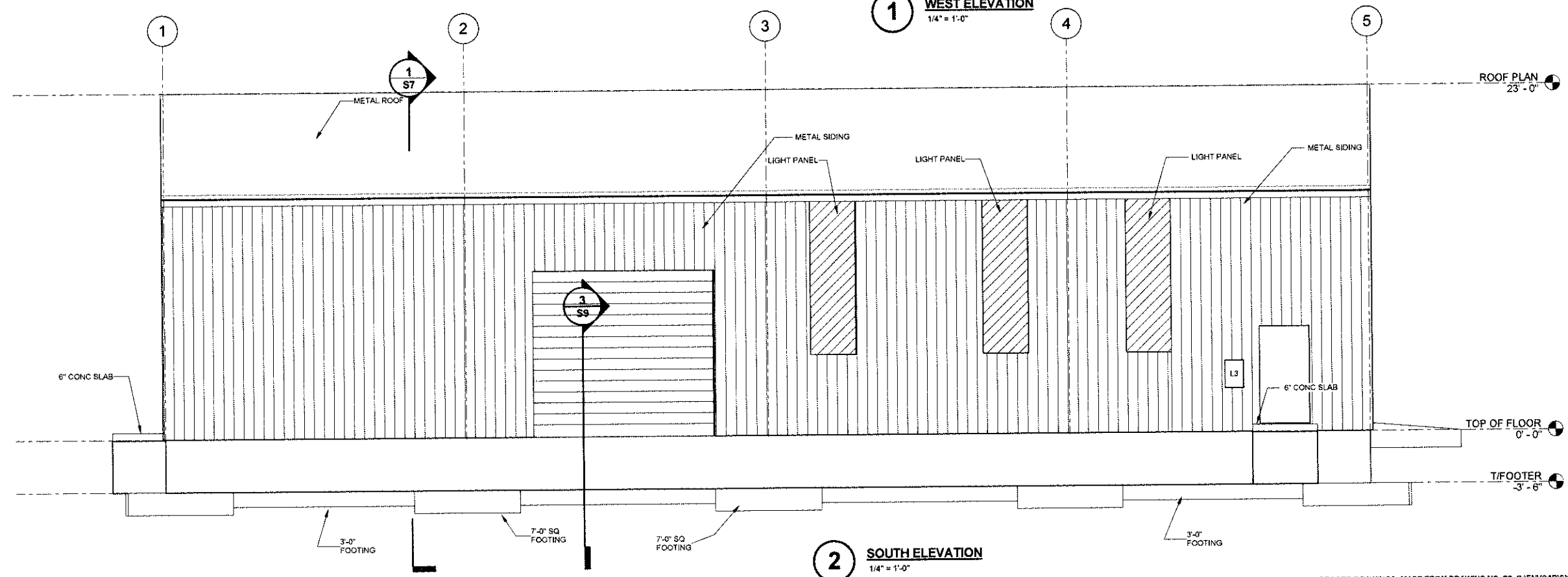
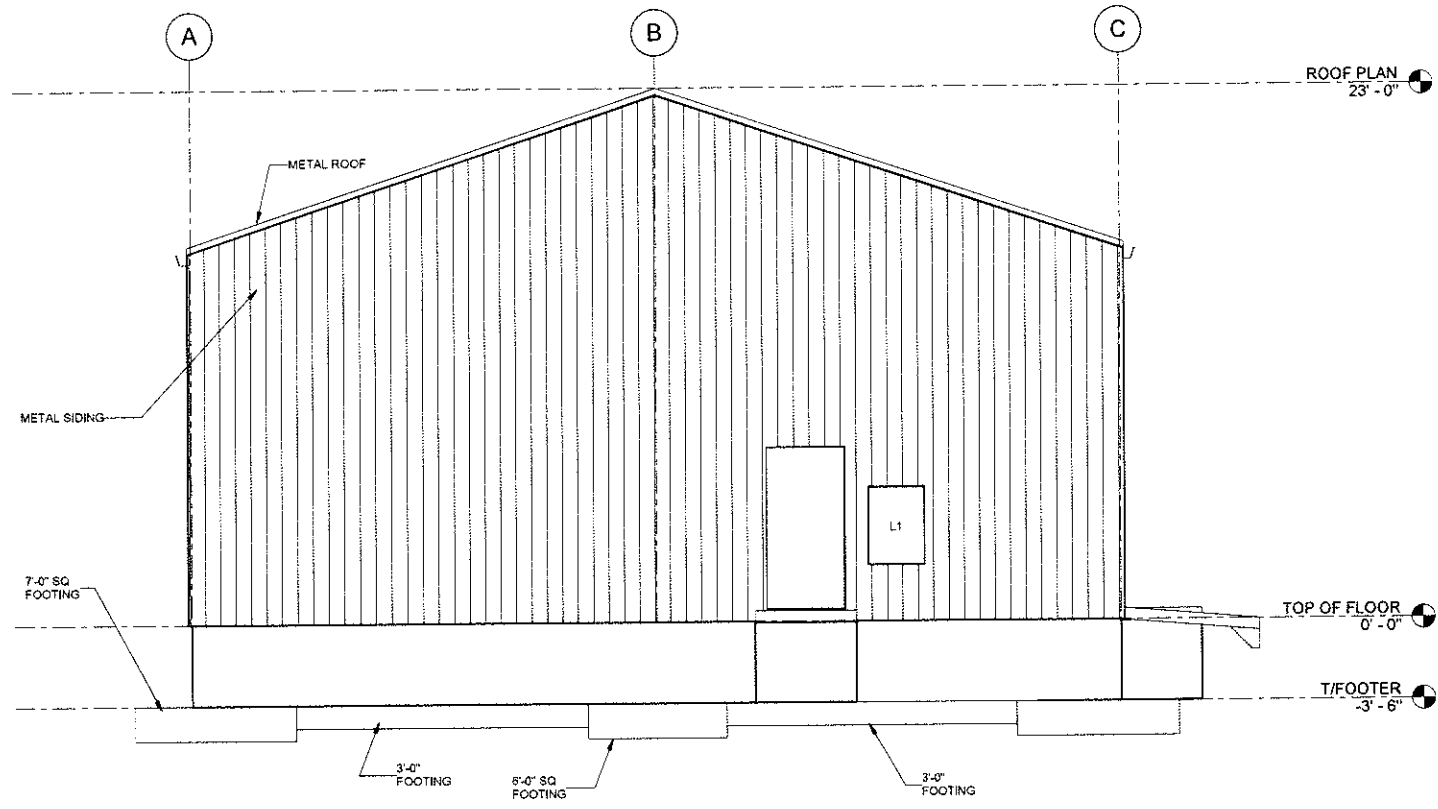
DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM

ISOMETRIC VIEWS

STRUCTURAL

ARCADIS Project No.
B0031174.0003.00002
Date
JANUARY 2016
ARCADIS
6723 Towpath Road
P.O. Box 66
Syracuse, NY 13214
Tel. 315.446.9120

S1



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1/4" = 1'-0"

General Revisions		By	Ckd
No.	Date		
1	04/2013		

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Professional Engineer's Name LISA A. BOWE	
Professional Engineer's No. 086254	
State NY	Date Signed 2/13/2013
Designed by AAH	Drawn by AAH
Checked by LAB	Projct Mgr. DFS



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GROUNDWATER AND LEACHATE TREATMENT SYSTEM

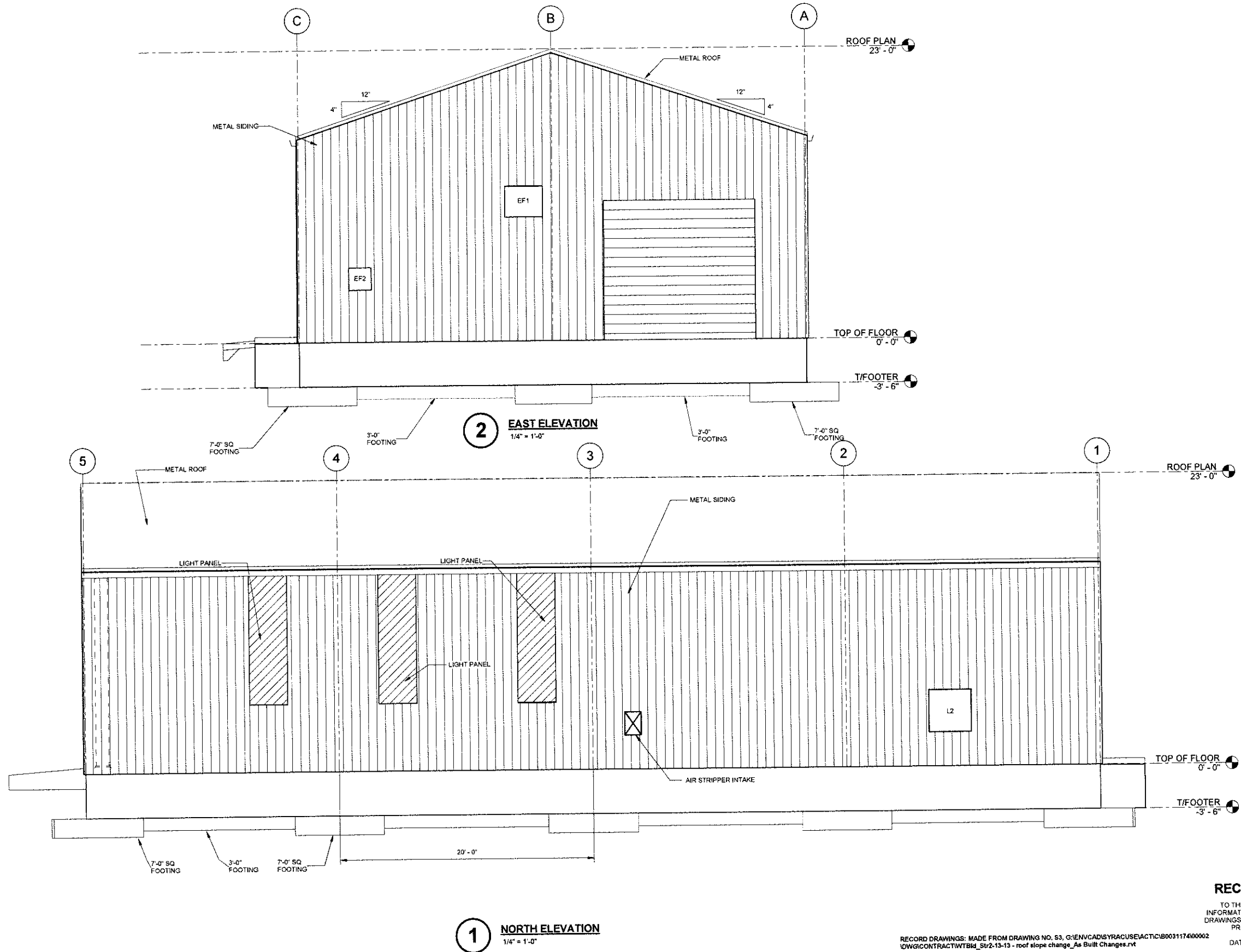
ELEVATIONS (1 OF 2)

STRUCTURAL

ARCADIS Project No.
B0031174.0003.00002
Date
JANUARY 2018
ARCADIS
6723 Towpath Road
P.O. Box 66
Syracuse, NY 13214
Tel 315.446.9120

S2

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DATE 1/28/16 BY *[Signature]*

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GROUNDWATER AND LEACHATE TREATMENT SYSTEM

ELEVATIONS (2 OF 2)

STRUCTURAL

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Tel: 315.446.9120

S3

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No.	Date	Revisions	By	Ckd
1	04/2013	General Revisions		

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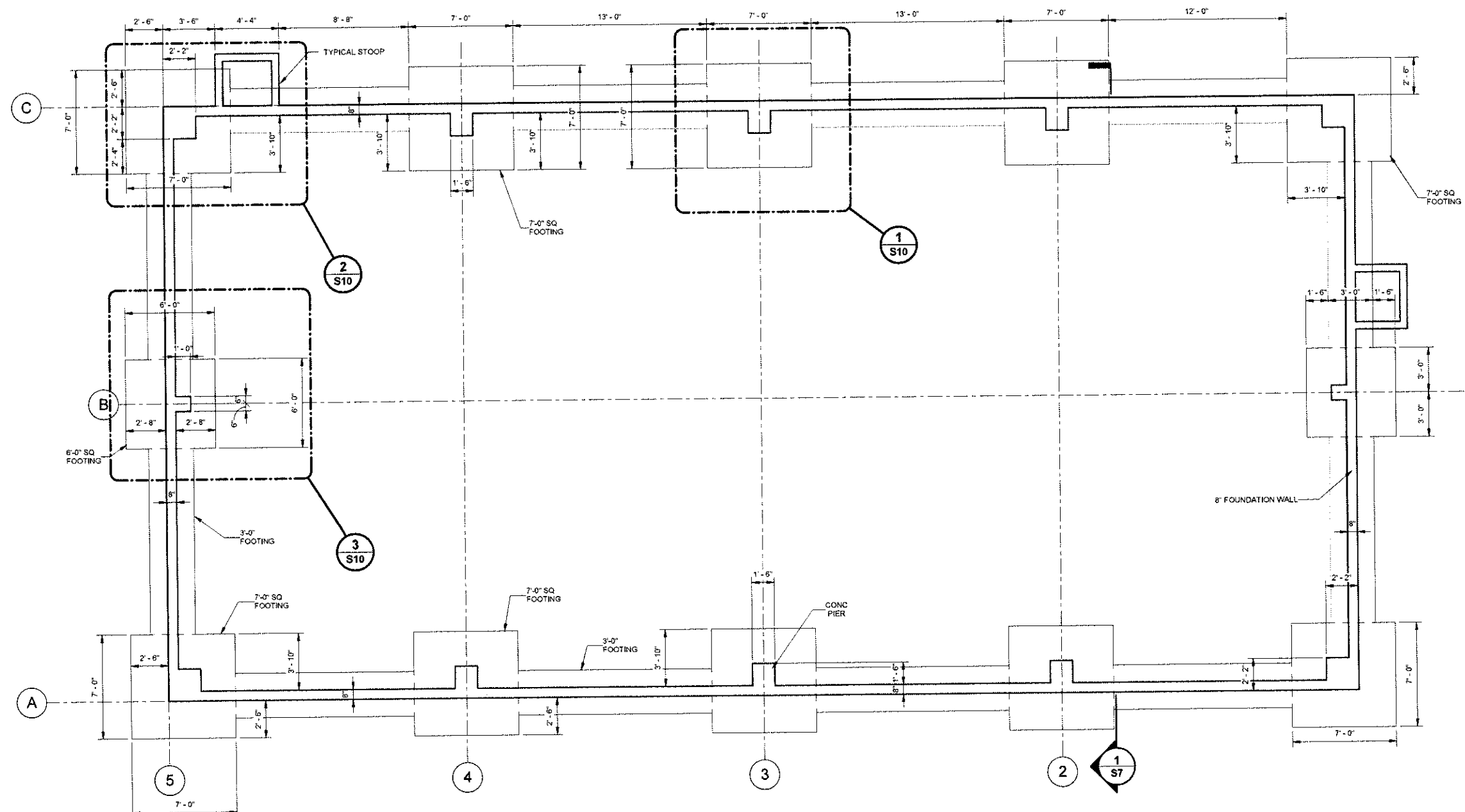
Professional Engineer's Name
LISA A. BOWE
Professional Engineer's No.
086254

State	Date Signed	Project Mgr.
NY	2/13/2013	DFS
Designed by	Drawn by	Checked by
AAH	AAH	LAB



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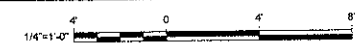
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DATE 1/28/16 BY *JP*

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Professional Engineer's Name
LISA A. BOWE
Professional Engineer's No.
086254
State
NY
Date Signed
2/13/2013
Project Mgr.
DFS
Designed by
AAH
Drawn by
AAH
Checked by
LAB



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ARCADIS OF NEW YORK, INC.

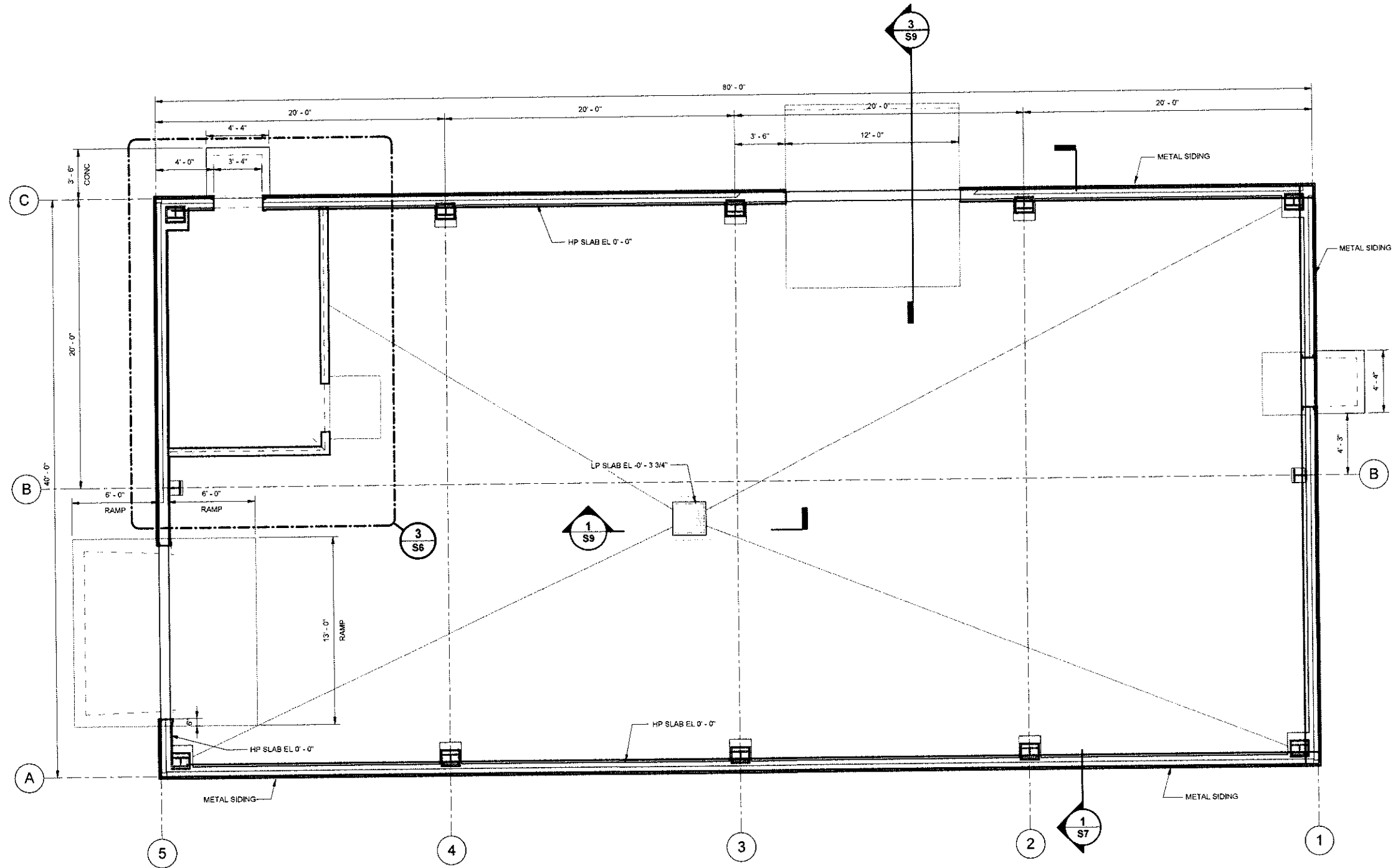
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GROUNDWATER AND LEACHATE TREATMENT SYSTEM

FOUNDATION PLAN

STRUCTURAL

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B0031174.0003.00002
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Tel 315.446.9120

S4



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3/16"=1'-0"

No.	Date	Revisions	By	Ckd
1	04/2013	General Revisions		
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Professional Engineer's Name LISA A. BOWE		
Professional Engineer's No. 086254		
State NY	Date Signed 2/13/2013	Project Mgr. DFS
Designed by AAH	Drawn by AAH	Checked by LAB



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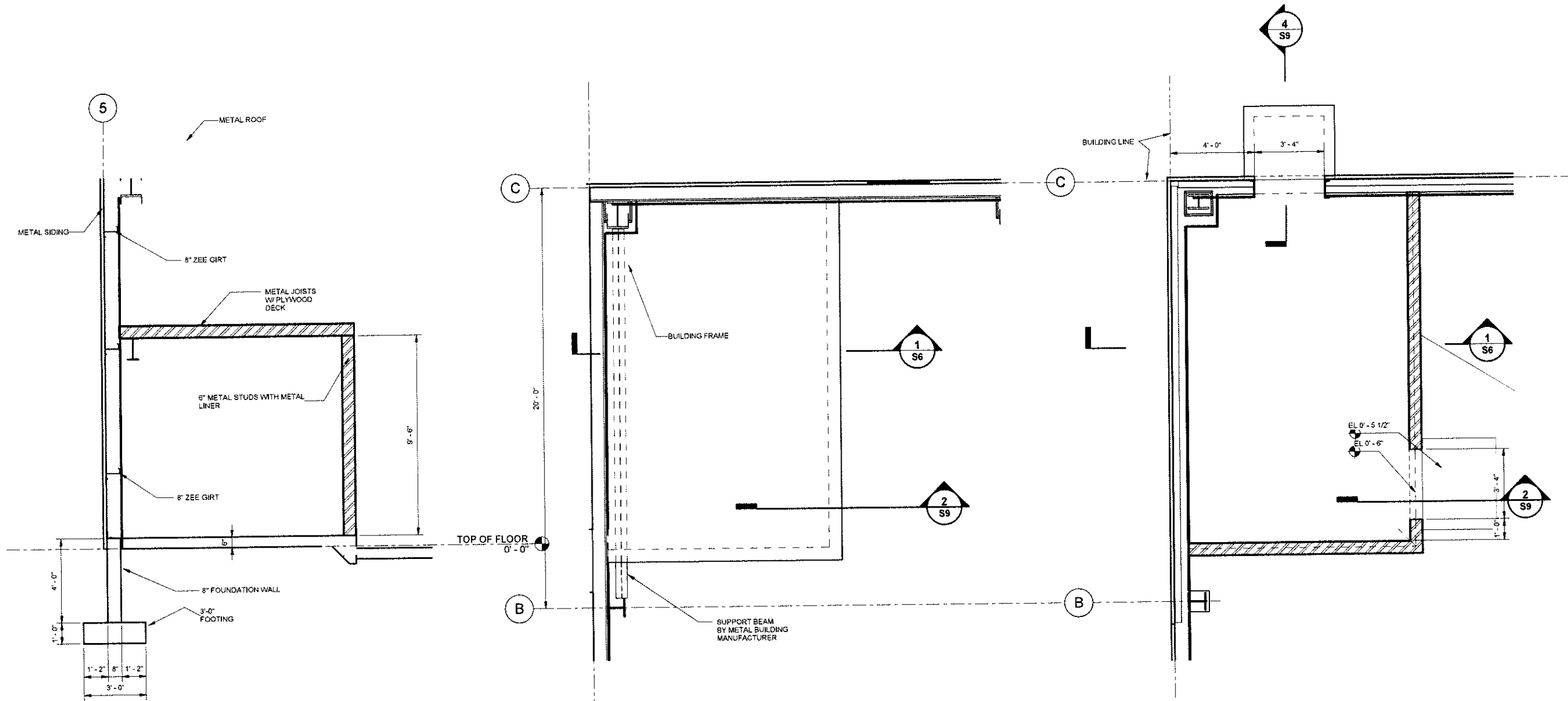
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GROUNDWATER AND LEACHATE TREATMENT SYSTEM

FLOOR PLAN

STRUCTURAL

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B0031174.0003.00002
Date
JANUARY 2016
ARCADIS
6723 Towpath Road
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Syracuse, NY 13214
Tel. 315.446.9120

S5



1 CONTROL ROOM
3/8" = 1'-0"

2 CONTROL ROOM ROOF PLAN
3/8" = 1'-0"

3 CONTROL ROOM PLAN
3/8" = 1'-0"

RECORD DRAWINGS

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DATE 1/25/16 BY [Signature]

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3/8" = 1'-0"

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Professional Engineer's Name LISA A. BOWE			
Professional Engineer's No. 086254			
State NY	Date Signed 2/13/2013	Project Mgr. DFS	
Designed by AAH	Drawn by AAH	Checked by LAB	



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GROUNDWATER AND LEACHATE TREATMENT SYSTEM

CONTROL ROOM

STRUCTURAL

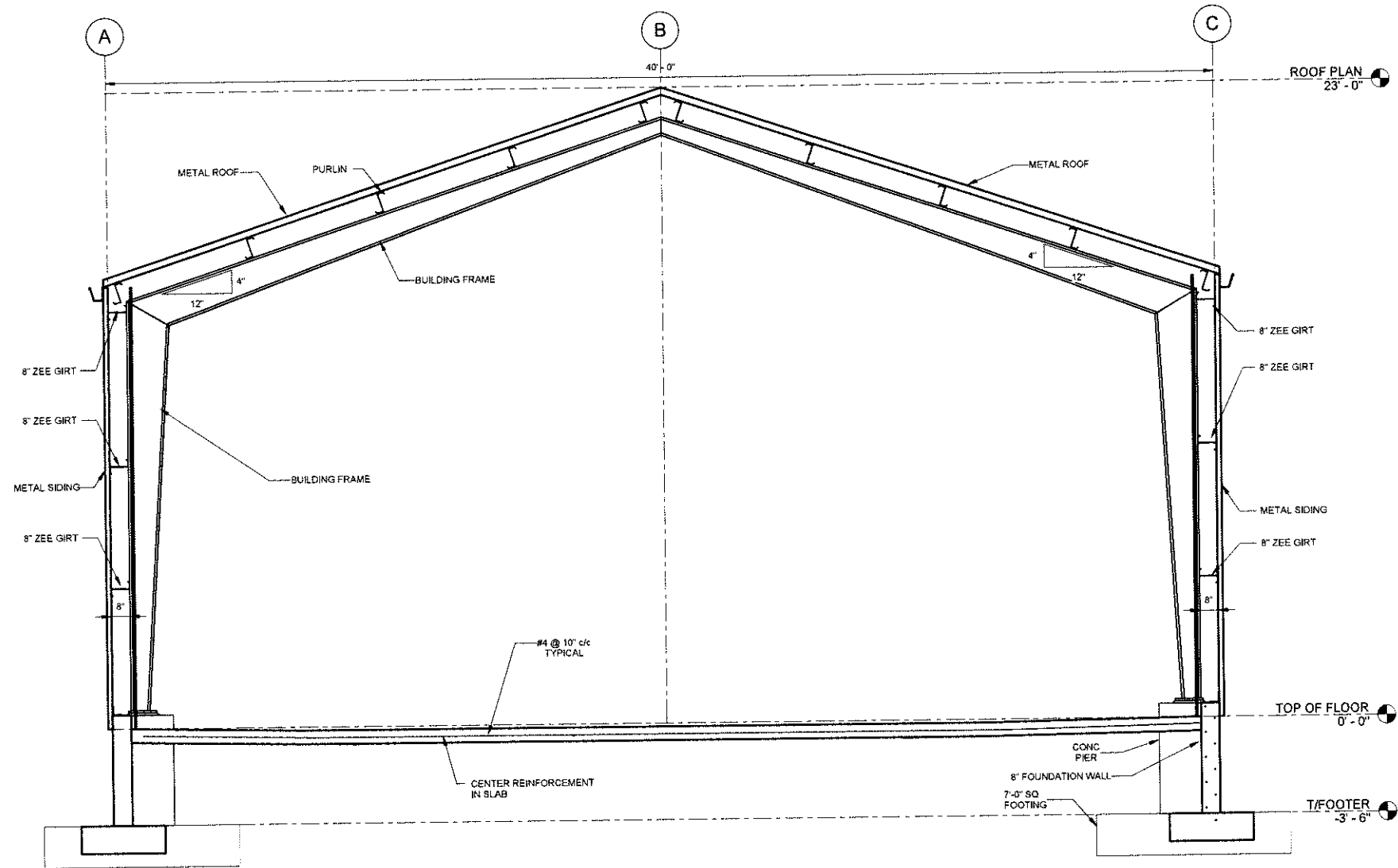
ARCADIS Project No.
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Date
JANUARY 2016

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Tel. 315.448.9120

S6

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1 TYPICAL FRAME
3/8" = 1'-0"

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DATE 1/28/16 BY JFS

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3/8" = 1'-0"

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Professional Engineer's Name LISA A. BOWE	
Professional Engineer's No. 086254	
State NY	Date Signed 2/13/2013
Designed by AAH	Drawn by AAH
Project Mgr. DFS	Checked by LAB



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ARCADIS OF NEW YORK, INC.

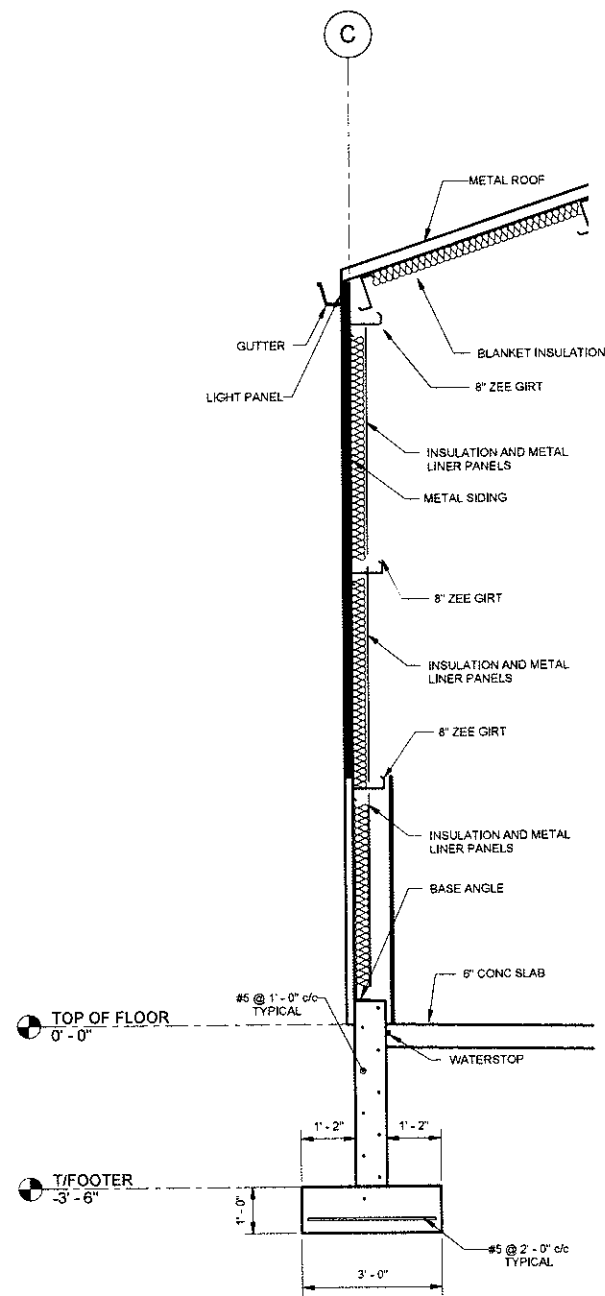
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SECTION-TYPICAL FRAME

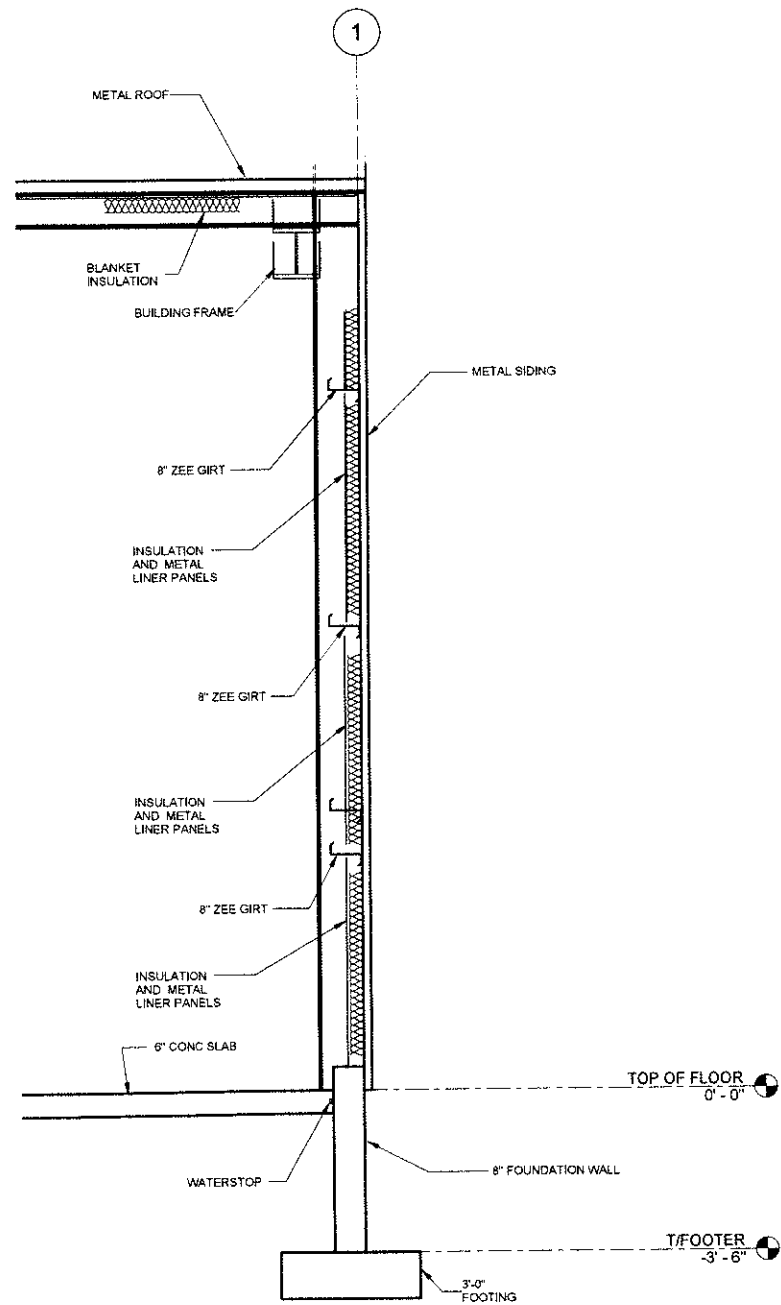
STRUCTURAL

ARCADIS Project No.
B0031174.0003.00002
Date
JANUARY 2016
ARCADIS
6723 Tewpath Road
P.O. Box 66
Syracuse, NY 13214
Tel: 315.446.9120

S7



1 **TYPICAL SIDEWALL SECTION**
1/2" = 1'-0"



2 **ENDWALL SECTION**
1/2" = 1'-0"

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DATE 1/28/16 BY JFW

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1/2" = 1'-0"

No.	Date	Revisions	By	Chd
1	04/2013	General Revisions		
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Professional Engineer's Name LISA A. BOWE			
Professional Engineer's No. 086254			
State NY	Date Signed 2/13/2013	Project Mgr. DFS	
Designed by AAH	Drawn by AAH	Checked by LAB	



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ARCADIS OF NEW YORK, INC.

DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM

WALL SECTIONS

STRUCTURAL

ARCADIS Project No.
B0631174.0003.00002
Date
JANUARY 2016
ARCADIS
6723 Tawpath Road
P.O. Box 66
Syracuse, NY 13214
Tel: 315.446.9120

S8

PRE-ENGINEERED BUILDING

- 1.1 DESIGN REQUIREMENTS
- A. APPLICABLE BUILDING CODE: NEW YORK STATE BUILDING CODE 2010.
- B. DESIGN WALL AND ROOF PANEL SYSTEM TO WITHSTAND SPECIFIED LOADS WITH DEFLECTION OF 1/240TH OF SPAN, MAXIMUM.
- C. ANCHOR RODS: FURNISH DESIGN CRITERIA FOR ANCHOR BOLTS FURNISHED BY OTHERS, TO RESIST THE LOADS INDUCED BY THE DESIGN LOADS ON THE STRUCTURE.
- 1.2 SUBMITTALS
- A. DESIGN DATA: PROVIDE DETAILED DESIGN CRITERIA AND CALCULATIONS.
- B. CERTIFICATION: MANUFACTURER CERTIFICATION THAT THE BUILDING CONFORMS TO THE CONTRACT DOCUMENTS AND MANUFACTURER'S STANDARD DESIGN PROCEDURES.
- C. SHOP DRAWINGS: SHOW BUILDING LAYOUT, PRIMARY AND SECONDARY FRAMING MEMBER SIZES AND LOCATIONS, CROSS-SECTIONS, AND PRODUCT AND CONNECTION DETAILS.
- D. PRODUCT DATA: INFORMATION ON MANUFACTURED PRODUCTS TO BE INCORPORATED INTO THE PROJECT.
- E. COLOR CHARTS: FOR SELECTION OF COLORS.
- F. ANCHOR ROD INSTALLATION DRAWINGS: LAYOUTS WITH BOLT DIAMETERS.
- G. REACTIONS: SUBMIT REACTIONS FOR DESIGN OF FOUNDATION.
- H. SPECIMEN WARRANTY.
- 1.3 QUALITY ASSURANCE
- A. DESIGN STRUCTURAL COMPONENTS, DEVELOP SHOP DRAWINGS, AND PERFORM SHOP AND SITE WORK UNDER DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER EXPERIENCED IN DESIGN OF THIS WORK AND LICENSED IN THE STATE OF NEW YORK.
- B. DESIGN DATA AND SHOP DRAWINGS SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.
- C. QUALIFICATIONS:
1. MANUFACTURER: COMPANY SPECIALIZING IN MANUFACTURING PRODUCTS SPECIFIED IN THIS SECTION WITH MINIMUM 5 YEARS DOCUMENTED EXPERIENCE.
2. ERECTOR: COMPANY SPECIALIZING IN PERFORMING WORK OF THIS SECTION WITH MINIMUM 5 YEARS DOCUMENTED EXPERIENCE AND APPROVED BY MANUFACTURER.
- 1.4 WARRANTY
- A. PROVIDE MANUFACTURER'S STANDARD WARRANTY FOR
1. PANEL FINISH: 20 YEARS.
2. WEATHER-TIGHTNESS: 20 YEARS
- PART 2 PRODUCTS
- 2.1 MANUFACTURERS
- A. METALLIC BUILDING COMPANY.
- B. OR AS APPROVED.
- 2.2 METAL MATERIALS
- A. STRUCTURAL STEEL PLATE, BAR, SHEET, AND STRIP FOR USE IN BOLTED AND WELDED CONSTRUCTIONS: ASTM A572, A570, A529, OR A36, WITH MINIMUM YIELD STRENGTH OF 50,000 PSI.
- B. STRUCTURAL STEEL MATERIAL FOR USE IN ROLL FORMED OR PRESS BROKEN SECONDARY STRUCTURAL MEMBERS: ASTM A570, OR A607 WITH MINIMUM YIELD STRENGTH OF 55,000 PSI.
- C. GALVANIZED STEEL SHEET FOR ROLL-FORMED OR PRESS BROKEN ROOF AND WALL COVERINGS, TRIM AND FLASHING: ASTM A653, WITH MINIMUM YIELD STRENGTH OF 50,000 PSI.
- D. HOT-ROLLED STEEL SHAPES: W, M AND S SHAPES, ANGLES, RODS, CHANNELS AND OTHER SHAPES: ASTM A992 OR ASTM A36 AS APPLICABLE, WITH MINIMUM YIELD STRENGTHS REQUIRED FOR THE DESIGN.
- E. STRUCTURAL BOLTS AND NUTS USED WITH PRIMARY FRAMING: HIGH STRENGTH, ASTM A325.
- F. BOLTS AND NUTS USED WITH SECONDARY FRAMING MEMBERS: ASTM A307.
- 2.3 FRAMING COMPONENTS
- A. PRIMARY FRAMING: RIGID FRAME SOLID WEB FRAMING CONSISTING OF TAPERED OR UNIFORM DEPTH RAFTERS RIGIDLY CONNECTED TO TAPERED OR UNIFORM DEPTH COLUMNS. PROVIDE A CLEAR SPAN THAT SUPPORTS THE LOADS AT BAY SPACINGS INDICATED.
- B. ENDWALL FRAMING: CORNER POSTS, END POSTS AND RAKE BEAMS.
- C. PURLINS: Z-SHAPED, DEPTH AS REQUIRED, WITH MINIMUM YIELD STRENGTH OF 55,000 PSI.
- D. GIRTS: Z, OR C-SHAPED, DEPTH AS REQUIRED, WITH MINIMUM YIELD STRENGTH OF 55,000 PSI.
- E. WIND BRACING: PORTAL, TORSIONAL, DIAGONAL BRACING OR DIAPHRAGM IN ACCORDANCE WITH MANUFACTURER'S STANDARD DESIGN PRACTICES, UTILIZING RODS, ANGLES, AND OTHER MEMBERS, WITH MINIMUM YIELD STRENGTHS AS REQUIRED FOR DESIGN.
- F. PRIMARY FRAME FLANGE BRACING: ATTACHED FROM PURLINS OR GIRTS TO THE PRIMARY FRAMING, MINIMUM YIELD STRENGTH AS REQUIRED FOR DESIGN.
- G. BASE ANGLES: MINIMUM 2 INCH BY 3 INCH BY 0.59 INCH STEEL ANGLES, WITH MINIMUM YIELD STRENGTH OF 55,000 PSI.
- H. DOOR HEADERS AND JAMBS: Z-OR C-SHAPED, DEPTH AS REQUIRED, WITH MINIMUM YIELD STRENGTH OF 55,000 PSI.
- I. SILL ANGLES AND BRIDGING: STEEL ANGLES WITH MINIMUM YIELD STRENGTH OF 35,000 PSI.
- J. FABRICATION: FABRICATE ACCORDING TO MANUFACTURER'S STANDARD PRACTICE.
1. FABRICATE STRUCTURAL MEMBERS MADE OF WELDED PLATE SECTIONS BY JOINTING THE FLANGES AND WEBS BY CONTINUOUS AUTOMATIC SUBMERGED ARC WELDING PROCESS.
2. ALL WELDING OPERATORS AND PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE, AWS D1.1.
3. FIELD CONNECTIONS: PREPARE MEMBERS FOR BOLTED FIELD CONNECTIONS BY MAKING PUNCHED, DRILLED, OR REAMED HOLES IN THE SHOP.
- K. SHOP COATING: FINISH ALL STRUCTURAL STEEL MEMBERS USING ONE COAT OF MANUFACTURER'S STANDARD SHOP COAT, AFTER CLEANING OF OIL, DIRT, LOOSE SCALE AND FOREIGN MATTER.
- 2.4 ROOF AND WALL PANEL COMPONENTS
- A. ROOF PANELS: 36 INCH WIDE NET COVERAGE WITH 1-1/4 INCH HIGH MAJOR RIBS AT 12 INCHES ON CENTER WITH MINOR RIBS SPACED BETWEEN THE MAJOR RIBS.
1. MATERIAL: GALVANIZED STEEL WITH G90 COATING.
2. THICKNESS: 26 GAGE.
3. SIDE LAPS: AT LEAST ONE FULL MAJOR RIB, WITH A SUPPORTING MEMBER BEARING EDGE ON THE LOWER PANEL AND AN ANTI-CAPILLARY GROOVE ON THE UPPER PANEL.
4. LENGTH: CONTINUOUS FROM EAVE TO RIDGE.
5. ENDLAPS WHERE REQUIRED: 6 INCHES WIDE, LOCATED AT A SUPPORT MEMBER.
6. FINISH: KYNAR 500 PRE-PAINTED FINISH ON EXTERIOR SURFACE, WASH COAT ON INTERIOR SURFACE. COLOR OR SELECTED BY OWNER FROM MANUFACTURER'S FULL LINE.
7. THE ROOF SHALL BE TESTED AND CERTIFIED TO MEET UNDERWRITERS LABORATORIES, INC., UPLIFT RATING: UL 90.
- B. WALL PANELS: 36 INCH WIDE NET COVERAGE WITH 1-1/4 INCH HIGH MAJOR RIBS AT 12 INCHES ON CENTER WITH MINOR RIBS SPACED BETWEEN THE MAJOR RIBS.
1. MATERIAL: GALVANIZED STEEL WITH G90 COATING.
2. THICKNESS: 26 GAGE.
3. SIDE LAPS: TWO FULLY OVERLAPPING MAJOR RIBS SECURED TOGETHER WITH 1/4 INCH DIAMETER COLOR-MATCHED CARBON STEEL FASTENERS.
4. LENGTH: CONTINUOUS FROM SILL TO EAVE.
5. ENDLAPS WHERE REQUIRED: 4 INCHES WIDE, LOCATED AT A SUPPORT MEMBER.
6. CRIMP PANELS AT THE BASE AND NOTCH TO MAKE ROOF PANEL CONFIGURATION AT THE EAVE.
7. CUT PANELS SQUARE AT EACH END, PROVIDE BASE TRIM AT SILL.
8. FINISH: KYNAR 500 PRE-PAINTED FINISH ON EXTERIOR SURFACE, WASH COAT ON INTERIOR SURFACE. COLOR OR SELECTED BY OWNER FROM MANUFACTURER'S FULL LINE.
- C. PANEL FASTENERS
1. FOR ROOF PANELS: STAINLESS STEEL-CAPPED CARBON STEEL FASTENERS WITH INTEGRAL SEALING WASHER.
2. FOR WALL PANELS: COATED CARBON STEEL.
3. COLOR OF EXPOSED FASTENER HEADS TO MATCH THE WALL PANEL FINISH.
4. CONCEALED FASTENERS: SELF-DRILLING TYPE, OF SIZE AS REQUIRED.
5. PROVIDE FASTENERS IN QUANTITIES AND LOCATION AS REQUIRED BY THE MANUFACTURER.

PRE-ENGINEERED BUILDING (CONT.)

- D. FLASHING AND TRIM: MATCH MATERIAL AND COLOR OF ADJACENT COMPONENTS. PROVIDE TRIM AT RAKES, INCLUDING BREAK AND CORNER ASSEMBLIES, HIGH AND LOW EAVES, CORNERS, BASES, FRAMED OPENINGS AND AS REQUIRED OR SPECIFIED TO PROVIDE WEATHER-TIGHTNESS AND A FINISHED APPEARANCE.
- E. PLASTIC PARTS: GLASS FIBER-REINFORCED RESIN OR THERMO-FORMED ABS.
1. ABS: MINIMUM 1/8 INCH THICK.
2. COLOR: MANUFACTURER'S STANDARD COLOR.
- F. SEALANTS, MASTICS AND CLOSURES: MANUFACTURER'S STANDARD TYPE.
1. PROVIDE AT ROOF PANEL ENDLAPS, SIDELAPS, RAKE, EAVE, TRANSITIONS AND ACCESSORIES AS REQUIRED TO PROVIDE A WEATHER-RESISTANT ROOF SYSTEM, USE TAPE MASTIC OR GUNNABLE SEALANT AT SIDELAPS AND ENDLAPS.
2. PROVIDE AT WALL, PANEL RAKES, EAVES, TRANSITIONS AND ACCESSORIES.
3. CLOSURES: FORMED TO MATCH PANEL PROFILES, CLOSED CELL ELASTIC MATERIAL, MANUFACTURER'S STANDARD COLOR.
4. TAPE MASTIC: PRE-FORMED BUTYL, RUBBER-BASED, NON-HARDENING, NON-CORROSIVE TO METAL, WHITE OR LIGHT GRAY.
5. GUNNABLE SEALANT: NON-SKINNING SYNTHETIC ELASTOMER BASED MATERIAL, GRAY OR BRONZE.
- G. BLANKET INSULATION: GLASS FIBER WITH FACTORY-LAMINATED FACING MATERIAL.
1. GLASS FIBER: ODORLESS, NEUTRAL-COLORED, LONG FILAMENT, FLEXIBLE RESILIENT, PRODUCED IN COMPLIANCE WITH THE NAIMA 202 SPECIFICATIONS.
2. THERMAL RESISTANCE: TO MEET R-19 AT 75 DEGREES F MEAN TEMPERATURE.
3. FLAME SPREAD INDEX: 25 OR LESS, WHEN TESTED IN ACCORDANCE WITH UL 723.
4. SMOKE DEVELOPED INDEX: 50 OR LESS, WHEN TESTED IN ACCORDANCE WITH UL 723.
5. UL CLASSIFIED.
6. FACING: WHITE VINYL SCRIM POLYESTER, 0.0025 INCH THICK PVC FILM, GLASS FIBER SCRIM REINFORCING, 0.0005 INCH THICK POLYESTER FILM, PERMEANCE 0.02 PERMS, COMPOSITE FIBERGLASS AND FACING TO MEET FLAME SPREAD OF 25 OR LESS, SMOKE DEVELOPED OF 50 OR LESS WHEN TESTED IN ACCORDANCE WITH UL 723.
7. PROVIDE FACING 3 INCHES WIDER ON BOTH EDGES THAN BLANKET.
8. WIDTH: AS REQUIRED FOR INSTALLATION.
9. USE BLANKET INSULATION AT ROOF AND WALLS.
- H. LIGHT PANELS: PROVIDE TRANSLUCENT PANELS ON BUILDING EXTERIOR AS INDICATED TO ALLOW NATURAL LIGHT INTO THE BUILDING. LIGHT PANELS SHALL BE INSULATED.
- I. LINER PANELS: PROVIDE METAL LINER PANELS ON INTERIOR OF BUILDING AS INDICATED. PANELS SHALL BE MINIMUM 26 GAGE AND HAVE CONCEALED FASTENERS TO ATTACH PANEL DIRECTLY TO THE WALL FRAMING.
- 2.5 WALL ACCESSORIES
- A. SERVICE DOORS.
- B. SECTIONAL OVERHEAD DOORS.
- C. PROVIDE FRAMED OPENINGS FOR LOUVERS.
- 2.6 ROOF ACCESSORIES
- A. EAVE GUTTERS: ROLL-FORMED 26 GAGE STEEL SHEET, WITH GUTTER STRAPS, FASTENERS AND JOINT SEANT. SAME COLOR AS WALL PANELS.
1. DOWNSPOUTS: 4 BY 5 INCHES IN 10 FOOT LENGTHS WITH DOWNSPOUT ELBOWS AND DOWNSPOUT STRAPS, SAME COLOR AS WALL PANELS.
- B. SNOWGUARDS
1. MANUFACTURERS: SNOJAX, INC. OR AS APPROVED.
2. FABRICATED FROM CLEAR POLYCARBONATE.
3. PROVIDE ADHESIVE FOR SECURING SNOWGUARDS TO ROOF PANELS.
4. CONSULT MANUFACTURER FOR SPACING RECOMMENDATIONS.
- C. PROVIDE FRAMED OPENINGS FOR PANS.
- 2.7 DOORS
- A. OVERHEAD DOORS TO BE COILING TYPE, STEEL CONSTRUCTION, INSULATED, CURTAIN SLATS MIN 20 GA EXTERIOR AND 24 GA BACK COVER, LOCKING MECHANISM REQUIRED. PROVIDE COUNTERBALANCING MECHANISM WITH HELICAL TORSIONAL SPRINGS, PLACE HOOD EXTERIOR OF BUILDING.
- B. INTERIOR MANDOCOR - 20 GA., HONEY COMB CORE, WITH 16 GA. FRAME AND LOCKS.
- C. EXTERIOR MANDOCOR - 18 GA., INSULATED CORE, STANDARD KEYING, BALL BEARING HINGES, AND 16 GA. FRAME.

COLD FORMED METAL FRAMING

- 1.1 MATERIALS
- A. STEEL SHEET: ASTM A653/A 653M, STRUCTURAL STEEL, ZINC COATED, GRADE 33 WITH G60 (Z180) COATING.
1. CEILING JOISTS AND WALL STUDS SHALL BE 600S137-33 SPACED AT 16" ON CENTER, MINIMUM
- 1.2 FRAMING ACCESSORIES
- A. FABRICATE STEEL-FRAMING ACCESSORIES OF THE SAME MATERIAL AND FINISH USED FOR FRAMING MEMBERS, WITH MINIMUM YIELD STRENGTH OF 33,000 PSI (230 MPa).
- B. PROVIDE ACCESSORIES OF MANUFACTURER'S STANDARD THICKNESS AND CONFIGURATION.
- 1.3 MISCELLANEOUS MATERIALS
- A. GALVANIZING REPAIR PAINT: SSPC-PAINT 20 OR DGD-P21035, ASTM A780.
- 1.4 FASTENERS
- A. SCREWS: CORROSION-RESISTANT COATED, SELF-DRILLING, PAN OR HEX WASHER HEAD. PROVIDE SCREW TYPE AND SIZE AS REQUIRED BY STRUCTURAL DESIGN CALCULATIONS FOR THE CONDITION AND THICKNESS OF MATERIALS BEING JOINED.
- 1.5 FABRICATION
- A. FABRICATE ASSEMBLIES TO SIZE AND CONFIGURATION REQUIRED.
- B. CUT ALL FRAMING COMPONENTS SQUARE FOR ATTACHMENT TO PERPENDICULAR MEMBERS, OR AS REQUIRED FOR AN ANGULAR FIT AGAINST ABUTTING MEMBERS.
- C. FASTEN COMPONENTS WITH SELF-DRILLING SCREWS OR WELDING. FURNISH SCREWS OF SIZES TO BE SUFFICIENT TO INSURE STRENGTH OF CONNECTION. TOUCH UP ALL WELDS WITH ZINC-RICH PRIMER. MECHANICAL FASTENERS EITHER POWDER ACTUATED OR PNEUMATICALLY DRIVEN, ARE PROHIBITED.
- D. REINFORCE AND BRACE ASSEMBLIES TO WITHSTAND HANDLING STRESSES.
- E. COLD-FORMED METAL FRAMING MAY BE SHOP OR FIELD FABRICATED FOR INSTALLATION, OR IT MAY BE FIELD ASSEMBLED.
- F. INSTALL COLD-FORMED METAL FRAMING ACCORDING TO ASTM C1007, UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED.
- G. INSTALL COLD-FORMED METAL FRAMING AND ACCESSORIES PLUMB, SQUARE, AND TRUE TO LINE, AND WITH CONNECTIONS SECURELY FASTENED, ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS AND REQUIREMENTS IN THIS SECTION.
1. CUT FRAMING MEMBERS BY SAWING OR SHEARING, DO NOT TORCH CUT.
2. FASTEN COLD-FORMED METAL FRAMING MEMBERS BY WELDING OR SCREW FASTENING, AS STANDARD WITH FABRICATOR. WIRE TYING OF FRAMING MEMBERS IS NOT PERMITTED.
- H. INSTALL FRAMING AT 16" ON CENTER MINIMUM
1. PLACE AT EACH SIDE OF OPENINGS AND NOT MORE THAN 2 INCHES FROM ABUTTING WALLS.
- A. FRAME CORNERS WITH THREE STUDS.
- B. FRAME WALL OPENINGS WIDER THAN STUD SPACING WITH DOUBLE STUD AT EACH JAMB.
2. INSTALL SUPPLEMENTARY FRAMING OR BLOCKING TO SUPPORT WORK ATTACHED TO FRAMING.
3. SECURE FRAMING TO CONCRETE SLAB WITH EXPANSION ANCHORS AT MAXIMUM 24" CENTERS.
- I. INSTALL MINIMUM 1/2" GYPSUM BOARD PANELS ON EXTERIOR AND INTERIOR OF WALLS AND ON UNDERSIDE OF CEILING. PROVIDE CORNER BEADS, EDGE TRIM AND JOINT MATERIALS AS REQUIRED.
- J. INSTALL MINIMUM 5/8" APA STRUCTURAL PLYWOOD SHEATHING ON TOP OF CEILING JOISTS.
- 1.6 TOLERANCES
- A. STUDS: VERTICAL ALIGNMENT (PLUMBNESS): 1/960 (1/8 INCH IN 10 FEET).
- B. WALLS: HORIZONTAL ALIGNMENT (LEVELNESS): 1/960 (1/8 INCH IN 10 FEET).
- C. STUD SPACING: 1/8 INCH FROM DESIGNATED SPACING PROVIDING THAT THE CUMULATIVE ERROR DOES NOT EXCEED REQUIREMENTS OF FINISHING MATERIALS.

STATEMENT OF SPECIAL INSPECTIONS
2010 BUILDING CODE OF NEW YORK STATE CHAPTER 17

STRUCTURAL STEEL WORK				
	ITEM	TYPE OF INSPECTION	TYPE OF TEST	FREQUENCY
1	BOLTED CONNECTIONS--STEEL TO STEEL, STEEL TO CONCRETE MATERIAL VERIFICATION OF HIGH STRENGTH BOLTS, NUTS, WASHERS AND STRUCTURAL STEEL	VISUAL IN ACCORDANCE WITH AISC SPECIFICATIONS	VERIFY CONNECTIONS ARE CONSISTENT WITH CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS.	PERIODICALLY
2	WELDED CONNECTIONS MATERIAL VERIFICATION OF WELD FILLER MATERIALS.	VISUAL IN ACCORDANCE WITH AWS D1.1	COMPLETE AND PARTIAL PENETRATION GROOVE WELDS PLUG AND SLOT WELDS MULTIPASS FILLET WELDS, SINGLE PASS FILLET WELDS > 3/16" SINGLE PASS FILLET WELDS ≤ 3/16" ROOF DECK WELDS	CONTINUOUS CONTINUOUS PERIODICALLY
3	FABRICATORS		VERIFY FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES IN ACCORDANCE WITH AC472	
4	STABILITY	VISUAL	VERIFY STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS	PERIODICALLY

CONCRETE WORK				
	ITEM	TYPE OF INSPECTION	TYPE OF TEST	FREQUENCY
1	INSPECTION OF REINFORCING STEEL.	VISUAL	VERIFY COVER, LOCATION, YIELD STRENGTH, LAP LENGTHS.	PERIODIC
2	VERIFYING USE OF APPROVED DESIGN MIX.	VISUAL	ONSITE REVIEW OF BATCH TICKETS FROM TRUCKS. VERIFY TRUCK TICKETS MATCH APPROVED MIX DESIGN.	PERIODIC
3	CONCRETE SAMPLING FOR STRENGTH TEST.	SAMPLING BY TECHNICIAN	SAMPLE PER ASTM C172, MOLD 4 CYLINDERS PER ASTM C31	PERIODICALLY - SAMPLE EACH DAY OF PLACEMENT AND EVERY 100 CUBIC YARDS AFTERWARD.
4	CONCRETE STRENGTH TESTS.	LABORATORY STRENGTH TEST	ASTM C39	CONTINUOUS - TEST 1 CYLINDER AT 7 DAYS, 2 CYLINDERS AT 28 DAYS. TEST ADDITIONAL CYLINDER AS DIRECTED BY ENGINEER.
5	SLUMP, TEMPERATURE, AND AIR TESTS.	FIELD TESTING	SLUMP - ASTM C143, TEMPERATURE - ASTM C1064, AIR CONTENT - ASTM C231, C173, OR C138	PERIODICALLY - TEST EACH DAY OF PLACEMENT AND EVERY 100 CUBIC YARDS AFTERWARD AND AS DIRECTED BY ENGINEER.
6	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TECHNIQUES	VISUAL	VERIFY CURING TECHNIQUES AS SPECIFIED.	PERIODICALLY
7	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF CONCRETE MEMBER BEING FORMED.	VISUAL	VERIFY FORMWORK MATCHES CONTRACT DOCUMENTS, CONSTRUCTION BULLETINS, AND FIELD CHANGES.	PERIODICALLY
8	INSPECTION OF BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE	VISUAL	VERIFY PROPER PLACEMENT AT COLUMN ANCHOR BOLTS	CONTINUOUS
9	INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE	VISUAL	VERIFY ANCHOR MANUFACTURER REQUIREMENTS ARE MET	PERIODICALLY

STEEL GRATING

LIGHT DUTY WELDED STEEL W SERIES BY OHIO GRATINGS, INC., OR APPROVED EQUAL. RECTANGULAR BEARING BARS ON 1 3/16" CENTERS MAXIMUM WITH DOVE TAIL SLOTS TO ACCEPT CROSS BARS. CROSS BARS SHALL BE WELDED TO BEARING BARS AT 4" CENTERS MAXIMUM. PROVIDE MIN 1/4" THICK WELDED GRATING FRAME WITH INTEGRAL ANCHORS FOR EMBEDMENT IN CONCRETE. GRATING AND FRAME SHALL BE GALVANIZED.

SPECIAL INSPECTIONS SHALL BE PERFORMED DURING CONSTRUCTION FOR THE WORK LISTED. RESPONSIBILITIES OF THE CONTRACTOR INCLUDE:

A. PROVIDE SAFE ACCESS TO THE WORK TO BE TESTED AND INSPECTED.

B. PROVIDE ASSISTANCE IN OBTAINING AND HANDLING TEST SAMPLES AT THE SITE.

C. FACILITATE INSPECTIONS AND TESTS.

D. PROVIDE ACCESS TO SUPPLIERS' AND SUBCONTRACTORS' OPERATIONS AS REQUIRED.

E. WRITTEN STATEMENT OF RESPONSIBILITY IN ACCORDANCE WITH SECTION 1706.1 OF BUILDING CODE OF NEW YORK STATE.

F. SPECIAL INSPECTIONS REQUIRED IN THIS SECTION DO NOT SUPERSEDE OR MAKE UNNECESSARY INSPECTIONS AND TESTS REQUIRED UNDER OTHER SPECIFICATION SECTIONS OR STANDARD INSPECTIONS REQUIRED BY LAWS AND REGULATIONS.

GEOTECHNICAL WORK				
	ITEM	TYPE OF INSPECTION	TYPE OF TEST	FREQUENCY
1	VERIFY MATERIALS BELOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE DESIGN BEARING CAPACITY.	GEOTECHNICAL ENGINEER FIELD OBSERVATIONS AND TESTING	VERIFY REQUIRED BEARING CAPACITY	PERIODICALLY, MINIMUM 4 TESTS FOR TREATMENT BUILDING
2	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	GEOTECHNICAL ENGINEER FIELD OBSERVATIONS	VERIFY EXPOSED SUBGRADE CAN DEVELOP REQUIRED BEARING STRENGTH	PERIODICALLY - PRIOR TO PLACEMENT OF CONCRETE OR FILL MATERIALS.
3	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	GEOTECHNICAL ENGINEER FIELD OBSERVATIONS AND TESTING	ASTM D698 (STANDARD PROCTOR) AND VISUAL OBSERVATIONS	CONTINUOUS FOR FILL UNDER STRUCTURES. MIN. TWO TESTS PER LIFT FOR AREAS UP TO 4,000 SQUARE FEET, AND ONE ADDITIONAL TEST PER LIFT FOR EACH ADDITIONAL 2,000 SQUARE FEET.
4	PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	GEOTECHNICAL ENGINEER FIELD OBSERVATIONS		PERIODICALLY

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, THESE RECORD DRAWINGS SUBSTANTIALLY REPRESENT THE PROJECT AS CONSTRUCTED.

DATE 1/28/16 BY S. J. Zuck

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING

USE TO VERIFY PRODUCTION SCALE

No. Date Revisions By Ckd

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Professional Engineer's No.
086254
State
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Date Signed
2/13/2013
Project Mgr.
DFS
Designed by
AAH
Drawn by
LAB



ARCADIS
Design & Consultancy for natural and built assets
ARCADIS OF NEW YORK, INC.
NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM

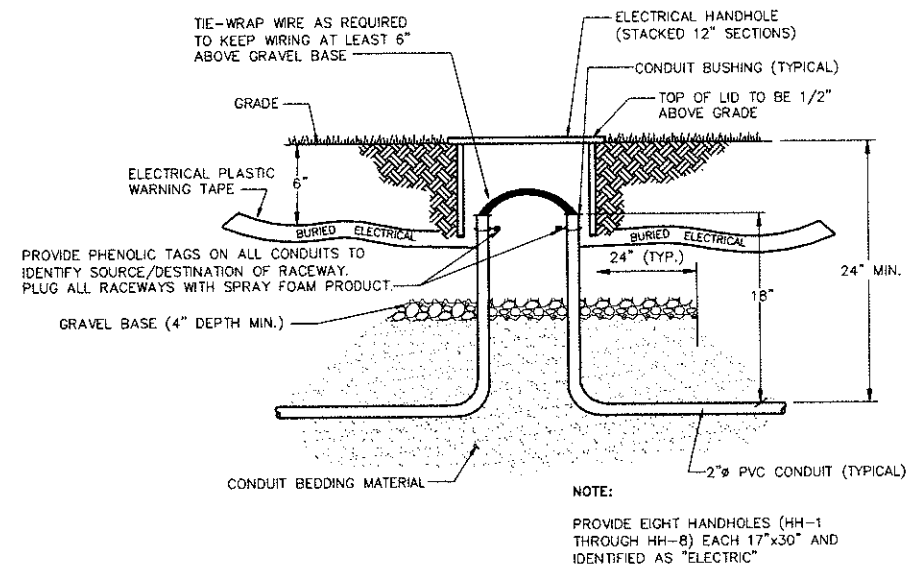
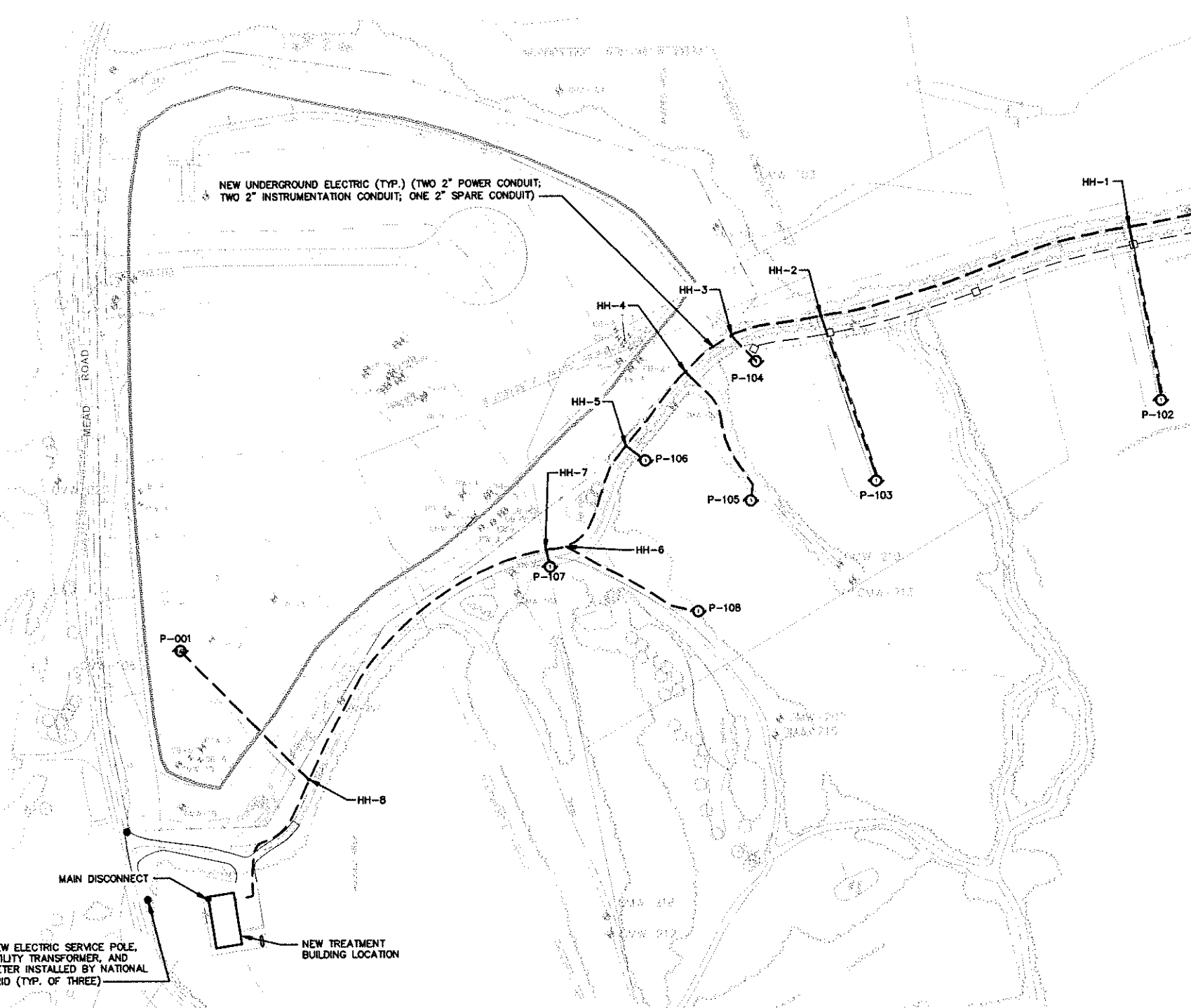
GENERAL NOTES (2 OF 2)

STRUCTURAL

ARCADIS Project No.
B0031174.0004.00014
Date
JANUARY 2016
ARCADIS
6723 TOWNSHIP ROAD
P.O. BOX 66
SYRACUSE, NY 13214
TEL: 315.448.9120

S12

CITY: (TOLETO)SYRACUSE-NEW DIV\GROUP\ENV\CAD DB\G\T\ARMSTRONG\STEINBERGER K SARTORI LD\G\STEINBERGER PIC\P\FARR PMD\SAUDA TMS\BATTAGLIA LYR\ON-OFF-REF*
G:\G\ENV\CAD\SYRACUSE\ACT\N0031174\0002\DWG\CONTRACT\31174E01.DWG, DATED 9/8/2013
LAYOUT: E1 SAVER: E1 LAYOUT: E1
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31174X001 SAUDA jpg
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SECTION ELECTRICAL HANDHOLE DETAIL
NOT TO SCALE

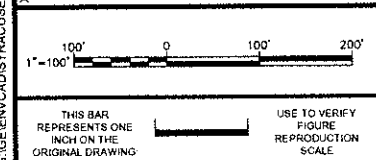
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DATE: 1/28/16 BY: [Signature]

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DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM

ELECTRICAL SITE PLAN

ELECTRICAL



No.		Date	Revisions	By	Ckd
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Professional Engineer's Name
THOMAS P. ARMSTRONG JR.
Professional Engineer's No.
085236
State
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Date Signed
2/13/2013
Project Mgr.
DFS
Designed by
SAB
Drawn by
GHS
Checked by
TEM



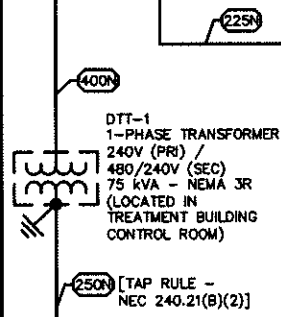
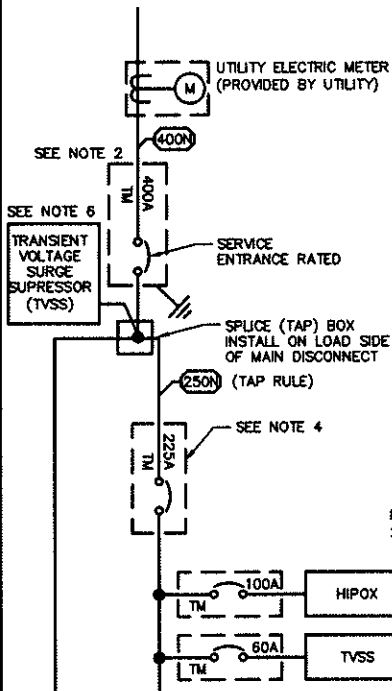
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B0031174.0004.00014
Date
JANUARY 2016
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E1

CITY: (TOLETO) SYRACUSE, NY DIV: GROUP: ENVCAD DB: G (T ARMSTRONG) STEINBERGER K: SARTORI LD: G: STEINBERGER PIC: P: FARR PWD: SAUDA TMS: BATTAGLIA LVR: ON: OFF: REF: G: GE/ENVCAD/SYRACUSE/ACT/ENVCAD/000014/DWG/RECORD/31174E02.DWG LAYOUT: E2 SAVED: 16/2016 12:41 PM ACADVER: 19.19 (LMS TECH) PAGESETUP: PDF-D PLOTSTYLETABLE: PLTCONT.CTB PLOTTED: 1/12/2016 10:32 AM BY: SAWYER, NANCY

1-PHASE UTILITY SERVICE
240/120 VAC, SINGLE PHASE
400A SERVICE



PANELBOARD
PB-1
(480V ONLY)
(REFER TO
SCHEDULE)

AIR STRIPPER (WITH
10 HP BLOWER
B-500, B-500A (2
HP), DUCT HEATER
(10 KW) AND
CONTROL PANEL)

(XX) CONDUCTOR SCHEDULE					
SYMBOL	QUANTITY	WIRE SIZE	GROUND	CONDUIT	COMMENTS
20	2	12	1 #12	3/4"	ALSO INCLUDE 2 #14 (CONTROL)
20/2	2	12	1 #12	3/4"	
20N	3	12	1 #12	3/4"	
30	2	10	1 #10	3/4"	FEEDERS TO 9 TLC-X
30N	3	10	1 #10	3/4"	
30T	18	10	1 #10	2"	
60	2	4	1 #8	1"	
60N	3	4	1 #8	1"	
125N	3	1	1 #6	1 1/4"	
175	2	#2/0	1 #6	1 1/2"	
225N	3	#4/0	1 #2	2"	
250N	3	250 kCMIL	1 #2	2 1/2"	
400N	3	600 kCMIL	1 #1/0	3 1/2"	

NOTES:

1. PROVIDE 2 #12, 1 #12 GROUND -3/4"C. FOR EACH SINGLE POLE, 20 AMP CIRCUIT IN PB-2 AND TLC-X, UNLESS OTHERWISE NOTED.
2. SYSTEM MAIN DISCONNECT (NEMA 4X ENCLOSURE) SHALL BE LOCATED NEAR SERVICE DROP METER.
3. REFER TO E1 FOR WELL ROUTING INFORMATION.
4. ENCLOSED CIRCUIT BREAKER (NEMA 4X ENCLOSURE); 2 POLE, LOCATED NEAR MAIN DISCONNECT.
5. ALL MOTORS CONTROLLED BY VFDs SHALL BE 3-PHASE MOTORS. SIZE VFD FOR TWICE THE MOTOR HP.
6. SURGE PROTECTION DEVICE SHALL BE RATED FOR 120/240 VAC, SINGLE-PHASE, WITH 50 KA MINIMUM RATING. INSTALL IN A NEMA 3R OR 4X ENCLOSURE. SPD SHALL BE TYPE 1 OR TYPE 2.

ABBREVIATIONS:

1FVNR	FULL VOLTAGE, NON-REVERSING (SIZE 1) STARTER
A.F.F.	ABOVE FINISHED FLOOR
A	AMPERES
DTT	DRY TYPE TRANSFORMER
EF	EXHAUST FAN
EMC	ENCLOSED MOTOR CONTROLLER
EUH	ELECTRIC UNIT HEATER
HP	HORSEPOWER
kVA	KILOVOLT-AMPS
kW	KILOWATT
MCP	MOTOR CIRCUIT PROTECTOR CIRCUIT BREAKER
O.L.	OVERLOAD
PB	PANELBOARD
TM	THERMAL MAGNETIC CIRCUIT BREAKER
V	VOLTS
VAC	VOLTS AC

LEGEND:

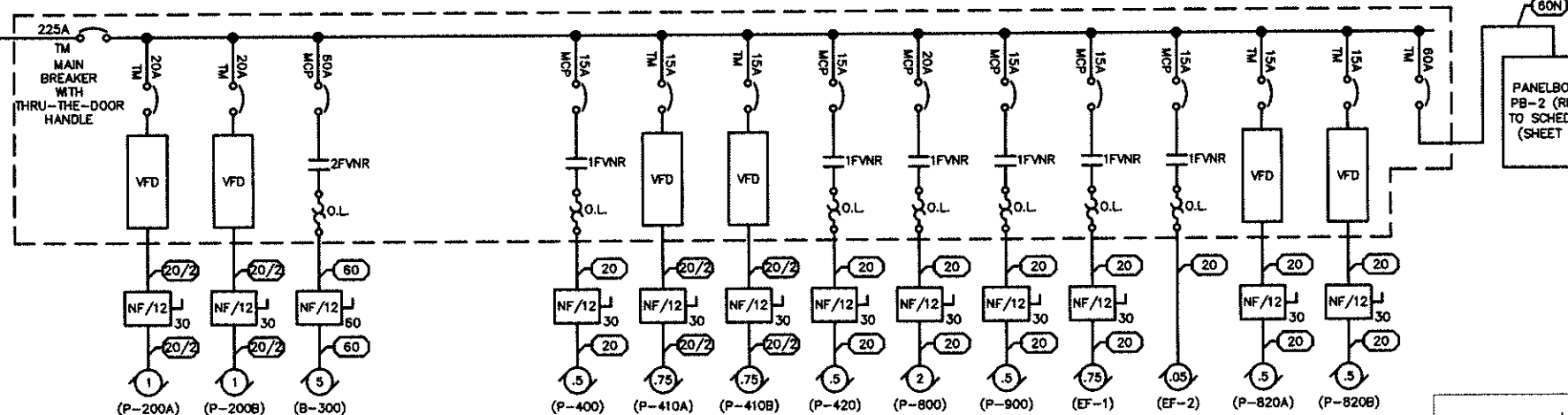
---	ENCLOSURE LIMITS
---○---	MOTOR STARTER, FVNR-TYPE EQUIPPED WITH THERMAL OVERLOADS (FULL VOLTAGE, NON-REVERSING)
Ⓜ	MOTOR, # DENOTES H.P.
Ⓧ	EARTH GROUND
Ⓜ	TRANSFORMER, POWER
Ⓜ	MOLDED CASE CIRCUIT BREAKER
Ⓜ	ELECTRIC UTILITY METER CABINET
NF/XX ZZ	ENCLOSED SWITCH NF = NON-FUSIBLE XX = NEMA RATING ZZ = AMPACITY RATING
Ⓧ	CONDUCTOR SYMBOL
Ⓧ	LIGHT SWITCH (# = AMP RATING)
CU300	GRUNDFOSS PUMP CONTROLLER, MODEL CU300
Ⓧ	JUNCTION BOX

PROVIDE A SPARE
2" CONDUIT

TRANSFORMER LOAD CENTER (TLC-X)
480V, 1Ø / 120-240V (SEC), 1Ø
5 kVA; NEMA 3R ENCLOSURE
(TYP.) (REFER TO TYP. SCHEDULE)
(PRIMARY MAIN 15A CIRCUIT BREAKER;
SECONDARY MAIN 30A CIRCUIT BREAKER)

PROVIDE APPROXIMATELY 15 FEET OF
HEAT TRACE AT EACH EXTRACTION
WELL (IN METER VAULT) (TYP.)

MOTOR STARTER PANEL (MSP)



TLC-X ENCLOSURE: NEMA TYPE 3R, CABINET MOUNTING: RACK VOLTS: 120 / 240, PHASE: 1, WIRE: 3W, 10,000 AIC, MAIN: 30A. C/B (240V)											
LOAD SERVED	LOAD (KVA)	AMP	POLE	CKT	PH	CKT	POLE	AMP	LOAD (KVA)	LOAD SERVED	LOAD (KVA)
FLOW TRANSMITTER (FIT-XOX)	0.2	0.2	1	1	A	2	1	20	0.1	HEAT TRACE	
RECEPTACLE (GFCI ON RACK)		0.2	1	3	B	4	2	20	0.0	GRUNDFOSS CU300/ PUMP P-XOX	
SPARE			1	5	A	6					
BLANK			1	7	B	8					
BLANK			1	9	A	10					
TOTAL	0.2	0.2							1.0	0.0	

PANEL PB-1 ENCLOSURE: NEMA TYPE 1, CABINET MOUNTING: SURFACE VOLTS: 480 / 240, PHASE: 1 WIRE: 3W, 10,000 AIC, 250A. MAIN C/B FEED: BOTTOM											
LOAD SERVED	LOAD (KVA)	AMP	POLE	CKT	PH	CKT	POLE	AMP	LOAD (KVA)	LOAD SERVED	LOAD (KVA)
EW-1	1.2	1.2	2	1	A	2	1	15	1.2	EW-4	
EW-2	1.2	1.2	2	3	B	4	2	15	1.2	EW-5	
EW-3	1.2	1.2	2	5	A	6	2	15	1.2	EW-6	
SPARE	1.2	1.2	2	7	B	8	2	15	1.2	EW-7	
LEACHATE	1.2	1.2	2	9	A	10	2	15	1.2	EW-8	
SPARE	1.2	1.2	2	11	B	12	2	15	1.2	SPARE	
AIR STRIPPER PANEL (AS-500)	17.0	17.0	2	13	A	14	2	15	1.2	SPARE	
BLANK			2	15	B	16	2	15	1.2	BLANK	
BLANK			2	17	A	18	2	15	1.2	BLANK	
BLANK			2	19	B	20	2	15	1.2	BLANK	
BLANK			2	21	A	22	2	15	1.2	BLANK	
BLANK			2	23	B	24	2	15	1.2	BLANK	
BLANK			2	25	A	26	2	15	1.2	BLANK	
BLANK			2	27	B	28	2	15	1.2	BLANK	
BLANK			2	29	A	30	2	15	1.2	BLANK	
BLANK			2	31	B	32	2	15	1.2	BLANK	
BLANK			2	33	A	34	2	15	1.2	BLANK	
BLANK			2	35	B	36	2	15	1.2	BLANK	
BLANK			2	37	A	38	2	15	1.2	BLANK	
BLANK			2	39	B	40	2	15	1.2	BLANK	
BLANK			2	41	A	42	2	15	1.2	BLANK	
BLANK			2	43	B	44	2	15	1.2	BLANK	
BLANK			2	45	A	46	2	15	1.2	BLANK	
BLANK			2	47	B	48	2	15	1.2	BLANK	
BLANK			2	49	A	50	2	15	1.2	BLANK	
BLANK			2	51	B	52	2	15	1.2	BLANK	
BLANK			2	53	A	54	2	15	1.2	BLANK	
TOTAL	21.8	21.8	4.8						6.0	6.0	4.8

RECORD DRAWINGS

TO THE BEST OF OUR KNOWLEDGE,
INFORMATION AND BELIEF, THESE RECORD
DRAWINGS SUBSTANTIALLY REPRESENT THE
PROJECT AS CONSTRUCTED.

DATE 1/28/16 BY JF/SAUDA

RECORD DRAWING: MADE FROM DRAWING NO. E2, G:\GE\ENVCAD\SYRACUSE\ACT\C\B0031174\0003\00002\DWG\CONTRACT\31174E02.DWG, DATED 9/9/2013

Professional Engineer's Name
THOMAS P. ARMSTRONG JR.
Professional Engineer's No.
085236
State
NY
Date Signed
2/13/2013
Project Mgr.
DFS
Designed by
SAB
Checked by
TEM



ARCADIS
Design & Consultancy
for natural and
built assets

ARCADIS OF NEW YORK, INC.

NO ALTERATIONS PERMITTED HEREON EXCEPT AS
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NEW YORK STATE EDUCATION LAW

DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM

ONLINE DIAGRAM

ELECTRICAL

ARCADIS Project No.
B0031174 0004 00014
Date
JANUARY 2016
ARCADIS
6723 TOWNSHIP ROAD
P.O. BOX 68
SYRACUSE, NY 13214
TEL: 315.446.9120

E2

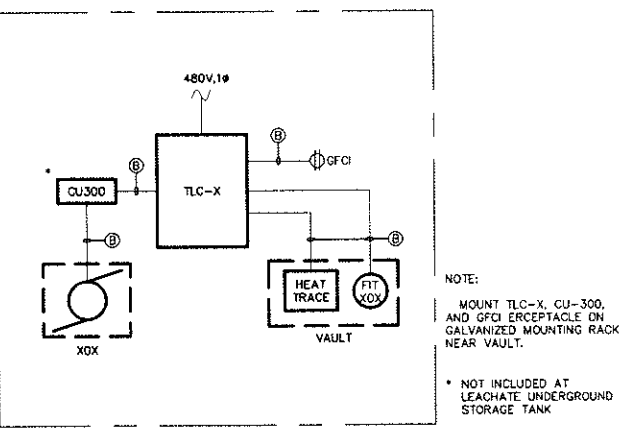
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G:\ENVICAD\SYRACUSE\ACT\N\B0031174\0004\0001\DWG\RECORD\31174E03.DWG LAYOUT: E3 SAVED: 12/28/2015 2:01 PM ACADVER: 19.1S (LMS TECH) PAGES: 19 OF 19 PLOTTED: 1/12/2016 10:32 AM BY: SAWYER, NANCY

PANEL PB-2 ENCLOSURE: NEMA TYPE 1, CABINET MOUNTING: SURFACE											
VOLTS: 120/240, PHASE: 1, WIRE: 3W, 10,000 AIC, 60A, MAIN LUGS, FEED: BOTTOM											
LOAD SERVED	LOAD (KVA)		BREAKER AMP POLE	CKT	PH	CKT	BREAKER POLE AMP	LOAD (KVA)		LOAD SERVED	
	A	B						A	B		
BLANK			1	1	A	2	1	30		SPARE	
BLANK			1	1	B	4	1	20	0.4	METER PUMP 100	
BLANK			1	5	A	6	1	20	0.2	EXTERIOR LIGHTING	
BLANK			1	7	B	8	1	20	0.3	CONTROL ROOM LIGHTING	
BLANK			1	8	A	10	1	20	0.8	EQUIPMENT ROOM RECEPTACLES	
BLANK			1	11	B	12	1	20	0.6	CONTROL ROOM RECEPTACLES	
BLANK			1	13	A	14	1	20	1.5	MAIN CONTROL PANEL LUGS/TUPS	
P-810	0.5	20	2	15	B	16	1	20	0.4	METER PUMP 300	
UNIT HEATER (UH-2)	1.5	20	2	19	B	20	1	20	0.1	SPARE	
AUTO TRANSFER SWITCH	1.5	20	2	21	A	22	1	20	0.9	EXIT LIGHTS	
CONTROL ROOM HEATER	1.5	20	2	23	B	24	1	20	0.9	EQUIPMENT ROOM LIGHTING (a)	
		20	2	25	A	26	1	20		EQUIPMENT ROOM LIGHTING (b)	
		20	2	27	B	28	1	20		SPARE	
		20	2	29	A	30	1	20		SPARE	
TOTAL	3.0	2.0						3.4	2.7		

- NOTES:
1. PROVIDE THE CONDUIT AND WIRE TO THE MCP FOR EACH DEVICE AS INDICATED IN THE LEGEND.
 2. REFER TO E2 ONE-LINE DIAGRAM FOR MOTOR AND HVAC CONDUIT AND WIRE REQUIREMENTS.
 3. CIRCUIT NUMBERS **XXX** REFER TO PB-1 CIRCUITS.
 4. INSTALL RECEPTACLES 48" ABOVE FINISHED FLOOR.
 5. PROVIDE LOCAL DISCONNECTS (AS INDICATED ON E2 ONE-LINE DIAGRAM). MOUNT DISCONNECTS TO UNISTRUT TO SUPPORT RACK ADJACENT TO MOTORS.

WIRE & CONDUIT LEGEND					
WIRE TAG ID	NUMBER OF CONDUCTORS	CONDUCTOR SIZE	NUMBER OF PHASES	GROUND WIRE	CONDUIT
(A)	2	#12 AWG	3	#12	3/4"
(B)	2	#12 AWG	1	#12	3/4"

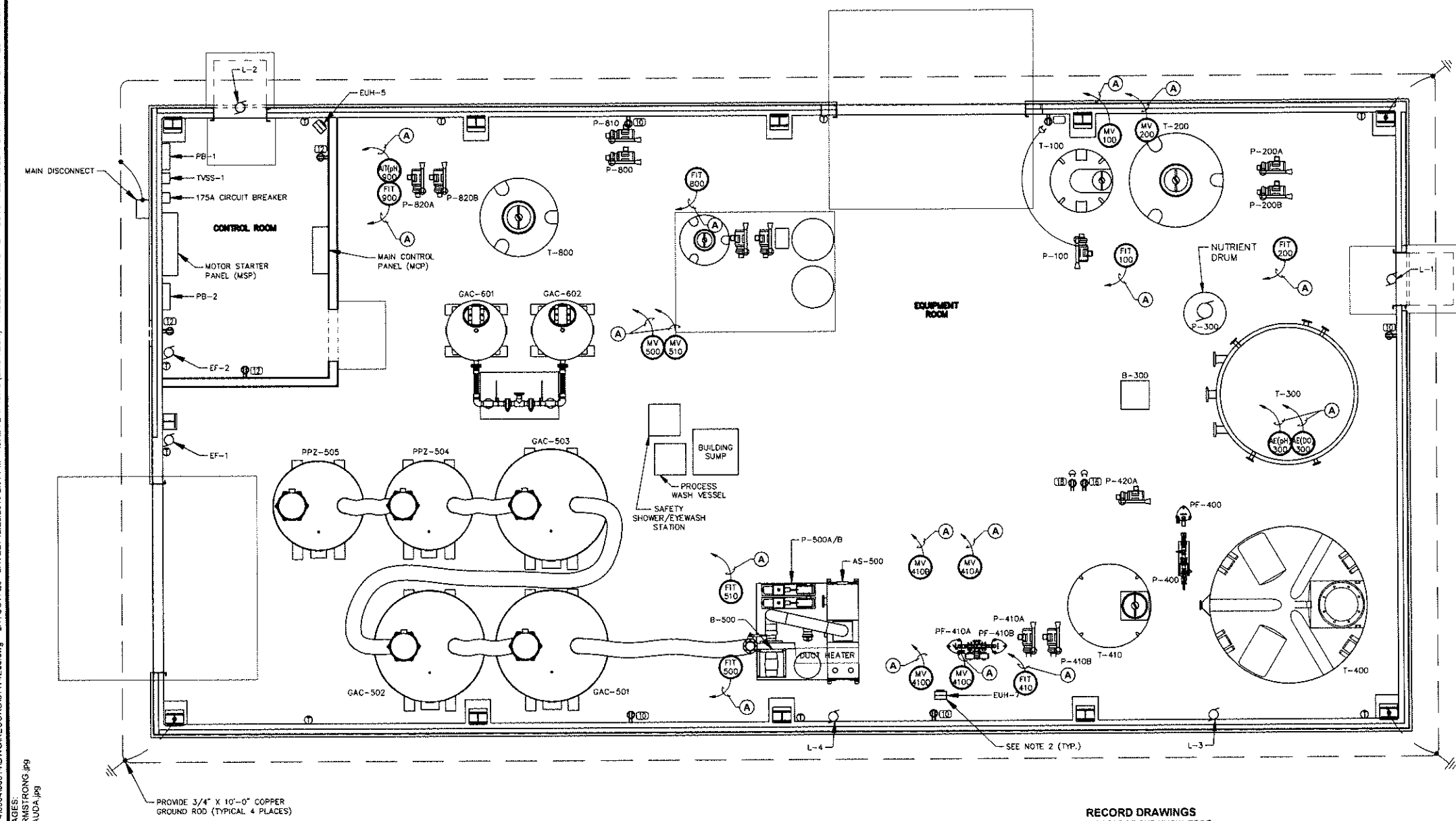
TO MCP
TO TLC-X



**EXTRACTION WELLS
(TYPICAL FOR ALL 8 WELLS) AND
LEACHATE UNDERGROUND STORAGE TANK**

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE,
INFORMATION AND BELIEF, THESE RECORD
DRAWINGS SUBSTANTIALLY REPRESENT THE
PROJECT AS CONSTRUCTED.
DATE: 1/28/16 BY: *[Signature]*

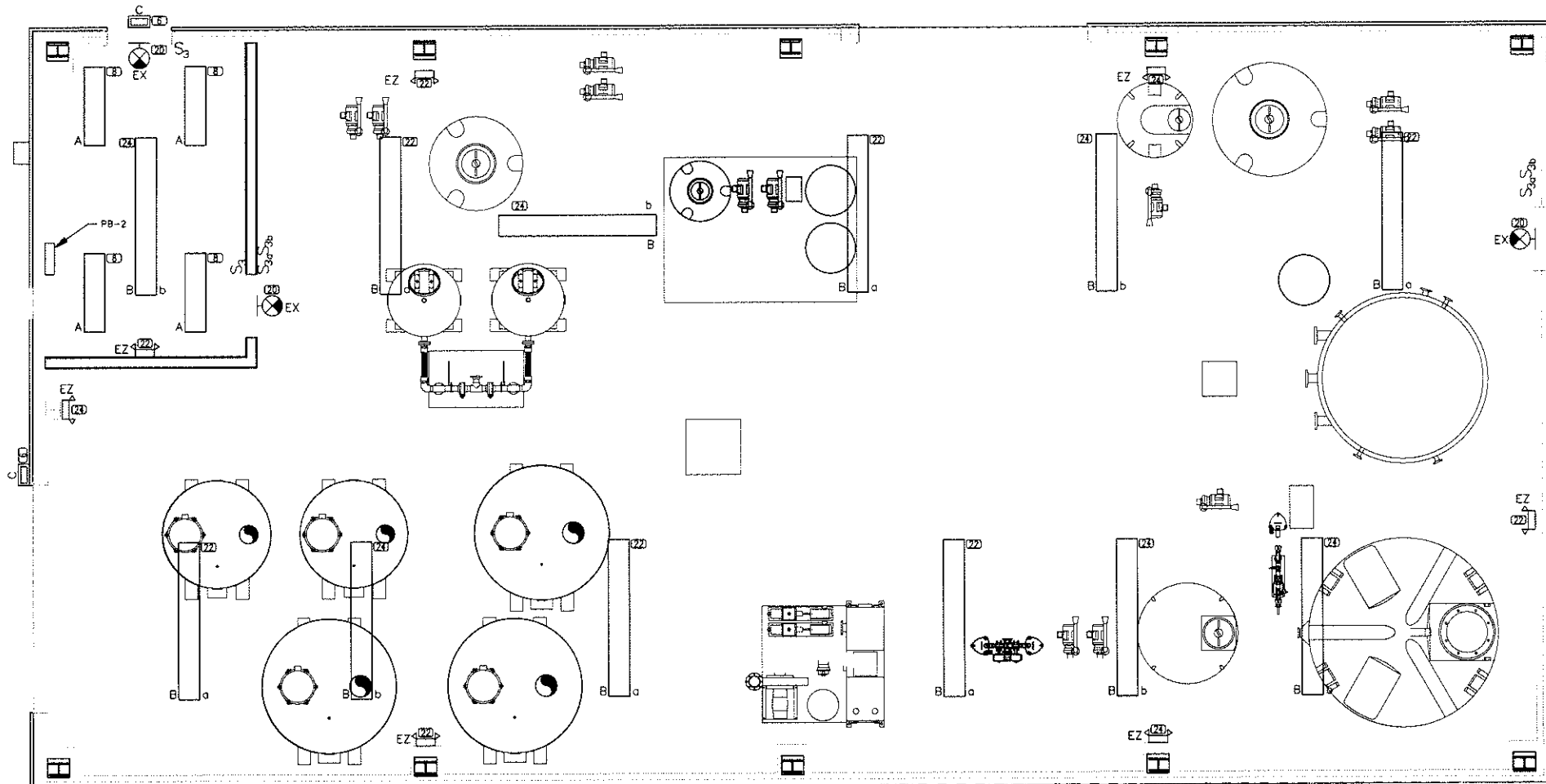
RECORD DRAWING: MADE FROM DRAWING NO. E3, G:\GE\ENVICAD\SYRACUSE\ACT\C\B0031174\0003\00002\DWG\CONTRACT\31174E03.DWG, DATED 9/9/2013



1/4"=1'-0" THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING.		USE TO VERIFY FIGURE REPRODUCTION SCALE		<table><tr><th>No.</th><th>Date</th><th>Revisions</th><th>By</th><th>Ckd</th></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>		No.	Date	Revisions	By	Ckd						Professional Engineer's Name THOMAS P. ARMSTRONG JR. Professional Engineer's No. 085236 State NY Date Signed 2/13/2013 Project Mgr. DFS Designed by SAB Drawn by BCS Checked by TEM	ARCADIS Design & Consultancy for natural and built assets ARCADIS OF NEW YORK, INC. NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW	DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK GROUNDWATER AND LEACHATE TREATMENT SYSTEM POWER PLAN ELECTRICAL	ARCADIS Project No. B0031174.0004.00014 Date JANUARY 2016 ARCADIS 8723 TOWPATH ROAD P.O. BOX 86 SYRACUSE, NY 13214 TEL: 315.448.9120	E3
No.	Date	Revisions	By	Ckd																

CITY:\TOLETO\SYRACUSE\NY DIV\GROUP-ENV\CAD DB\G:\T\ARMSTRONG\STEINBERGER K\SARTORI LD\G\STEINBERGER PIC\P.FARR PWD\SAUDA TMS\BATTAGLIA LVR\ON=OFF=REF*
G:\ENV\CAD\SYRACUSE\ACT\IN\B0031174\0004\00014\DWG\RECORD\31174E04.dwg LAYOUT: E4 SAVED: 12/28/2015 2:01 PM ACADVER: 19 (LMS TECH) PAGESETUP: PDF-D PLOTSTYLE: TABLE: PLTCONT.CTB PLOTTED: 1/12/2016 10:32 AM BY: SAWYER, NANCY

VP: ELS
31174X00 ARMSTRONG jps
31174X04 SAUDA jps



- NOTES
1. ALL LIGHTING LOADS ON THIS SHEET SHALL BE FED FROM PANEL PB-2 LOCATED IN CONTROL ROOM. CIRCUIT NUMBERS ARE (XX).
 2. POWER EXIT AND EGRESS LIGHTING FROM LOCAL LIGHTING CIRCUIT AHEAD OF ANY SWITCHING.
 3. FLOURESCENT LIGHTS (FIXTURE TYPES A & B) ARE TO BE CHAIN HUNG ABOUT 9' AFF.

LIGHTING PLAN 1
SCALE: 1/4"=1'-0"

OFF-SITE GROUNDWATER TREATMENT SYSTEM - LIGHT FIXTURE SCHEDULE							
TYPE	DESCRIPTION	LAMP	BALLAST	VOLTAGE	MOUNTING	MANUFACTURER	MODEL
A	4' FLOURESCENT TURRET INDUSTRIAL STRIP LIGHT	(2) - 32W T8	ELECTRONIC	120V	SUSPENDED	H E WILLIAMS	82-4-32-WG-8211-EB2-UNV
B	8' FLOURESCENT TURRET INDUSTRIAL STRIP LIGHT	(2) - 85W T8	ELECTRONIC	120V	SUSPENDED	H E WILLIAMS	82-8-2-85-WG-8211-EB2-UNV
C	EXTERIOR, BRONZE FINISH, ONE-PIECE POLYCARBONATE FRONT/LENS WALLPACK WITH MOTION SENSOR	100W COMPACT FLOURESCENT	ELECTRONIC	120V	WALL	GE LIGHTING SOLUTIONS	WML10S
EX	QLX-MRS QUICKIE II THERMOPLASTIC EXIT LIGHT WITH BATTERY AND RED LETTERING	LED	-	120V	WALL	LIGHT ALARMS	QLXN500-R
EZ	EMERGENCY BATTERY PACK (2) FULLY ADJUSTABLE GLARE-FREE LIGHT HEADS	(2) - 5 4W T5	-	120V	WALL	LIGHT ALARMS	LCA-2SQ-R

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, THESE RECORD DRAWINGS SUBSTANTIALLY REPRESENT THE PROJECT AS CONSTRUCTED.
DATE 1/28/16 BY JH

RECORD DRAWING: MADE FROM DRAWING NO. E4, G:\GE\ENV\CAD\SYRACUSE\ACT\C\B0031174\0003\00002\DWG\CONTRACT\31174E04.DWG, DATED 4/11/2013

DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM

LIGHTING PLAN

ELECTRICAL

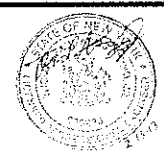
ARCADIS Project No.
B0031174 0004.00014
Date
JANUARY 2016
ARCADIS
6723 TOWPATH ROAD
P.O. BOX 66
SYRACUSE, NY 13214
TEL: 315.446.6120

E4

1/4"=1'-0"
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USE TO VERIFY FIGURE REPRODUCTION SCALE

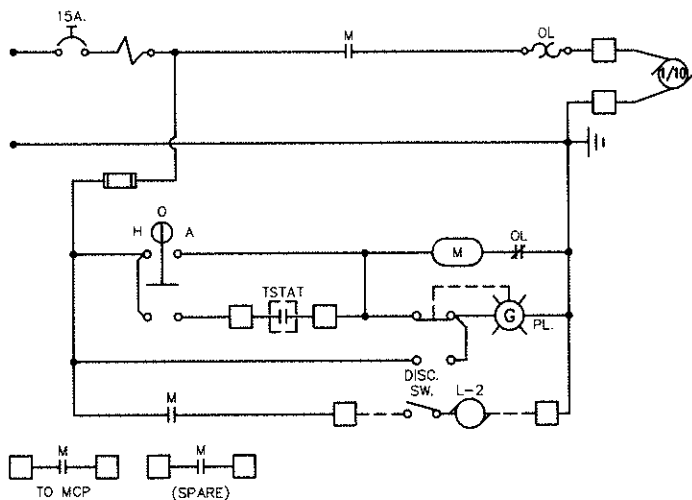
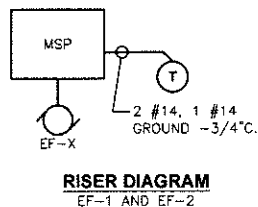
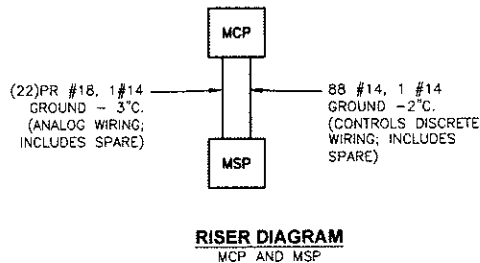
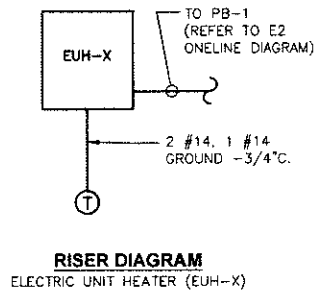
No.	Date	Revisions	By	Ckd

Professional Engineer's Name
THOMAS P. ARMSTRONG JR.
Professional Engineer's No.
085236
State
NY
Date Signed
2/13/2013
Project Mgr
DFS
Designed by
SAB
Drawn by
BCS
Checked by
TEM



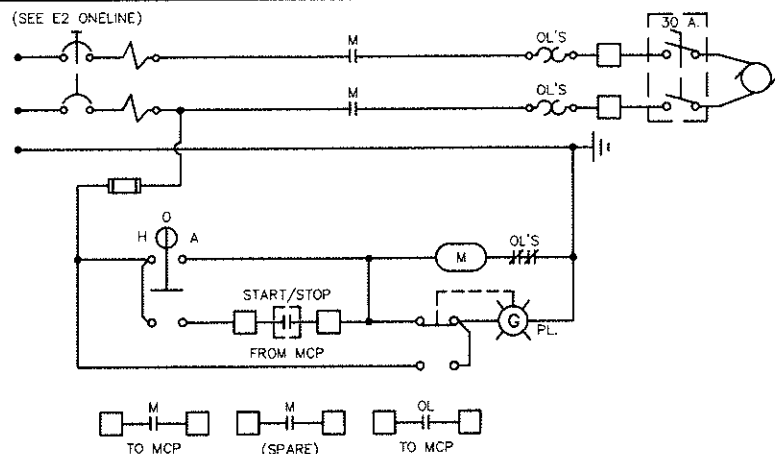
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CITY: (TOLETO) SYRACUSE, NY DIV: GROUP: ENVCAD DB: G: (T: ARMSTRONG) STEINBERGER K: SARTORI LD: G: STEINBERGER PIC: P: FARR PM: D: SAUDA TMS: BATTAGLIA LYRON: OFF: REF: 31174X00 ARMSTRONG JRS SAUDA JRS



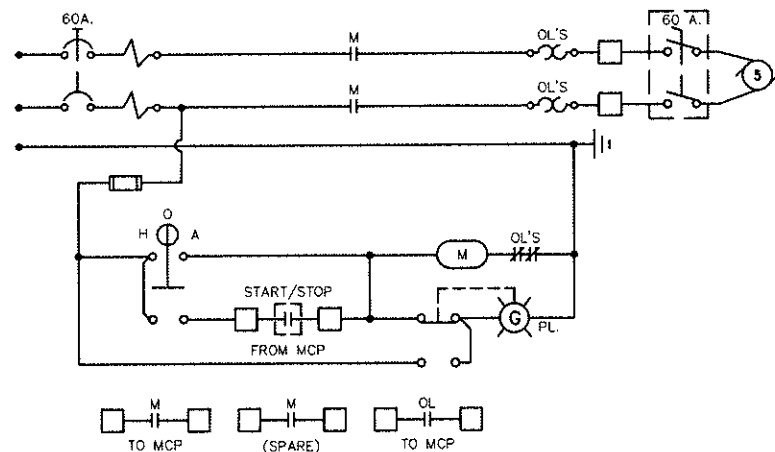
SCHEMATIC - EXHAUST FAN
(FOR EF-2: STARTER IN MSP)

NOTE:
LOUVER DISCONNECT SWITCH
IS INTEGRAL TO LOUVER.



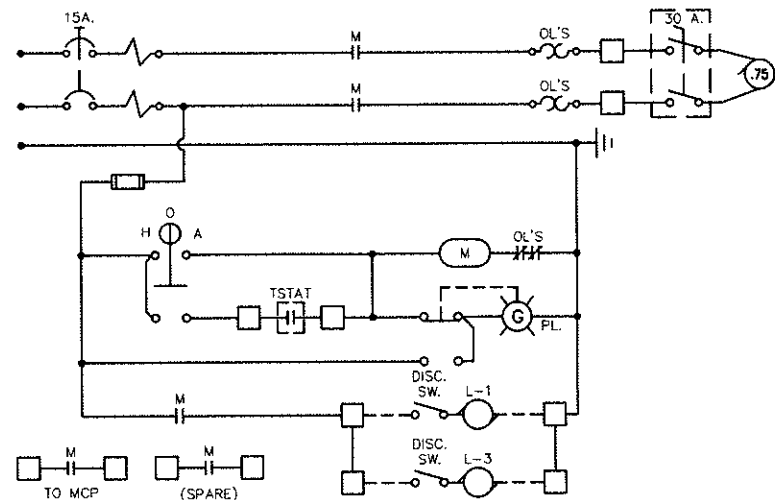
SCHEMATIC - PUMP

(TYP. 4 PLACES FOR P-400, P-420, P-800, P-900; STARTERS IN MSP)



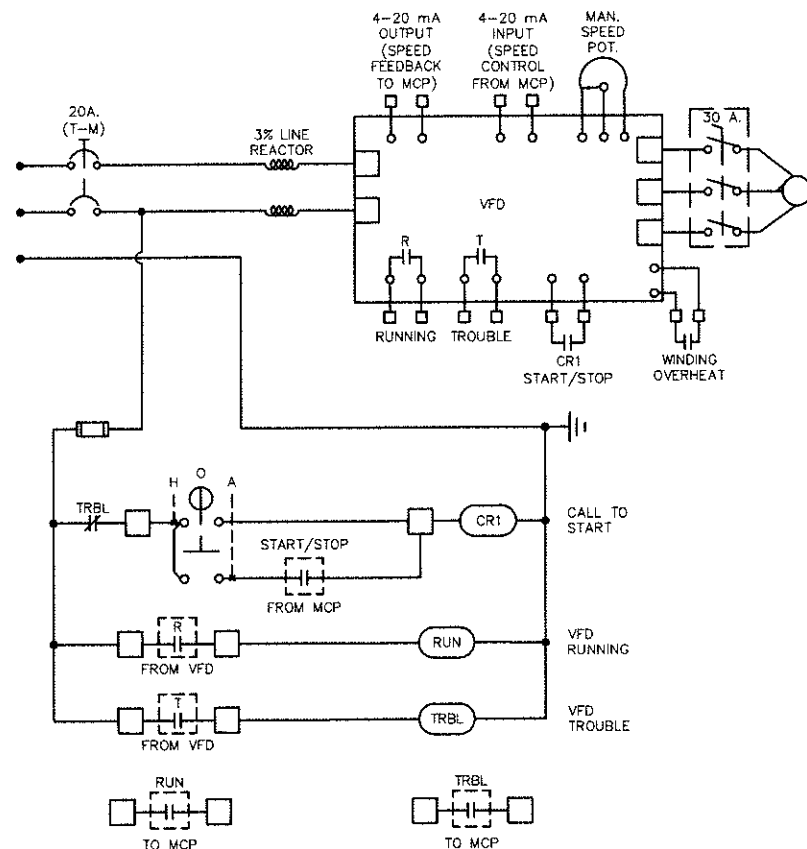
SCHEMATIC - BLOWER

(FOR B-300: STARTER IN MSP)



SCHEMATIC - EXHAUST FAN
(FOR EF-1: STARTER IN MSP)

NOTE:
LOUVER DISCONNECT SWITCH
IS INTEGRAL TO LOUVER.



SCHEMATIC - PUMP WITH VFD

(TYP. 8 PLACES FOR P-200A, P-200B, P-410A, P-410B, P-501A, P-501B, P-820A, P-820B; VFDS IN MSP)

NOTE:

HAND-OFF-AUTO (HOA) CONTROL SWITCHES AND
PILOT LIGHTS SHALL BE MOUNTED ON THE MSP
DOOR FOR MOTOR STARTERS LOCATED IN THE MSP.

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE,
INFORMATION AND BELIEF, THESE RECORD
DRAWINGS SUBSTANTIALLY REPRESENT THE
PROJECT AS CONSTRUCTED.

RECORD DRAWING: MADE FROM DRAWING NO. E6, G:\GE\ENVCAD\SYRACUSE\ACT\C\B0031174\0003\00002\DWG\CONTRACT\31174E06.DWG, DATED 9/6/2013

ARCADIS Project No.
B0031174 0004.00014

Date
JANUARY 2016

ARCADIS
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E6

SCHEMATICS

ELECTRICAL

NOT TO SCALE

THIS BAR
REPRESENTS ONE
INCH ON THE
ORIGINAL DRAWING.

USE TO VERIFY
FIGURE
REPRODUCTION
SCALE

No. Date Revisions By Cld

Professional Engineer's Name
THOMAS P. ARMSTRONG JR.
Professional Engineer's No.
085236
State
NY
Date Signed
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DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM

CITY:SYRACUSE,NY DIV:GROUP:ENVCAD DB:G:STEINBERGER LG:G:STEINBERGER PIC:P:FARR PKD:SAUDA TM:S:BATTAGLIA LY:ON*OFF=REF*
PAGESETUP:PDF-D PLOTSTYLETABLE:PLCONT.CTB PLOTTED: 1/12/2016 10:34 AM BY: SAWYER, NANCY

THE GENERAL DOCUMENTS APPLY TO WORK SPECIFIED IN THIS SECTION; CONSULT THEM IN
DETAIL FOR APPLICABLE INSTRUCTIONS.

PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE ALL WORK OF THIS SECTION. WITHOUT RESTRICTING THE GENERALITY OF THE FOREGOING, THE FOLLOWING ITEMS OF WORK ARE INCLUDED:

- A. ALL WORK SHALL BE CARRIED OUT IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE NATIONAL ELECTRICAL CODE, LATEST EDITION, AND OF THE VARIOUS LOCAL AGENCIES HAVING JURISDICTION.
- B. THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL GOVERNMENTAL TAXES, FEES, DEPOSITS AND OTHER COSTS IN CONNECTION WITH HIS WORK; FILE ALL NECESSARY PLANS, PREPARE ALL DOCUMENTS AND OBTAIN NECESSARY APPROVALS OF ALL AGENCIES HAVING JURISDICTION; OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION AND APPROVALS FOR HIS WORK AND DELIVER SAME TO THE ARCHITECT BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.

A. BIDDER SHALL EXAMINE THE SITE AND THE COMPLETE SET OF PLANS AND SPECIFICATIONS COVERING THE ENTIRE PROJECT. THEY SHALL BECOME FULLY CONVERSANT WITH THE TYPE OF GENERAL CONSTRUCTION AS WELL AS ALL PERTINENT FACTS AFFECTING THE COST OF CARRYING OUT THE WORK THEY WILL CONTRACT TO PERFORM.

B. THIS CONTRACTOR SHALL COOPERATE TO THE FULLEST WITH ALL OTHER TRADES. HE SHALL PLAN HIS WORK IN CONJUNCTION WITH AND FURNISH THE NECESSARY EQUIPMENT AND INFORMATION TO THE OTHER TRADES SO AS NOT TO DELAY ANY OTHER TRADE OR HINDER THE PROGRESS OF THE WORK.

A. SUBMIT MANUFACTURERS TECHNICAL PRODUCT DATA LITERATURE FOR ALL MATERIALS SPECIFIED HEREIN. INDICATE AND HIGH LIGHT ON THE SUBMITTALS DETAILS OF ALL ITEMS TO INDICATE CORRECT INTERPRETATION OF THE CONTRACT DOCUMENTS. INCLUDE SUBMITTALS FOR THE FOLLOWING:

- A. ANY CONTRADICTIONS BETWEEN THE WRITTEN SPECIFICATIONS AND DRAWINGS SHALL BE CONSIDERED AMBIGUOUS, AND WILL BE THE RESPONSIBILITY OF THE BIDDER TO SECURE CLARIFICATION PRIOR TO BIDDING.

A. ALL MATERIAL, EQUIPMENT, AND INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE FOLLOWING CODES:

1. NATIONAL ELECTRICAL CODE
2. OSHA
3. LOCAL JURISDICTIONAL CODES

A. FURNISH AND INSTALL ELECTRICAL PRIMARY SERVICE RACEWAYS TO TRANSFORMER PAD WITH PULL ROPE, AS INDICATED ON PLANS. COORDINATE WITH THE SERVING UTILITY COMPANY REQUIREMENTS FOR THE TRANSFORMER AND THE POINT OF CONNECTION. COORDINATE TRANSFORMER AND INSTALLATIONS WITH THE SERVING UTILITY COMPANY.

- B. FURNISH AND INSTALL TELEPHONE SERVICE RACEWAYS FROM THE CONNECTION POINT TO CONTROL ROOM IN RACEWAYS WITH PULL ROPE AS SHOWN ON PLANS. COORDINATE TELEPHONE INSTALLATION REQUIREMENTS AND POINT OF CONNECTION WITH THE SERVING TELEPHONE CO.

A. INSTALL NEW PANELBOARDS AS DETAILED ON THE DRAWINGS COMPLETE WITH REQUIRED CIRCUIT BREAKERS.

B. CIRCUIT BREAKERS SHALL BE QUICK MAKE, QUICK BREAK, THERMAL MAGNETIC, TRIP INDICATING, AIC RATING, AMPACITY, SIZE, AND DETAILS OF PANELBOARDS AND BRANCH CIRCUIT-CIRCUIT BREAKERS SHALL BE AS INDICATED ON THE DRAWING PANEL SCHEDULES.

A. THE CONTRACTOR SHALL PROVIDE ALL LIGHTING FIXTURES, POLES, AND LUMINAIRES IN CONFORMANCE WITH THE FIXTURE SCHEDULE ON THE DRAWINGS.

- B. PROVIDE LAMPS IN ALL LIGHTING FIXTURES AND DEVICES IN ACCORDANCE WITH THE LIGHTING FIXTURE SCHEDULE.
- C. LAMPS SHALL BE AS INDICATED ON FIXTURE SCHEDULE.

A. FURNISH AND INSTALL QUALITY DEVICES BEARING UL LABEL FOR THE SERVICE AND ELECTRICAL RATING WHERE USED.

1. SWITCHES SHALL BE 20 AMPERE, 120/277 VOLT A.C. RATED AS SCHEDULED IN LEGEND.
2. GFCI DEVICES SHALL BE 20 AMPERE DUPLEX W/U GROUND PIN.

A. ALL BRANCH CIRCUIT WIRING SHALL BE IN RIGID GALVANIZED CONDUIT WHERE EXPOSED TO DAMAGE AND PUBLIC. E.M.T. WITHIN BUILDING INTERIOR PROVIDED SAME IS FREE FROM EXPOSURE DAMAGE.

B. FLEXIBLE METAL CONDUIT WITH APPROVED TYPE FITTINGS MAY BE USED IN LIMITED LENGTHS FOR CONNECTIONS TO MOTORS AND RECESSED FIXTURES WHERE IT IS NECESSARY TO PROVIDE FLEXIBLE CONNECTIONS. IT MAY ALSO BE USED WHERE THE STRUCTURE PRECLUDES THE USE OF E.M.T. OR CONDUIT.

- D. UNDERGROUND CONDUIT SHALL BE RIGID PVC. CONDUIT SYSTEM SHALL TRANSITION TO RIGID GALVANIZED STEEL CONDUIT PRIOR TO EXPOSURE ABOVE GRADE

A. OUTLET BOXES FOR CEILING FIXTURES SHALL BE 4" OCTAGONAL GALVANIZED STEEL BOXES NOT LESS THAN 1 1/2" DEEP PROVIDED WITH 3/8" GALVANIZED MALLEABLE IRON FIXTURE STUD.

- B. CONCEALED OUTLET BOXES FOR WALL BRACKETS, SWITCHES, AND RECEPTACLES SHALL BE A 4" SQUARE GALVANIZED STEEL BOX WITH RAISED COVER OF SUFFICIENT DEPTH TO ACCOMMODATE WALL SURFACE MATERIAL.
- C. EXPOSED OUTLET BOXES IN DRY LOCATIONS FOR SWITCHES AND RECEPTACLES SHALL BE A 4" CAST BOX WITH HEAVY DUTY COVER.
- D. BOXES SHALL BE FORMED OF HOT DIPPED GALVANIZED SHEET STEEL WHERE INSTALLED FLUSH. WHERE BOXES ARE INSTALLED EXPOSED THEY SHALL BE OF THE CAST TYPE.

A. PROVIDE AND INSTALL ALL WIRING AND CABLE AS REQUIRED TO CONNECT ALL ELECTRICAL EQUIPMENT AND DEVICES INDICATED ON THE PLANS.

B. ALL WIRES #10 GAUGE AND SMALLER SHALL BE SOLID COPPER 75 DEGREE C, AND 600 VOLT INSULATION.

C. ALL WIRES #8 GAUGE AND LARGER SHALL BE STRANDED COPPER, 75 DEGREE C, AND 600 VOLT INSULATION.

D. FIXTURE WIRES SHALL NOT BE LESS THAN #14 GAUGE, AND SHALL BE TYPE SFF-2.

F. UNLESS INDICATED OTHERWISE ALL LIGHT AND POWER CONDUCTORS SHALL BE #12 GAUGE MINIMUM.

B. SIZE MSP TO ACCOMMODATE EQUIPMENT SHOWN IN THE DRAWINGS TO BE INCLUDED WITHIN THE PANEL AND ON THE DOOR OF THE PANEL, PLUS 30% INTERIOR SPACE.

- C. PROVIDE A FLOOR-MOUNT ENCLOSURE (NEMA 12) WITH LEGS FOR THE MSP. PANEL DOOR SHALL BE CONTINUOUSLY HINGED DOWN ONE SIDE.
- D. PANEL BUILDER SHALL PROVIDE ACCURATE AS-BUILT DRAWINGS UPON DELIVERY OF THE MSP.

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING		USE TO VERIFY FIGURE REPRODUCTION SCALE							Professional Engineer's Name THOMAS P. ARMSTRONG JR.		
									Professional Engineer's No. 085236		
				No.	Date	Revisions	By	Ckd	State	Date Signed	Project Mgr
									NY	2/13/2013	DFS
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**Design & Consultancy
for natural and
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DEWEY LOEFFEL LANDFILL SUPERFUND SITE • NASSAU, NEW YORK
GROUNDWATER AND LEACHATE TREATMENT SYSTEM

ELECTRICAL SPECIFICATIONS

MECHANICAL

RECORD DRAWINGS
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Date
JANUARY 2016

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E8

ATTACHMENT B

Summary of Analytical Results from Shakedown



**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 2**

Analytes	Discharge Limits	Tank 2 (122713)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	8.28	--
Dissolved Oxygen (Field)	5.0 minimum	9.2	--
Total Suspended Solids (SM 2540D)	20	ND	0.49
Total Dissolved Solids (SM 2540C)	2700	429	8.33
BOD5 (SM 5210 B)	30	ND	2
Chemical Oxygen Demand (USEPA 410.1)	--	ND	10
Ammonia (USEPA 350.1)	8.1	3.2	0.07
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.59	0.014
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	12.1 B	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	2.56 JB	0.671
Total Iron	2000 / 4000	326	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	77.0 B	0.083
Total Selenium	25	13.1	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	5.86 B	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.29
Benzene	5	ND	0.18
2-Butanone	280	ND	0.47
Chlorobenzene	10	ND	0.19
Chloroethane	10	ND	0.50
Chloroform	50	ND	0.21
Chloromethane	10	ND	0.14
Sum of o, m, & p-Dichlorobenzene	27	ND	0.17
1,1-Dichloroethane	10	ND	0.19
1,2-Dichloroethane	10	ND	0.15
1,1-Dichloroethene	10	ND	0.11
cis-1,2-Dichloroethene	10	ND	0.15
trans-1,2-Dichloroethene	10	ND	0.12
Ethylbenzene	5	ND	0.19
Isopropylbenzene	14	ND	0.14
Methylene Chloride	10	ND	0.50
4-Methyl-2-pentanone	140	ND	0.35
1,1,2,2-Tetrachloroethane	50	ND	0.25
Tetrachloroethene	5.4 / 10	ND	0.16
Toluene	5	ND	0.16
1,2,3-Trichlorobenzene	--	ND	0.26
1,2,4-Trichlorobenzene	10	ND	0.18
1,1,1-Trichloroethane	10	ND	0.34
1,1,2-Trichloroethane	10	ND	0.34
Trichloroethylene	10	ND	0.25
Trichlorofluoromethane	10	ND	0.16
Vinyl Chloride	10	ND	0.20
Sum of o, m, & p-Xylene	15	ND	0.32
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	5	ND	0.822
2-Chlorophenol	--	ND	0.681
2,4-Dimethylphenol	10	ND	0.040
2-Methylphenol	10	ND	0.282
Sum of 3- & 4-Methylphenol	10	ND	0.435
Pentalchlorophenol	--	ND	0.656
Phenol	10	ND	0.282
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.02378
Aroclor 1242	0.2	ND	0.02378
Aroclor 1248	0.2	ND	0.02378
Aroclor 1254	0.2	ND	0.02378
Aroclor 1260	0.2	ND	0.02378
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00258
delta-BHC	0.043	ND	0.00249
alpha-Chlordane	0.05	ND	0.00178
gamma-Chlordane	0.05	ND	0.00199
4,4'-DDE	0.01	ND	0.00139
Dieldrin	0.005	ND	0.00208
Endosulfan II	0.049	ND	0.00250
Endosulfan Sulfate	0.2	ND	0.00283
Heptachlor	0.01	ND	0.00238
Methoxychlor	0.4	ND	0.00361
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0013	0.00013
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	ND	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 3**

Analytes	Discharge Limits	Tank 3 (011014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	8.11	--
Dissolved Oxygen (Field)	5.0 minimum	10.3	--
Total Suspended Solids (SM 2540D)	20	ND	0.49
Total Dissolved Solids (SM 2540C)	2700	438	8.33
BOD5 (SM 5210 B)	30	ND	2
Chemical Oxygen Demand (USEPA 410.1)	--	ND	10
Ammonia (USEPA 350.1)	8.1	2.3	0.07
Oil & Grease (USEPA 1664A)	15	5.51	0.587
Total Phosphorus (SM 4500-P E)	1	0.43	0.014
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	3.37 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	1.50 J	0.671
Total Iron	2000 / 4000	200	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	84.5	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	6.92 B	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.29
Benzene	5	ND	0.18
2-Butanone	280	ND	0.47
Chlorobenzene	10	ND	0.19
Chloroethane	10	ND	0.50
Chloroform	50	ND	0.21
Chloromethane	10	ND	0.14
Sum of o, m, & p-Dichlorobenzene	27	ND	0.17
1,1-Dichloroethane	10	ND	0.19
1,2-Dichloroethane	10	ND	0.15
1,1-Dichloroethene	10	ND	0.11
cis-1,2-Dichloroethene	10	ND	0.15
trans-1,2-Dichloroethene	10	ND	0.12
Ethylbenzene	5	ND	0.19
Isopropylbenzene	14	ND	0.14
Methylene Chloride	10	ND	0.50
4-Methyl-2-pentanone	140	ND	0.35
1,1,2,2-Tetrachloroethane	50	ND	0.25
Tetrachloroethene	5.4 / 10	ND	0.16
Toluene	5	ND	0.16
1,2,3-Trichlorobenzene	--	ND	0.26
1,2,4-Trichlorobenzene	10	ND	0.18
1,1,1-Trichloroethane	10	ND	0.34
1,1,2-Trichloroethane	10	ND	0.34
Trichloroethylene	10	ND	0.25
Trichlorofluoromethane	10	ND	0.16
Vinyl Chloride	10	ND	0.20
Sum of o, m, & p-Xylene	15	ND	0.32
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	5	ND*	0.822
2-Chlorophenol	--	ND	0.681
2,4-Dimethylphenol	10	ND	0.040
2-Methylphenol	10	ND	0.282
Sum of 3- & 4-Methylphenol	10	ND	0.435
Pentalchlorophenol	--	ND	0.656
Phenol	10	ND	0.282
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.02378
Aroclor 1242	0.2	ND	0.02378
Aroclor 1248	0.2	ND	0.02378
Aroclor 1254	0.2	ND	0.02378
Aroclor 1260	0.2	ND	0.02378
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00258
delta-BHC	0.043	ND	0.00249
alpha-Chlordane	0.05	ND	0.00178
gamma-Chlordane	0.05	ND	0.00199
4,4'-DDE	0.01	ND	0.00139
Dieldrin	0.005	ND	0.00208
Endosulfan II	0.049	ND	0.00250
Endosulfan Sulfate	0.2	ND	0.00283
Heptachlor	0.01	ND	0.00238
Methoxychlor	0.4	ND	0.00361
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.001	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	ND	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- * = There was a detection of bis(2-ethylhexyl)phthalate (BEHP) at 6.07 micrograms per liter in the original sample collected on 01/10/14. BEHP is found in many plastics and common sampling/laboratory artifact. Pace Analytical analyzed a second container from the original sample for select SVOCs and all results were non-detect, including BEHP second sample was collected on 01/16/14 and analyzed for select SVOCs, and the results were also non-detect for BEHP.

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 4**

Analytes	Discharge Limits	Tank 4 (012314)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.96	--
Dissolved Oxygen (Field)	5.0 minimum	12.0	--
Total Suspended Solids (SM 2540D)	20	ND	0.49
Total Dissolved Solids (SM 2540C)	2700	355	8.33
BOD5 (SM 5210 B)	30	ND	2
Chemical Oxygen Demand (USEPA 410.1)	--	ND	10
Ammonia (USEPA 350.1)	8.1	2.1	0.07
Oil & Grease (USEPA 1664A)	15	0.714	0.587
Total Phosphorus (SM 4500-P E)	1	0.57	0.014
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	1.95 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	2.76 JB	0.671
Total Iron	2000 / 4000	106 B	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	93.2 B	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	6.28 B	0.253
VOCs (Full 624 List) (micrograms per liter)			
Acetone	280	ND	0.29
Benzene	5	ND	0.18
2-Butanone	280	ND	0.47
Chlorobenzene	10	ND	0.19
Chloroethane	10	ND	0.50
Chloroform	50	ND	0.21
Chloromethane	10	ND	0.14
Sum of o, m, & p-Dichlorobenzene	27	ND	0.17
1,1-Dichloroethane	10	ND	0.19
1,2-Dichloroethane	10	ND	0.15
1,1-Dichloroethene	10	ND	0.11
cis-1,2-Dichloroethene	10	ND	0.15
trans-1,2-Dichloroethene	10	ND	0.12
Ethylbenzene	5	ND	0.19
Isopropylbenzene	14	ND	0.14
Methylene Chloride	10	ND	0.50
4-Methyl-2-pentanone	140	ND	0.35
1,1,2,2-Tetrachloroethane	50	ND	0.25
Tetrachloroethene	5.4 / 10	ND	0.16
Toluene	5	ND	0.16
1,2,3-Trichlorobenzene	10	ND	0.26
1,2,4-Trichlorobenzene	10	ND	0.18
1,1,1-Trichloroethane	10	ND	0.34
1,1,2-Trichloroethane	10	ND	0.34
Trichloroethylene	10	ND	0.25
Trichlorofluoromethane	10	ND	0.16
Vinyl Chloride	10	ND	0.20
Sum of o, m, & p-Xylene	15	ND	0.32
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.822
2-Chlorophenol	--	ND	0.681
2,4-Dimethylphenol	10	ND	0.040
2-Methylphenol	10	ND	0.282
Sum of 3- & 4-Methylphenol	10	ND	0.435
Pentalchlorophenol	--	ND	0.656
Phenol	10	ND	0.282
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.02378
Aroclor 1242	0.2	ND	0.02378
Aroclor 1248	0.2	ND	0.02378
Aroclor 1254	0.2	ND	0.02378
Aroclor 1260	0.2	ND	0.02378
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00258
delta-BHC	0.043	ND	0.00249
alpha-Chlordane	0.05	ND	0.00178
gamma-Chlordane	0.05	ND	0.00199
4,4'-DDE	0.01	ND	0.00139
Dieldrin	0.005	ND	0.00208
Endosulfan II	0.049	ND	0.00250
Endosulfan Sulfate	0.2	ND	0.00283
Heptachlor	0.01	ND	0.00238
Methoxychlor	0.4	ND	0.00361
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0023	0.00013
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.038 BJ	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 5**

Analytes	Discharge Limits	Tank 5 (013014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.52	--
Dissolved Oxygen (Field)	5.0 minimum	11.7	--
Total Suspended Solids (SM 2540D)	20	ND	0.49
Total Dissolved Solids (SM 2540C)	2700	383	8.33
BOD5 (SM 5210 B)	30	ND	2
Chemical Oxygen Demand (USEPA 410.1)	--	ND	10
Ammonia (USEPA 350.1)	8.1	2.2	0.07
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.26	0.014
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	17.1 J	14.9
Total Arsenic	50 / 100	2.36 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	1.34 J	0.671
Total Iron	2000 / 4000	71	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	71.4	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	6.38 B	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.29
Benzene	5	ND	0.18
2-Butanone	280	5.0	0.47
Chlorobenzene	10	ND	0.19
Chloroethane	10	ND	0.50
Chloroform	50	ND	0.21
Chloromethane	10	ND	0.14
Sum of o, m, & p-Dichlorobenzene	27	ND	0.17
1,1-Dichloroethane	10	ND	0.19
1,2-Dichloroethane	10	ND	0.15
1,1-Dichloroethene	10	ND	0.11
cis-1,2-Dichloroethene	10	ND	0.15
trans-1,2-Dichloroethene	10	ND	0.12
Ethylbenzene	5	ND	0.19
Isopropylbenzene	14	ND	0.14
Methylene Chloride	10	ND	0.50
4-Methyl-2-pentanone	140	ND	0.35
1,1,2,2-Tetrachloroethane	50	ND	0.25
Tetrachloroethene	5.4 / 10	ND	0.16
Toluene	5	ND	0.16
1,2,3-Trichlorobenzene	10	ND	0.26
1,2,4-Trichlorobenzene	10	ND	0.18
1,1,1-Trichloroethane	10	ND	0.34
1,1,2-Trichloroethane	10	ND	0.34
Trichloroethylene	10	ND	0.25
Trichlorofluoromethane	10	ND	0.16
Vinyl Chloride	10	ND	0.20
Sum of o, m, & p-Xylene	15	ND	0.32
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.822
2-Chlorophenol	--	ND	0.681
2,4-Dimethylphenol	10	ND	0.040
2-Methylphenol	10	ND	0.282
Sum of 3- & 4-Methylphenol	10	ND	0.435
Pentachlorophenol	--	ND	0.656
Phenol	10	ND	0.282
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.02378
Aroclor 1242	0.2	ND	0.02378
Aroclor 1248	0.2	ND	0.02378
Aroclor 1254	0.2	ND	0.02378
Aroclor 1260	0.2	ND	0.02378
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00258
delta-BHC	0.043	ND	0.00249
alpha-Chlordane	0.05	ND	0.00178
gamma-Chlordane	0.05	ND	0.00199
4,4'-DDE	0.01	ND	0.00139
Dieldrin	0.005	ND	0.00208
Endosulfan II	0.049	ND	0.00250
Endosulfan Sulfate	0.2	ND	0.00283
Heptachlor	0.01	ND	0.00238
Methoxychlor	0.4	ND	0.00361
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.003	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.053 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 6**

Analytes	Discharge Limits	Tank 6 (020614)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.75	--
Dissolved Oxygen (Field)	5.0 minimum	12.3	--
Total Suspended Solids (SM 2540D)	20	ND	0.49
Total Dissolved Solids (SM 2540C)	2700	312	8.33
BOD5 (SM 5210 B)	30	ND	2
Chemical Oxygen Demand (USEPA 410.1)	--	ND	10
Ammonia (USEPA 350.1)	8.1	0.96	0.07
Oil & Grease (USEPA 1664A)	15	1.53	0.587
Total Phosphorus (SM 4500-P E)	1	0.177	0.014
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	5.67	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	36.4 J	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	29.3	0.083
Total Selenium	25	ND	4.51
Total Silver	22	0.593 J	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	5.77 B	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.29
Benzene	5	ND	0.18
2-Butanone	280	ND	0.47
Chlorobenzene	10	ND	0.19
Chloroethane	10	ND	0.50
Chloroform	50	ND	0.21
Chloromethane	10	ND	0.14
Sum of o, m, & p-Dichlorobenzene	27	ND	0.17
1,1-Dichloroethane	10	ND	0.19
1,2-Dichloroethane	10	ND	0.15
1,1-Dichloroethene	10	ND	0.11
cis-1,2-Dichloroethene	10	ND	0.15
trans-1,2-Dichloroethene	10	ND	0.12
Ethylbenzene	5	ND	0.19
Isopropylbenzene	14	ND	0.14
Methylene Chloride	10	ND	0.50
4-Methyl-2-pentanone	140	ND	0.35
1,1,2,2-Tetrachloroethane	50	ND	0.25
Tetrachloroethene	5.4 / 10	ND	0.16
Toluene	5	ND	0.16
1,2,3-Trichlorobenzene	10	ND	0.26
1,2,4-Trichlorobenzene	10	0.508 J	0.18
1,1,1-Trichloroethane	10	ND	0.34
1,1,2-Trichloroethane	10	ND	0.34
Trichloroethylene	10	0.522 J	0.25
Trichlorofluoromethane	10	ND	0.16
Vinyl Chloride	10	ND	0.20
Sum of o, m, & p-Xylene	15	ND	0.32
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.822
2-Chlorophenol	--	ND	0.681
2,4-Dimethylphenol	10	ND	0.040
2-Methylphenol	10	ND	0.282
Sum of 3- & 4-Methylphenol	10	ND	0.435
Pentachlorophenol	--	ND	0.656
Phenol	10	ND	0.282
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.02378
Aroclor 1242	0.2	ND	0.02378
Aroclor 1248	0.2	ND	0.02378
Aroclor 1254	0.2	ND	0.02378
Aroclor 1260	0.2	ND	0.02378
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00258
delta-BHC	0.043	ND	0.00249
alpha-Chlordane	0.05	ND	0.00178
gamma-Chlordane	0.05	ND	0.00199
4,4'-DDE	0.01	ND	0.00139
Dieldrin	0.005	ND	0.00208
Endosulfan II	0.049	ND	0.00250
Endosulfan Sulfate	0.2	ND	0.00283
Heptachlor	0.01	ND	0.00238
Methoxychlor	0.4	ND	0.00361
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0044	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.043 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 7**

Analytes	Discharge Limits	Tank 7 (021314)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.41	--
Dissolved Oxygen (Field)	5.0 minimum	11.0	--
Total Suspended Solids (SM 2540D)	20	ND	0.49
Total Dissolved Solids (SM 2540C)	2700	335	8.33
BOD5 (SM 5210 B)	30	2	2
Ammonia (USEPA 350.1)	8.1	1.01 B	0.07
Oil & Grease (USEPA 1664A)	15	2.08	0.587
Total Phosphorus (SM 4500-P E)	1	0.195	0.014
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	20.2 J	14.9
Total Arsenic	50 / 100	3.55 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	34.6 J	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	22.1	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	6.21 B	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.29
Benzene	5	ND	0.18
2-Butanone	280	ND	0.47
Chlorobenzene	10	ND	0.19
Chloroethane	10	ND	0.50
Chloroform	50	ND	0.21
Chloromethane	10	ND	0.14
Sum of o, m, & p-Dichlorobenzene	27	ND	0.17
1,1-Dichloroethane	10	ND	0.19
1,2-Dichloroethane	10	ND	0.15
1,1-Dichloroethene	10	ND	0.11
cis-1,2-Dichloroethene	10	ND	0.15
trans-1,2-Dichloroethene	10	ND	0.12
Ethylbenzene	5	ND	0.19
Isopropylbenzene	14	ND	0.14
Methylene Chloride	10	ND	0.50
4-Methyl-2-pentanone	140	ND	0.35
1,1,2,2-Tetrachlorethane	50	ND	0.25
Tetrachloroethene	5.4 / 10	ND	0.16
Toluene	5	ND	0.16
1,2,3-Trichlorobenzene	10	ND	0.26
1,2,4-Trichlorobenzene	10	ND	0.18
1,1,1-Trichloroethane	10	ND	0.34
1,1,2-Trichloroethane	10	ND	0.34
Trichloroethylene	10	ND	0.25
Trichlorofluoromethane	10	ND	0.16
Vinyl Chloride	10	ND	0.20
Sum of o, m, & p-Xylene	15	ND	0.32
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.822
2-Chlorophenol	--	ND	0.681
2,4-Dimethylphenol	10	ND	0.040
2-Methylphenol	10	ND	0.282
Sum of 3- & 4-Methylphenol	10	ND	0.435
Pentalchlorophenol	--	ND	0.656
Phenol	10	ND	0.282
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.02378
Aroclor 1242	0.2	ND	0.02378
Aroclor 1248	0.2	ND	0.02378
Aroclor 1254	0.2	ND	0.02378
Aroclor 1260	0.2	ND	0.02378
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00258
delta-BHC	0.043	ND	0.00249
alpha-Chlordane	0.05	ND	0.00178
gamma-Chlordane	0.05	ND	0.00199
4,4'-DDE	0.01	ND	0.00139
Dieldrin	0.005	ND	0.00208
Endosulfan II	0.049	ND	0.00250
Endosulfan Sulfate	0.2	ND	0.00283
Heptachlor	0.01	ND	0.00238
Methoxychlor	0.4	ND	0.00361
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0064	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	ND	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 8**

Analytes	Discharge Limits	Tank 8 (022014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	8.20	--
Dissolved Oxygen (Field)	5.0 minimum	9.9	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	306	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	0.487	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.162	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	2.40 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	0.748 J	0.671
Total Iron	2000 / 4000	44.9 JB	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	22.5	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	8.36 B	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachlorethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentalchlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0036	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	ND	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 9**

Analytes	Discharge Limits	Tank 9 (022714)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.35	--
Dissolved Oxygen (Field)	5.0 minimum	10.5	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	331	18
BOD5 (SM 5210 B)	30	2	2
Ammonia (USEPA 350.1)	8.1	2.00	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.181	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	3.81 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	1.47 J	0.671
Total Iron	2000 / 4000	81.5	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	27.4	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	0.658 JB	0.396
Total Zinc	400	3.93 JB	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachlorethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	0.520 J	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0038	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.10 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 10**

Analytes	Discharge Limits	Tank 10 (March 6, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.28	--
Dissolved Oxygen (Field)	5.0 minimum	11.0	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	345	18
BOD5 (SM 5210 B)	30	3	2
Ammonia (USEPA 350.1)	8.1	1.97	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.836	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	3.22 JB	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	64.6	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	27.3 B	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	3.70 JB	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0053	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	ND	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 11**

Analytes	Discharge Limits	Tank 11 (March 13, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.25	--
Dissolved Oxygen (Field)	5.0 minimum	9.5	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	307	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	2.10	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.145	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	5.01	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	1.75 J	0.671
Total Iron	2000 / 4000	71.7	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	25.7 B	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	7.30 B	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0080	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	ND	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 12
(Effective Total Flow Rate = 1.58 gpm with 0.27 gpm Leachate and 1.31 gpm Groundwater)

Analytes	Discharge Limits	Tank 12 (March 20, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.60	--
Dissolved Oxygen (Field)	5.0 minimum	11.7	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	339	18
BOD5 (SM 5210 B)	30	4	2
Ammonia (USEPA 350.1)	8.1	2.08	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.154	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	2.77 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	93.2	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	21.9 B	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	4.75 JB	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentalchlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0101	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	ND	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 13
(Effective Total Flow Rate = 1.59 gpm with 0.25 gpm Leachate and 1.34 gpm Groundwater)

Analytes	Discharge Limits	Tank 13 (March 27, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.23	--
Dissolved Oxygen (Field)	5.0 minimum	10.3	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	334	18
BOD5 (SM 5210 B)	30	8	2
Ammonia (USEPA 350.1)	8.1	1.60	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.121	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	3.34 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	70.4	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	17.3 B	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	1.99 JB	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	6.37	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentalchlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0006 J	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.054 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 14
(Effective Total Flow Rate = 1.61 gpm with 0.26 gpm Leachate and 1.35 gpm Groundwater)

Analytes	Discharge Limits	Tank 14 (April 3, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.42	--
Dissolved Oxygen (Field)	5.0 minimum	8.5	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	293	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.110	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	25.9 J	14.9
Total Arsenic	50 / 100	4.43 JB	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	3.26 J	0.671
Total Iron	2000 / 4000	67.3 B	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	12.7	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	5.39 B	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	1.43 J	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentalchlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0116	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	ND	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 15**

(Effective Total Flow Rate = 1.88 gpm with 0.34 gpm Leachate and 1.54 gpm Groundwater)

Analytes	Discharge Limits	Tank 15 (April 10, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.18	--
Dissolved Oxygen (Field)	5.0 minimum	8.6	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	350	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.119	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	3.36 JB	1.54
Total Cobalt	27	0.511 J	0.468
Total Copper	86	0.800 JB	0.671
Total Iron	2000 / 4000	53.9	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	13.5 B	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	4.43 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0099	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.041 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 16
(Effective Total Flow Rate = 1.95 gpm with 0.31 gpm Leachate and 1.64 gpm Groundwater)

Analytes	Discharge Limits	Tank 16 (April 17, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.38	--
Dissolved Oxygen (Field)	5.0 minimum	7.9	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	402	18
BOD5 (SM 5210 B)	30	8	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.119	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	2.84 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	47.2 J	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	11.2	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	5.01	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Penta-chlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0068	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	ND	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 17
(Effective Total Flow Rate = 2.00 gpm with 0.29 gpm Leachate and 1.71 gpm Groundwater)

Analytes	Discharge Limits	Tank 17 (April 24, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.25	--
Dissolved Oxygen (Field)	5.0 minimum	8.4	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	376	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.116	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	3.27 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	0.679 J	0.671
Total Iron	2000 / 4000	64.9	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	10.8	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	4.94 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentalchlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0367	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.033 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 19
(Effective Total Flow Rate = 2.00 gpm with 0.35 gpm Leachate and 1.65 gpm Groundwater)

Analytes	Discharge Limits	Tank 19 (May 8, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.44	--
Dissolved Oxygen (Field)	5.0 minimum	6.3	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	400	18
BOD5 (SM 5210 B)	30	10	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	4.69 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	1.47 JB	0.671
Total Iron	2000 / 4000	46.1 JB	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	16.8 B	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	4.38 JB	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentalchlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0071	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.024 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 20
(Effective Total Flow Rate = 0.99 gpm with 0.31 gpm Leachate and 0.68 gpm Groundwater)

Analytes	Discharge Limits	Tank 20 (May 19, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.93	--
Dissolved Oxygen (Field)	5.0 minimum	8.4	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	428	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.134	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	4.01 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	2.11 JB	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	20.5	0.083
Total Selenium	25	7.21 J	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	6.03	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentalchlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0035	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	ND	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- In addition to leachate and groundwater, about 4,440 gallons of water from Tank 18 was recycled through the treatment system and discharged into Tank 20

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 21
(Effective Total Flow Rate = 1.88 gpm with 0.38 gpm Leachate and 1.50 gpm Groundwater)

Analytes	Discharge Limits	Tank 21 (May 22, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.04	--
Dissolved Oxygen (Field)	5.0 minimum	7.6	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	412	18
BOD5 (SM 5210 B)	30	4 R	2
Ammonia (USEPA 350.1)	8.1	0.483	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.154	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	4.78 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	1.79 J	0.671
Total Iron	2000 / 4000	26.8 JB	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	21.6	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	4.45 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	13.1 R / ND (see note 18)	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0027	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	ND	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- R = For BOD5, duplication outside acceptance limits
- R = For SVOCs, also detected in the method blank (see note 18)
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- In addition to leachate and groundwater, about 15,840 gallons of water from Tank 18 was recycled through the treatment system and discharged into Tank 21
- Bis(2-ethylhexyl)phthalate was originally detected by the Pace Pittsburgh lab in the Tank 21 sample at a concentration of 13.1 micrograms per liter (µg/L), which is above the discharge limit of 10 µg/L. However, bis(2-ethylhexyl)phthalate was also reported in the method blank at a concentration of 13.4 µg/L. In accordance with the United States Environmental Protection Agency's (EPA's) data validation guidelines, the bis(2-ethylhexyl)phthalate result for Tank 21 would be rejected based on the method blank result. Bis(2-ethylhexyl)phthalate is a known sampling and laboratory artifact, and its presence in the Tank 21 sample is so attributed, based on the associated method blank result and also the non-detect results for the prior 20 tanks. This was confirmed with a re-analysis completed by the Pace Schenectady lab beyond the 7-day sample hold time with a result not detected above the detection limit of 0.432 µg/L.

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 22
(Effective Total Flow Rate = 1.15 gpm with 0.32 gpm Leachate and 0.83 gpm Groundwater)

Analytes	Discharge Limits	Tank 22 (June 2, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.56	---
Dissolved Oxygen (Field)	5.0 minimum	5.9	---
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	479	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	3.48	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	1.36 D/0.995 [0.969]	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	ND	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	2.23 J	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	12.1	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	2.42 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND/ND	0.432/0.822
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0008 J	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	1.3	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- D = Concentration is based on a diluted sample analysis
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- Result shown in [] is a resample
- Total phosphorus was originally detected using a 5x dilution at 1.36 milligrams per liter (mg/L) in Tank 22, which is above the discharge limit of 1.00 mg/L. An undiluted portion of the same sample was analyzed and the result was 0.995 mg/L. Based on this inconsistency, Tank 22 was resampled and the result was 0.969 mg/L.
- Bis(2-ethylhexyl)phthalate was not detected above the detection limit of 0.432 micrograms per liter (µg/L) by the Pace Pittsburgh lab and was also confirmed with an additional analysis completed by the Pace Schenectady lab with a result not detected above the the detection limit of 0.822 µg/L.

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 23
(Effective Total Flow Rate = 1.99 gpm with 0.41 gpm Leachate and 1.58 gpm Groundwater)

Analytes	Discharge Limits	Tank 23 (June 9, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.18	--
Dissolved Oxygen (Field)	5.0 minimum	7.2	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	439	18
BOD5 (SM 5210 B)	30	3	2
Ammonia (USEPA 350.1)	8.1	0.341	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.311	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	5.33	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	7.33	0.083
Total Selenium	25	5.82 JB	4.51
Total Silver	22	1.35 JB	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	ND	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentalchlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0005 J	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.33	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 24
(Effective Total Flow Rate = 1.75 gpm with 0.40 gpm Leachate and 1.35 gpm Groundwater)

Analyses	Discharge Limits	Tank 24 (June 17, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.74	--
Dissolved Oxygen (Field)	5.0 minimum	8.4	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	380	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.244	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	19.6 J	14.9
Total Arsenic	50 / 100	4.39 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	1.59 J	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	5.97	0.083
Total Selenium	25	4.94 J	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	1.60 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentalchlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.001	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.19 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 25
(Effective Total Flow Rate = 2.27 gpm with 0.39 gpm Leachate and 1.88 gpm Groundwater)

Analytes	Discharge Limits	Tank 25 (June 23, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.55	--
Dissolved Oxygen (Field)	5.0 minimum	6.6	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	456	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.165	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	19.0 J	14.9
Total Arsenic	50 / 100	4.20 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	4.63 J	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	1.89 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0021	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.098 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 26
(Effective Total Flow Rate = 4.52 gpm with 0.51 gpm Leachate and 4.01 gpm Groundwater)

Analytes	Discharge Limits	Tank 26 (June 26, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.52	--
Dissolved Oxygen (Field)	5.0 minimum	6.2	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	452	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.104	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	ND	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	2.42 JB	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	2.82 J	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	2.35 J	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	1.50 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0007 J	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.064 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 27
(Effective Total Flow Rate = 2.31 gpm with 0.42 gpm Leachate and 1.89 gpm Groundwater)

Analytes	Discharge Limits	Tank 27 (July 2, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.49	--
Dissolved Oxygen (Field)	5.0 minimum	6.8	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	383	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.119	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	ND	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	3.35 J	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	3.19 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0014	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.062 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 28
(Effective Total Flow Rate = 1.69 gpm with 0.41 gpm Leachate and 1.28 gpm Groundwater)

Analytes	Discharge Limits	Tank 28 (July 10, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.38	--
Dissolved Oxygen (Field)	5.0 minimum	6.2	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	0.119	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.003
delta-BHC	0.043	--	0.002
alpha-Chlordane	0.05	--	0.001
gamma-Chlordane	0.05	--	0.002
4,4'-DDE	0.01	--	0.003
Dieldrin	0.005	--	0.002
Endosulfan II	0.049	--	0.003
Endosulfan Sulfate	0.2	--	0.003
Heptachlor	0.01	--	0.002
Methoxychlor	0.4	--	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.051 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 29
(Effective Total Flow Rate = 3.47 gpm with 0.46 gpm Leachate and 3.01 gpm Groundwater)

Analytes	Discharge Limits	Tank 29 (July 14, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.52	--
Dissolved Oxygen (Field)	5.0 minimum	6.1	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.003
delta-BHC	0.043	--	0.002
alpha-Chlordane	0.05	--	0.001
gamma-Chlordane	0.05	--	0.002
4,4'-DDE	0.01	--	0.003
Dieldrin	0.005	--	0.002
Endosulfan II	0.049	--	0.003
Endosulfan Sulfate	0.2	--	0.003
Heptachlor	0.01	--	0.002
Methoxychlor	0.4	--	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.098 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 30
(Effective Total Flow Rate = 4.43 gpm with 0.50 gpm Leachate and 3.93 gpm Groundwater)

Analytes	Discharge Limits	Tank 30 (July 17, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.47	--
Dissolved Oxygen (Field)	5.0 minimum	6.9	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	356	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	ND	1.54
Total Cobalt	27	0.378 J	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	52.3	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	2.31 J	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	1.69 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.002	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.051 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 31
(Effective Total Flow Rate = 1.94 gpm with 0.39 gpm Leachate and 1.55 gpm Groundwater)

Analytes	Discharge Limits	Tank 31 (July 24, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.63	--
Dissolved Oxygen (Field)	5.0 minimum	6.4	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	401	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	0.120	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	3.82 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	66.8 B	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	2.48 J	0.083
Total Selenium	25	6.74 JB	4.51
Total Silver	22	1.07 J	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	3.03 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentalchlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4-4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.038 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 32
(Effective Total Flow Rate = 1.99 gpm with 0.42 gpm Leachate and 1.57 gpm Groundwater)

Analytes	Discharge Limits	Tank 32 (July 31, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.48	--
Dissolved Oxygen (Field)	5.0 minimum	6.2	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.003
delta-BHC	0.043	--	0.002
alpha-Chlordane	0.05	--	0.001
gamma-Chlordane	0.05	--	0.002
4,4'-DDE	0.01	--	0.003
Dieldrin	0.005	--	0.002
Endosulfan II	0.049	--	0.003
Endosulfan Sulfate	0.2	--	0.003
Heptachlor	0.01	--	0.002
Methoxychlor	0.4	--	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.043 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 33
(Effective Total Flow Rate = 1.95 gpm with 0.43 gpm Leachate and 1.52 gpm Groundwater)

Analytes	Discharge Limits	Tank 33 (August 7, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.51	--
Dissolved Oxygen (Field)	5.0 minimum	6.7	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	374	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.131	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	7.09	1.54
Total Cobalt	27	0.496 J	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	45.0 J	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	5.06	0.083
Total Selenium	25	5.79 J	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	1.61 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.074 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 34
(Effective Total Flow Rate = 1.93 gpm with 0.43 gpm Leachate and 1.50 gpm Groundwater)

Analytes	Discharge Limits	Tank 34 (August 14, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.43	--
Dissolved Oxygen (Field)	5.0 minimum	6.6	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.003
delta-BHC	0.043	--	0.002
alpha-Chlordane	0.05	--	0.001
gamma-Chlordane	0.05	--	0.002
4'-DDE	0.01	--	0.003
Dieldrin	0.005	--	0.002
Endosulfan II	0.049	--	0.003
Endosulfan Sulfate	0.2	--	0.003
Heptachlor	0.01	--	0.002
Methoxychlor	0.4	--	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.035 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 35
(Effective Total Flow Rate = 1.98 gpm with 0.44 gpm Leachate and 1.54 gpm Ground water)

Analytes	Discharge Limits	Tank 35 (August 21, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.47	--
Dissolved Oxygen (Field)	5.0 minimum	7.0	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	386	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	14.4 J	14.9
Total Arsenic	50 / 100	ND	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	55.4	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	3.65 J	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	2.42 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.032 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 36
(Effective Total Flow Rate = 1.57 gpm with 0.40 gpm Leachate and 1.17 gpm Groundwater)

Analytes	Discharge Limits	Tank 36 (August 28, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.56	--
Dissolved Oxygen (Field)	5.0 minimum	6.3	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.003
delta-BHC	0.043	--	0.002
alpha-Chlordane	0.05	--	0.001
gamma-Chlordane	0.05	--	0.002
4-4'-DDE	0.01	--	0.003
Dieldrin	0.005	--	0.002
Endosulfan II	0.049	--	0.003
Endosulfan Sulfate	0.2	--	0.003
Heptachlor	0.01	--	0.002
Methoxychlor	0.4	--	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.032 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- In addition to leachate and groundwater, about 3,900 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 36

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 37
(Effective Total Flow Rate = 1.50 gpm with 0.43 gpm Leachate and 1.07 gpm Groundwater)

Analytes	Discharge Limits	Tank 37 (September 4, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.35	--
Dissolved Oxygen (Field)	5.0 minimum	5.7	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	361	18
BOD ₅ (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	1.22	0.587
Total Phosphorus (SM 4500-P E)	1	0.159	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	4.49 J	1.54
Total Cobalt	27	0.365 J	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	27.0 J	4.59
Total Lead	51	2.24 JB	1.51
Total Manganese	1000 / 2000	8.27	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	3.07 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.039 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- In addition to leachate and groundwater, about 4,650 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 37

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 38
(Effective Total Flow Rate = 1.47 gpm with 0.35 gpm Leachate and 1.12 gpm Groundwater)

Analytes	Discharge Limits	Tank 38 (September 11, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.48	--
Dissolved Oxygen (Field)	5.0 minimum	5.3	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD ₅ (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.003
delta-BHC	0.043	--	0.002
alpha-Chlordane	0.05	--	0.001
gamma-Chlordane	0.05	--	0.002
4,4'-DDE	0.01	--	0.003
Dieldrin	0.005	--	0.002
Endosulfan II	0.049	--	0.003
Endosulfan Sulfate	0.2	--	0.003
Heptachlor	0.01	--	0.002
Methoxychlor	0.4	--	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.037 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- In addition to leachate and groundwater, about 4,990 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 38

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 39
(Effective Total Flow Rate = 1.45 gpm with 0.37 gpm Leachate and 1.08 gpm Groundwater)

Analytes	Discharge Limits	Tank 39 (September 18, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.48	--
Dissolved Oxygen (Field)	5.0 minimum	5.8	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	397	18
BOD ₅ (SM 5210 B)	30	3 R	2
Ammonia (USEPA 350.1)	8.1	0.453	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.123	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	3.74 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	26.5 J	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	11.0	0.083
Total Selenium	25	5.39 J	4.51
Total Silver	22	ND	0.553
Total Thallium	43	3.36 JB	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	2.02 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.026 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- R = For BOD₅, duplication outside acceptance limits
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- In addition to leachate and groundwater, about 4,760 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 39

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 40
(Effective Total Flow Rate = 1.45 gpm with 0.35 gpm Leachate and 1.10 gpm Groundwater)

Analytes	Discharge Limits	Tank 40 (September 25, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.69	--
Dissolved Oxygen (Field)	5.0 minimum	6.2	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.003
delta-BHC	0.043	--	0.002
alpha-Chlordane	0.05	--	0.001
gamma-Chlordane	0.05	--	0.002
4,4'-DDE	0.01	--	0.003
Dieldrin	0.005	--	0.002
Endosulfan II	0.049	--	0.003
Endosulfan Sulfate	0.2	--	0.003
Heptachlor	0.01	--	0.002
Methoxychlor	0.4	--	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.040 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- In addition to leachate and groundwater, about 4,680 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 40

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 41
(Effective Total Flow Rate = 1.45 gpm with 0.33 gpm Leachate and 1.12 gpm Ground water)

Analytes	Discharge Limits	Tank 41 (October 2, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.56	--
Dissolved Oxygen (Field)	5.0 minimum	6.3	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	391	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	3.47J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	1.63 J	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	8.95	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	3.40 JB	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.027 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- R = For BOD5, duplication outside acceptance limits
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- In addition to leachate and groundwater, about 4,680 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 41

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 42
(Effective Total Flow Rate = 1.48 gpm with 0.35 gpm Leachate and 1.13 gpm Groundwater)

Analytes	Discharge Limits	Tank 42 (October 9, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.61	--
Dissolved Oxygen (Field)	5.0 minimum	6.9	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.003
delta-BHC	0.043	--	0.002
alpha-Chlordane	0.05	--	0.001
gamma-Chlordane	0.05	--	0.002
4,4'-DDE	0.01	--	0.003
Dieldrin	0.005	--	0.002
Endosulfan II	0.049	--	0.003
Endosulfan Sulfate	0.2	--	0.003
Heptachlor	0.01	--	0.002
Methoxychlor	0.4	--	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.035 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- In addition to leachate and groundwater, about 4,630 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 42

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 43
(Effective Total Flow Rate = 1.43 gpm with 0.34 gpm Leachate and 1.09 gpm Groundwater)

Analytes	Discharge Limits	Tank 43 (October 16, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.48	--
Dissolved Oxygen (Field)	5.0 minimum	7.1	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	360	18
BOD ₅ (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	15.8 J	14.9
Total Arsenic	50 / 100	ND	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	8.86	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	5.28 B	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.003
delta-BHC	0.043	ND	0.002
alpha-Chlordane	0.05	ND	0.001
gamma-Chlordane	0.05	ND	0.002
4,4'-DDE	0.01	ND	0.003
Dieldrin	0.005	ND	0.002
Endosulfan II	0.049	ND	0.003
Endosulfan Sulfate	0.2	ND	0.003
Heptachlor	0.01	ND	0.002
Methoxychlor	0.4	ND	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0217	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.028 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- R = For BOD₅, duplication outside acceptance limits
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- In addition to leachate and groundwater, about 4,240 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 43

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 44
(Effective Total Flow Rate = 1.53 gpm with 0.34 gpm Leachate and 1.19 gpm Groundwater)

Analytes	Discharge Limits	Tank 44 (October 23, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.52	--
Dissolved Oxygen (Field)	5.0 minimum	6.7	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD ₅ (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	0.610 JB	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.003
delta-BHC	0.043	--	0.002
alpha-Chlordane	0.05	--	0.001
gamma-Chlordane	0.05	--	0.002
4,4'-DDE	0.01	--	0.003
Dieldrin	0.005	--	0.002
Endosulfan II	0.049	--	0.003
Endosulfan Sulfate	0.2	--	0.003
Heptachlor	0.01	--	0.002
Methoxychlor	0.4	--	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.067 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- In addition to leachate and groundwater, about 4,810 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 44

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 45
(Effective Total Flow Rate = 1.84 gpm with 0.34 gpm Leachate and 1.50 gpm Groundwater)

Analytes	Discharge Limits	Tank 45 (October 30, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.47	--
Dissolved Oxygen (Field)	5.0 minimum	6.6	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	379	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	0.172	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	ND	1.54
Total Cobalt	27	0.347 J	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	10.8	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	1.73 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0018
delta-BHC	0.043	ND	0.0012
alpha-Chlordane	0.05	ND	0.0012
gamma-Chlordane	0.05	ND	0.0061
4,4'-DDE	0.01	ND	0.0016
Dieldrin	0.005	ND	0.0006
Endosulfan II	0.049	ND	0.0022
Endosulfan Sulfate	0.2	ND	0.0010
Heptachlor	0.01	ND	0.0012
Methoxychlor	0.4	ND	0.0058
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.028 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- In addition to leachate and groundwater, about 1,220 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 45

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 46
(Effective Total Flow Rate = 1.88 gpm with 0.28 gpm Leachate and 1.60 gpm Groundwater)

Analytes	Discharge Limits	Tank 46 (November 6, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.63	--
Dissolved Oxygen (Field)	5.0 minimum	7.3	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.003
delta-BHC	0.043	--	0.002
alpha-Chlordane	0.05	--	0.001
gamma-Chlordane	0.05	--	0.002
4,4'-DDE	0.01	--	0.003
Dieldrin	0.005	--	0.002
Endosulfan II	0.049	--	0.003
Endosulfan Sulfate	0.2	--	0.003
Heptachlor	0.01	--	0.002
Methoxychlor	0.4	--	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.022 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 47
(Effective Total Flow Rate = 1.85 gpm with 0.27 gpm Leachate and 1.58 gpm Ground water)

Analytes	Discharge Limits	Tank 47 (November 13, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.55	--
Dissolved Oxygen (Field)	5.0 minimum	7.2	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	402	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	9.20	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	4.00 J	1.54
Total Cobalt	27	0.558 JB	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	11.8	0.083
Total Selenium	25	ND	4.51
Total Silver	22	1.10 JB	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	16.5 B	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0018
delta-BHC	0.043	0.012 J	0.0012
alpha-Chlordane	0.05	ND	0.0012
gamma-Chlordane	0.05	ND	0.0062
4,4'-DDE	0.01	ND	0.0016
Dieldrin	0.005	ND	0.0006
Endosulfan II	0.049	ND	0.0023
Endosulfan Sulfate	0.2	ND	0.0010
Heptachlor	0.01	ND	0.0012
Methoxychlor	0.4	ND	0.0058
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.040 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- In addition to leachate and groundwater, about 1,020 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 47

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 48
(Effective Total Flow Rate = 1.88 gpm with 0.31 gpm Leachate and 1.57 gpm Groundwater)

Analytes	Discharge Limits	Tank 48 (November 20, 2014)	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.45	--
Dissolved Oxygen (Field)	5.0 minimum	6.1	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.003
delta-BHC	0.043	--	0.002
alpha-Chlordane	0.05	--	0.001
gamma-Chlordane	0.05	--	0.002
4,4'-DDE	0.01	--	0.003
Dieldrin	0.005	--	0.002
Endosulfan II	0.049	--	0.003
Endosulfan Sulfate	0.2	--	0.003
Heptachlor	0.01	--	0.002
Methoxychlor	0.4	--	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.036 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - December 4, 2014
(Effective Total Flow Rate = 0.58 gpm with 0.15 gpm Leachate and 0.43 gpm Ground water)

Analytes	Discharge Limits	December 4, 2014	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.88	--
Dissolved Oxygen (Field)	5.0 minimum	5.6	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	449	18
BOD5 (SM 5210 B)	30	4	2
Ammonia (USEPA 350.1)	8.1	2.00	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.968	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	ND	1.54
Total Cobalt	27	0.375 J	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	74.2	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	38.7	0.083
Total Selenium	25	3.87 J	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	5.37 B	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00095
delta-BHC	0.043	ND	0.00036
alpha-Chlordane	0.05	ND	0.00093
gamma-Chlordane	0.05	ND	0.00091
4,4'-DDE	0.01	ND	0.00075
Dieldrin	0.005	ND	0.00078
Endosulfan II	0.049	ND	0.00093
Endosulfan Sulfate	0.2	ND	0.00054
Heptachlor	0.01	ND	0.00094
Methoxychlor	0.4	ND	0.00087
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0011	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.14 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan
- Total phosphorus was originally detected using a 5x dilution at 1.09 milligrams per liter (mg/L). An undiluted portion of the same sample was analyzed and the result was 0.968 mg/L. Based on this inconsistency, an undiluted duplicate portion of the same sample was analyzed and the result was 0.986 mg/L.

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - December 9, 2014
(Effective Total Flow Rate = 0.56 gpm with 0.15 gpm Leachate and 0.41 gpm Groundwater)

Analytes	Discharge Limits	December 9, 2014	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	8.23	--
Dissolved Oxygen (Field)	5.0 minimum	6.1	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.003
delta-BHC	0.043	--	0.002
alpha-Chlordane	0.05	--	0.001
gamma-Chlordane	0.05	--	0.002
4,4'-DDE	0.01	--	0.003
Dieldrin	0.005	--	0.002
Endosulfan II	0.049	--	0.003
Endosulfan Sulfate	0.2	--	0.003
Heptachlor	0.01	--	0.002
Methoxychlor	0.4	--	0.004
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.10 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - December 15, 2014
(Effective Total Flow Rate = 0.56 gpm with 0.13 gpm Leachate and 0.43 gpm Ground water)

Analytes	Discharge Limits	December 15, 2014	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.78	--
Dissolved Oxygen (Field)	5.0 minimum	6.1	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	476	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	0.323	0.041
Oil & Grease (USEPA 1664A)	15	0.700	0.587
Total Phosphorus (SM 4500-P E)	1	0.315	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	15.9 J	14.9
Total Arsenic	50 / 100	4.10 J	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	1.83 J	0.671
Total Iron	2000 / 4000	104	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	30.0	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	2.25 J	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	1.99 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00095
delta-BHC	0.043	ND	0.00036
alpha-Chlordane	0.05	ND	0.00093
gamma-Chlordane	0.05	ND	0.00091
4,4'-DDE	0.01	ND	0.00075
Dieldrin	0.005	ND	0.00078
Endosulfan II	0.049	ND	0.00093
Endosulfan Sulfate	0.2	ND	0.00054
Heptachlor	0.01	ND	0.00094
Methoxychlor	0.4	ND	0.00087
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.076 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - December 22, 2014
(Effective Total Flow Rate = 1.79 gpm with 0.26 gpm Leachate and 1.53 gpm Ground water)

Analytes	Discharge Limits	December 22, 2014	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	8.37	--
Dissolved Oxygen (Field)	5.0 minimum	7.6	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	378	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	0.105	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	ND	1.54
Total Cobalt	27	0.316 J	0.468
Total Copper	86	3.06 JB	0.671
Total Iron	2000 / 4000	66.4	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	8.24	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	1.12 J	0.396
Total Zinc	400	ND	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	0.558	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00094
delta-BHC	0.043	ND	0.00036
alpha-Chlordane	0.05	ND	0.00092
gamma-Chlordane	0.05	ND	0.00091
4,4'-DDE	0.01	ND	0.00075
Dieldrin	0.005	ND	0.00077
Endosulfan II	0.049	ND	0.00092
Endosulfan Sulfate	0.2	ND	0.00054
Heptachlor	0.01	ND	0.00093
Methoxychlor	0.4	ND	0.00086
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.039 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - December 29, 2014
(Effective Total Flow Rate = 1.89 gpm with 0.31 gpm Leachate and 1.58 gpm Groundwater)

Analytes	Discharge Limits	December 29, 2014	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.93	--
Dissolved Oxygen (Field)	5.0 minimum	5.8	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.00094
delta-BHC	0.043	--	0.00036
alpha-Chlordane	0.05	--	0.00092
gamma-Chlordane	0.05	--	0.00091
4,4'-DDE	0.01	--	0.00075
Dieldrin	0.005	--	0.00077
Endosulfan II	0.049	--	0.00092
Endosulfan Sulfate	0.2	--	0.00054
Heptachlor	0.01	--	0.00093
Methoxychlor	0.4	--	0.00086
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.041 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - January 7, 2015
(Effective Total Flow Rate = 2.01 gpm with 0.30 gpm Leachate and 1.71 gpm Ground water)

Analytes	Discharge Limits	January 7, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.82	--
Dissolved Oxygen (Field)	5.0 minimum	7.4	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	451	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	0.421	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	ND	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	64.4	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	3.42 JB	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	2.15 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	0.515 J	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00094
delta-BHC	0.043	ND	0.00036
alpha-Chlordane	0.05	ND	0.00092
gamma-Chlordane	0.05	ND	0.00091
4,4'-DDE	0.01	ND	0.00075
Dieldrin	0.005	ND	0.00077
Endosulfan II	0.049	ND	0.00092
Endosulfan Sulfate	0.2	ND	0.00054
Heptachlor	0.01	ND	0.00093
Methoxychlor	0.4	ND	0.00086
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.057 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - January 14, 2015
(Effective Total Flow Rate = 1.95 gpm with 0.30 gpm Leachate and 1.65 gpm Groundwater)

Analytes	Discharge Limits	January 14, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.34	--
Dissolved Oxygen (Field)	5.0 minimum	6.2	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	1.58	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.00094
delta-BHC	0.043	--	0.00036
alpha-Chlordane	0.05	--	0.00092
gamma-Chlordane	0.05	--	0.00091
4,4'-DDE	0.01	--	0.00075
Dieldrin	0.005	--	0.00077
Endosulfan II	0.049	--	0.00092
Endosulfan Sulfate	0.2	--	0.00054
Heptachlor	0.01	--	0.00093
Methoxychlor	0.4	--	0.00086
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.052 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - January 21, 2015
(Effective Total Flow Rate = 2.43 gpm with 0.31 gpm Leachate and 2.12 gpm Groundwater)

Analytes	Discharge Limits	January 21, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.82	--
Dissolved Oxygen (Field)	5.0 minimum	6.3	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	407	18
BOD ₅ (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	0.846	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	ND	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	130	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	2.78 J	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	0.510 J	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00095
delta-BHC	0.043	ND	0.00036
alpha-Chlordane	0.05	ND	0.00093
gamma-Chlordane	0.05	ND	0.00091
4,4'-DDE	0.01	ND	0.00075
Dieldrin	0.005	ND	0.00078
Endosulfan II	0.049	ND	0.00093
Endosulfan Sulfate	0.2	ND	0.00054
Heptachlor	0.01	ND	0.00094
Methoxychlor	0.4	ND	0.00087
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.074 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - January 29, 2015
(Effective Total Flow Rate = 2.41 gpm with 0.30 gpm Leachate and 2.11 gpm Groundwater)

Analytes	Discharge Limits	January 29, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.44	--
Dissolved Oxygen (Field)	5.0 minimum	6.1	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.00094
delta-BHC	0.043	--	0.00036
alpha-Chlordane	0.05	--	0.00092
gamma-Chlordane	0.05	--	0.00091
4,4'-DDE	0.01	--	0.00075
Dieldrin	0.005	--	0.00077
Endosulfan II	0.049	--	0.00092
Endosulfan Sulfate	0.2	--	0.00054
Heptachlor	0.01	--	0.00093
Methoxychlor	0.4	--	0.00086
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.085 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - February 4, 2015
(Effective Total Flow Rate = 2.30 gpm with 0.30 gpm Leachate and 2.00 gpm Ground water)

Analytes	Discharge Limits	February 4, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.08	--
Dissolved Oxygen (Field)	5.0 minimum	6.3	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	399	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	14.9
Total Arsenic	50 / 100	ND	1.54
Total Cobalt	27	0.544 J	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	586	0.083
Total Selenium	25	ND	4.51
Total Silver	22	ND	0.553
Total Thallium	43	ND	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	5.55	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00095
delta-BHC	0.043	ND	0.00036
alpha-Chlordane	0.05	ND	0.00093
gamma-Chlordane	0.05	ND	0.00091
4,4'-DDE	0.01	ND	0.00075
Dieldrin	0.005	ND	0.00078
Endosulfan II	0.049	ND	0.00093
Endosulfan Sulfate	0.2	ND	0.00054
Heptachlor	0.01	ND	0.00094
Methoxychlor	0.4	ND	0.00087
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.089 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - February 11, 2015
(Effective Total Flow Rate = 2.54 gpm with 0.31 gpm Leachate and 2.23 gpm Groundwater)

Analytes	Discharge Limits	February 11, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.71	--
Dissolved Oxygen (Field)	5.0 minimum	7.5	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	0.524 J	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.00094
delta-BHC	0.043	--	0.00036
alpha-Chlordane	0.05	--	0.00092
gamma-Chlordane	0.05	--	0.00091
4,4'-DDE	0.01	--	0.00075
Dieldrin	0.005	--	0.00077
Endosulfan II	0.049	--	0.00092
Endosulfan Sulfate	0.2	--	0.00054
Heptachlor	0.01	--	0.00093
Methoxychlor	0.4	--	0.00086
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.089 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - February 18, 2015
(Effective Total Flow Rate = 2.75 gpm with 0.28 gpm Leachate and 2.47 gpm Ground water)

Analytes	Discharge Limits	February 18, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.62	--
Dissolved Oxygen (Field)	5.0 minimum	7.5	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	385	18
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	0.232	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	16.4 J	14.9
Total Arsenic	50 / 100	ND	1.54
Total Cobalt	27	ND	0.468
Total Copper	86	ND	0.671
Total Iron	2000 / 4000	ND	4.59
Total Lead	51	ND	1.51
Total Manganese	1000 / 2000	1200 B	0.083
Total Selenium	25	6.64 J	4.51
Total Silver	22	ND	0.553
Total Thallium	43	2.65 J	1.80
Total Vanadium	76	ND	0.396
Total Zinc	400	4.02 JB	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	0.999 J	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	4.12 J	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00095
delta-BHC	0.043	ND	0.00036
alpha-Chlordane	0.05	ND	0.00093
gamma-Chlordane	0.05	ND	0.00091
4,4'-DDE	0.01	ND	0.00075
Dieldrin	0.005	ND	0.00078
Endosulfan II	0.049	ND	0.00093
Endosulfan Sulfate	0.2	ND	0.00054
Heptachlor	0.01	ND	0.00094
Methoxychlor	0.4	ND	0.00087
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.000873 J	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.11 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - February 26, 2015
(Effective Total Flow Rate = 2.89 gpm with 0.30 gpm Leachate and 2.59 gpm Groundwater)

Analytes	Discharge Limits	February 25, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	8.30	--
Dissolved Oxygen (Field)	5.0 minimum	5.7	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	14.9
Total Arsenic	50 / 100	--	1.54
Total Cobalt	27	--	0.468
Total Copper	86	--	0.671
Total Iron	2000 / 4000	--	4.59
Total Lead	51	--	1.51
Total Manganese	1000 / 2000	--	0.083
Total Selenium	25	--	4.51
Total Silver	22	--	0.553
Total Thallium	43	--	1.80
Total Vanadium	76	--	0.396
Total Zinc	400	--	0.253
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.424
Benzene	5	ND	0.108
2-Butanone	280	ND	0.284
Chlorobenzene	10	ND	0.105
Chloroethane	10	ND	0.150
Chloroform	50	ND	0.122
Chloromethane	10	ND	0.114
Sum of o, m, & p-Dichlorobenzene	27	ND	0.300
1,1-Dichloroethane	10	ND	0.126
1,2-Dichloroethane	10	ND	0.150
1,1-Dichloroethene	10	ND	0.101
cis-1,2-Dichloroethene	10	ND	0.121
trans-1,2-Dichloroethene	10	ND	0.128
Ethylbenzene	5	ND	0.113
Isopropylbenzene	14	ND	0.089
Methylene Chloride	10	ND	0.188
4-Methyl-2-pentanone	140	ND	0.127
1,1,2,2-Tetrachloroethane	50	ND	0.104
Tetrachloroethene	5.4 / 10	ND	0.085
Toluene	5	ND	0.105
1,2,3-Trichlorobenzene	10	ND	0.109
1,2,4-Trichlorobenzene	10	ND	0.125
1,1,1-Trichloroethane	10	ND	0.127
1,1,2-Trichloroethane	10	ND	0.114
Trichloroethylene	10	ND	0.183
Trichlorofluoromethane	10	ND	0.140
Vinyl Chloride	10	ND	0.104
Sum of o, m, & p-Xylene	15	ND	0.279
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.432
2-Chlorophenol	--	ND	0.207
2,4-Dimethylphenol	10	ND	0.322
2-Methylphenol	10	ND	0.265
Sum of 3- & 4-Methylphenol	10	ND	0.700
Pentachlorophenol	--	ND	0.281
Phenol	10	ND	0.260
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.00094
delta-BHC	0.043	--	0.00036
alpha-Chlordane	0.05	--	0.00092
gamma-Chlordane	0.05	--	0.00091
4,4'-DDE	0.01	--	0.00075
Dieldrin	0.005	--	0.00077
Endosulfan II	0.049	--	0.00092
Endosulfan Sulfate	0.2	--	0.00054
Heptachlor	0.01	--	0.00093
Methoxychlor	0.4	--	0.00086
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.32	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - March 4, 2015
(Effective Total Flow Rate = 2.97 gpm with 0.28 gpm Leachate and 2.69 gpm Groundwater)

Analytes	Discharge Limits	March 4, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	8.10	--
Dissolved Oxygen (Field)	5.0 minimum	7.4	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	377	18
BOD ₅ (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	3.26	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	0.122	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	22.9 B	5.9
Total Arsenic	50 / 100	3.9 B	3.3
Total Cobalt	27	ND	0.6
Total Copper	86	ND	0.4
Total Iron	2000 / 4000	ND	8.6
Total Lead	51	ND	2.2
Total Manganese	1000 / 2000	280	0.1
Total Selenium	25	4.6 B	3.8
Total Silver	22	ND	2.2
Total Thallium	43	ND	3.8
Total Vanadium	76	ND	0.7
Total Zinc	400	3.6 B	0.8
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	2.0	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.886
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00094
delta-BHC	0.043	ND	0.00036
alpha-Chlordane	0.05	ND	0.00092
gamma-Chlordane	0.05	ND	0.00091
4,4'-DDE	0.01	ND	0.00075
Dieldrin	0.005	ND	0.00077
Endosulfan II	0.049	ND	0.00092
Endosulfan Sulfate	0.2	ND	0.00054
Heptachlor	0.01	ND	0.00093
Methoxychlor	0.4	ND	0.00086
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.30	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - March 11, 2015
(Effective Total Flow Rate = 3.10 gpm with 0.28 gpm Leachate and 2.82 gpm Groundwater)

Analytes	Discharge Limits	March 11, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.22	--
Dissolved Oxygen (Field)	5.0 minimum	5.2	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD ₅ (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	5.9
Total Arsenic	50 / 100	--	3.3
Total Cobalt	27	--	0.6
Total Copper	86	--	0.4
Total Iron	2000 / 4000	--	8.6
Total Lead	51	--	2.2
Total Manganese	1000 / 2000	--	0.1
Total Selenium	25	--	3.8
Total Silver	22	--	2.2
Total Thallium	43	--	3.8
Total Vanadium	76	--	0.7
Total Zinc	400	--	0.8
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	1.5	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.886
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.00094
delta-BHC	0.043	--	0.00036
alpha-Chlordane	0.05	--	0.00092
gamma-Chlordane	0.05	--	0.00091
4,4'-DDE	0.01	--	0.00075
Dieldrin	0.005	--	0.00077
Endosulfan II	0.049	--	0.00092
Endosulfan Sulfate	0.2	--	0.00054
Heptachlor	0.01	--	0.00093
Methoxychlor	0.4	--	0.00086
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.27	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - March 18, 2015
(Effective Total Flow Rate = 3.31 gpm with 0.30 gpm Leachate and 3.01 gpm Groundwater)

Analytes	Discharge Limits	March 18, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.81	--
Dissolved Oxygen (Field)	5.0 minimum	6.2	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	401	18
BOD ₅ (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	0.229	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	14.6 J	13
Total Arsenic	50 / 100	2.01 J	2.0
Total Cobalt	27	ND	2.0
Total Copper	86	1.10 J	1.0
Total Iron	2000 / 4000	13.6 J	12
Total Lead	51	3.82 J	1.0
Total Manganese	1000 / 2000	341	1.0
Total Selenium	25	ND	2.0
Total Silver	22	ND	1.0
Total Thallium	43	ND	4.0
Total Vanadium	76	ND	2.0
Total Zinc	400	8.80 J	1.0
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.886
Sum of 3- & 4-Methylphenol	10	ND	1.85
Penta-chlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00094
delta-BHC	0.043	ND	0.00036
alpha-Chlordane	0.05	ND	0.00092
gamma-Chlordane	0.05	ND	0.00091
4,4'-DDE	0.01	ND	0.00075
Dieldrin	0.005	ND	0.00077
Endosulfan II	0.049	ND	0.00092
Endosulfan Sulfate	0.2	ND	0.00054
Heptachlor	0.01	ND	0.00093
Methoxychlor	0.4	ND	0.00086
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.32	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - March 25, 2015
(Effective Total Flow Rate = 3.40 gpm with 0.26 gpm Leachate and 3.14 gpm Groundwater)

Analyses	Discharge Limits	March 25, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.69	--
Dissolved Oxygen (Field)	5.0 minimum	6.8	--
Total Suspended Solids (SM 2540D)	20	--	0.824
Total Dissolved Solids (SM 2540C)	2700	--	18
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.041
Oil & Grease (USEPA 1664A)	15	--	0.587
Total Phosphorus (SM 4500-P E)	1	--	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2.0
Total Cobalt	27	--	2.0
Total Copper	86	--	1.0
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1.0
Total Manganese	1000 / 2000	--	1.0
Total Selenium	25	--	2.0
Total Silver	22	--	1.0
Total Thallium	43	--	4.0
Total Vanadium	76	--	2.0
Total Zinc	400	--	1.0
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.886
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.00094
delta-BHC	0.043	--	0.00036
alpha-Chlordane	0.05	--	0.00092
gamma-Chlordane	0.05	--	0.00091
4,4'-DDE	0.01	--	0.00075
Dieldrin	0.005	--	0.00077
Endosulfan II	0.049	--	0.00092
Endosulfan Sulfate	0.2	--	0.00054
Heptachlor	0.01	--	0.00093
Methoxychlor	0.4	--	0.00086
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.29	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - April 1, 2015
(Effective Total Flow Rate = 3.33 gpm with 0.27 gpm Leachate and 3.06 gpm Groundwater)

Analytes	Discharge Limits	April 1, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.85	--
Dissolved Oxygen (Field)	5.0 minimum	8.4	--
Total Suspended Solids (SM 2540D)	20	ND	0.824
Total Dissolved Solids (SM 2540C)	2700	326	18
BOD ₅ (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.041
Oil & Grease (USEPA 1664A)	15	ND	0.587
Total Phosphorus (SM 4500-P E)	1	ND	0.018
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	46.2 J	13
Total Arsenic	50 / 100	2.38 J	2.0
Total Cobalt	27	ND	2.0
Total Copper	86	ND	1.0
Total Iron	2000 / 4000	14.0 J	12
Total Lead	51	1.51 J	1.0
Total Manganese	1000 / 2000	375	1.0
Total Selenium	25	ND	2.0
Total Silver	22	ND	1.0
Total Thallium	43	ND	4.0
Total Vanadium	76	ND	2.0
Total Zinc	400	11.1 J	1.0
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.886
Sum of 3- & 4-Methylphenol	10	ND	1.85
Penta-chlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00095
delta-BHC	0.043	ND	0.00036
alpha-Chlordane	0.05	ND	0.00093
gamma-Chlordane	0.05	ND	0.00091
4,4'-DDE	0.01	ND	0.00075
Dieldrin	0.005	ND	0.00078
Endosulfan II	0.049	ND	0.00093
Endosulfan Sulfate	0.2	ND	0.00054
Heptachlor	0.01	ND	0.00094
Methoxychlor	0.4	ND	0.00087
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.0003
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.34	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - April 8, 2015
(Effective Total Flow Rate = 3.41 gpm with 0.27 gpm Leachate and 3.14 gpm Groundwater)

Analyses	Discharge Limits	April 8, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.71	--
Dissolved Oxygen (Field)	5.0 minimum	7.4	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.33	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - April 15, 2015
(Effective Total Flow Rate = 3.86 gpm with 0.28 gpm Leachate and 3.58 gpm Groundwater)

Analytes	Discharge Limits	April 15, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.61	--
Dissolved Oxygen (Field)	5.0 minimum	6.0	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	337	19
BOD ₅ (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	ND	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	13
Total Arsenic	50 / 100	5.72 J	2
Total Cobalt	27	ND	2
Total Copper	86	7.60 J	1
Total Iron	2000 / 4000	ND	12
Total Lead	51	ND	1
Total Manganese	1000 / 2000	327	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	2.40 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.080
Sum of 3- & 4-Methylphenol	10	ND	1.85
Penta-chlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0026
delta-BHC	0.043	ND	0.0025
alpha-Chlordane	0.05	ND	0.0018
gamma-Chlordane	0.05	ND	0.0020
4,4'-DDE	0.01	ND	0.0014
Dieldrin	0.005	ND	0.0021
Endosulfan II	0.049	ND	0.0025
Endosulfan Sulfate	0.2	ND	0.0028
Heptachlor	0.01	ND	0.0024
Methoxychlor	0.4	ND	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.25	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - April 22, 2015
(Effective Total Flow Rate = 3.92 gpm with 0.29 gpm Leachate and 3.63 gpm Groundwater)

Analytes	Discharge Limits	April 22, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.64	--
Dissolved Oxygen (Field)	5.0 minimum	6.1	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Penta-chlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.30	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - April 29, 2015
(Effective Total Flow Rate = 3.91 gpm with 0.31 gpm Leachate and 3.60 gpm Groundwater)

Analytes	Discharge Limits	April 29, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.53	--
Dissolved Oxygen (Field)	5.0 minimum	6.2	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	362	19
BOD ₅ (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	ND	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	20.0 J	13
Total Arsenic	50 / 100	3.13 J	2
Total Cobalt	27	ND	2
Total Copper	86	ND	1
Total Iron	2000 / 4000	ND	12
Total Lead	51	5.84	1
Total Manganese	1000 / 2000	130	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	7.80 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.080
Sum of 3- & 4-Methylphenol	10	ND	1.85
Penta-chlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0026
delta-BHC	0.043	ND	0.0025
alpha-Chlordane	0.05	ND	0.0018
gamma-Chlordane	0.05	ND	0.0020
4,4'-DDE	0.01	ND	0.0014
Dieldrin	0.005	ND	0.0021
Endosulfan II	0.049	ND	0.0025
Endosulfan Sulfate	0.2	ND	0.0028
Heptachlor	0.01	ND	0.0024
Methoxychlor	0.4	ND	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.43	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - May 6, 2015
(Effective Total Flow Rate = 3.87 gpm with 0.28 gpm Leachate and 3.59 gpm Groundwater)

Analyses	Discharge Limits	May 6, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.53	--
Dissolved Oxygen (Field)	5.0 minimum	5.8	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	1.0	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - May 13, 2015
(Effective Total Flow Rate = 3.81 gpm with 0.27 gpm Leachate and 3.54 gpm Ground water)

Analytes	Discharge Limits	May 13, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.64	--
Dissolved Oxygen (Field)	5.0 minimum	5.9	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	384	19
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	0.117	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	58.3 J	13
Total Arsenic	50 / 100	5.97 J	2
Total Cobalt	27	ND	2
Total Copper	86	1.40 J	1
Total Iron	2000 / 4000	49.1 J	12
Total Lead	51	2.71 J	1
Total Manganese	1000 / 2000	38.0	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	33.4	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0026
delta-BHC	0.043	ND	0.0025
alpha-Chlordane	0.05	ND	0.0018
gamma-Chlordane	0.05	ND	0.0020
4,4'-DDE	0.01	ND	0.0014
Dieldrin	0.005	ND	0.0021
Endosulfan II	0.049	ND	0.0025
Endosulfan Sulfate	0.2	ND	0.0028
Heptachlor	0.01	ND	0.0024
Methoxychlor	0.4	ND	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	ND	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	1.9	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - May 20, 2015
(Effective Total Flow Rate = 3.87 gpm with 0.28 gpm Leachate and 3.59 gpm Groundwater)

Analyses	Discharge Limits	May 20, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.67	--
Dissolved Oxygen (Field)	5.0 minimum	5.7	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	3.1	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - May 27, 2015
(Effective Total Flow Rate = 3.60 gpm with 0.29 gpm Leachate and 3.31 gpm Groundwater)

Analytes	Discharge Limits	May 27, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.78	--
Dissolved Oxygen (Field)	5.0 minimum	5.5	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	349	19
BOD ₅ (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	0.174	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	13
Total Arsenic	50 / 100	6.03 J	2
Total Cobalt	27	ND	2
Total Copper	86	ND	1
Total Iron	2000 / 4000	ND	12
Total Lead	51	1.54 J	1
Total Manganese	1000 / 2000	63.6	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	1.80 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Penta-chlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0026
delta-BHC	0.043	ND	0.0025
alpha-Chlordane	0.05	ND	0.0018
gamma-Chlordane	0.05	ND	0.0020
4,4'-DDE	0.01	ND	0.0014
Dieldrin	0.005	ND	0.0021
Endosulfan II	0.049	ND	0.0025
Endosulfan Sulfate	0.2	ND	0.0028
Heptachlor	0.01	ND	0.0024
Methoxychlor	0.4	ND	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	5.7	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - June 3, 2015
(Effective Total Flow Rate = 3.58 gpm with 0.29 gpm Leachate and 3.29 gpm Groundwater)

Analyses	Discharge Limits	June 3, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.63	--
Dissolved Oxygen (Field)	5.0 minimum	6.8	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	6.6	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - June 12, 2015
(Effective Total Flow Rate = 4.04 gpm with 0.29 gpm Leachate and 3.75 gpm Ground water)

Analytes	Discharge Limits	June 12, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	8.42	--
Dissolved Oxygen (Field)	5.0 minimum	5.9	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	394	19
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	3.67	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	0.775	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	24.4 J	13
Total Arsenic	50 / 100	7.04 J	2
Total Cobalt	27	ND	2
Total Copper	86	1.50 J	1
Total Iron	2000 / 4000	ND	12
Total Lead	51	1.91 J	1
Total Manganese	1000 / 2000	18.6	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	22.3	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	1.3	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0026
delta-BHC	0.043	ND	0.0025
alpha-Chlordane	0.05	ND	0.0018
gamma-Chlordane	0.05	ND	0.0020
4,4'-DDE	0.01	ND	0.0014
Dieldrin	0.005	ND	0.0021
Endosulfan II	0.049	ND	0.0025
Endosulfan Sulfate	0.2	ND	0.0028
Heptachlor	0.01	ND	0.0024
Methoxychlor	0.4	ND	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.31	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - June 17, 2015
(Effective Total Flow Rate = 4.21 gpm with 0.27 gpm Leachate and 3.94 gpm Groundwater)

Analyses	Discharge Limits	June 17, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.67	--
Dissolved Oxygen (Field)	5.0 minimum	5.7	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.25	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - June 24, 2015
(Effective Total Flow Rate = 4.07 gpm with 0.31 gpm Leachate and 3.76 gpm Groundwater)

Analytes	Discharge Limits	June 24, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.62	--
Dissolved Oxygen (Field)	5.0 minimum	5.5	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	383	19
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	0.213	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	42.8 J	13
Total Arsenic	50 / 100	7.34 J	2
Total Cobalt	27	ND	2
Total Copper	86	ND	1
Total Iron	2000 / 4000	24.1 J	12
Total Lead	51	10.4	1
Total Manganese	1000 / 2000	115	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	1.10 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0026
delta-BHC	0.043	ND	0.0025
alpha-Chlordane	0.05	ND	0.0018
gamma-Chlordane	0.05	ND	0.0020
4,4'-DDE	0.01	ND	0.0014
Dieldrin	0.005	ND	0.0021
Endosulfan II	0.049	ND	0.0025
Endosulfan Sulfate	0.2	ND	0.0028
Heptachlor	0.01	ND	0.0024
Methoxychlor	0.4	ND	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.24	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - July 1, 2015
(Effective Total Flow Rate = 3.86 gpm with 0.32 gpm Leachate and 3.54 gpm Groundwater)

Analytes	Discharge Limits	July 1, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.47	--
Dissolved Oxygen (Field)	5.0 minimum	6.3	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	1.1	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.16 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - July 8, 2015
(Effective Total Flow Rate = 4.56 gpm with 0.35 gpm Leachate and 4.21 gpm Groundwater)

Analytes	Discharge Limits	July 8, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.14	--
Dissolved Oxygen (Field)	5.0 minimum	5.4	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	378	19
BOD ₅ (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	0.147	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	13
Total Arsenic	50 / 100	ND	2
Total Cobalt	27	ND	2
Total Copper	86	ND	1
Total Iron	2000 / 4000	ND	12
Total Lead	51	ND	1
Total Manganese	1000 / 2000	46	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	7.10 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.080
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0026
delta-BHC	0.043	ND	0.0025
alpha-Chlordane	0.05	ND	0.0018
gamma-Chlordane	0.05	ND	0.0020
4,4'-DDE	0.01	ND	0.0014
Dieldrin	0.005	ND	0.0021
Endosulfan II	0.049	ND	0.0025
Endosulfan Sulfate	0.2	ND	0.0028
Heptachlor	0.01	ND	0.0024
Methoxychlor	0.4	ND	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.15 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - July 15, 2015
(Effective Total Flow Rate = 4.43 gpm with 0.35 gpm Leachate and 4.08 gpm Groundwater)

Analyses	Discharge Limits	July 15, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.14	--
Dissolved Oxygen (Field)	5.0 minimum	8.8	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.25	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - July 22, 2015
(Effective Total Flow Rate = 4.33 gpm with 0.35 gpm Leachate and 3.98 gpm Groundwater)

Analytes	Discharge Limits	July 22, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.59	--
Dissolved Oxygen (Field)	5.0 minimum	7.1	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	390	19
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	0.156	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	13
Total Arsenic	50 / 100	2.55 J	2
Total Cobalt	27	ND	2
Total Copper	86	ND	1
Total Iron	2000 / 4000	ND	12
Total Lead	51	9.20	1
Total Manganese	1000 / 2000	21.5	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	6.70 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0026
delta-BHC	0.043	ND	0.0025
alpha-Chlordane	0.05	ND	0.0018
gamma-Chlordane	0.05	ND	0.0020
4,4'-DDE	0.01	ND	0.0014
Dieldrin	0.005	ND	0.0021
Endosulfan II	0.049	ND	0.0025
Endosulfan Sulfate	0.2	ND	0.0028
Heptachlor	0.01	ND	0.0024
Methoxychlor	0.4	ND	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.57	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - July 29, 2015
(Effective Total Flow Rate = 4.37 gpm with 0.34 gpm Leachate and 4.03 gpm Groundwater)

Analyses	Discharge Limits	July 29, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.59	--
Dissolved Oxygen (Field)	5.0 minimum	7.0	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	1.3	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - August 5, 2015
(Effective Total Flow Rate = 4.97 gpm with 0.31 gpm Leachate and 4.66 gpm Groundwater)

Analytes	Discharge Limits	August 5, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.64	--
Dissolved Oxygen (Field)	5.0 minimum	7.6	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	421	19
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	0.105	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	120 J	13
Total Arsenic	50 / 100	4.39 J	2
Total Cobalt	27	ND	2
Total Copper	86	1.10 J	1
Total Iron	2000 / 4000	82.8 J	12
Total Lead	51	2.53 J	1
Total Manganese	1000 / 2000	6.90 J	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	9.30 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	2.2	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0026
delta-BHC	0.043	ND	0.0025
alpha-Chlordane	0.05	ND	0.0018
gamma-Chlordane	0.05	ND	0.0020
4,4'-DDE	0.01	ND	0.0014
Dieldrin	0.005	ND	0.0021
Endosulfan II	0.049	ND	0.0025
Endosulfan Sulfate	0.2	ND	0.0028
Heptachlor	0.01	ND	0.0024
Methoxychlor	0.4	ND	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	ND	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	2.5	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - August 12, 2015
(Effective Total Flow Rate = 4.88 gpm with 0.35 gpm Leachate and 4.53 gpm Groundwater)

Analyses	Discharge Limits	August 12, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.85	--
Dissolved Oxygen (Field)	5.0 minimum	5.9	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	4.0	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - August 19, 2015
(Effective Total Flow Rate = 5.13 gpm with 0.33 gpm Leachate and 4.80 gpm Groundwater)

Analytes	Discharge Limits	August 19, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.92	--
Dissolved Oxygen (Field)	5.0 minimum	6.6	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	438	19
BOD ₅ (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	0.143	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	212	13
Total Arsenic	50 / 100	3.20 J	2
Total Cobalt	27	ND	2
Total Copper	86	ND	1
Total Iron	2000 / 4000	68.8 J	12
Total Lead	51	8.80	1
Total Manganese	1000 / 2000	12.5 J	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	3.80 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.080
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0026
delta-BHC	0.043	ND	0.0025
alpha-Chlordane	0.05	ND	0.0018
gamma-Chlordane	0.05	ND	0.0020
4,4'-DDE	0.01	ND	0.0014
Dieldrin	0.005	ND	0.0021
Endosulfan II	0.049	ND	0.0025
Endosulfan Sulfate	0.2	ND	0.0028
Heptachlor	0.01	ND	0.0024
Methoxychlor	0.4	ND	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	6.8	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - August 26, 2015
(Effective Total Flow Rate = 4.97 gpm with 0.36 gpm Leachate and 4.61 gpm Groundwater)

Analytes	Discharge Limits	August 26, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.26	--
Dissolved Oxygen (Field)	5.0 minimum	6.9	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.14 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - September 2, 2015
(Effective Total Flow Rate = 5.15 gpm with 0.35 gpm Leachate and 4.80 gpm Groundwater)

Analytes	Discharge Limits	September 2, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.24	--
Dissolved Oxygen (Field)	5.0 minimum	6.0	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	417	19
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	0.983	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	0.215	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	46.5 J	13
Total Arsenic	50 / 100	4.12 J	2
Total Cobalt	27	ND	2
Total Copper	86	ND	1
Total Iron	2000 / 4000	87.6 J	12
Total Lead	51	8.57	1
Total Manganese	1000 / 2000	26.7	1
Total Selenium	25	2.67 J	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	2.80 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0026
delta-BHC	0.043	ND	0.0025
alpha-Chlordane	0.05	ND	0.0018
gamma-Chlordane	0.05	ND	0.0020
4,4'-DDE	0.01	ND	0.0014
Dieldrin	0.005	ND	0.0021
Endosulfan II	0.049	ND	0.0025
Endosulfan Sulfate	0.2	ND	0.0028
Heptachlor	0.01	ND	0.0024
Methoxychlor	0.4	ND	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	ND	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	ND	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - September 9, 2015
(Effective Total Flow Rate = 5.26 gpm with 0.36 gpm Leachate and 4.90 gpm Groundwater)

Analytes	Discharge Limits	September 9, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.69	--
Dissolved Oxygen (Field)	5.0 minimum	7.0	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD ₅ (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.080
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.03 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - September 16, 2015
(Effective Total Flow Rate = 5.18 gpm with 0.36 gpm Leachate and 4.82 gpm Groundwater)

Analytes	Discharge Limits	September 16, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.96	--
Dissolved Oxygen (Field)	5.0 minimum	6.6	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	430	19
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	ND	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	52.9 J	13
Total Arsenic	50 / 100	4.92 J	2
Total Cobalt	27	ND	2
Total Copper	86	ND	1
Total Iron	2000 / 4000	29.9 J	12
Total Lead	51	ND	1
Total Manganese	1000 / 2000	56.3	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	9.10 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	1.6 B	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.0026
delta-BHC	0.043	ND	0.0025
alpha-Chlordane	0.05	ND	0.0018
gamma-Chlordane	0.05	ND	0.0020
4,4'-DDE	0.01	ND	0.0014
Dieldrin	0.005	ND	0.0021
Endosulfan II	0.049	ND	0.0025
Endosulfan Sulfate	0.2	ND	0.0028
Heptachlor	0.01	ND	0.0024
Methoxychlor	0.4	ND	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.035 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte is also detected in the method blank; Tetrachloroethene was 1.4 micrograms per liter in the method blank
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - September 23, 2015
(Effective Total Flow Rate = 5.43 gpm with 0.37 gpm Leachate and 5.06 gpm Groundwater)

Analytes	Discharge Limits	September 23, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.17	--
Dissolved Oxygen (Field)	5.0 minimum	6.6	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	1.6	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	ND	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - September 30, 2015
(Effective Total Flow Rate = 5.64 gpm with 0.34 gpm Leachate and 5.30 gpm Groundwater)

Analytes	Discharge Limits	September 30, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.63	--
Dissolved Oxygen (Field)	5.0 minimum	7.1	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	454	19
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	0.117	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	ND	13
Total Arsenic	50 / 100	4.34 J	2
Total Cobalt	27	ND	2
Total Copper	86	ND	1
Total Iron	2000 / 4000	17.9 J	12
Total Lead	51	ND	1
Total Manganese	1000 / 2000	141	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	2.90 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	1.5	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00043
delta-BHC	0.043	ND	0.00021
alpha-Chlordane	0.05	ND	0.00023
gamma-Chlordane	0.05	ND	0.00033
4,4'-DDE	0.01	ND	0.00018
Dieldrin	0.005	ND	0.00018
Endosulfan II	0.049	ND	0.00033
Endosulfan Sulfate	0.2	ND	0.00030
Heptachlor	0.01	ND	0.00022
Methoxychlor	0.4	ND	0.00053
Mercury (1631) (micrograms per liter)			
Mercury	0.05	ND	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.022 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - October 7, 2015
(Effective Total Flow Rate = 5.85 gpm with 0.35 gpm Leachate and 5.50 gpm Groundwater)

Analytes	Discharge Limits	October 7, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	7.04	--
Dissolved Oxygen (Field)	5.0 minimum	7.3	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD ₅ (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	1.2	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.080
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.038 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - October 14, 2015
(Effective Total Flow Rate = 5.46 gpm with 0.35 gpm Leachate and 5.11 gpm Groundwater)

Analytes	Discharge Limits	October 14, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.86	--
Dissolved Oxygen (Field)	5.0 minimum	7.5	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	452	19
BOD5 (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	ND	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	56.2 J	13
Total Arsenic	50 / 100	6.20 J	2
Total Cobalt	27	ND	2
Total Copper	86	1.70 J	1
Total Iron	2000 / 4000	47.1 J	12
Total Lead	51	7.60	1
Total Manganese	1000 / 2000	61.8	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	4.00 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00043
delta-BHC	0.043	0.00037 J p	0.00021
alpha-Chlordane	0.05	ND	0.00023
gamma-Chlordane	0.05	ND	0.00033
4,4'-DDE	0.01	ND	0.00018
Dieldrin	0.005	ND	0.00018
Endosulfan II	0.049	ND	0.00033
Endosulfan Sulfate	0.2	ND	0.00030
Heptachlor	0.01	ND	0.00022
Methoxychlor	0.4	ND	0.00053
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.056 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- p = The relative percent difference between the primary and confirmation column/detector is greater than 40% and the lower value has been reported
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - October 21, 2015
(Effective Total Flow Rate = 5.77 gpm with 0.37 gpm Leachate and 5.40 gpm Groundwater)

Analytes	Discharge Limits	October 21, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.74	--
Dissolved Oxygen (Field)	5.0 minimum	7.5	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.00043
delta-BHC	0.043	--	0.00021
alpha-Chlordane	0.05	--	0.00023
gamma-Chlordane	0.05	--	0.00033
4,4'-DDE	0.01	--	0.00018
Dieldrin	0.005	--	0.00018
Endosulfan II	0.049	--	0.00033
Endosulfan Sulfate	0.2	--	0.00030
Heptachlor	0.01	--	0.00022
Methoxychlor	0.4	--	0.00053
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.079 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - October 28, 2015
(Effective Total Flow Rate = 6.43 gpm with 0.36 gpm Leachate and 6.07 gpm Groundwater)

Analytes	Discharge Limits	October 28, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.76	--
Dissolved Oxygen (Field)	5.0 minimum	8.5	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	468	19
BOD ₅ (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	ND	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	22.3 J	13
Total Arsenic	50 / 100	2.54 J	2
Total Cobalt	27	ND	2
Total Copper	86	ND	1
Total Iron	2000 / 4000	22.7 J	12
Total Lead	51	5.27	1
Total Manganese	1000 / 2000	16.3	1
Total Selenium	25	ND	2
Total Silver	22	ND	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	5.30 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.080
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00095
delta-BHC	0.043	ND	0.00036
alpha-Chlordane	0.05	ND	0.00093
gamma-Chlordane	0.05	ND	0.00091
4,4'-DDE	0.01	ND	0.00075
Dieldrin	0.005	ND	0.00078
Endosulfan II	0.049	ND	0.00093
Endosulfan Sulfate	0.2	ND	0.00054
Heptachlor	0.01	ND	0.00094
Methoxychlor	0.4	ND	0.00087
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.093 J	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - November 4, 2015
(Effective Total Flow Rate = 6.30 gpm with 0.36 gpm Leachate and 5.94 gpm Groundwater)

Analyses	Discharge Limits	November 4, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.87	--
Dissolved Oxygen (Field)	5.0 minimum	9.9	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.24	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - November 11, 2015
(Effective Total Flow Rate = 6.37 gpm with 0.35 gpm Leachate and 6.02 gpm Groundwater)

Analytes	Discharge Limits	November 11, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.76	--
Dissolved Oxygen (Field)	5.0 minimum	9.1	--
Total Suspended Solids (SM 2540D)	20	ND	0.54
Total Dissolved Solids (SM 2540C)	2700	447	19
BOD ₅ (SM 5210 B)	30	ND	2
Ammonia (USEPA 350.1)	8.1	ND	0.075
Oil & Grease (USEPA 1664A)	15	ND	0.878
Total Phosphorus (SM 4500-P E)	1	ND	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	14.2 J	13
Total Arsenic	50 / 100	4.79 J	2
Total Cobalt	27	ND	2
Total Copper	86	1.10 J	1
Total Iron	2000 / 4000	45.0 J	12
Total Lead	51	4.01 J	1
Total Manganese	1000 / 2000	9.20 J	1
Total Selenium	25	ND	2
Total Silver	22	1.75 J	1
Total Thallium	43	ND	4
Total Vanadium	76	ND	2
Total Zinc	400	4.70 J	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.080
Sum of 3- & 4-Methylphenol	10	ND	1.85
Penta-chlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	ND	0.017
Aroclor 1242	0.2	ND	0.017
Aroclor 1248	0.2	ND	0.017
Aroclor 1254	0.2	ND	0.017
Aroclor 1260	0.2	ND	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	ND	0.00095
delta-BHC	0.043	ND	0.00036
alpha-Chlordane	0.05	ND	0.00093
gamma-Chlordane	0.05	ND	0.00091
4,4'-DDE	0.01	ND	0.00075
Dieldrin	0.005	ND	0.00078
Endosulfan II	0.049	ND	0.00093
Endosulfan Sulfate	0.2	ND	0.00054
Heptachlor	0.01	ND	0.00094
Methoxychlor	0.4	ND	0.00087
Mercury (1631) (micrograms per liter)			
Mercury	0.05	0.0017 B	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.68	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- B = Denotes analyte is detected in associated method blank or extraction blank.
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - November 18, 2015
(Effective Total Flow Rate = 6.00 gpm with 0.35 gpm Leachate and 5.65 gpm Groundwater)

Analyses	Discharge Limits	November 18, 2015	Detection Limits
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	6.91	--
Dissolved Oxygen (Field)	5.0 minimum	9.7	--
Total Suspended Solids (SM 2540D)	20	--	0.54
Total Dissolved Solids (SM 2540C)	2700	--	19
BOD5 (SM 5210 B)	30	--	2
Ammonia (USEPA 350.1)	8.1	--	0.075
Oil & Grease (USEPA 1664A)	15	--	0.878
Total Phosphorus (SM 4500-P E)	1	--	0.019
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	13
Total Arsenic	50 / 100	--	2
Total Cobalt	27	--	2
Total Copper	86	--	1
Total Iron	2000 / 4000	--	12
Total Lead	51	--	1
Total Manganese	1000 / 2000	--	1
Total Selenium	25	--	2
Total Silver	22	--	1
Total Thallium	43	--	4
Total Vanadium	76	--	2
Total Zinc	400	--	1
VOCs (624) (micrograms per liter)			
Acetone	280	ND	0.356
Benzene	5	ND	0.074
2-Butanone	280	ND	0.770
Chlorobenzene	10	ND	0.034
Chloroethane	10	ND	0.196
Chloroform	50	ND	0.111
Chloromethane	10	ND	0.181
Sum of o, m, & p-Dichlorobenzene	27	ND	0.356
1,1-Dichloroethane	10	ND	0.070
1,2-Dichloroethane	10	ND	0.087
1,1-Dichloroethene	10	ND	0.155
cis-1,2-Dichloroethene	10	ND	0.149
trans-1,2-Dichloroethene	10	ND	0.075
Ethylbenzene	5	ND	0.132
Isopropylbenzene	14	ND	0.081
Methylene Chloride	10	ND	0.164
4-Methyl-2-pentanone	140	ND	0.164
1,1,2,2-Tetrachloroethane	50	ND	0.120
Tetrachloroethene	5.4 / 10	ND	0.384
Toluene	5	ND	0.077
1,2,3-Trichlorobenzene	10	ND	0.319
1,2,4-Trichlorobenzene	10	ND	0.319
1,1,1-Trichloroethane	10	ND	0.060
1,1,2-Trichloroethane	10	ND	0.164
Trichloroethylene	10	ND	0.080
Trichlorofluoromethane	10	ND	0.141
Vinyl Chloride	10	ND	0.119
Sum of o, m, & p-Xylene	15	ND	0.216
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	ND	0.856
2-Chlorophenol	--	ND	0.600
2,4-Dimethylphenol	10	ND	1.14
2-Methylphenol	10	ND	0.089
Sum of 3- & 4-Methylphenol	10	ND	1.85
Pentachlorophenol	--	ND	0.958
Phenol	10	ND	0.237
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	0.017
Aroclor 1242	0.2	--	0.017
Aroclor 1248	0.2	--	0.017
Aroclor 1254	0.2	--	0.017
Aroclor 1260	0.2	--	0.017
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	0.0026
delta-BHC	0.043	--	0.0025
alpha-Chlordane	0.05	--	0.0018
gamma-Chlordane	0.05	--	0.0020
4,4'-DDE	0.01	--	0.0014
Dieldrin	0.005	--	0.0021
Endosulfan II	0.049	--	0.0025
Endosulfan Sulfate	0.2	--	0.0028
Heptachlor	0.01	--	0.0024
Methoxychlor	0.4	--	0.0036
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	0.00023
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	1.3	0.02

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- gpm = Gallons per minute
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Detections Limits from Laboratory Analytical Reports plus Worksheet 15-1 and Laboratory Standard Operating Procedures in Appendix C of the Quality Assurance Project Plan

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 1 Process Monitoring

Analytes	Discharge Limits	Eff to Tank 1 (121913)
Water Quality (milligrams per liter)		
pH (Field)	6.5 to 8.5	--
Dissolved Oxygen (Field)	5.0 minimum	--
Total Suspended Solids (SM 2540D)	20	--
Total Dissolved Solids (SM 2540C)	2700	--
BOD5 (SM 5210 B)	30	--
Chemical Oxygen Demand (USEPA 410.1)	--	--
Ammonia (USEPA 350.1)	8.1	--
Oil & Grease (USEPA 1664A)	15	--
Total Phosphorus (SM 4500-P E)	1	--
Metals (200.7) (micrograms per liter)		
Total Aluminum	2000 / 4000	--
Total Arsenic	50 / 100	--
Total Cobalt	27	--
Total Copper	86	--
Total Iron	2000 / 4000	--
Total Lead	51	--
Total Manganese	1000 / 2000	--
Total Selenium	25	--
Total Silver	22	--
Total Thallium	43	--
Total Vanadium	76	--
Total Zinc	400	--
VOCs (624) (micrograms per liter)		
Acetone	280	<5
Benzene	5	<1
2-Butanone	280	<1
Chlorobenzene	10	<1
Chloroethane	10	<1
Chloroform	50	<1
Chloromethane	10	<1
Sum of o, m, & p-Dichlorobenzene	27	<1
1,1-Dichloroethane	10	<1
1,2-Dichloroethane	10	<1
1,1-Dichloroethene	10	<1
cis-1,2-Dichloroethene	10	<1
trans-1,2-Dichloroethene	10	<1
Ethylbenzene	5	<1
Isopropylbenzene	14	<1
Methylene Chloride	10	<1
4-Methyl-2-pentanone	140	<1
1,1,2,2-Tetrachloroethane	50	<1
Tetrachloroethene	5.4 / 10	<1
Toluene	5	<1
1,2,4-Trichlorobenzene	10	<1
1,1,1-Trichloroethane	10	<1
1,1,2-Trichloroethane	10	<1
Trichloroethylene	10	<1
Trichlorofluoromethane	10	<1
Vinyl Chloride	10	<1
Sum of o, m, & p-Xylene	15	<1
SVOCs (625) (micrograms per liter)		
Bis(2-Ethylhexyl)phthalate	5	--
2-Chlorophenol	--	--
2,4-Dimethylphenol	10	--
2-Methylphenol	10	--
Sum of 3- & 4-Methylphenol	10	--
Pentachlorophenol	--	--
Phenol	10	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--
PCBs (608) (micrograms per liter)		
Aroclor 1221	0.2	--
Aroclor 1242	0.2	--
Aroclor 1248	0.2	--
Aroclor 1254	0.2	--
Aroclor 1260	0.2	--
Pesticides (608) (micrograms per liter)		
beta-BHC	0.038	--
delta-BHC	0.043	--
alpha-Chlordane	0.05	--
gamma-Chlordane	0.05	--
4-4'-DDE	0.01	--
Dieldrin	0.005	--
Endosulfan II	0.049	--
Endosulfan Sulfate	0.2	--
Heptachlor	0.01	--
Methoxychlor	0.4	--
Mercury (1631) (micrograms per liter)		
Mercury	0.05	--
1,4-Dioxane (8270D) (micrograms per liter)		
1,4-Dioxane	--	--

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- < = Not detected at or above the detection limit; value shown is the reporting limit (which is above the detection limit)
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Frac Tank 2 Process Monitoring

Analytes	Discharge Limits	Eff to Frac 2 (122313)
Water Quality (milligrams per liter)		
pH (Field)	6.5 to 8.5	--
Dissolved Oxygen (Field)	5.0 minimum	--
Total Suspended Solids (SM 2540D)	20	--
Total Dissolved Solids (SM 2540C)	2700	--
BOD5 (SM 5210 B)	30	--
Chemical Oxygen Demand (USEPA 410.1)	--	--
Ammonia (USEPA 350.1)	8.1	--
Oil & Grease (USEPA 1664A)	15	--
Total Phosphorus (SM 4500-P E)	1	--
Metals (200.7) (micrograms per liter)		
Total Aluminum	2000 / 4000	--
Total Arsenic	50 / 100	--
Total Cobalt	27	--
Total Copper	86	--
Total Iron	2000 / 4000	--
Total Lead	51	--
Total Manganese	1000 / 2000	--
Total Selenium	25	--
Total Silver	22	--
Total Thallium	43	--
Total Vanadium	76	--
Total Zinc	400	--
VOCs (624) (micrograms per liter)		
Acetone	280	<5
Benzene	5	<1
2-Butanone	280	<1
Chlorobenzene	10	<1
Chloroethane	10	<1
Chloroform	50	<1
Chloromethane	10	<1
Sum of o, m, & p-Dichlorobenzene	27	<1
1,1-Dichloroethane	10	<1
1,2-Dichloroethane	10	<1
1,1,1-Trichloroethane	10	<1
cis-1,2-Dichloroethene	10	<1
trans-1,2-Dichloroethene	10	<1
Ethylbenzene	5	<1
Isopropylbenzene	14	<1
Methylene Chloride	10	<1
4-Methyl-2-pentanone	140	<1
1,1,1,2,2-Tetrachloroethane	50	<1
Tetrachloroethene	5.4 / 10	<1
Toluene	5	<1
1,2,4-Trichlorobenzene	10	<1
1,1,1-Trichloroethane	10	<1
1,1,2-Trichloroethane	10	<1
Trichloroethylene	10	0.91 J
Trichlorofluoromethane	10	<1
Vinyl Chloride	10	<1
Sum of o, m, & p-Xylene	15	<1
SVOCs (625) (micrograms per liter)		
Bis(2-Ethylhexyl)phthalate	5	--
2-Chlorophenol	--	--
2,4-Dimethylphenol	10	--
2-Methylphenol	10	--
Sum of 3- & 4-Methylphenol	10	--
Pentachlorophenol	--	--
Phenol	10	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--
PCBs (608) (micrograms per liter)		
Aroclor 1221	0.2	--
Aroclor 1242	0.2	--
Aroclor 1248	0.2	--
Aroclor 1254	0.2	--
Aroclor 1260	0.2	--
Pesticides (608) (micrograms per liter)		
beta-BHC	0.038	--
delta-BHC	0.043	--
alpha-Chlordane	0.05	--
gamma-Chlordane	0.05	--
4-4'-DDE	0.01	--
Dieldrin	0.005	--
Endosulfan II	0.049	--
Endosulfan Sulfate	0.2	--
Heptachlor	0.01	--
Methoxychlor	0.4	--
Mercury (1631) (micrograms per liter)		
Mercury	0.05	--
1,4-Dioxane (8270D) (micrograms per liter)		
1,4-Dioxane	--	<0.2

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- < = Not detected at or above the detection limit; value shown is the reporting limit (which is above the detection limit)
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Frac Tank 3 Process Monitoring

Analytes	Discharge Limits	Eff to Frac 3 (010214)	Air Stripper Disc (010214)	BioClarifier Disc (010214)	Influent (010214)
Water Quality (milligrams per liter)					
pH (Field)	6.5 to 8.5	8.27	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	5.4	--	--	--
Total Suspended Solids (SM 2540D)	20	<1	--	--	--
Total Dissolved Solids (SM 2540C)	2700	372	--	--	--
BOD5 (SM 5210 B)	30	<2	--	--	--
Chemical Oxygen Demand (USEPA 410.1)	--	<25	--	--	--
Ammonia (USEPA 350.1)	8.1	1.7	--	--	--
Oil & Grease (USEPA 1664A)	15	0.612	--	--	--
Total Phosphorus (SM 4500-P E)	1	0.31	--	--	--
Metals (200.7) (micrograms per liter)					
Total Aluminum	2000 / 4000	18.1 J	--	--	--
Total Arsenic	50 / 100	4.36 JB	--	--	--
Total Cobalt	27	<5	--	--	--
Total Copper	86	1.76 J	--	--	--
Total Iron	2000 / 4000	273	--	--	--
Total Lead	51	<5	--	--	--
Total Manganese	1000 / 2000	83.7	--	--	--
Total Selenium	25	<10	--	--	--
Total Silver	22	<7	--	--	--
Total Thallium	43	<10	--	--	--
Total Vanadium	76	<5	--	--	--
Total Zinc	400	6.85 B	--	--	--
VOCs (Full 624 List) (micrograms per liter)					
Acetone	280	1.23 J	28.6	32.5	81.4
Benzene	5	<1	3.54	219	781
2-Butanone	280	<1	9.92	9.3	29.6
Chlorobenzene	10	<1	2.32	128	262
Chloroethane	10	<1	<1	<1	1.4
Chloroform	50	<1	<1	38	62.5
Chloromethane	10	<1	<1	<1	<1
Sum of o, m, & p-Dichlorobenzene	27	<1	<1	7.959 J	12.89
1,1-Dichloroethane	10	<1	<1	10.4	16.1
1,2-Dichloroethane	10	<1	<1	34.3	54.7
1,1-Dichloroethene	10	<1	<1	2.77	6.21
cis-1,2-Dichloroethene	10	<1	1.23	171	307
trans-1,2-Dichloroethene	10	<1	<1	0.997 J	2
Ethylbenzene	5	<1	<1	12.5	32.8
Isopropylbenzene	14	<1	<1	<1	0.883 J
Methylene Chloride	10	<1	<1	114	182
4-Methyl-2-pentanone	140	<1	1.83	3.78	10.1
1,1,2,2-Tetrachloroethane	50	<1	<1	<1	<1
Tetrachloroethene	5.4 / 10	<1	<1	8.99	13
Toluene	5	<1	5.42	348	863
1,2,4-Trichlorobenzene	10	<1	<1	33.3	47.5
1,1,1-Trichloroethane	10	<1	<1	7.58	12.2
1,1,2-Trichloroethane	10	<1	<1	<1	<1
Trichloroethylene	10	<1	1.63	1120	1560
Trichlorofluoromethane	10	<1	<1	<1	<1
Vinyl Chloride	10	<1	<1	24.9	41.6
Sum of o, m, & p-Xylene	15	<1	<1	46.1	131
SVOCs (625) (micrograms per liter)					
Bis(2-Ethylhexyl)phthalate	5	<4.67	--	<4.67	<4.67
2-Chlorophenol	--	<9.35	--	<9.43	<9.26
2,4-Dimethylphenol	10	<9.35	--	<9.43	<9.26
2-Methylphenol	10	<9.35	--	16	20.9
Sum of 3- & 4-Methylphenol	10	<9.35	--	<9.43	51.4
Pentachlorophenol	--	<9.35	--	<9.43	<9.26
Phenol	10	<9.35	--	<9.43	15.3
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--
PCBs (608) (micrograms per liter)					
Aroclor 1221	0.2	<0.065	--	--	--
Aroclor 1242	0.2	<0.065	--	--	--
Aroclor 1248	0.2	<0.065	--	--	--
Aroclor 1254	0.2	<0.065	--	--	--
Aroclor 1260	0.2	<0.065	--	--	--
Pesticides (608) (micrograms per liter)					
beta-BHC	0.038	<0.005	--	--	--
delta-BHC	0.043	<0.005	--	--	--
alpha-Chlordane	0.05	<0.005	--	--	--
gamma-Chlordane	0.05	<0.005	--	--	--
4,4'-DDE	0.01	<0.005	--	--	--
Dieldrin	0.005	<0.005	--	--	--
Endosulfan II	0.049	<0.005	--	--	--
Endosulfan Sulfate	0.2	<0.005	--	--	--
Heptachlor	0.01	<0.005	--	--	--
Methoxychlor	0.4	<0.005	--	--	--
Mercury (1631) (micrograms per liter)					
Mercury	0.05	0.0009 J	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)					
1,4-Dioxane	--	<0.2	--	--	--

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- < = Not detected at or above the detection limit; value shown is the reporting limit (which is above the detection limit)
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Acetone was also detected in the trip blank at 1.42 micrograms per liter

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 4 Process Monitoring

Analytes	Discharge Limits	Tank 4 Inlet (011614)	Air Stripper Disc (011614)	Bio/Clarifier Disc (011614)	Influent (011614)
Water Quality (milligrams per liter)					
pH (Field)	6.5 to 8.5	--	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--
Chemical Oxygen Demand (USEPA 410.1)	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	0.86	0.86
Oil & Grease (USEPA 1664A)	15	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	0.051	0.046
Metals (200.7) (micrograms per liter)					
Total Aluminum	2000 / 4000	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--
Total Cobalt	27	--	--	--	--
Total Copper	86	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--
Total Lead	51	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--
Total Selenium	25	--	--	--	--
Total Silver	22	--	--	--	--
Total Thallium	43	--	--	--	--
Total Vanadium	76	--	--	--	--
Total Zinc	400	--	--	--	--
VOCs (Full 624 List) (micrograms per liter)					
Acetone	280	ND	--	--	--
Benzene	5	ND	--	--	--
2-Butanone	280	10.2	--	--	--
Chlorobenzene	10	ND	--	--	--
Chloroethane	10	ND	--	--	--
Chloroform	50	ND	--	--	--
Chloromethane	10	ND	--	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--	--
1,1-Dichloroethane	10	ND	--	--	--
1,2-Dichloroethane	10	ND	--	--	--
1,1-Dichloroethene	10	ND	--	--	--
cis-1,2-Dichloroethene	10	ND	--	--	--
trans-1,2-Dichloroethene	10	ND	--	--	--
Ethylbenzene	5	ND	--	--	--
Isopropylbenzene	14	ND	--	--	--
Methylene Chloride	10	ND	--	--	--
4-Methyl-2-pentanone	140	ND	--	--	--
1,1,2,2-Tetrachloroethane	50	ND	--	--	--
Tetrachloroethene	5.4 / 10	ND	--	--	--
Toluene	5	ND	--	--	--
1,2,3-Trichlorobenzene	--	ND	--	--	--
1,2,4-Trichlorobenzene	10	ND	--	--	--
1,1,1-Trichloroethane	10	ND	--	--	--
1,1,2-Trichloroethane	10	ND	--	--	--
Trichloroethylene	10	ND	--	--	--
Trichlorofluoromethane	10	ND	--	--	--
Vinyl Chloride	10	ND	--	--	--
Sum of o, m, & p-Xylene	15	ND	--	--	--
SVOCs (625) (micrograms per liter)					
Bis(2-Ethylhexyl)phthalate	5	--	--	--	--
2-Chlorophenol	--	--	--	--	--
2,4-Dimethylphenol	10	--	--	--	--
2-Methylphenol	10	--	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--	--
Pentachlorophenol	--	--	--	--	--
Phenol	10	--	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--
PCBs (608) (micrograms per liter)					
Aroclor 1221	0.2	--	--	--	--
Aroclor 1242	0.2	--	--	--	--
Aroclor 1248	0.2	--	--	--	--
Aroclor 1254	0.2	--	--	--	--
Aroclor 1260	0.2	--	--	--	--
Pesticides (608) (micrograms per liter)					
beta-BHC	0.038	--	--	--	--
delta-BHC	0.043	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--
4,4'-DDE	0.01	--	--	--	--
Dieldrin	0.005	--	--	--	--
Endosulfan II	0.049	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--
Heptachlor	0.01	--	--	--	--
Methoxychlor	0.4	--	--	--	--
Mercury (1631) (micrograms per liter)					
Mercury	0.05	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)					
1,4-Dioxane	--	ND	260	250	310

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 5 Process Monitoring**

Analytes	Discharge Limits	Tank 5 Inlet (012814)	Air Stripper Disc (012814)	Bio/Clarifier Disc (012814)	Influent (012814)
Water Quality (milligrams per liter)					
pH (Field)	6.5 to 8.5	--	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--
Chemical Oxygen Demand (USEPA 410.1)	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	1.9	1.7
Oil & Grease (USEPA 1664A)	15	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	0.18	0.21
Metals (200.7) (micrograms per liter)					
Total Aluminum	2000 / 4000	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--
Total Cobalt	27	--	--	--	--
Total Copper	86	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--
Total Lead	51	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--
Total Selenium	25	--	--	--	--
Total Silver	22	--	--	--	--
Total Thallium	43	--	--	--	--
Total Vanadium	76	--	--	--	--
Total Zinc	400	--	--	--	--
VOCs (624) (micrograms per liter)					
Acetone	280	ND	--	--	--
Benzene	5	ND	--	--	--
2-Butanone	280	ND	--	--	--
Chlorobenzene	10	ND	--	--	--
Chloroethane	10	ND	--	--	--
Chloroform	50	ND	--	--	--
Chloromethane	10	ND	--	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--	--
1,1-Dichloroethane	10	ND	--	--	--
1,2-Dichloroethane	10	ND	--	--	--
1,1-Dichloroethene	10	ND	--	--	--
cis-1,2-Dichloroethene	10	ND	--	--	--
trans-1,2-Dichloroethene	10	ND	--	--	--
Ethylbenzene	5	ND	--	--	--
Isopropylbenzene	14	ND	--	--	--
Methylene Chloride	10	ND	--	--	--
4-Methyl-2-pentanone	140	ND	--	--	--
1,1,2,2-Tetrachloroethane	50	ND	--	--	--
Tetrachloroethene	5.4 / 10	ND	--	--	--
Toluene	5	ND	--	--	--
1,2,3-Trichlorobenzene	10	ND	--	--	--
1,2,4-Trichlorobenzene	10	ND	--	--	--
1,1,1-Trichloroethane	10	ND	--	--	--
1,1,2-Trichloroethane	10	ND	--	--	--
Trichloroethylene	10	0.531 J	--	--	--
Trichlorofluoromethane	10	ND	--	--	--
Vinyl Chloride	10	ND	--	--	--
Sum of o, m, & p-Xylene	15	ND	--	--	--
SVOCs (625) (micrograms per liter)					
Bis(2-Ethylhexyl)phthalate	10	--	--	--	--
2-Chlorophenol	--	--	--	--	--
2,4-Dimethylphenol	10	--	--	--	--
2-Methylphenol	10	--	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--	--
Pentachlorophenol	--	--	--	--	--
Phenol	10	--	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--
PCBs (608) (micrograms per liter)					
Aroclor 1221	0.2	--	--	--	--
Aroclor 1242	0.2	--	--	--	--
Aroclor 1248	0.2	--	--	--	--
Aroclor 1254	0.2	--	--	--	--
Aroclor 1260	0.2	--	--	--	--
Pesticides (608) (micrograms per liter)					
beta-BHC	0.038	--	--	--	--
delta-BHC	0.043	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--
4,4'-DDE	0.01	--	--	--	--
Dieldrin	0.005	--	--	--	--
Endosulfan II	0.049	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--
Heptachlor	0.01	--	--	--	--
Methoxychlor	0.4	--	--	--	--
Mercury (1631) (micrograms per liter)					
Mercury	0.05	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)					
1,4-Dioxane	--	0.054 J	170	180	210

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
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- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- < = Not detected at or above the detection limit; value shown is the reporting limit (which is above the detection limit)
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 5 Additional Process Monitoring

Analytes	Discharge Limits	LPGAC Disc (012914)	Between LPGAC (012914)	Air Stripper Disc (012914)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD ₅ (SM 5210 B)	30	--	--	--
Total Organic Carbon (SM 5310B)	--	1.74	--	7.51
Chemical Oxygen Demand (USEPA 410.1)	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	141	--	220
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	57.4	--	30.7
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	ND	--	6.2
Benzene	5	ND	--	ND
2-Butanone	280	ND	--	1.35
Chlorobenzene	10	ND	--	ND
Chloroethane	10	ND	--	ND
Chloroform	50	ND	--	ND
Chloromethane	10	ND	--	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	--	ND
1,1-Dichloroethane	10	ND	--	ND
1,2-Dichloroethane	10	ND	--	ND
1,1-Dichloroethene	10	ND	--	ND
cis-1,2-Dichloroethene	10	ND	--	ND
trans-1,2-Dichloroethene	10	ND	--	ND
Ethylbenzene	5	ND	--	ND
Isopropylbenzene	14	ND	--	ND
Methylene Chloride	10	ND	--	ND
4-Methyl-2-pentanone	140	ND	--	0.523 J
1,1,2,2-Tetrachloroethane	50	ND	--	ND
Tetrachloroethene	5.4 / 10	ND	--	ND
Toluene	5	ND	--	ND
1,2,3-Trichlorobenzene	10	ND	--	ND
1,2,4-Trichlorobenzene	10	ND	--	ND
1,1,1-Trichloroethane	10	ND	--	ND
1,1,2-Trichloroethane	10	ND	--	ND
Trichloroethylene	10	ND	--	0.747 J
Trichlorofluoromethane	10	ND	--	ND
Vinyl Chloride	10	ND	--	ND
Sum of o, m, & p-Xylene	15	ND	--	ND
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.056 J	6.3	220

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD₅ = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 6 Process Monitoring

Analytes	Discharge Limits	Tank 6 Inlet (020514)	Air Stripper Disc (020514)	BioClarifier Disc (020514)	Influent (020514)
Water Quality (milligrams per liter)					
pH (Field)	6.5 to 8.5	7.59	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	6.5	--	--	--
Total Suspended Solids (SM 2540D)	20	ND	--	--	--
Total Dissolved Solids (SM 2540C)	2700	319	--	--	--
BOD5 (SM 5210 B)	30	ND	--	--	--
Chemical Oxygen Demand (USEPA 410.1)	--	25.5	--	29.9	29.9
Ammonia (USEPA 350.1)	8.1	1.1	--	1.3	1.1
Oil & Grease (USEPA 1664A)	15	ND	--	--	--
Total Phosphorus (SM 4500-P E)	1	0.230	--	0.247	0.280
Metals (200.7) (micrograms per liter)					
Total Aluminum	2000 / 4000	ND	--	--	--
Total Arsenic	50 / 100	4.37 J	--	--	--
Total Cobalt	27	ND	--	--	--
Total Copper	86	1.29 J	--	--	--
Total Iron	2000 / 4000	29.9 J	--	--	--
Total Lead	51	ND	--	--	--
Total Manganese	1000 / 2000	36.6	--	--	--
Total Selenium	25	ND	--	--	--
Total Silver	22	ND	--	--	--
Total Thallium	43	ND	--	--	--
Total Vanadium	76	ND	--	--	--
Total Zinc	400	3.85 JB	--	--	--
VOCs (624) (micrograms per liter)					
Acetone	280	ND	23.9	ND	ND
Benzene	5	ND	ND	184	747
2-Butanone	280	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	75.6	231
Chloroethane	10	ND	ND	ND	ND
Chloroform	50	ND	ND	47.1	66.0
Chloromethane	10	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	ND
1,1-Dichloroethane	10	ND	ND	11.4 J	ND
1,2-Dichloroethane	10	ND	ND	45.5	71.5
1,1-Dichloroethene	10	ND	ND	ND	ND
cis-1,2-Dichloroethene	10	ND	ND	187	366
trans-1,2-Dichloroethene	10	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	10.3 J	34.2 J
Isopropylbenzene	14	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	282	438
4-Methyl-2-pentanone	140	ND	0.563 J	ND	ND
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	12.6 J	ND
Toluene	5	ND	ND	314	1060
1,2,3-Trichlorobenzene	10	ND	ND	15.6 JB	ND
1,2,4-Trichlorobenzene	10	ND	ND	43.5	66.0
1,1,1-Trichloroethane	10	ND	ND	ND	ND
1,1,2-Trichloroethane	10	ND	ND	ND	ND
Trichloroethylene	10	0.508 J	ND	1320	2270
Trichlorofluoromethane	10	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	22.3	47.9 J
Sum of o, m, & p-Xylene	15	ND	ND	10.9 J	42.2 J
SVOCs (625) (micrograms per liter)					
Bis(2-Ethylhexyl)phthalate	10	ND	--	ND	ND
2-Chlorophenol	--	ND	--	ND	ND
2,4-Dimethylphenol	10	ND	--	ND	ND
2-Methylphenol	10	ND	--	7.99 J	15.0
Sum of 3- & 4-Methylphenol	10	ND	--	11.9	72.8
Pentachlorophenol	--	ND	--	ND	ND
Phenol	10	ND	--	3.05 J	18.2
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--
PCBs (608) (micrograms per liter)					
Aroclor 1221	0.2	ND	--	--	--
Aroclor 1242	0.2	ND	--	--	--
Aroclor 1248	0.2	ND	--	--	--
Aroclor 1254	0.2	ND	--	--	--
Aroclor 1260	0.2	ND	--	--	--
Pesticides (608) (micrograms per liter)					
beta-BHC	0.038	ND	--	--	--
delta-BHC	0.043	ND	--	--	--
alpha-Chlordane	0.05	ND	--	--	--
gamma-Chlordane	0.05	ND	--	--	--
4,4'-DDE	0.01	ND	--	--	--
Dieldrin	0.005	ND	--	--	--
Endosulfan II	0.049	ND	--	--	--
Endosulfan Sulfate	0.2	ND	--	--	--
Heptachlor	0.01	ND	--	--	--
Methoxychlor	0.4	ND	--	--	--
Mercury (1631) (micrograms per liter)					
Mercury	0.05	0.0077	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)					
1,4-Dioxane	--	0.045 J	110	120	130

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 7 Process Monitoring

Analytes	Discharge Limits	Tank 7 Inlet (021114)	LPGAC Disc (021114)	Between LPGAC (021114)	Air Stripper Disc (021114)
Water Quality (milligrams per liter)					
pH (Field)	6.5 to 8.5	--	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	0.45
Oil & Grease (USEPA 1664A)	15	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.144
Metals (200.7) (micrograms per liter)					
Total Aluminum	2000 / 4000	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--
Total Cobalt	27	--	--	--	--
Total Copper	86	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--
Total Lead	51	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--
Total Selenium	25	--	--	--	--
Total Silver	22	--	--	--	--
Total Thallium	43	--	--	--	--
Total Vanadium	76	--	--	--	--
Total Zinc	400	--	--	--	--
VOCs (624) (micrograms per liter)					
Acetone	280	ND	--	--	--
Benzene	5	ND	--	--	--
2-Butanone	280	ND	--	--	--
Chlorobenzene	10	ND	--	--	--
Chloroethane	10	ND	--	--	--
Chloroform	50	ND	--	--	--
Chloromethane	10	ND	--	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--	--
1,1-Dichloroethane	10	ND	--	--	--
1,2-Dichloroethane	10	ND	--	--	--
1,1-Dichloroethene	10	ND	--	--	--
cis-1,2-Dichloroethene	10	ND	--	--	--
trans-1,2-Dichloroethene	10	ND	--	--	--
Ethylbenzene	5	ND	--	--	--
Isopropylbenzene	14	ND	--	--	--
Methylene Chloride	10	ND	--	--	--
4-Methyl-2-pentanone	140	ND	--	--	--
1,1,2,2-Tetrachloroethane	50	ND	--	--	--
Tetrachloroethene	5.4 / 10	ND	--	--	--
Toluene	5	ND	--	--	--
1,2,3-Trichlorobenzene	10	ND	--	--	--
1,2,4-Trichlorobenzene	10	ND	--	--	--
1,1,1-Trichloroethane	10	ND	--	--	--
1,1,2-Trichloroethane	10	ND	--	--	--
Trichloroethylene	10	ND	--	--	--
Trichlorofluoromethane	10	ND	--	--	--
Vinyl Chloride	10	ND	--	--	--
Sum of o, m, & p-Xylene	15	ND	--	--	--
SVOCs (625) (micrograms per liter)					
Bis(2-Ethylhexyl)phthalate	10	--	--	--	--
2-Chlorophenol	--	--	--	--	--
2,4-Dimethylphenol	10	--	--	--	--
2-Methylphenol	10	--	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--	--
Pentachlorophenol	--	--	--	--	--
Phenol	10	--	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--
PCBs (608) (micrograms per liter)					
Aroclor 1221	0.2	--	--	--	--
Aroclor 1242	0.2	--	--	--	--
Aroclor 1248	0.2	--	--	--	--
Aroclor 1254	0.2	--	--	--	--
Aroclor 1260	0.2	--	--	--	--
Pesticides (608) (micrograms per liter)					
beta-BHC	0.038	--	--	--	--
delta-BHC	0.043	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--
4,4'-DDE	0.01	--	--	--	--
Dieldrin	0.005	--	--	--	--
Endosulfan II	0.049	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--
Heptachlor	0.01	--	--	--	--
Methoxychlor	0.4	--	--	--	--
Mercury (1631) (micrograms per liter)					
Mercury	0.05	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)					
1,4-Dioxane	--	--	ND	5.4	130

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 8 Process Monitoring

Analytes	Discharge Limits	Tank 8 Inlet (021814)	LPGAC Disc (021814)	Between LPGAC (021814)	Air Stripper Disc (021814)
Water Quality (milligrams per liter)					
pH (Field)	6.5 to 8.5	--	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	1.26
Oil & Grease (USEPA 1664A)	15	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.183
Metals (200.7) (micrograms per liter)					
Total Aluminum	2000 / 4000	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--
Total Cobalt	27	--	--	--	--
Total Copper	86	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--
Total Lead	51	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--
Total Selenium	25	--	--	--	--
Total Silver	22	--	--	--	--
Total Thallium	43	--	--	--	--
Total Vanadium	76	--	--	--	--
Total Zinc	400	--	--	--	--
VOCs (624) (micrograms per liter)					
Acetone	280	ND	--	--	--
Benzene	5	ND	--	--	--
2-Butanone	280	7.65	--	--	--
Chlorobenzene	10	ND	--	--	--
Chloroethane	10	ND	--	--	--
Chloroform	50	ND	--	--	--
Chloromethane	10	ND	--	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--	--
1,1-Dichloroethane	10	ND	--	--	--
1,2-Dichloroethane	10	ND	--	--	--
1,1-Dichloroethene	10	ND	--	--	--
cis-1,2-Dichloroethene	10	ND	--	--	--
trans-1,2-Dichloroethene	10	ND	--	--	--
Ethylbenzene	5	ND	--	--	--
Isopropylbenzene	14	ND	--	--	--
Methylene Chloride	10	ND	--	--	--
4-Methyl-2-pentanone	140	ND	--	--	--
1,1,2,2-Tetrachloroethane	50	ND	--	--	--
Tetrachloroethene	5.4 / 10	ND	--	--	--
Toluene	5	ND	--	--	--
1,2,3-Trichlorobenzene	10	ND	--	--	--
1,2,4-Trichlorobenzene	10	ND	--	--	--
1,1,1-Trichloroethane	10	ND	--	--	--
1,1,2-Trichloroethane	10	ND	--	--	--
Trichloroethylene	10	ND	--	--	--
Trichlorofluoromethane	10	ND	--	--	--
Vinyl Chloride	10	ND	--	--	--
Sum of o, m, & p-Xylene	15	ND	--	--	--
SVOCs (625) (micrograms per liter)					
Bis(2-Ethylhexyl)phthalate	10	--	--	--	--
2-Chlorophenol	--	--	--	--	--
2,4-Dimethylphenol	10	--	--	--	--
2-Methylphenol	10	--	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--	--
Pentachlorophenol	--	--	--	--	--
Phenol	10	--	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--
PCBs (608) (micrograms per liter)					
Aroclor 1221	0.2	--	--	--	--
Aroclor 1242	0.2	--	--	--	--
Aroclor 1248	0.2	--	--	--	--
Aroclor 1254	0.2	--	--	--	--
Aroclor 1260	0.2	--	--	--	--
Pesticides (608) (micrograms per liter)					
beta-BHC	0.038	--	--	--	--
delta-BHC	0.043	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--
4-4'-DDE	0.01	--	--	--	--
Dieldrin	0.005	--	--	--	--
Endosulfan II	0.049	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--
Heptachlor	0.01	--	--	--	--
Methoxychlor	0.4	--	--	--	--
Mercury (1631) (micrograms per liter)					
Mercury	0.05	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)					
1,4-Dioxane	--	--	ND	7.7	200

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 9 Process Monitoring

Analytes	Discharge Limits	Tank 9 Inlet (022514)	Between LPGAC (022514)	Air Stripper Disc (022514)	Bio/Clarifier Disc (022514)	Influent (022514)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.59	--	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	6.5	--	--	--	--
Total Suspended Solids (SM 2540D)	20	ND	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	335	--	--	--	--
BOD5 (SM 5210 B)	30	5	--	--	--	--
Ammonia (USEPA 350.1)	8.1	2.19	--	--	--	--
Oil & Grease (USEPA 1664A)	15	ND	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	0.237	--	--	--	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	ND	--	--	--	--
Total Arsenic	50 / 100	4.46 JB	--	--	--	--
Total Cobalt	27	ND	--	--	--	--
Total Copper	86	0.824 J	--	--	--	--
Total Iron	2000 / 4000	82.6 B	--	--	--	--
Total Lead	51	ND	--	--	--	--
Total Manganese	1000 / 2000	42.3 B	--	--	--	--
Total Selenium	25	ND	--	--	--	--
Total Silver	22	ND	--	--	--	--
Total Thallium	43	ND	--	--	--	--
Total Vanadium	76	ND	--	--	--	--
Total Zinc	400	6.01 B	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	--	ND	6.82 B	ND
Benzene	5	ND	--	ND	70.5	481
2-Butanone	280	ND	--	ND	ND	ND
Chlorobenzene	10	ND	--	ND	28.0	148
Chloroethane	10	ND	--	ND	0.684 J	ND
Chloroform	50	ND	--	ND	30.9	37.5
Chloromethane	10	ND	--	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	--	ND	4.52	ND
1,1-Dichloroethane	10	ND	--	ND	6.49	ND
1,2-Dichloroethane	10	ND	--	ND	36.5	33.1
1,1-Dichloroethene	10	ND	--	ND	1.08	ND
cis-1,2-Dichloroethene	10	ND	--	ND	89.7	191
trans-1,2-Dichloroethene	10	ND	--	ND	ND	ND
Ethylbenzene	5	ND	--	ND	2.04	16.9 J
Isopropylbenzene	14	ND	--	ND	ND	ND
Methylene Chloride	10	ND	--	ND	90.3 B	137 B
4-Methyl-2-pentanone	140	ND	--	ND	ND	ND
1,1,2,2-Tetrachloroethane	50	ND	--	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	--	ND	4.21	ND
Toluene	5	ND	--	ND	77.4	587
1,2,3-Trichlorobenzene	10	ND	--	ND	5.91	ND
1,2,4-Trichlorobenzene	10	ND	--	ND	23.1	30.4
1,1,1-Trichloroethane	10	ND	--	ND	3.39	ND
1,1,2-Trichloroethane	10	ND	--	ND	2.99	ND
Trichloroethylene	10	ND	--	ND	561	1160
Trichlorofluoromethane	10	ND	--	ND	ND	ND
Vinyl Chloride	10	ND	--	ND	6.09	20.6
Sum of o, m, & p-Xylene	15	ND	--	ND	5.69	61.5
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	ND	--	--	ND	ND
2-Chlorophenol	--	ND	--	--	ND	ND
2,4-Dimethylphenol	10	ND	--	--	ND	ND
2-Methylphenol	10	ND	--	--	ND	11.0
Sum of 3- & 4-Methylphenol	10	ND	--	--	ND	16.1
Pentachlorophenol	--	ND	--	--	ND	ND
Phenol	10	ND	--	--	ND	ND
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	ND	--	--	--	--
Aroclor 1242	0.2	ND	--	--	--	--
Aroclor 1248	0.2	ND	--	--	--	--
Aroclor 1254	0.2	ND	--	--	--	--
Aroclor 1260	0.2	ND	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	ND	--	--	--	--
delta-BHC	0.043	ND	--	--	--	--
alpha-Chlordane	0.05	ND	--	--	--	--
gamma-Chlordane	0.05	ND	--	--	--	--
4,4'-DDE	0.01	ND	--	--	--	--
Dieldrin	0.005	ND	--	--	--	--
Endosulfan II	0.049	ND	--	--	--	--
Endosulfan Sulfate	0.2	ND	--	--	--	--
Heptachlor	0.01	ND	--	--	--	--
Methoxychlor	0.4	ND	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	0.0062	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.10 J	8.5	190	200	220

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 10 Process Monitoring

Analytes	Discharge Limits	Tank 10 Inlet (March 4, 2014)	LPGAC Disc (March 4, 2014)	Between LPGAC (March 4, 2014)	Air Stripper Disc (March 4, 2014)
Water Quality (milligrams per liter)					
pH (Field)	6.5 to 8.5	--	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	--
Metals (200.7) (micrograms per liter)					
Total Aluminum	2000 / 4000	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--
Total Cobalt	27	--	--	--	--
Total Copper	86	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--
Total Lead	51	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--
Total Selenium	25	--	--	--	--
Total Silver	22	--	--	--	--
Total Thallium	43	--	--	--	--
Total Vanadium	76	--	--	--	--
Total Zinc	400	--	--	--	--
VOCs (624) (micrograms per liter)					
Acetone	280	ND	--	--	--
Benzene	5	ND	--	--	--
2-Butanone	280	2.04 J	--	--	--
Chlorobenzene	10	ND	--	--	--
Chloroethane	10	ND	--	--	--
Chloroform	50	ND	--	--	--
Chloromethane	10	ND	--	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--	--
1,1-Dichloroethane	10	ND	--	--	--
1,2-Dichloroethane	10	ND	--	--	--
1,1,1-Trichloroethane	10	ND	--	--	--
cis-1,2-Dichloroethane	10	ND	--	--	--
trans-1,2-Dichloroethane	10	ND	--	--	--
Ethylbenzene	5	ND	--	--	--
Isopropylbenzene	14	ND	--	--	--
Methylene Chloride	10	ND	--	--	--
4-Methyl-2-pentanone	140	ND	--	--	--
1,1,2,2-Tetrachloroethane	50	ND	--	--	--
Tetrachloroethane	5.4 / 10	ND	--	--	--
Toluene	5	ND	--	--	--
1,2,3-Trichlorobenzene	10	ND	--	--	--
1,2,4-Trichlorobenzene	10	ND	--	--	--
1,1,1-Trichloroethane	10	ND	--	--	--
1,1,2-Trichloroethane	10	ND	--	--	--
Trichloroethylene	10	ND	--	--	--
Trichlorofluoromethane	10	ND	--	--	--
Vinyl Chloride	10	ND	--	--	--
Sum of o, m, & p-Xylene	15	ND	--	--	--
SVOCs (625) (micrograms per liter)					
Bis(2-Ethylhexyl)phthalate	10	--	--	--	--
2-Chlorophenol	--	--	--	--	--
2,4-Dimethylphenol	10	--	--	--	--
2-Methylphenol	10	--	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--	--
Pentachlorophenol	--	--	--	--	--
Phenol	10	--	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--
PCBs (608) (micrograms per liter)					
Aroclor 1221	0.2	--	--	--	--
Aroclor 1242	0.2	--	--	--	--
Aroclor 1248	0.2	--	--	--	--
Aroclor 1254	0.2	--	--	--	--
Aroclor 1260	0.2	--	--	--	--
Pesticides (608) (micrograms per liter)					
beta-BHC	0.038	--	--	--	--
delta-BHC	0.043	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--
4,4'-DDE	0.01	--	--	--	--
Dieldrin	0.005	--	--	--	--
Endosulfan II	0.049	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--
Heptachlor	0.01	--	--	--	--
Methoxychlor	0.4	--	--	--	--
Mercury (1631) (micrograms per liter)					
Mercury	0.05	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)					
1,4-Dioxane	--	--	--	--	--

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 11 Process Monitoring

Analytes	Discharge Limits	Tank 11 Inlet (March 11, 2014)	Between LPGAC (March 11, 2014)	Air Stripper Disc (March 11, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	ND	--	--
Benzene	5	ND	--	--
2-Butanone	280	3.01 J	--	--
Chlorobenzene	10	ND	--	--
Chloroethane	10	ND	--	--
Chloroform	50	ND	--	--
Chloromethane	10	ND	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--
1,1-Dichloroethane	10	ND	--	--
1,2-Dichloroethane	10	ND	--	--
1,1,1-Dichloroethane	10	ND	--	--
cis-1,2-Dichloroethane	10	ND	--	--
trans-1,2-Dichloroethane	10	ND	--	--
Ethylbenzene	5	ND	--	--
Isopropylbenzene	14	ND	--	--
Methylene Chloride	10	ND	--	--
4-Methyl-2-pentanone	140	ND	--	--
1,1,2,2-Tetrachloroethane	50	ND	--	--
Tetrachloroethene	5.4 / 10	ND	--	--
Toluene	5	ND	--	--
1,2,3-Trichlorobenzene	10	ND	--	--
1,2,4-Trichlorobenzene	10	ND	--	--
1,1,1-Trichloroethane	10	ND	--	--
1,1,2-Trichloroethane	10	ND	--	--
Trichloroethylene	10	ND	--	--
Trichlorofluoromethane	10	ND	--	--
Vinyl Chloride	10	ND	--	--
Sum of o, m, & p-Xylene	15	ND	--	--
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
PentaChlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	ND	9.8	220

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 12 Process Monitoring

Analytes	Discharge Limits	Tank 12 Inlet (March 18, 2014)	Between LPGAC (March 18, 2014)	Air Stripper Disc (March 18, 2014)	Bio/Clarifier Disc (March 18, 2014)	Influent (March 18, 2014)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.48	--	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	7.1	--	--	--	--
Total Suspended Solids (SM 2540D)	20	ND	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	414	--	--	--	--
BOD5 (SM 5210 B)	30	6	--	--	--	--
Ammonia (USEPA 350.1)	8.1	1.74	--	--	--	--
Oil & Grease (USEPA 1664A)	15	ND	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	0.152	--	--	--	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	ND	--	--	--	--
Total Arsenic	50 / 100	2.14 JB	--	--	--	--
Total Cobalt	27	ND	--	--	--	--
Total Copper	86	1.11 J	--	--	--	--
Total Iron	2000 / 4000	80.3 B	--	--	--	--
Total Lead	51	ND	--	--	--	--
Total Manganese	1000 / 2000	27.9	--	--	--	--
Total Selenium	25	6.13 JB	--	--	--	--
Total Silver	22	ND	--	--	--	--
Total Thallium	43	ND	--	--	--	--
Total Vanadium	76	ND	--	--	--	--
Total Zinc	400	4.22 JB	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	ND	ND	ND	ND
Benzene	5	ND	ND	ND	16.1	301
2-Butanone	280	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	6.21 J	107
Chloroethane	10	ND	ND	ND	ND	ND
Chloroform	50	ND	ND	ND	19.6	27.2
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	ND	ND
1,1-Dichloroethane	10	ND	ND	ND	ND	5.72 J
1,2-Dichloroethane	10	ND	ND	ND	18.1	20.0
1,1,1-Dichloroethene	10	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10	ND	ND	ND	54.6	132
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	ND	10.6
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	67.0	93.8
4-Methyl-2-pentanone	140	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	ND	5.76 J
Toluene	5	ND	ND	ND	13.2	349
1,2,3-Trichlorobenzene	10	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	10	ND	ND	ND	9.48 J	17.6
1,1,1-Trichloroethane	10	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	ND	ND	362	870
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	ND	14.7
Sum of o, m, & p-Xylene	15	ND	ND	ND	ND	38.4
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	ND	--	--	ND	ND
2-Chlorophenol	--	ND	--	--	ND	ND
2,4-Dimethylphenol	10	ND	--	--	ND	ND
2-Methylphenol	10	ND	--	--	ND	ND
Sum of 3- & 4-Methylphenol	10	ND	--	--	ND	ND
Pentachlorophenol	--	ND	--	--	ND	ND
Phenol	10	ND	--	--	ND	ND
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	ND	--	--	--	--
Aroclor 1242	0.2	ND	--	--	--	--
Aroclor 1248	0.2	ND	--	--	--	--
Aroclor 1254	0.2	ND	--	--	--	--
Aroclor 1260	0.2	ND	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	ND	--	--	--	--
delta-BHC	0.043	ND	--	--	--	--
alpha-Chlordane	0.05	ND	--	--	--	--
gamma-Chlordane	0.05	ND	--	--	--	--
4-4'-DDE	0.01	ND	--	--	--	--
Dieldrin	0.005	ND	--	--	--	--
Endosulfan II	0.049	ND	--	--	--	--
Endosulfan Sulfate	0.2	ND	--	--	--	--
Heptachlor	0.01	ND	--	--	--	--
Methoxychlor	0.4	ND	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	0.0103	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	ND	9.6	210	220	180

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 13 Process Monitoring

Analytes	Discharge Limits	Tank 13 Inlet (March 25, 2014)	Between LPGAC (March 25, 2014)	Air Stripper Disc (March 25, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	ND	--	--
Benzene	5	ND	--	--
2-Butanone	280	ND	--	--
Chlorobenzene	10	ND	--	--
Chloroethane	10	ND	--	--
Chloroform	50	ND	--	--
Chloromethane	10	ND	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--
1,1-Dichloroethane	10	ND	--	--
1,2-Dichloroethane	10	ND	--	--
1,1,1-Trichloroethane	10	ND	--	--
cis-1,2-Dichloroethene	10	ND	--	--
trans-1,2-Dichloroethene	10	ND	--	--
Ethylbenzene	5	ND	--	--
Isopropylbenzene	14	ND	--	--
Methylene Chloride	10	ND	--	--
4-Methyl-2-pentanone	140	ND	--	--
1,1,2,2-Tetrachloroethane	50	ND	--	--
Tetrachloroethene	5.4 / 10	ND	--	--
Toluene	5	ND	--	--
1,2,3-Trichlorobenzene	10	ND	--	--
1,2,4-Trichlorobenzene	10	ND	--	--
1,1,1-Trichloroethane	10	ND	--	--
1,1,2-Trichloroethane	10	ND	--	--
Trichloroethylene	10	ND	--	--
Trichlorofluoromethane	10	ND	--	--
Vinyl Chloride	10	ND	--	--
Sum of o, m, & p-Xylene	15	ND	--	--
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
PentaChlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	ND	9.4	180

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 14 Process Monitoring

Analytes	Discharge Limits	Tank 14 Inlet (April 1, 2014)	Between LPGAC (April 1, 2014)	Air Stripper Disc (April 1, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	ND	--	--
Benzene	5	ND	--	--
2-Butanone	280	ND	--	--
Chlorobenzene	10	ND	--	--
Chloroethane	10	ND	--	--
Chloroform	50	ND	--	--
Chloromethane	10	ND	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--
1,1-Dichloroethane	10	ND	--	--
1,2-Dichloroethane	10	ND	--	--
1,1,1-Trichloroethane	10	ND	--	--
cis-1,2-Dichloroethene	10	ND	--	--
trans-1,2-Dichloroethene	10	ND	--	--
Ethylbenzene	5	ND	--	--
Isopropylbenzene	14	ND	--	--
Methylene Chloride	10	ND	--	--
4-Methyl-2-pentanone	140	ND	--	--
1,1,2,2-Tetrachloroethane	50	ND	--	--
Tetrachloroethene	5.4 / 10	ND	--	--
Toluene	5	ND	--	--
1,2,3-Trichlorobenzene	10	ND	--	--
1,2,4-Trichlorobenzene	10	ND	--	--
1,1,1-Trichloroethane	10	ND	--	--
1,1,2-Trichloroethane	10	ND	--	--
Trichloroethylene	10	ND	--	--
Trichlorofluoromethane	10	ND	--	--
Vinyl Chloride	10	ND	--	--
Sum of o, m, & p-Xylene	15	ND	--	--
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
PentaChlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	ND	12	140

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 15 Process Monitoring

Analytes	Discharge Limits	Tank 15 Inlet (April 8, 2014)	Between LPGAC (April 8, 2014)	Air Stripper Disc (April 8, 2014)	Bio/Clarifier Disc (April 8, 2014)	Influent (April 8, 2014)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.28	--	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	7.6	--	--	--	--
Total Suspended Solids (SM 2540D)	20	ND	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	395	--	--	--	--
BOD5 (SM 5210 B)	30	5	11	5	ND	ND
Ammonia (USEPA 350.1)	8.1	ND	--	--	--	--
Oil & Grease (USEPA 1664A)	15	ND	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	0.114	--	--	--	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	ND	--	--	--	--
Total Arsenic	50 / 100	4.54 J	--	--	--	--
Total Cobalt	27	ND	--	--	--	--
Total Copper	86	3.29 JB	--	--	--	--
Total Iron	2000 / 4000	53.9	--	--	--	--
Total Lead	51	ND	--	--	--	--
Total Manganese	1000 / 2000	17.9	--	--	--	--
Total Selenium	25	ND	--	--	--	--
Total Silver	22	ND	--	--	--	--
Total Thallium	43	ND	--	--	--	--
Total Vanadium	76	0.606 JB	--	--	--	--
Total Zinc	400	5.11 B	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	ND	ND	ND	ND
Benzene	5	ND	ND	ND	28.4	1260
2-Butanone	280	ND	ND	ND	ND	18.2 J
Chlorobenzene	10	ND	ND	ND	10.8	447
Chloroethane	10	ND	ND	ND	ND	ND
Chloroform	50	ND	ND	ND	33.1	107
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	2.274 J	21.06 J
1,1-Dichloroethane	10	ND	ND	ND	6.63	26.3
1,2-Dichloroethane	10	ND	ND	ND	44.5	87.6
1,1-Dichloroethene	10	ND	ND	ND	1.13	13.8
cis-1,2-Dichloroethene	10	ND	ND	ND	149	591
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	0.739 J	55.1
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	148	338
4-Methyl-2-pentanone	140	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	3.92	24.6
Toluene	5	ND	ND	ND	26.3	1670
1,2,3-Trichlorobenzene	10	ND	ND	ND	7.88	25.5
1,2,4-Trichlorobenzene	10	ND	ND	ND	18.5	101
1,1,1-Trichloroethane	10	ND	ND	ND	2.56	20.9
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	ND	ND	802	2710
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	3.56	69.2
Sum of o, m, & p-Xylene	15	ND	ND	ND	2.20 J	215.8
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	ND	--	--	ND	ND
2-Chlorophenol	--	ND	--	--	ND	ND
2,4-Dimethylphenol	10	ND	--	--	ND	ND
2-Methylphenol	10	ND	--	--	ND	15.7
Sum of 3- & 4-Methylphenol	10	ND	--	--	ND	32.7
Pentachlorophenol	--	ND	--	--	ND	ND
Phenol	10	ND	--	--	ND	9.7
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	ND	--	--	--	--
Aroclor 1242	0.2	ND	--	--	--	--
Aroclor 1248	0.2	ND	--	--	--	--
Aroclor 1254	0.2	ND	--	--	--	--
Aroclor 1260	0.2	ND	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	ND	--	--	--	--
delta-BHC	0.043	ND	--	--	--	--
alpha-Chlordane	0.05	ND	--	--	--	--
gamma-Chlordane	0.05	ND	--	--	--	--
4,4'-DDE	0.01	ND	--	--	--	--
Dieldrin	0.005	ND	--	--	--	--
Endosulfan II	0.049	ND	--	--	--	--
Endosulfan Sulfate	0.2	ND	--	--	--	--
Heptachlor	0.01	ND	--	--	--	--
Methoxychlor	0.4	ND	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	0.0083	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.12 J	16	210	230	260

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 16 Process Monitoring

Analytes	Discharge Limits	Tank 16 Inlet (April 15, 2014)	Between LPGAC (April 15, 2014)	Air Stripper Disc (April 15, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	ND	--	--
Benzene	5	ND	--	--
2-Butanone	280	2.40 J	--	--
Chlorobenzene	10	ND	--	--
Chloroethane	10	ND	--	--
Chloroform	50	ND	--	--
Chloromethane	10	ND	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--
1,1-Dichloroethane	10	ND	--	--
1,2-Dichloroethane	10	ND	--	--
1,1-Dichloroethene	10	ND	--	--
cis-1,2-Dichloroethene	10	ND	--	--
trans-1,2-Dichloroethene	10	ND	--	--
Ethylbenzene	5	ND	--	--
Isopropylbenzene	14	ND	--	--
Methylene Chloride	10	ND	--	--
4-Methyl-2-pentanone	140	ND	--	--
1,1,2,2-Tetrachloroethane	50	ND	--	--
Tetrachloroethene	5.4 / 10	ND	--	--
Toluene	5	ND	--	--
1,2,3-Trichlorobenzene	10	ND	--	--
1,2,4-Trichlorobenzene	10	ND	--	--
1,1,1-Trichloroethane	10	ND	--	--
1,1,2-Trichloroethane	10	ND	--	--
Trichloroethylene	10	ND	--	--
Trichlorofluoromethane	10	ND	--	--
Vinyl Chloride	10	ND	--	--
Sum of o, m, & p-Xylene	15	ND	--	--
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Penta-chlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.030 J	17	160

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 17 Process Monitoring

Analytes	Discharge Limits	Tank 17 Inlet (April 22, 2014)	Between LPGAC (April 22, 2014)	Air Stripper Disc (April 22, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	ND	--	--
Benzene	5	ND	--	--
2-Butanone	280	ND	--	--
Chlorobenzene	10	ND	--	--
Chloroethane	10	ND	--	--
Chloroform	50	ND	--	--
Chloromethane	10	ND	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--
1,1-Dichloroethane	10	ND	--	--
1,2-Dichloroethane	10	ND	--	--
1,1-Dichloroethene	10	ND	--	--
cis-1,2-Dichloroethene	10	ND	--	--
trans-1,2-Dichloroethene	10	ND	--	--
Ethylbenzene	5	ND	--	--
Isopropylbenzene	14	ND	--	--
Methylene Chloride	10	ND	--	--
4-Methyl-2-pentanone	140	ND	--	--
1,1,2,2-Tetrachloroethane	50	ND	--	--
Tetrachloroethene	5.4 / 10	ND	--	--
Toluene	5	ND	--	--
1,2,3-Trichlorobenzene	10	ND	--	--
1,2,4-Trichlorobenzene	10	ND	--	--
1,1,1-Trichloroethane	10	ND	--	--
1,1,2-Trichloroethane	10	ND	--	--
Trichloroethylene	10	ND	--	--
Trichlorofluoromethane	10	ND	--	--
Vinyl Chloride	10	ND	--	--
Sum of o, m, & p-Xylene	15	ND	--	--
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Penta-chlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	ND	17	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 18 Process Monitoring

Analytes	Discharge Limits	Tank 18 Inlet (April 29, 2014)	Between LPGAC (April 29, 2014)	Air Stripper Disc (April 29, 2014)	Bio/Clarifier Disc (April 29, 2014)	Influent (April 29, 2014)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	6.99	--	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	6.6	--	--	--	--
Total Suspended Solids (SM 2540D)	20	ND	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	421	--	--	--	--
BOD5 (SM 5210 B)	30	8	9	22	--	--
Ammonia (USEPA 350.1)	8.1	ND	--	--	--	--
Oil & Grease (USEPA 1664A)	15	ND	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	0.149	--	--	--	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	ND	--	--	--	--
Total Arsenic	50 / 100	2.67 J	--	--	--	--
Total Cobalt	27	ND	--	--	--	--
Total Copper	86	ND	--	--	--	--
Total Iron	2000 / 4000	98.4	--	--	--	--
Total Lead	51	ND	--	--	--	--
Total Manganese	1000 / 2000	21.7	--	--	--	--
Total Selenium	25	ND	--	--	--	--
Total Silver	22	ND	--	--	--	--
Total Thallium	43	ND	--	--	--	--
Total Vanadium	76	ND	--	--	--	--
Total Zinc	400	3.99 JB	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	ND	ND	ND	156
Benzene	5	ND	ND	0.503 J	37.9	1630
2-Butanone	280	1.07 J	ND	ND	1.10 J	20.4 J
Chlorobenzene	10	ND	ND	ND	13.1	418
Chloroethane	10	ND	ND	ND	0.648 J	ND
Chloroform	50	ND	ND	ND	39.3	84.0
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	1.08	9.88 J
1,1-Dichloroethane	10	ND	ND	ND	8.53	21.6
1,2-Dichloroethane	10	ND	ND	ND	57.2	79.5
1,1-Dichloroethene	10	ND	ND	ND	0.863 J	7.73 J
cis-1,2-Dichloroethene	10	ND	ND	ND	116	505
trans-1,2-Dichloroethene	10	ND	ND	ND	0.500 J	ND
Ethylbenzene	5	ND	ND	ND	1.03	45.0
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	131	264
4-Methyl-2-pentanone	140	ND	ND	ND	0.667 J	11.4 J
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	3.91	16.6
Toluene	5	ND	0.633 J	0.846 J	39.8	2070
1,2,3-Trichlorobenzene	10	ND	ND	ND	5.24	13.6
1,2,4-Trichlorobenzene	10	ND	ND	ND	7.08	60.6
1,1,1-Trichloroethane	10	ND	ND	ND	3.21	14.3
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	ND	ND	622	2780
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	4.41	59.3
Sum of o, m, & p-Xylene	15	ND	ND	ND	3.29	191
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	ND	--	--	ND	ND
2-Chlorophenol	--	ND	--	--	ND	ND
2,4-Dimethylphenol	10	ND	--	--	ND	10.1
2-Methylphenol	10	ND	--	--	ND	24.1
Sum of 3- & 4-Methylphenol	10	ND	--	--	ND	39.7
Pentachlorophenol	--	ND	--	--	ND	ND
Phenol	10	ND	--	--	ND	12.2
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unc chlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	ND	--	--	--	--
Aroclor 1242	0.2	ND	--	--	--	--
Aroclor 1248	0.2	ND	--	--	--	--
Aroclor 1254	0.2	ND	--	--	--	--
Aroclor 1260	0.2	ND	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	ND	--	--	--	--
delta-BHC	0.043	ND	--	--	--	--
alpha-Chlordane	0.05	ND	--	--	--	--
gamma-Chlordane	0.05	ND	--	--	--	--
4,4'-DDE	0.01	ND	--	--	--	--
Dieldrin	0.005	ND	--	--	--	--
Endosulfan II	0.049	ND	--	--	--	--
Endosulfan Sulfate	0.2	ND	--	--	--	--
Heptachlor	0.01	ND	--	--	--	--
Methoxychlor	0.4	ND	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	0.0085	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	42 [44]	43 [44]	170	210	220

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- Results shown in [] were re-analyzed

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 19 Process Monitoring

Analytes	Discharge Limits	Tank 19 Inlet (May 6, 2014)	Between LPGAC (May 6, 2014)	Air Stripper Disc (May 6, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	ND	--	--
Benzene	5	ND	--	--
2-Butanone	280	0.968 J	--	--
Chlorobenzene	10	ND	--	--
Chloroethane	10	ND	--	--
Chloroform	50	ND	--	--
Chloromethane	10	ND	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--
1,1-Dichloroethane	10	ND	--	--
1,2-Dichloroethane	10	ND	--	--
1,1-Dichloroethene	10	ND	--	--
cis-1,2-Dichloroethene	10	ND	--	--
trans-1,2-Dichloroethene	10	ND	--	--
Ethylbenzene	5	ND	--	--
Isopropylbenzene	14	ND	--	--
Methylene Chloride	10	ND	--	--
4-Methyl-2-pentanone	140	ND	--	--
1,1,2,2-Tetrachloroethane	50	ND	--	--
Tetrachloroethene	5.4 / 10	ND	--	--
Toluene	5	ND	--	--
1,2,3-Trichlorobenzene	10	ND	--	--
1,2,4-Trichlorobenzene	10	ND	--	--
1,1,1-Trichloroethane	10	ND	--	--
1,1,2-Trichloroethane	10	ND	--	--
Trichloroethylene	10	0.543 J	--	--
Trichlorofluoromethane	10	ND	--	--
Vinyl Chloride	10	ND	--	--
Sum of o, m, & p-Xylene	15	ND	--	--
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Penta-chlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.027 J	50	190

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 20 Process Monitoring

Analytes	Discharge Limits	Tank 20 Inlet (May 13, 2014)	Between LPGAC (May 13, 2014)	Air Stripper Disc (May 13, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	ND	--	--
Benzene	5	ND	--	--
2-Butanone	280	ND	--	--
Chlorobenzene	10	ND	--	--
Chloroethane	10	ND	--	--
Chloroform	50	ND	--	--
Chloromethane	10	ND	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--
1,1-Dichloroethane	10	ND	--	--
1,2-Dichloroethane	10	ND	--	--
1,1-Dichloroethene	10	ND	--	--
cis-1,2-Dichloroethene	10	ND	--	--
trans-1,2-Dichloroethene	10	ND	--	--
Ethylbenzene	5	ND	--	--
Isopropylbenzene	14	ND	--	--
Methylene Chloride	10	ND	--	--
4-Methyl-2-pentanone	140	ND	--	--
1,1,2,2-Tetrachloroethane	50	ND	--	--
Tetrachloroethene	5.4 / 10	ND	--	--
Toluene	5	ND	--	--
1,2,3-Trichlorobenzene	10	ND	--	--
1,2,4-Trichlorobenzene	10	ND	--	--
1,1,1-Trichloroethane	10	ND	--	--
1,1,2-Trichloroethane	10	ND	--	--
Trichloroethylene	10	ND	--	--
Trichlorofluoromethane	10	ND	--	--
Vinyl Chloride	10	ND	--	--
Sum of o, m, & p-Xylene	15	ND	--	--
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4-4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	ND	56	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- In addition to leachate and groundwater, about 4,440 gallons of water from Tank 18 was recycled through the treatment system and discharged into Tank 20

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 21 Process Monitoring

Analytes	Discharge Limits	Tank 21 Inlet (May 20, 2014)	Between LPGAC (May 20, 2014)	Air Stripper Disc (May 20, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	ND	--	--
Benzene	5	ND	--	--
2-Butanone	280	ND	--	--
Chlorobenzene	10	ND	--	--
Chloroethane	10	ND	--	--
Chloroform	50	ND	--	--
Chloromethane	10	ND	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--
1,1-Dichloroethane	10	ND	--	--
1,2-Dichloroethane	10	ND	--	--
1,1-Dichloroethene	10	ND	--	--
cis-1,2-Dichloroethene	10	ND	--	--
trans-1,2-Dichloroethene	10	ND	--	--
Ethylbenzene	5	ND	--	--
Isopropylbenzene	14	ND	--	--
Methylene Chloride	10	ND	--	--
4-Methyl-2-pentanone	140	ND	--	--
1,1,2,2-Tetrachloroethane	50	ND	--	--
Tetrachloroethene	5.4 / 10	ND	--	--
Toluene	5	ND	--	--
1,2,3-Trichlorobenzene	10	ND	--	--
1,2,4-Trichlorobenzene	10	ND	--	--
1,1,1-Trichloroethane	10	ND	--	--
1,1,2-Trichloroethane	10	ND	--	--
Trichloroethylene	10	ND	--	--
Trichlorofluoromethane	10	ND	--	--
Vinyl Chloride	10	ND	--	--
Sum of o, m, & p-Xylene	15	ND	--	--
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.021 J	58	110

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- In addition to leachate and groundwater, about 15,840 gallons of water from Tank 18 was recycled through the treatment system and discharged into Tank 21

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 22 Process Monitoring

Analytes	Discharge Limits	Tank 22 Inlet (May 28, 2014)	Between LPGAC (May 28, 2014)	Air Stripper Disc (May 28, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	ND	--	--
Benzene	5	ND	--	--
2-Butanone	280	ND	--	--
Chlorobenzene	10	ND	--	--
Chloroethane	10	ND	--	--
Chloroform	50	ND	--	--
Chloromethane	10	ND	--	--
Sum of o, m, & p-Dichlorobenzene	27	ND	--	--
1,1-Dichloroethane	10	ND	--	--
1,2-Dichloroethane	10	ND	--	--
1,1-Dichloroethene	10	ND	--	--
cis-1,2-Dichloroethene	10	ND	--	--
trans-1,2-Dichloroethene	10	ND	--	--
Ethylbenzene	5	ND	--	--
Isopropylbenzene	14	ND	--	--
Methylene Chloride	10	ND	--	--
4-Methyl-2-pentanone	140	ND	--	--
1,1,2,2-Tetrachlorethane	50	ND	--	--
Tetrachloroethene	5.4 / 10	ND	--	--
Toluene	5	ND	--	--
1,2,3-Trichlorobenzene	10	ND	--	--
1,2,4-Trichlorobenzene	10	ND	--	--
1,1,1-Trichloroethane	10	ND	--	--
1,1,2-Trichloroethane	10	ND	--	--
Trichloroethylene	10	ND	--	--
Trichlorofluoromethane	10	ND	--	--
Vinyl Chloride	10	ND	--	--
Sum of o, m, & p-Xylene	15	ND	--	--
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.89	1.0	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte observed in associated method blank or digestion blank so concentration should be considered as estimated
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 23 Process Monitoring

Analytes	Discharge Limits	Tank 23 Inlet (June 5, 2014)	Between LPGAC (June 5, 2014)	Air Stripper Disc (June 5, 2014)	Bio/Clarifier Disc (June 5, 2014)	Influent (June 5, 2014)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.66	--	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	6.0	--	--	--	--
Total Suspended Solids (SM 2540D)	20	ND	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	435	--	--	--	--
BOD5 (SM 5210 B)	30	ND	--	--	--	--
Ammonia (USEPA 350.1)	8.1	1.62	--	--	--	--
Oil & Grease (USEPA 1664A)	15	ND	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	0.440	--	--	--	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	20.9 J	--	--	--	--
Total Arsenic	50 / 100	4.96 J	--	--	--	--
Total Cobalt	27	ND	--	--	--	--
Total Copper	86	ND	--	--	--	--
Total Iron	2000 / 4000	ND	--	--	--	--
Total Lead	51	ND	--	--	--	--
Total Manganese	1000 / 2000	11.9	--	--	--	--
Total Selenium	25	4.50 J	--	--	--	--
Total Silver	22	ND	--	--	--	--
Total Thallium	43	ND	--	--	--	--
Total Vanadium	76	ND	--	--	--	--
Total Zinc	400	ND	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	ND	ND	ND	ND
Benzene	5	ND	ND	ND	6.74	1970
2-Butanone	280	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	1.60	553
Chloroethane	10	ND	ND	ND	ND	4.79
Chloroform	50	ND	ND	ND	19.2	77.0
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	ND	16.97
1,1-Dichloroethane	10	ND	ND	ND	4.20	26.5
1,2-Dichloroethane	10	ND	ND	ND	39.6	81.9
1,1-Dichloroethene	10	ND	ND	ND	ND	8.90
cis-1,2-Dichloroethene	10	ND	ND	ND	61.6	563
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	2.38
Ethylbenzene	5	ND	ND	ND	ND	63.8
Isopropylbenzene	14	ND	ND	ND	ND	1.18
Methylene Chloride	10	ND	ND	ND	84.9	313
4-Methyl-2-pentanone	140	ND	ND	ND	ND	15.9
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	1.12	20.1
Toluene	5	ND	0.783 J	ND	1.59	2160
1,2,3-Trichlorobenzene	10	ND	ND	ND	1.74	14.8
1,2,4-Trichlorobenzene	10	ND	ND	ND	2.12	67.5
1,1,1-Trichloroethane	10	ND	ND	ND	0.958 J	15.6
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	ND	ND	230	2790
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	2.15	90.2
Sum of o, m, & p-Xylene	15	ND	ND	ND	ND	249
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	ND	--	--	ND	ND
2-Chlorophenol	--	ND	--	--	ND	ND
2,4-Dimethylphenol	10	ND	--	--	ND	ND
2-Methylphenol	10	ND	--	--	ND	32.5
Sum of 3- & 4-Methylphenol	10	ND	--	--	ND	11.0
Pentachlorophenol	--	ND	--	--	ND	ND
Phenol	10	ND	--	--	ND	ND
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	ND	--	--	--	--
Aroclor 1242	0.2	ND	--	--	--	--
Aroclor 1248	0.2	ND	--	--	--	--
Aroclor 1254	0.2	ND	--	--	--	--
Aroclor 1260	0.2	ND	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	ND	--	--	--	--
delta-BHC	0.043	ND	--	--	--	--
alpha-Chlordane	0.05	ND	--	--	--	--
gamma-Chlordane	0.05	ND	--	--	--	--
4,4'-DDE	0.01	ND	--	--	--	--
Dieldrin	0.005	ND	--	--	--	--
Endosulfan II	0.049	ND	--	--	--	--
Endosulfan Sulfate	0.2	ND	--	--	--	--
Heptachlor	0.01	ND	--	--	--	--
Methoxychlor	0.4	ND	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	0.0004 J	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.34	0.44	160	220	200

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 24 Process Monitoring

Analytes	Discharge Limits	Tank 24 Inlet (June 12, 2014)	Between LPGAC (June 12, 2014)	Air Stripper Disc (June 12, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	ND	---	---
Benzene	5	ND	---	---
2-Butanone	280	ND	---	---
Chlorobenzene	10	ND	---	---
Chloroethane	10	ND	---	---
Chloroform	50	ND	---	---
Chloromethane	10	ND	---	---
Sum of o, m, & p-Dichlorobenzene	27	ND	---	---
1,1-Dichloroethane	10	ND	---	---
1,2-Dichloroethane	10	ND	---	---
1,1-Dichloroethene	10	ND	---	---
cis-1,2-Dichloroethene	10	ND	---	---
trans-1,2-Dichloroethene	10	ND	---	---
Ethylbenzene	5	ND	---	---
Isopropylbenzene	14	ND	---	---
Methylene Chloride	10	ND	---	---
4-Methyl-2-pentanone	140	ND	---	---
1,1,2,2-Tetrachloroethane	50	ND	---	---
Tetrachloroethene	5.4 / 10	ND	---	---
Toluene	5	ND	---	---
1,2,3-Trichlorobenzene	10	ND	---	---
1,2,4-Trichlorobenzene	10	ND	---	---
1,1,1-Trichloroethane	10	ND	---	---
1,1,2-Trichloroethane	10	ND	---	---
Trichloroethylene	10	ND	---	---
Trichlorofluoromethane	10	ND	---	---
Vinyl Chloride	10	ND	---	---
Sum of o, m, & p-Xylene	15	ND	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.19 J	200	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 25 Process Monitoring

Analytes	Discharge Limits	Tank 25 Inlet (June 19, 2014)	Between LPGAC (June 19, 2014)	Air Stripper Disc (June 19, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	ND	---	---
Benzene	5	ND	---	---
2-Butanone	280	ND	---	---
Chlorobenzene	10	ND	---	---
Chloroethane	10	ND	---	---
Chloroform	50	ND	---	---
Chloromethane	10	ND	---	---
Sum of o, m, & p-Dichlorobenzene	27	ND	---	---
1,1-Dichloroethane	10	ND	---	---
1,2-Dichloroethane	10	ND	---	---
1,1-Dichloroethene	10	ND	---	---
cis-1,2-Dichloroethene	10	ND	---	---
trans-1,2-Dichloroethene	10	ND	---	---
Ethylbenzene	5	ND	---	---
Isopropylbenzene	14	ND	---	---
Methylene Chloride	10	ND	---	---
4-Methyl-2-pentanone	140	ND	---	---
1,1,2,2-Tetrachloroethane	50	ND	---	---
Tetrachloroethene	5.4 / 10	ND	---	---
Toluene	5	ND	---	---
1,2,3-Trichlorobenzene	10	ND	---	---
1,2,4-Trichlorobenzene	10	ND	---	---
1,1,1-Trichloroethane	10	ND	---	---
1,1,2-Trichloroethane	10	ND	---	---
Trichloroethylene	10	ND	---	---
Trichlorofluoromethane	10	ND	---	---
Vinyl Chloride	10	ND	---	---
Sum of o, m, & p-Xylene	15	ND	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.16 J	140	16

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 26 Process Monitoring

Analytes	Discharge Limits	Tank 26 Inlet (June 24, 2014)	Between LPGAC (June 24, 2014)	Air Stripper Disc (June 24, 2014)	Bio/Clarifier Disc (June 24, 2014)	Influent (June 24, 2014)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.47	--	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	6.4	--	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	ND	--	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	0.102	--	--	--	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	ND	ND	ND	403
Benzene	5	ND	ND	ND	65.8	4600
2-Butanone	280	ND	ND	ND	ND	66.8
Chlorobenzene	10	ND	ND	ND	15.6	972
Chloroethane	10	ND	ND	ND	ND	ND
Chloroform	50	ND	ND	ND	65.2	276
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	3.73 J	54.6
1,1-Dichloroethane	10	ND	ND	ND	12.3	64.5
1,2-Dichloroethane	10	ND	ND	ND	170	293
1,1-Dichloroethene	10	ND	ND	ND	1.23	28.2
cis-1,2-Dichloroethene	10	ND	ND	ND	421	2050
trans-1,2-Dichloroethene	10	ND	ND	ND	0.709 J	6.49 J
Ethylbenzene	5	ND	ND	ND	ND	124
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	445	1060
4-Methyl-2-pentanone	140	ND	ND	ND	ND	29.3 J
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	5.70	63.7
Toluene	5	ND	ND	ND	4.13	4700
1,2,3-Trichlorobenzene	10	ND	ND	ND	17.9	58.4
1,2,4-Trichlorobenzene	10	ND	ND	ND	13.6	246
1,1,1-Trichloroethane	10	ND	ND	ND	4.31	58.8
1,1,2-Trichloroethane	10	ND	ND	ND	19.7	ND
Trichloroethylene	10	ND	ND	0.919 J	1510	10400
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	5.04	151
Sum of o, m, & p-Xylene	15	ND	ND	ND	ND	507
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	ND	--	--	ND	ND
2-Chlorophenol	--	ND	--	--	ND	2.44 J
2,4-Dimethylphenol	10	ND	--	--	ND	24.8
2-Methylphenol	10	ND	--	--	ND	112
Sum of 3- & 4-Methylphenol	10	ND	--	--	ND	158
Pentachlorophenol	--	ND	--	--	ND	ND
Phenol	10	ND	--	--	ND	50.9
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4,4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.068 J	0.12 J	150	150	140

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 27 Process Monitoring

Analytes	Discharge Limits	Tank 27 Inlet (June 30, 2014)	Between LPGAC (June 30, 2014)	Air Stripper Disc (June 30, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	ND	---	---
Benzene	5	ND	---	---
2-Butanone	280	ND	---	---
Chlorobenzene	10	ND	---	---
Chloroethane	10	ND	---	---
Chloroform	50	ND	---	---
Chloromethane	10	ND	---	---
Sum of o, m, & p-Dichlorobenzene	27	ND	---	---
1,1-Dichloroethane	10	ND	---	---
1,2-Dichloroethane	10	ND	---	---
1,1-Dichloroethene	10	ND	---	---
cis-1,2-Dichloroethene	10	ND	---	---
trans-1,2-Dichloroethene	10	ND	---	---
Ethylbenzene	5	ND	---	---
Isopropylbenzene	14	ND	---	---
Methylene Chloride	10	ND	---	---
4-Methyl-2-pentanone	140	ND	---	---
1,1,2,2-Tetrachloroethane	50	ND	---	---
Tetrachloroethene	5.4 / 10	ND	---	---
Toluene	5	ND	---	---
1,2,3-Trichlorobenzene	10	ND	---	---
1,2,4-Trichlorobenzene	10	ND	---	---
1,1,1-Trichloroethane	10	ND	---	---
1,1,2-Trichloroethane	10	ND	---	---
Trichloroethylene	10	ND	---	---
Trichlorofluoromethane	10	ND	---	---
Vinyl Chloride	10	ND	---	---
Sum of o, m, & p-Xylene	15	ND	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.059 J	0.099 J	14

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 28 Process Monitoring

Analytes	Discharge Limits	Tank 28 Inlet (July 7, 2014)	Between LPGAC (July 7, 2014)	Air Stripper Disc (July 7, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	ND	---	---
Benzene	5	ND	---	---
2-Butanone	280	ND	---	---
Chlorobenzene	10	ND	---	---
Chloroethane	10	ND	---	---
Chloroform	50	ND	---	---
Chloromethane	10	ND	---	---
Sum of o, m, & p-Dichlorobenzene	27	ND	---	---
1,1-Dichloroethane	10	ND	---	---
1,2-Dichloroethane	10	ND	---	---
1,1-Dichloroethene	10	ND	---	---
cis-1,2-Dichloroethene	10	ND	---	---
trans-1,2-Dichloroethene	10	ND	---	---
Ethylbenzene	5	ND	---	---
Isopropylbenzene	14	ND	---	---
Methylene Chloride	10	ND	---	---
4-Methyl-2-pentanone	140	ND	---	---
1,1,2,2-Tetrachloroethane	50	ND	---	---
Tetrachloroethene	5.4 / 10	ND	---	---
Toluene	5	ND	---	---
1,2,3-Trichlorobenzene	10	ND	---	---
1,2,4-Trichlorobenzene	10	ND	---	---
1,1,1-Trichloroethane	10	ND	---	---
1,1,2-Trichloroethane	10	ND	---	---
Trichloroethylene	10	ND	---	---
Trichlorofluoromethane	10	ND	---	---
Vinyl Chloride	10	ND	---	---
Sum of o, m, & p-Xylene	15	ND	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.046 J	0.093 J	150

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 29 Process Monitoring

Analytes	Discharge Limits	Tank 29 Inlet (July 11, 2014)	Between LPGAC (July 11, 2014)	Air Stripper Disc (July 11, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	ND	---	---
Benzene	5	ND	---	---
2-Butanone	280	0.697 J	---	---
Chlorobenzene	10	ND	---	---
Chloroethane	10	ND	---	---
Chloroform	50	ND	---	---
Chloromethane	10	ND	---	---
Sum of o, m, & p-Dichlorobenzene	27	ND	---	---
1,1-Dichloroethane	10	ND	---	---
1,2-Dichloroethane	10	ND	---	---
1,1-Dichloroethene	10	ND	---	---
cis-1,2-Dichloroethene	10	ND	---	---
trans-1,2-Dichloroethene	10	ND	---	---
Ethylbenzene	5	ND	---	---
Isopropylbenzene	14	ND	---	---
Methylene Chloride	10	ND	---	---
4-Methyl-2-pentanone	140	ND	---	---
1,1,2,2-Tetrachloroethane	50	ND	---	---
Tetrachloroethene	5.4 / 10	ND	---	---
Toluene	5	ND	---	---
1,2,3-Trichlorobenzene	10	ND	---	---
1,2,4-Trichlorobenzene	10	ND	---	---
1,1,1-Trichloroethane	10	ND	---	---
1,1,2-Trichloroethane	10	ND	---	---
Trichloroethylene	10	ND	---	---
Trichlorofluoromethane	10	ND	---	---
Vinyl Chloride	10	ND	---	---
Sum of o, m, & p-Xylene	15	ND	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.038 J	0.072 J	130

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 30 Process Monitoring

Analytes	Discharge Limits	Tank 30 Inlet (July 15, 2014)	Between LPGAC (July 15, 2014)	Air Stripper Disc (July 15, 2014)	Bio/Clarifier Disc (July 15, 2014)	Influent (July 15, 2014)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.49	--	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	6.2	--	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	ND	--	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	ND	--	--	--	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	ND	ND	ND	ND
Benzene	5	ND	ND	ND	14.9	3000
2-Butanone	280	ND	ND	ND	ND	49.4 J
Chlorobenzene	10	ND	ND	ND	4.07 J	976
Chloroethane	10	ND	ND	ND	ND	ND
Chloroform	50	ND	ND	ND	43.4	187
Chloromethane	10	0.848 J	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	ND	ND
1,1-Dichloroethane	10	ND	ND	ND	9.29	50.9
1,2-Dichloroethane	10	ND	ND	ND	84.1	180
1,1-Dichloroethene	10	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10	ND	ND	ND	169	1280
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	ND	109
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	153	880
4-Methyl-2-pentanone	140	ND	ND	ND	ND	30.0 J
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	ND	48.2 J
Toluene	5	ND	ND	ND	ND	3980
1,2,3-Trichlorobenzene	10	ND	ND	ND	12.9	52.1
1,2,4-Trichlorobenzene	10	ND	ND	ND	14.8	270
1,1,1-Trichloroethane	10	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	ND	ND	610	6290
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	3.15 J	133
Sum of o, m, & p-Xylene	15	ND	ND	ND	ND	411
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	ND	--	--	ND	ND
2-Chlorophenol	--	ND	--	--	ND	ND
2,4-Dimethylphenol	10	ND	--	--	ND	16.9
2-Methylphenol	10	ND	--	--	ND	48.1
Sum of 3- & 4-Methylphenol	10	ND	--	--	ND	249
Pentachlorophenol	--	ND	--	--	ND	ND
Phenol	10	ND	--	--	ND	44.2
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4,4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.033 J	0.12 J	140	150	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 31 Process Monitoring

Analytes	Discharge Limits	Tank 31 Inlet (July 21, 2014)	Between LPGAC (July 21, 2014)	Air Stripper Disc (July 21, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	---	---	---
Benzene	5	---	---	---
2-Butanone	280	---	---	---
Chlorobenzene	10	---	---	---
Chloroethane	10	---	---	---
Chloroform	50	---	---	---
Chloromethane	10	---	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---	---
1,1-Dichloroethane	10	---	---	---
1,2-Dichloroethane	10	---	---	---
1,1-Dichloroethene	10	---	---	---
cis-1,2-Dichloroethene	10	---	---	---
trans-1,2-Dichloroethene	10	---	---	---
Ethylbenzene	5	---	---	---
Isopropylbenzene	14	---	---	---
Methylene Chloride	10	---	---	---
4-Methyl-2-pentanone	140	---	---	---
1,1,2,2-Tetrachloroethane	50	---	---	---
Tetrachloroethene	5.4 / 10	---	---	---
Toluene	5	---	---	---
1,2,3-Trichlorobenzene	10	---	---	---
1,2,4-Trichlorobenzene	10	---	---	---
1,1,1-Trichloroethane	10	---	---	---
1,1,2-Trichloroethane	10	---	---	---
Trichloroethylene	10	---	---	---
Trichlorofluoromethane	10	---	---	---
Vinyl Chloride	10	---	---	---
Sum of o, m, & p-Xylene	15	---	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.022 J	0.23	130

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 32 Process Monitoring

Analytes	Discharge Limits	Tank 32 Inlet (July 28, 2014)	Between LPGAC (July 28, 2014)	Air Stripper Disc (July 28, 2014)	Bio/Clarifier Disc (July 28, 2014)	Influent (July 28, 2014)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.52	7.61	8.16	7.89	7.49
Dissolved Oxygen (Field)	5.0 minimum	5.1	5.2	6.7	7.1	6.3
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	1.20	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.21	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	ND	ND	ND	ND
Benzene	5	ND	ND	ND	6.55	1660
2-Butanone	280	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	ND	612
Chloroethane	10	ND	ND	ND	ND	ND
Chloroform	50	0.519 J	0.501 J	0.545 J	25.5	106
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	ND	ND
1,1-Dichloroethane	10	ND	ND	ND	5.18	31.1
1,2-Dichloroethane	10	ND	ND	ND	47.4	119
1,1-Dichloroethene	10	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10	ND	ND	ND	90.1	699
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	ND	61.2
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	30.9	309
4-Methyl-2-pentanone	140	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	ND	25.0 J
Toluene	5	ND	ND	ND	ND	2180
1,2,3-Trichlorobenzene	10	ND	ND	ND	7.35	32.1
1,2,4-Trichlorobenzene	10	ND	ND	ND	5.56	108
1,1,1-Trichloroethane	10	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	ND	ND	341	3100
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	2.70	89.7
Sum of o, m, & p-Xylene	15	ND	ND	ND	ND	258
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	ND	--	--	ND	ND
2-Chlorophenol	--	ND	--	--	ND	2.57 J
2,4-Dimethylphenol	10	ND	--	--	ND	12.5
2-Methylphenol	10	ND	--	--	ND	59.2
Sum of 3- & 4-Methylphenol	10	ND	--	--	ND	63.1
Pentachlorophenol	--	ND	--	--	ND	ND
Phenol	10	ND	--	--	ND	15.5
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4,4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.035 J	0.47	160	--	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 33 Process Monitoring

Analytes	Discharge Limits	Tank 33 Inlet (August 4, 2014)	Between LPGAC (August 4, 2014)	Air Stripper Disc (August 4, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	---	---	---
Benzene	5	---	---	---
2-Butanone	280	---	---	---
Chlorobenzene	10	---	---	---
Chloroethane	10	---	---	---
Chloroform	50	---	---	---
Chloromethane	10	---	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---	---
1,1-Dichloroethane	10	---	---	---
1,2-Dichloroethane	10	---	---	---
1,1-Dichloroethene	10	---	---	---
cis-1,2-Dichloroethene	10	---	---	---
trans-1,2-Dichloroethene	10	---	---	---
Ethylbenzene	5	---	---	---
Isopropylbenzene	14	---	---	---
Methylene Chloride	10	---	---	---
4-Methyl-2-pentanone	140	---	---	---
1,1,2,2-Tetrachloroethane	50	---	---	---
Tetrachloroethene	5.4 / 10	---	---	---
Toluene	5	---	---	---
1,2,3-Trichlorobenzene	10	---	---	---
1,2,4-Trichlorobenzene	10	---	---	---
1,1,1-Trichloroethane	10	---	---	---
1,1,2-Trichloroethane	10	---	---	---
Trichloroethylene	10	---	---	---
Trichlorofluoromethane	10	---	---	---
Vinyl Chloride	10	---	---	---
Sum of o, m, & p-Xylene	15	---	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.041 J	0.85	180

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 34 Process Monitoring

Analytes	Discharge Limits	Tank 34 Inlet (August 11, 2014)	Between LPGAC (August 11, 2014)	Air Stripper Disc (August 11, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	---	---	---
Benzene	5	---	---	---
2-Butanone	280	---	---	---
Chlorobenzene	10	---	---	---
Chloroethane	10	---	---	---
Chloroform	50	---	---	---
Chloromethane	10	---	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---	---
1,1-Dichloroethane	10	---	---	---
1,2-Dichloroethane	10	---	---	---
1,1-Dichloroethene	10	---	---	---
cis-1,2-Dichloroethene	10	---	---	---
trans-1,2-Dichloroethene	10	---	---	---
Ethylbenzene	5	---	---	---
Isopropylbenzene	14	---	---	---
Methylene Chloride	10	---	---	---
4-Methyl-2-pentanone	140	---	---	---
1,1,2,2-Tetrachloroethane	50	---	---	---
Tetrachloroethene	5.4 / 10	---	---	---
Toluene	5	---	---	---
1,2,3-Trichlorobenzene	10	---	---	---
1,2,4-Trichlorobenzene	10	---	---	---
1,1,1-Trichloroethane	10	---	---	---
1,1,2-Trichloroethane	10	---	---	---
Trichloroethylene	10	---	---	---
Trichlorofluoromethane	10	---	---	---
Vinyl Chloride	10	---	---	---
Sum of o, m, & p-Xylene	15	---	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.035 J	1.5	190

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 35 Process Monitoring

Analytes	Discharge Limits	Tank 35 Inlet (August 18, 2014)	Between LPGAC (August 18, 2014)	Air Stripper Disc (August 18, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	---	---	---
Benzene	5	---	---	---
2-Butanone	280	---	---	---
Chlorobenzene	10	---	---	---
Chloroethane	10	---	---	---
Chloroform	50	---	---	---
Chloromethane	10	---	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---	---
1,1-Dichloroethane	10	---	---	---
1,2-Dichloroethane	10	---	---	---
1,1-Dichloroethene	10	---	---	---
cis-1,2-Dichloroethene	10	---	---	---
trans-1,2-Dichloroethene	10	---	---	---
Ethylbenzene	5	---	---	---
Isopropylbenzene	14	---	---	---
Methylene Chloride	10	---	---	---
4-Methyl-2-pentanone	140	---	---	---
1,1,2,2-Tetrachloroethane	50	---	---	---
Tetrachloroethene	5.4 / 10	---	---	---
Toluene	5	---	---	---
1,2,3-Trichlorobenzene	10	---	---	---
1,2,4-Trichlorobenzene	10	---	---	---
1,1,1-Trichloroethane	10	---	---	---
1,1,2-Trichloroethane	10	---	---	---
Trichloroethylene	10	---	---	---
Trichlorofluoromethane	10	---	---	---
Vinyl Chloride	10	---	---	---
Sum of o, m, & p-Xylene	15	---	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.038 J	2.5	200

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit, estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 36 Process Monitoring

Analytes	Discharge Limits	Tank 36 Inlet (August 25, 2014)	Between LPGAC (August 25, 2014)	Air Stripper Disc (August 25, 2014)	Bio/Clarifier Disc (August 25, 2014)	Influent (August 25, 2014)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.40	7.52	7.84	7.32	7.16
Dissolved Oxygen (Field)	5.0 minimum	5.4	5.6	7.6	7.3	6.4
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	1.74	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.275	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	ND	ND	ND	109
Benzene	5	ND	ND	ND	30.8	1230
2-Butanone	280	ND	ND	ND	ND	18.3 J
Chlorobenzene	10	ND	ND	ND	35.3	556
Chloroethane	10	ND	ND	ND	1.05	ND
Chloroform	50	ND	ND	ND	44.5	70.8
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	3.51 J	13.4
1,1-Dichloroethane	10	ND	ND	ND	11.9	21.9
1,2-Dichloroethane	10	ND	ND	ND	55.1	71.8
1,1-Dichloroethene	10	ND	ND	ND	1.35	6.03 J
cis-1,2-Dichloroethene	10	ND	ND	ND	192	592
trans-1,2-Dichloroethene	10	ND	ND	ND	0.895 J	ND
Ethylbenzene	5	ND	ND	ND	ND	57.3
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	64.0	204
4-Methyl-2-pentanone	140	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	3.94	10.5
Toluene	5	ND	ND	ND	38.0	1910
1,2,3-Trichlorobenzene	10	ND	ND	ND	7.66	15.2
1,2,4-Trichlorobenzene	10	ND	ND	ND	11.7	64.5
1,1,1-Trichloroethane	10	ND	ND	ND	4.60	11.7
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	ND	ND	787	2120
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	10.7	78.5
Sum of o, m, & p-Xylene	15	ND	ND	ND	1.42	230
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	ND	--	--	ND	ND
2-Chlorophenol	--	ND	--	--	ND	ND
2,4-Dimethylphenol	10	ND	--	--	ND	6.52 J
2-Methylphenol	10	ND	--	--	2.90 J	23.2
Sum of 3- & 4-Methylphenol	10	ND	--	--	ND	29.4
Pentachlorophenol	--	ND	--	--	ND	ND
Phenol	10	ND	--	--	ND	8.30 J
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4,4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.027 J	4.5	180	--	240

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- In addition to leachate and groundwater, about 3,900 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 36

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 37 Process Monitoring

Analytes	Discharge Limits	Tank 37 Inlet (September 2, 2014)	Between LPGAC (September 2, 2014)	Air Stripper Disc (September 2, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	--
Benzene	5	--	--	--
2-Butanone	280	--	--	--
Chlorobenzene	10	--	--	--
Chloroethane	10	--	--	--
Chloroform	50	--	--	--
Chloromethane	10	--	--	--
Sum of o, m, & p-Dichlorobenzene	27	--	--	--
1,1-Dichloroethane	10	--	--	--
1,2-Dichloroethane	10	--	--	--
1,1-Dichloroethene	10	--	--	--
cis-1,2-Dichloroethene	10	--	--	--
trans-1,2-Dichloroethene	10	--	--	--
Ethylbenzene	5	--	--	--
Isopropylbenzene	14	--	--	--
Methylene Chloride	10	--	--	--
4-Methyl-2-pentanone	140	--	--	--
1,1,2,2-Tetrachloroethane	50	--	--	--
Tetrachloroethene	5.4 / 10	--	--	--
Toluene	5	--	--	--
1,2,3-Trichlorobenzene	10	--	--	--
1,2,4-Trichlorobenzene	10	--	--	--
1,1,1-Trichloroethane	10	--	--	--
1,1,2-Trichloroethane	10	--	--	--
Trichloroethylene	10	--	--	--
Trichlorofluoromethane	10	--	--	--
Vinyl Chloride	10	--	--	--
Sum of o, m, & p-Xylene	15	--	--	--
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.039 J	7.5	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- In addition to leachate and groundwater, about 4,650 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 37

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 38 Process Monitoring

Analytes	Discharge Limits	Tank 38 Inlet (September 8, 2014)	Between LPGAC (September 8, 2014)	Air Stripper Disc (September 8, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	--
Benzene	5	--	--	--
2-Butanone	280	--	--	--
Chlorobenzene	10	--	--	--
Chloroethane	10	--	--	--
Chloroform	50	--	--	--
Chloromethane	10	--	--	--
Sum of o, m, & p-Dichlorobenzene	27	--	--	--
1,1-Dichloroethane	10	--	--	--
1,2-Dichloroethane	10	--	--	--
1,1-Dichloroethene	10	--	--	--
cis-1,2-Dichloroethene	10	--	--	--
trans-1,2-Dichloroethene	10	--	--	--
Ethylbenzene	5	--	--	--
Isopropylbenzene	14	--	--	--
Methylene Chloride	10	--	--	--
4-Methyl-2-pentanone	140	--	--	--
1,1,1,2-Tetrachloroethane	50	--	--	--
Tetrachloroethene	5.4 / 10	--	--	--
Toluene	5	--	--	--
1,2,3-Trichlorobenzene	10	--	--	--
1,2,4-Trichlorobenzene	10	--	--	--
1,1,1-Trichloroethane	10	--	--	--
1,1,2-Trichloroethane	10	--	--	--
Trichloroethylene	10	--	--	--
Trichlorofluoromethane	10	--	--	--
Vinyl Chloride	10	--	--	--
Sum of o, m, & p-Xylene	15	--	--	--
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentalchlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.044 J	8.9	160

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- In addition to leachate and groundwater, about 4,990 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 38

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 39 Process Monitoring

Analytes	Discharge Limits	Tank 39 Inlet (September 15, 2014)	Between LPGAC (September 15, 2014)	Air Stripper Disc (September 15, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	---	---	---
Benzene	5	---	---	---
2-Butanone	280	---	---	---
Chlorobenzene	10	---	---	---
Chloroethane	10	---	---	---
Chloroform	50	---	---	---
Chloromethane	10	---	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---	---
1,1-Dichloroethane	10	---	---	---
1,2-Dichloroethane	10	---	---	---
1,1,1-Trichloroethane	10	---	---	---
cis-1,2-Dichloroethene	10	---	---	---
trans-1,2-Dichloroethene	10	---	---	---
Ethylbenzene	5	---	---	---
Isopropylbenzene	14	---	---	---
Methylene Chloride	10	---	---	---
4-Methyl-2-pentanone	140	---	---	---
1,1,2,2-Tetrachloroethane	50	---	---	---
Tetrachloroethene	5.4 / 10	---	---	---
Toluene	5	---	---	---
1,2,3-Trichlorobenzene	10	---	---	---
1,2,4-Trichlorobenzene	10	---	---	---
1,1,1-Trichloroethane	10	---	---	---
1,1,2-Trichloroethane	10	---	---	---
Trichloroethylene	10	---	---	---
Trichlorofluoromethane	10	---	---	---
Vinyl Chloride	10	---	---	---
Sum of o, m, & p-Xylene	15	---	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.039 J	11	19

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- In addition to leachate and groundwater, about 4,760 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 39

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 40 Process Monitoring

Analytes	Discharge Limits	Tank 40 Inlet (September 22, 2014)	Between LPGAC (September 22, 2014)	Air Stripper Disc (September 22, 2014)	Bio/Clarifier Disc (September 22, 2014)	Influent (September 22, 2014)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.36	7.48	8.01	7.13	7.06
Dissolved Oxygen (Field)	5.0 minimum	5.4	5.6	7.7	6.8	5.7
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	1.83	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.215	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	ND	ND	ND	119
Benzene	5	ND	ND	0.796 J	66.1	661
2-Butanone	280	45.0	ND	ND	ND	15.5 J
Chlorobenzene	10	ND	ND	0.630 J	99.8	494
Chloroethane	10	ND	ND	ND	1.57	2.69 J
Chloroform	50	ND	ND	ND	54.5	68.6
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	9.42	27.8 J
1,1-Dichloroethane	10	ND	ND	ND	16.5	21.6
1,2-Dichloroethane	10	ND	ND	ND	57.9	68.7
1,1-Dichloroethene	10	ND	ND	ND	2.13	6.69
cis-1,2-Dichloroethene	10	ND	ND	0.692 J	279	589
trans-1,2-Dichloroethene	10	ND	ND	ND	1.24	ND
Ethylbenzene	5	ND	ND	ND	2.59	47.0
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	77.7	170
4-Methyl-2-pentanone	140	ND	ND	ND	1.91 J	12.1 J
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	9.50	17.4
Toluene	5	ND	ND	0.710 J	76.9	1320
1,2,3-Trichlorobenzene	10	ND	ND	ND	8.97	14.3
1,2,4-Trichlorobenzene	10	ND	ND	ND	21.3	57.3
1,1,1-Trichloroethane	10	ND	ND	ND	7.16	12.9
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	ND	6.94	1220	2370
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	15.7	101
Sum of o, m, & p-Xylene	15	ND	ND	ND	11.6	132
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	ND	--	--	ND	ND
2-Chlorophenol	--	ND	--	--	ND	1.20 J
2,4-Dimethylphenol	10	ND	--	--	ND	3.25 J
2-Methylphenol	10	ND	--	--	5.61 J	17.1
Sum of 3- & 4-Methylphenol	10	ND	--	--	1.46 J	35.7
Pentachlorophenol	--	ND	--	--	ND	ND
Phenol	10	ND	--	--	1.40 J	12.5
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4,4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.029 J	19	160	--	180

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- In addition to leachate and groundwater, about 4,680 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 40

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 41 Process Monitoring**

Analytes	Discharge Limits	Tank 41 Inlet (September 29, 2014)	Between LPGAC (September 29, 2014)	Air Stripper Disc (September 29, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	---	---	---
Benzene	5	---	---	---
2-Butanone	280	---	---	---
Chlorobenzene	10	---	---	---
Chloroethane	10	---	---	---
Chloroform	50	---	---	---
Chloromethane	10	---	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---	---
1,1-Dichloroethane	10	---	---	---
1,2-Dichloroethane	10	---	---	---
1,1,1-Trichloroethane	10	---	---	---
cis-1,2-Dichloroethene	10	---	---	---
trans-1,2-Dichloroethene	10	---	---	---
Ethylbenzene	5	---	---	---
Isopropylbenzene	14	---	---	---
Methylene Chloride	10	---	---	---
4-Methyl-2-pentanone	140	---	---	---
1,1,2,2-Tetrachloroethane	50	---	---	---
Tetrachloroethene	5.4 / 10	---	---	---
Toluene	5	---	---	---
1,2,3-Trichlorobenzene	10	---	---	---
1,2,4-Trichlorobenzene	10	---	---	---
1,1,1-Trichloroethane	10	---	---	---
1,1,2-Trichloroethane	10	---	---	---
Trichloroethylene	10	---	---	---
Trichlorofluoromethane	10	---	---	---
Vinyl Chloride	10	---	---	---
Sum of o, m, & p-Xylene	15	---	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.040 J	25	160

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- In addition to leachate and groundwater, about 4,680 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 41

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 42 Process Monitoring

Analytes	Discharge Limits	Tank 42 Inlet (October 6, 2014)	Between LPGAC (October 6, 2014)	Air Stripper Disc (October 6, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	---	---	---
Benzene	5	---	---	---
2-Butanone	280	---	---	---
Chlorobenzene	10	---	---	---
Chloroethane	10	---	---	---
Chloroform	50	---	---	---
Chloromethane	10	---	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---	---
1,1-Dichloroethane	10	---	---	---
1,2-Dichloroethane	10	---	---	---
1,1-Dichloroethene	10	---	---	---
cis-1,2-Dichloroethene	10	---	---	---
trans-1,2-Dichloroethene	10	---	---	---
Ethylbenzene	5	---	---	---
Isopropylbenzene	14	---	---	---
Methylene Chloride	10	---	---	---
4-Methyl-2-pentanone	140	---	---	---
1,1,2,2-Tetrachloroethane	50	---	---	---
Tetrachloroethene	5.4 / 10	---	---	---
Toluene	5	---	---	---
1,2,3-Trichlorobenzene	10	---	---	---
1,2,4-Trichlorobenzene	10	---	---	---
1,1,1-Trichloroethane	10	---	---	---
1,1,2-Trichloroethane	10	---	---	---
Trichloroethylene	10	---	---	---
Trichlorofluoromethane	10	---	---	---
Vinyl Chloride	10	---	---	---
Sum of o, m, & p-Xylene	15	---	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.036 J	30	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- In addition to leachate and groundwater, about 4,630 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 42

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 43 Process Monitoring

Analytes	Discharge Limits	Tank 43 Inlet (October 13, 2014)	Between LPGAC (October 13, 2014)	Air Stripper Disc (October 13, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	---	---	---
Benzene	5	---	---	---
2-Butanone	280	---	---	---
Chlorobenzene	10	---	---	---
Chloroethane	10	---	---	---
Chloroform	50	---	---	---
Chloromethane	10	---	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---	---
1,1-Dichloroethane	10	---	---	---
1,2-Dichloroethane	10	---	---	---
1,1,1-Trichloroethane	10	---	---	---
cis-1,2-Dichloroethene	10	---	---	---
trans-1,2-Dichloroethene	10	---	---	---
Ethylbenzene	5	---	---	---
Isopropylbenzene	14	---	---	---
Methylene Chloride	10	---	---	---
4-Methyl-2-pentanone	140	---	---	---
1,1,2,2-Tetrachloroethane	50	---	---	---
Tetrachloroethene	5.4 / 10	---	---	---
Toluene	5	---	---	---
1,2,3-Trichlorobenzene	10	---	---	---
1,2,4-Trichlorobenzene	10	---	---	---
1,1,1-Trichloroethane	10	---	---	---
1,1,2-Trichloroethane	10	---	---	---
Trichloroethylene	10	---	---	---
Trichlorofluoromethane	10	---	---	---
Vinyl Chloride	10	---	---	---
Sum of o, m, & p-Xylene	15	---	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.040 J	36	190

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- In addition to leachate and groundwater, about 4,240 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 43

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 44 Process Monitoring**

Analytes	Discharge Limits	Tank 44 Inlet (October 20, 2014)	Between LPGAC (October 20, 2014)	Air Stripper Disc (October 20, 2014)	Bio/Clarifier Disc (October 20, 2014)	Influent (October 20, 2014)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.26	7.42	7.98	7.22	7.23
Dissolved Oxygen (Field)	5.0 minimum	6.1	6.5	8.5	6.9	7.4
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	1.77	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.165	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	ND	ND	17.1 J	144
Benzene	5	ND	ND	ND	130	1410
2-Butanone	280	ND	ND	0.756 J	1.51 J	12.7 J
Chlorobenzene	10	ND	ND	ND	98.4	584
Chloroethane	10	ND	ND	ND	ND	ND
Chloroform	50	ND	ND	ND	52.4	78.9
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	8.99 J	18.39 J
1,1-Dichloroethane	10	ND	ND	ND	15.7	24.8
1,2-Dichloroethane	10	ND	ND	ND	54.4	74.8
1,1-Dichloroethene	10	ND	ND	ND	ND	8.64
cis-1,2-Dichloroethene	10	ND	ND	ND	304	548
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	3.70	63.0
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	58.6	203
4-Methyl-2-pentanone	140	ND	ND	ND	1.71 J	15.0 J
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	10.5	24.2
Toluene	5	ND	0.553 J	ND	108	2050
1,2,3-Trichlorobenzene	10	ND	ND	ND	9.58	15.3
1,2,4-Trichlorobenzene	10	ND	ND	ND	16.8	71.8
1,1,1-Trichloroethane	10	ND	ND	ND	7.21	15.2
1,1,2-Trichloroethane	10	ND	ND	ND	6.58	ND
Trichloroethylene	10	ND	ND	ND	1530	2380
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	16.6	128
Sum of o, m, & p-Xylene	15	ND	ND	ND	11.2	255
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	ND	--	--	ND	ND
2-Chlorophenol	--	ND	--	--	ND	1.08 J
2,4-Dimethylphenol	10	ND	--	--	ND	9.30
2-Methylphenol	10	ND	--	--	2.02 J	17.8
Sum of 3- & 4-Methylphenol	10	ND	--	--	0.976 J	42.5
Pentachlorophenol	--	ND	--	--	ND	ND
Phenol	10	ND	--	--	1.01 J	16.1
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4,4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.041 J	46	190	--	270

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- In addition to leachate and groundwater, about 4,810 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 44

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 45 Process Monitoring

Analytes	Discharge Limits	Tank 45 Inlet (October 27, 2014)	Between LPGAC (October 27, 2014)	Air Stripper Disc (October 27, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	---	---	---
Benzene	5	---	---	---
2-Butanone	280	---	---	---
Chlorobenzene	10	---	---	---
Chloroethane	10	---	---	---
Chloroform	50	---	---	---
Chloromethane	10	---	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---	---
1,1-Dichloroethane	10	---	---	---
1,2-Dichloroethane	10	---	---	---
1,1-Dichloroethene	10	---	---	---
cis-1,2-Dichloroethene	10	---	---	---
trans-1,2-Dichloroethene	10	---	---	---
Ethylbenzene	5	---	---	---
Isopropylbenzene	14	---	---	---
Methylene Chloride	10	---	---	---
4-Methyl-2-pentanone	140	---	---	---
1,1,2,2-Tetrachloroethane	50	---	---	---
Tetrachloroethene	5.4 / 10	---	---	---
Toluene	5	---	---	---
1,2,3-Trichlorobenzene	10	---	---	---
1,2,4-Trichlorobenzene	10	---	---	---
1,1,1-Trichloroethane	10	---	---	---
1,1,2-Trichloroethane	10	---	---	---
Trichloroethylene	10	---	---	---
Trichlorofluoromethane	10	---	---	---
Vinyl Chloride	10	---	---	---
Sum of o, m, & p-Xylene	15	---	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.045 J	52	130

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- In addition to leachate and groundwater, about 1,220 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 45

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 46 Process Monitoring

Analytes	Discharge Limits	Tank 46 Inlet (November 3, 2014)	Between LPGAC (November 3, 2014)	Air Stripper Disc (November 3, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	--
Benzene	5	--	--	--
2-Butanone	280	--	--	--
Chlorobenzene	10	--	--	--
Chloroethane	10	--	--	--
Chloroform	50	--	--	--
Chloromethane	10	--	--	--
Sum of o, m, & p-Dichlorobenzene	27	--	--	--
1,1-Dichloroethane	10	--	--	--
1,2-Dichloroethane	10	--	--	--
1,1-Dichloroethene	10	--	--	--
cis-1,2-Dichloroethene	10	--	--	--
trans-1,2-Dichloroethene	10	--	--	--
Ethylbenzene	5	--	--	--
Isopropylbenzene	14	--	--	--
Methylene Chloride	10	--	--	--
4-Methyl-2-pentanone	140	--	--	--
1,1,2,2-Tetrachloroethane	50	--	--	--
Tetrachloroethene	5.4 / 10	--	--	--
Toluene	5	--	--	--
1,2,3-Trichlorobenzene	10	--	--	--
1,2,4-Trichlorobenzene	10	--	--	--
1,1,1-Trichloroethane	10	--	--	--
1,1,2-Trichloroethane	10	--	--	--
Trichloroethylene	10	--	--	--
Trichlorofluoromethane	10	--	--	--
Vinyl Chloride	10	--	--	--
Sum of o, m, & p-Xylene	15	--	--	--
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.044 J	62	150

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 47 Process Monitoring

Analytes	Discharge Limits	Tank 47 Inlet (November 10, 2014)	Between LPGAC (November 10, 2014)	Air Stripper Disc (November 10, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--	--
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	--
Benzene	5	--	--	--
2-Butanone	280	--	--	--
Chlorobenzene	10	--	--	--
Chloroethane	10	--	--	--
Chloroform	50	--	--	--
Chloromethane	10	--	--	--
Sum of o, m, & p-Dichlorobenzene	27	--	--	--
1,1-Dichloroethane	10	--	--	--
1,2-Dichloroethane	10	--	--	--
1,1-Dichloroethene	10	--	--	--
cis-1,2-Dichloroethene	10	--	--	--
trans-1,2-Dichloroethene	10	--	--	--
Ethylbenzene	5	--	--	--
Isopropylbenzene	14	--	--	--
Methylene Chloride	10	--	--	--
4-Methyl-2-pentanone	140	--	--	--
1,1,2,2-Tetrachloroethane	50	--	--	--
Tetrachloroethene	5.4 / 10	--	--	--
Toluene	5	--	--	--
1,2,3-Trichlorobenzene	10	--	--	--
1,2,4-Trichlorobenzene	10	--	--	--
1,1,1-Trichloroethane	10	--	--	--
1,1,2-Trichloroethane	10	--	--	--
Trichloroethylene	10	--	--	--
Trichlorofluoromethane	10	--	--	--
Vinyl Chloride	10	--	--	--
Sum of o, m, & p-Xylene	15	--	--	--
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.044 J	67	150

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash
- In addition to leachate and groundwater, about 1,020 gallons of water from the Frac Tanks in the Pole Barn was pumped through the treatment system and discharged into Tank 47

**Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - Tank 48 Process Monitoring**

Analytes	Discharge Limits	Tank 48 Inlet (November 17, 2014)	Between LPGAC (November 17, 2014)	Air Stripper Disc (November 17, 2014)	Bio/Clarifier Disc (November 17, 2014)	Influent (November 17, 2014)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.30	7.34	8.08	7.05	7.17
Dissolved Oxygen (Field)	5.0 minimum	6.3	6.6	8.8	6.5	7.0
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	1.28	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.166	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	ND	5.02 J	20.4	132
Benzene	5	ND	ND	ND	274	1200
2-Butanone	280	ND	ND	0.729 J	2.85 J	ND
Chlorobenzene	10	ND	ND	ND	143	521
Chloroethane	10	ND	ND	ND	1.46 J	3.50 J
Chloroform	50	ND	ND	ND	74.6	95.7
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	11.93 J	20.31 J
1,1-Dichloroethane	10	ND	ND	ND	22.8	30.7
1,2-Dichloroethane	10	ND	ND	ND	78.1	101
1,1-Dichloroethene	10	ND	ND	ND	4.97	10.6
cis-1,2-Dichloroethene	10	ND	ND	ND	390	614
trans-1,2-Dichloroethene	10	ND	ND	ND	1.46 J	2.52 J
Ethylbenzene	5	ND	ND	ND	5.36	43.2
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	94.7	275
4-Methyl-2-pentanone	140	ND	ND	ND	3.08 J	15.1 J
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	18.1	26.8
Toluene	5	ND	ND	ND	238	1770
1,2,3-Trichlorobenzene	10	ND	ND	ND	16.1	23.2
1,2,4-Trichlorobenzene	10	ND	ND	ND	42.1	101
1,1,1-Trichloroethane	10	ND	ND	ND	13.0	20.1
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	0.783 J	ND	0.548 J	2190	2720
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	31.0	146
Sum of o, m, & p-Xylene	15	ND	ND	ND	21.4	153
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	ND	--	--	ND	ND
2-Chlorophenol	--	ND	--	--	ND	ND
2,4-Dimethylphenol	10	ND	--	--	ND	4.74 J
2-Methylphenol	10	ND	--	--	7.46 J	48.1
Sum of 3- & 4-Methylphenol	10	ND	--	--	5.93 J	42.5
Pentachlorophenol	--	ND	--	--	6.37 J	6.35 J
Phenol	10	ND	--	--	3.01 J	18.0
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4,4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.041 J	85	160	--	180

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - November 25, 2014 Process Monitoring

Analytes	Discharge Limits	LPGAC Disc (November 25, 2014)	Between LPGAC (November 25, 2014)	Air Stripper Disc (November 25, 2014)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---	---
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	---	---	---
Benzene	5	---	---	---
2-Butanone	280	---	---	---
Chlorobenzene	10	---	---	---
Chloroethane	10	---	---	---
Chloroform	50	---	---	---
Chloromethane	10	---	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---	---
1,1-Dichloroethane	10	---	---	---
1,2-Dichloroethane	10	---	---	---
1,1-Dichloroethene	10	---	---	---
cis-1,2-Dichloroethene	10	---	---	---
trans-1,2-Dichloroethene	10	---	---	---
Ethylbenzene	5	---	---	---
Isopropylbenzene	14	---	---	---
Methylene Chloride	10	---	---	---
4-Methyl-2-pentanone	140	---	---	---
1,1,2,2-Tetrachloroethane	50	---	---	---
Tetrachloroethene	5.4 / 10	---	---	---
Toluene	5	---	---	---
1,2,3-Trichlorobenzene	10	---	---	---
1,2,4-Trichlorobenzene	10	---	---	---
1,1,1-Trichloroethane	10	---	---	---
1,1,2-Trichloroethane	10	---	---	---
Trichloroethylene	10	---	---	---
Trichlorofluoromethane	10	---	---	---
Vinyl Chloride	10	---	---	---
Sum of o, m, & p-Xylene	15	---	---	---
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.23	0.047 J	160

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - December 4, 2014 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (December 4, 2014)	Air Stripper Disc (December 4, 2014)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---
Total Suspended Solids (SM 2540D)	20	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---
BOD5 (SM 5210 B)	30	---	---
Ammonia (USEPA 350.1)	8.1	---	---
Oil & Grease (USEPA 1664A)	15	---	---
Total Phosphorus (SM 4500-P E)	1	---	---
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	---	---
Total Arsenic	50 / 100	---	---
Total Cobalt	27	---	---
Total Copper	86	---	---
Total Iron	2000 / 4000	---	---
Total Lead	51	---	---
Total Manganese	1000 / 2000	---	---
Total Selenium	25	---	---
Total Silver	22	---	---
Total Thallium	43	---	---
Total Vanadium	76	---	---
Total Zinc	400	---	---
VOCs (624) (micrograms per liter)			
Acetone	280	---	---
Benzene	5	---	---
2-Butanone	280	---	---
Chlorobenzene	10	---	---
Chloroethane	10	---	---
Chloroform	50	---	---
Chloromethane	10	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---
1,1-Dichloroethane	10	---	---
1,2-Dichloroethane	10	---	---
1,1-Dichloroethene	10	---	---
cis-1,2-Dichloroethene	10	---	---
trans-1,2-Dichloroethene	10	---	---
Ethylbenzene	5	---	---
Isopropylbenzene	14	---	---
Methylene Chloride	10	---	---
4-Methyl-2-pentanone	140	---	---
1,1,2,2-Tetrachloroethane	50	---	---
Tetrachloroethene	5.4 / 10	---	---
Toluene	5	---	---
1,2,3-Trichlorobenzene	10	---	---
1,2,4-Trichlorobenzene	10	---	---
1,1,1-Trichloroethane	10	---	---
1,1,2-Trichloroethane	10	---	---
Trichloroethylene	10	---	---
Trichlorofluoromethane	10	---	---
Vinyl Chloride	10	---	---
Sum of o, m, & p-Xylene	15	---	---
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	---	---
2-Chlorophenol	---	---	---
2,4-Dimethylphenol	10	---	---
2-Methylphenol	10	---	---
Sum of 3- & 4-Methylphenol	10	---	---
Pentachlorophenol	---	---	---
Phenol	10	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	---	---
Aroclor 1242	0.2	---	---
Aroclor 1248	0.2	---	---
Aroclor 1254	0.2	---	---
Aroclor 1260	0.2	---	---
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	---	---
delta-BHC	0.043	---	---
alpha-Chlordane	0.05	---	---
gamma-Chlordane	0.05	---	---
4,4'-DDE	0.01	---	---
Dieldrin	0.005	---	---
Endosulfan II	0.049	---	---
Endosulfan Sulfate	0.2	---	---
Heptachlor	0.01	---	---
Methoxychlor	0.4	---	---
Mercury (1631) (micrograms per liter)			
Mercury	0.05	---	---
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	---	0.046 J	110

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - December 9, 2014 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (December 9, 2014)	Air Stripper Disc (December 9, 2014)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---
Total Suspended Solids (SM 2540D)	20	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---
BOD5 (SM 5210 B)	30	---	---
Ammonia (USEPA 350.1)	8.1	---	---
Oil & Grease (USEPA 1664A)	15	---	---
Total Phosphorus (SM 4500-P E)	1	---	---
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	---	---
Total Arsenic	50 / 100	---	---
Total Cobalt	27	---	---
Total Copper	86	---	---
Total Iron	2000 / 4000	---	---
Total Lead	51	---	---
Total Manganese	1000 / 2000	---	---
Total Selenium	25	---	---
Total Silver	22	---	---
Total Thallium	43	---	---
Total Vanadium	76	---	---
Total Zinc	400	---	---
VOCs (624) (micrograms per liter)			
Acetone	280	---	---
Benzene	5	---	---
2-Butanone	280	---	---
Chlorobenzene	10	---	---
Chloroethane	10	---	---
Chloroform	50	---	---
Chloromethane	10	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---
1,1-Dichloroethane	10	---	---
1,2-Dichloroethane	10	---	---
1,1-Dichloroethene	10	---	---
cis-1,2-Dichloroethene	10	---	---
trans-1,2-Dichloroethene	10	---	---
Ethylbenzene	5	---	---
Isopropylbenzene	14	---	---
Methylene Chloride	10	---	---
4-Methyl-2-pentanone	140	---	---
1,1,2,2-Tetrachloroethane	50	---	---
Tetrachloroethene	5.4 / 10	---	---
Toluene	5	---	---
1,2,3-Trichlorobenzene	10	---	---
1,2,4-Trichlorobenzene	10	---	---
1,1,1-Trichloroethane	10	---	---
1,1,2-Trichloroethane	10	---	---
Trichloroethylene	10	---	---
Trichlorofluoromethane	10	---	---
Vinyl Chloride	10	---	---
Sum of o, m, & p-Xylene	15	---	---
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	---	---
2-Chlorophenol	---	---	---
2,4-Dimethylphenol	10	---	---
2-Methylphenol	10	---	---
Sum of 3- & 4-Methylphenol	10	---	---
Pentachlorophenol	---	---	---
Phenol	10	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	---	---
Aroclor 1242	0.2	---	---
Aroclor 1248	0.2	---	---
Aroclor 1254	0.2	---	---
Aroclor 1260	0.2	---	---
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	---	---
delta-BHC	0.043	---	---
alpha-Chlordane	0.05	---	---
gamma-Chlordane	0.05	---	---
4,4'-DDE	0.01	---	---
Dieldrin	0.005	---	---
Endosulfan II	0.049	---	---
Endosulfan Sulfate	0.2	---	---
Heptachlor	0.01	---	---
Methoxychlor	0.4	---	---
Mercury (1631) (micrograms per liter)			
Mercury	0.05	---	---
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	---	0.034 J	140

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - December 15, 2014 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (December 15, 2014)	Air Stripper Disc (December 15, 2014)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---
Total Suspended Solids (SM 2540D)	20	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---
BOD5 (SM 5210 B)	30	---	---
Ammonia (USEPA 350.1)	8.1	---	---
Oil & Grease (USEPA 1664A)	15	---	---
Total Phosphorus (SM 4500-P E)	1	---	---
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	---	---
Total Arsenic	50 / 100	---	---
Total Cobalt	27	---	---
Total Copper	86	---	---
Total Iron	2000 / 4000	---	---
Total Lead	51	---	---
Total Manganese	1000 / 2000	---	---
Total Selenium	25	---	---
Total Silver	22	---	---
Total Thallium	43	---	---
Total Vanadium	76	---	---
Total Zinc	400	---	---
VOCs (624) (micrograms per liter)			
Acetone	280	---	---
Benzene	5	---	---
2-Butanone	280	---	---
Chlorobenzene	10	---	---
Chloroethane	10	---	---
Chloroform	50	---	---
Chloromethane	10	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---
1,1-Dichloroethane	10	---	---
1,2-Dichloroethane	10	---	---
1,1-Dichloroethene	10	---	---
cis-1,2-Dichloroethene	10	---	---
trans-1,2-Dichloroethene	10	---	---
Ethylbenzene	5	---	---
Isopropylbenzene	14	---	---
Methylene Chloride	10	---	---
4-Methyl-2-pentanone	140	---	---
1,1,2,2-Tetrachloroethane	50	---	---
Tetrachloroethene	5.4 / 10	---	---
Toluene	5	---	---
1,2,3-Trichlorobenzene	10	---	---
1,2,4-Trichlorobenzene	10	---	---
1,1,1-Trichloroethane	10	---	---
1,1,2-Trichloroethane	10	---	---
Trichloroethylene	10	---	---
Trichlorofluoromethane	10	---	---
Vinyl Chloride	10	---	---
Sum of o, m, & p-Xylene	15	---	---
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	---	---
2-Chlorophenol	---	---	---
2,4-Dimethylphenol	10	---	---
2-Methylphenol	10	---	---
Sum of 3- & 4-Methylphenol	10	---	---
Pentachlorophenol	---	---	---
Phenol	10	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	---	---
Aroclor 1242	0.2	---	---
Aroclor 1248	0.2	---	---
Aroclor 1254	0.2	---	---
Aroclor 1260	0.2	---	---
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	---	---
delta-BHC	0.043	---	---
alpha-Chlordane	0.05	---	---
gamma-Chlordane	0.05	---	---
4,4'-DDE	0.01	---	---
Dieldrin	0.005	---	---
Endosulfan II	0.049	---	---
Endosulfan Sulfate	0.2	---	---
Heptachlor	0.01	---	---
Methoxychlor	0.4	---	---
Mercury (1631) (micrograms per liter)			
Mercury	0.05	---	---
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	---	0.032 J	130

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - December 18, 2014 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (December 18, 2014)	Air Stripper Disc (December 18, 2014)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---
Total Suspended Solids (SM 2540D)	20	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---
BOD5 (SM 5210 B)	30	---	---
Ammonia (USEPA 350.1)	8.1	---	---
Oil & Grease (USEPA 1664A)	15	---	---
Total Phosphorus (SM 4500-P E)	1	---	---
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	---	---
Total Arsenic	50 / 100	---	---
Total Cobalt	27	---	---
Total Copper	86	---	---
Total Iron	2000 / 4000	---	---
Total Lead	51	---	---
Total Manganese	1000 / 2000	---	---
Total Selenium	25	---	---
Total Silver	22	---	---
Total Thallium	43	---	---
Total Vanadium	76	---	---
Total Zinc	400	---	---
VOCs (624) (micrograms per liter)			
Acetone	280	---	---
Benzene	5	---	---
2-Butanone	280	---	---
Chlorobenzene	10	---	---
Chloroethane	10	---	---
Chloroform	50	---	---
Chloromethane	10	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---
1,1-Dichloroethane	10	---	---
1,2-Dichloroethane	10	---	---
1,1-Dichloroethene	10	---	---
cis-1,2-Dichloroethene	10	---	---
trans-1,2-Dichloroethene	10	---	---
Ethylbenzene	5	---	---
Isopropylbenzene	14	---	---
Methylene Chloride	10	---	---
4-Methyl-2-pentanone	140	---	---
1,1,2,2-Tetrachloroethane	50	---	---
Tetrachloroethene	5.4 / 10	---	---
Toluene	5	---	---
1,2,3-Trichlorobenzene	10	---	---
1,2,4-Trichlorobenzene	10	---	---
1,1,1-Trichloroethane	10	---	---
1,1,2-Trichloroethane	10	---	---
Trichloroethylene	10	---	---
Trichlorofluoromethane	10	---	---
Vinyl Chloride	10	---	---
Sum of o, m, & p-Xylene	15	---	---
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	---	---
2-Chlorophenol	---	---	---
2,4-Dimethylphenol	10	---	---
2-Methylphenol	10	---	---
Sum of 3- & 4-Methylphenol	10	---	---
Pentachlorophenol	---	---	---
Phenol	10	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	---	---
Aroclor 1242	0.2	---	---
Aroclor 1248	0.2	---	---
Aroclor 1254	0.2	---	---
Aroclor 1260	0.2	---	---
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	---	---
delta-BHC	0.043	---	---
alpha-Chlordane	0.05	---	---
gamma-Chlordane	0.05	---	---
4,4'-DDE	0.01	---	---
Dieldrin	0.005	---	---
Endosulfan II	0.049	---	---
Endosulfan Sulfate	0.2	---	---
Heptachlor	0.01	---	---
Methoxychlor	0.4	---	---
Mercury (1631) (micrograms per liter)			
Mercury	0.05	---	---
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	---	25	130

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - December 22, 2014 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (December 22, 2014)	Air Stripper Disc (December 22, 2014)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---
Total Suspended Solids (SM 2540D)	20	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---
BOD5 (SM 5210 B)	30	---	---
Ammonia (USEPA 350.1)	8.1	---	---
Oil & Grease (USEPA 1664A)	15	---	---
Total Phosphorus (SM 4500-P E)	1	---	---
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	---	---
Total Arsenic	50 / 100	---	---
Total Cobalt	27	---	---
Total Copper	86	---	---
Total Iron	2000 / 4000	---	---
Total Lead	51	---	---
Total Manganese	1000 / 2000	---	---
Total Selenium	25	---	---
Total Silver	22	---	---
Total Thallium	43	---	---
Total Vanadium	76	---	---
Total Zinc	400	---	---
VOCs (624) (micrograms per liter)			
Acetone	280	---	---
Benzene	5	---	---
2-Butanone	280	---	---
Chlorobenzene	10	---	---
Chloroethane	10	---	---
Chloroform	50	---	---
Chloromethane	10	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---
1,1-Dichloroethane	10	---	---
1,2-Dichloroethane	10	---	---
1,1-Dichloroethene	10	---	---
cis-1,2-Dichloroethene	10	---	---
trans-1,2-Dichloroethene	10	---	---
Ethylbenzene	5	---	---
Isopropylbenzene	14	---	---
Methylene Chloride	10	---	---
4-Methyl-2-pentanone	140	---	---
1,1,2,2-Tetrachloroethane	50	---	---
Tetrachloroethene	5.4 / 10	---	---
Toluene	5	---	---
1,2,3-Trichlorobenzene	10	---	---
1,2,4-Trichlorobenzene	10	---	---
1,1,1-Trichloroethane	10	---	---
1,1,2-Trichloroethane	10	---	---
Trichloroethylene	10	---	---
Trichlorofluoromethane	10	---	---
Vinyl Chloride	10	---	---
Sum of o, m, & p-Xylene	15	---	---
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	---	---
2-Chlorophenol	---	---	---
2,4-Dimethylphenol	10	---	---
2-Methylphenol	10	---	---
Sum of 3- & 4-Methylphenol	10	---	---
Pentachlorophenol	---	---	---
Phenol	10	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	---	---
Aroclor 1242	0.2	---	---
Aroclor 1248	0.2	---	---
Aroclor 1254	0.2	---	---
Aroclor 1260	0.2	---	---
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	---	---
delta-BHC	0.043	---	---
alpha-Chlordane	0.05	---	---
gamma-Chlordane	0.05	---	---
4,4'-DDE	0.01	---	---
Dieldrin	0.005	---	---
Endosulfan II	0.049	---	---
Endosulfan Sulfate	0.2	---	---
Heptachlor	0.01	---	---
Methoxychlor	0.4	---	---
Mercury (1631) (micrograms per liter)			
Mercury	0.05	---	---
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	---	26	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - December 29, 2014 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (December 29, 2014)	HIPOx Disc (December 29, 2014)	Air Stripper Disc (December 29, 2014)	Bio/Clarifier Disc (December 29, 2014)	Influent (December 29, 2014)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.81	8.01	8.14	7.19	7.40
Dissolved Oxygen (Field)	5.0 minimum	5.8	--	9.2	6.5	7.6
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	1.71	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.155	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	39.7	9.23 J	ND	83.9
Benzene	5	ND	0.854 J	ND	611	988
2-Butanone	280	ND	2.81 J	0.614 J	ND	13.7 J
Chlorobenzene	10	ND	ND	ND	305	416
Chloroethane	10	ND	ND	ND	ND	ND
Chloroform	50	ND	ND	ND	70.7	60.0
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	11.6	15.3 J
1,1-Dichloroethane	10	ND	ND	ND	25.0	21.0
1,2-Dichloroethane	10	ND	ND	ND	90.9	72.4
1,1-Dichloroethene	10	ND	ND	ND	6.87 J	6.77
cis-1,2-Dichloroethene	10	ND	ND	ND	569	541
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	9.00 J	34.4
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	159	193
4-Methyl-2-pentanone	140	ND	ND	ND	ND	8.89 J
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	20.0	18.6
Toluene	5	0.655 J	1.39	ND	537	1600
1,2,3-Trichlorobenzene	10	ND	ND	ND	11.1	10.8
1,2,4-Trichlorobenzene	10	ND	ND	ND	74.0	66.6
1,1,1-Trichloroethane	10	ND	ND	ND	14.2	12.7
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	0.535 J	1.06	0.510 J	2810	2570
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	69.0	79.1
Sum of o, m, & p-Xylene	15	ND	ND	ND	50.8	99.6
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	--	--	--	ND	ND
2-Chlorophenol	--	--	--	--	2.05 J	2.15 J
2,4-Dimethylphenol	10	--	--	--	3.34 J	5.27 J
2-Methylphenol	10	--	--	--	30.0	34.9
Sum of 3- & 4-Methylphenol	10	--	--	--	16.5	24.1
Pentachlorophenol	--	--	--	--	7.85 J	ND
Phenol	10	--	--	--	7.82 J	10.8
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4,4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.063 J	11	190	--	210

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- The HIPOx Unit Discharge was also sampled for 1,4-Dioxane and the result was 11 micrograms per liter
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - January 7, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (January 7, 2015)	Air Stripper Disc (January 7, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	---	---
Dissolved Oxygen (Field)	5.0 minimum	---	---
Total Suspended Solids (SM 2540D)	20	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---
BOD5 (SM 5210 B)	30	---	---
Ammonia (USEPA 350.1)	8.1	---	---
Oil & Grease (USEPA 1664A)	15	---	---
Total Phosphorus (SM 4500-P E)	1	---	---
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	---	---
Total Arsenic	50 / 100	---	---
Total Cobalt	27	---	---
Total Copper	86	---	---
Total Iron	2000 / 4000	---	---
Total Lead	51	---	---
Total Manganese	1000 / 2000	---	---
Total Selenium	25	---	---
Total Silver	22	---	---
Total Thallium	43	---	---
Total Vanadium	76	---	---
Total Zinc	400	---	---
VOCs (624) (micrograms per liter)			
Acetone	280	---	---
Benzene	5	---	---
2-Butanone	280	---	---
Chlorobenzene	10	---	---
Chloroethane	10	---	---
Chloroform	50	---	---
Chloromethane	10	---	---
Sum of o, m, & p-Dichlorobenzene	27	---	---
1,1-Dichloroethane	10	---	---
1,2-Dichloroethane	10	---	---
1,1-Dichloroethene	10	---	---
cis-1,2-Dichloroethene	10	---	---
trans-1,2-Dichloroethene	10	---	---
Ethylbenzene	5	---	---
Isopropylbenzene	14	---	---
Methylene Chloride	10	---	---
4-Methyl-2-pentanone	140	---	---
1,1,2,2-Tetrachloroethane	50	---	---
Tetrachloroethene	5.4 / 10	---	---
Toluene	5	---	---
1,2,3-Trichlorobenzene	10	---	---
1,2,4-Trichlorobenzene	10	---	---
1,1,1-Trichloroethane	10	---	---
1,1,2-Trichloroethane	10	---	---
Trichloroethylene	10	---	---
Trichlorofluoromethane	10	---	---
Vinyl Chloride	10	---	---
Sum of o, m, & p-Xylene	15	---	---
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	---	---
2-Chlorophenol	---	---	---
2,4-Dimethylphenol	10	---	---
2-Methylphenol	10	---	---
Sum of 3- & 4-Methylphenol	10	---	---
Pentachlorophenol	---	---	---
Phenol	10	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	---	---
Aroclor 1242	0.2	---	---
Aroclor 1248	0.2	---	---
Aroclor 1254	0.2	---	---
Aroclor 1260	0.2	---	---
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	---	---
delta-BHC	0.043	---	---
alpha-Chlordane	0.05	---	---
gamma-Chlordane	0.05	---	---
4,4'-DDE	0.01	---	---
Dieldrin	0.005	---	---
Endosulfan II	0.049	---	---
Endosulfan Sulfate	0.2	---	---
Heptachlor	0.01	---	---
Methoxychlor	0.4	---	---
Mercury (1631) (micrograms per liter)			
Mercury	0.05	---	---
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	---	74	180

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - January 14, 2015 Process Monitoring

Analytes	Discharge Limits	HiPOx Disc (January 14, 2015)	Air Stripper Disc (January 14, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	--	--
Dissolved Oxygen (Field)	5.0 minimum	--	--
Total Suspended Solids (SM 2540D)	20	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--
BOD5 (SM 5210 B)	30	--	--
Ammonia (USEPA 350.1)	8.1	--	--
Oil & Grease (USEPA 1664A)	15	--	--
Total Phosphorus (SM 4500-P E)	1	--	--
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	--
Total Arsenic	50 / 100	--	--
Total Cobalt	27	--	--
Total Copper	86	--	--
Total Iron	2000 / 4000	--	--
Total Lead	51	--	--
Total Manganese	1000 / 2000	--	--
Total Selenium	25	--	--
Total Silver	22	--	--
Total Thallium	43	--	--
Total Vanadium	76	--	--
Total Zinc	400	--	--
VOCs (624) (micrograms per liter)			
Acetone	280	--	--
Benzene	5	--	--
2-Butanone	280	--	--
Chlorobenzene	10	--	--
Chloroethane	10	--	--
Chloroform	50	--	--
Chloromethane	10	--	--
Sum of o, m, & p-Dichlorobenzene	27	--	--
1,1-Dichloroethane	10	--	--
1,2-Dichloroethane	10	--	--
1,1-Dichloroethene	10	--	--
cis-1,2-Dichloroethene	10	--	--
trans-1,2-Dichloroethene	10	--	--
Ethylbenzene	5	--	--
Isopropylbenzene	14	--	--
Methylene Chloride	10	--	--
4-Methyl-2-pentanone	140	--	--
1,1,2,2-Tetrachloroethane	50	--	--
Tetrachloroethene	5.4 / 10	--	--
Toluene	5	--	--
1,2,3-Trichlorobenzene	10	--	--
1,2,4-Trichlorobenzene	10	--	--
1,1,1-Trichloroethane	10	--	--
1,1,2-Trichloroethane	10	--	--
Trichloroethylene	10	--	--
Trichlorofluoromethane	10	--	--
Vinyl Chloride	10	--	--
Sum of o, m, & p-Xylene	15	--	--
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	--	--
2-Chlorophenol	--	--	--
2,4-Dimethylphenol	10	--	--
2-Methylphenol	10	--	--
Sum of 3- & 4-Methylphenol	10	--	--
Pentachlorophenol	--	--	--
Phenol	10	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	--
Aroclor 1242	0.2	--	--
Aroclor 1248	0.2	--	--
Aroclor 1254	0.2	--	--
Aroclor 1260	0.2	--	--
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	--
delta-BHC	0.043	--	--
alpha-Chlordane	0.05	--	--
gamma-Chlordane	0.05	--	--
4,4'-DDE	0.01	--	--
Dieldrin	0.005	--	--
Endosulfan II	0.049	--	--
Endosulfan Sulfate	0.2	--	--
Heptachlor	0.01	--	--
Methoxychlor	0.4	--	--
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	--
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	99	190

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - January 21, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (January 21, 2015)	Air Stripper Disc (January 21, 2015)	Influent (January 21, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.54
Dissolved Oxygen (Field)	5.0 minimum	--	--	9.5
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	134
Benzene	5	--	--	814
2-Butanone	280	--	--	24.6 J
Chlorobenzene	10	--	--	465
Chloroethane	10	--	--	ND
Chloroform	50	--	--	86.1
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	12.7
1,1-Dichloroethane	10	--	--	27.4
1,2-Dichloroethane	10	--	--	94.3
1,1-Dichloroethene	10	--	--	9.47 J
cis-1,2-Dichloroethene	10	--	--	667
trans-1,2-Dichloroethene	10	--	--	ND
Ethylbenzene	5	--	--	17.2
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	203
4-Methyl-2-pentanone	140	--	--	15.4 J
1,1,2,2-Tetrachloroethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	20.8
Toluene	5	--	--	107
1,2,3-Trichlorobenzene	10	--	--	16.5
1,2,4-Trichlorobenzene	10	--	--	78.0
1,1,1-Trichloroethane	10	--	--	16.4
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	2540
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	96.1
Sum of o, m, & p-Xylene	15	--	--	164
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	9.0	180	210

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - January 29, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (January 29, 2015)	Air Stripper Disc (January 29, 2015)	Influent (January 29, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.50
Dissolved Oxygen (Field)	5.0 minimum	--	--	8.8
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	121
Benzene	5	--	--	1930
2-Butanone	280	--	--	ND
Chlorobenzene	10	--	--	657
Chloroethane	10	--	--	ND
Chloroform	50	--	--	103
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	17.1
1,1-Dichloroethane	10	--	--	34.4
1,2-Dichloroethane	10	--	--	118
1,1-Dichloroethene	10	--	--	12.3
cis-1,2-Dichloroethene	10	--	--	842
trans-1,2-Dichloroethene	10	--	--	ND
Ethylbenzene	5	--	--	59.9
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	231
4-Methyl-2-pentanone	140	--	--	16.2 J
1,1,2,2-Tetrachloroethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	27.8
Toluene	5	--	--	2480
1,2,3-Trichlorobenzene	10	--	--	22.8
1,2,4-Trichlorobenzene	10	--	--	111
1,1,1-Trichloroethane	10	--	--	19.7
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	3430
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	120
Sum of o, m, & p-Xylene	15	--	--	205
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	50	170	180

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - February 4, 2015 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (February 4, 2015)	HIPOx Disc (February 4, 2015)	Air Stripper Disc (February 4, 2015)	Bio/Clarifier Disc (February 4, 2015)	Influent (February 4, 2015)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	6.91	7.85	8.08	7.31	7.37
Dissolved Oxygen (Field)	5.0 minimum	6.3	--	9.4	7.4	9.3
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	2.59	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	ND	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	35.4	5.39 J	ND	170
Benzene	5	0.639 J	0.833 J	ND	203	2690
2-Butanone	280	ND	2.75 J	ND	ND	33.6 J
Chlorobenzene	10	ND	ND	ND	281	751
Chloroethane	10	ND	ND	ND	ND	ND
Chloroform	50	ND	ND	ND	113	144
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	17.3	27.3 J
1,1-Dichloroethane	10	ND	ND	ND	35.1	41.2
1,2-Dichloroethane	10	ND	ND	ND	144	166
1,1-Dichloroethene	10	ND	ND	ND	6.33 J	14.0
cis-1,2-Dichloroethene	10	ND	ND	ND	818	1280
trans-1,2-Dichloroethene	10	ND	ND	ND	5.42 J	ND
Ethylbenzene	5	ND	ND	ND	ND	82.2
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	247	350
4-Methyl-2-pentanone	140	ND	0.851 J	ND	11.3 J	19.8 J
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	21.4	35.8
Toluene	5	0.912 J	1.22	ND	296	3530
1,2,3-Trichlorobenzene	10	ND	ND	ND	28.3	30.3
1,2,4-Trichlorobenzene	10	ND	ND	ND	132	157
1,1,1-Trichloroethane	10	ND	ND	ND	18.1	25.8
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	1.02	1.49	1.12	3280	5610
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	80.7	146
Sum of o, m, & p-Xylene	15	ND	ND	ND	33.4	345
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	--	--	--	ND	ND
2-Chlorophenol	--	--	--	--	2.64 J	2.41 J
2,4-Dimethylphenol	10	--	--	--	ND	4.13 J
2-Methylphenol	10	--	--	--	12.2	33.1
Sum of 3- & 4-Methylphenol	10	--	--	--	ND	38.4
Pentachlorophenol	--	--	--	--	7.35 J	6.28 J
Phenol	10	--	--	--	ND	16.7
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4,4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	16	37	160	--	180

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - February 11, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (February 11, 2015)	Air Stripper Disc (February 11, 2015)	Influent (February 11, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.51
Dissolved Oxygen (Field)	5.0 minimum	--	--	9.1
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	272
Benzene	5	--	--	3460
2-Butanone	280	--	--	58.4 J
Chlorobenzene	10	--	--	1020
Chloroethane	10	--	--	ND
Chloroform	50	--	--	175
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	28.4
1,1-Dichloroethane	10	--	--	56.8
1,2-Dichloroethane	10	--	--	221
1,1-Dichloroethene	10	--	--	18.1 J
cis-1,2-Dichloroethene	10	--	--	1380
trans-1,2-Dichloroethene	10	--	--	ND
Ethylbenzene	5	--	--	101
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	409
4-Methyl-2-pentanone	140	--	--	29.3 J
1,1,2,2-Tetrachloroethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	44.3
Toluene	5	--	--	4260
1,2,3-Trichlorobenzene	10	--	--	42.1
1,2,4-Trichlorobenzene	10	--	--	210
1,1,1-Trichloroethane	10	--	--	31.4
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	6820
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	199
Sum of o, m, & p-Xylene	15	--	--	378
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	39	160	210

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - February 18, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (February 18, 2015)	Air Stripper Disc (February 18, 2015)	Influent (February 18, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.39
Dissolved Oxygen (Field)	5.0 minimum	--	--	8.6
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	397
Benzene	5	--	--	2630
2-Butanone	280	--	--	35.1 J
Chlorobenzene	10	--	--	857
Chloroethane	10	--	--	ND
Chloroform	50	--	--	160
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	23.1
1,1-Dichloroethane	10	--	--	45.5
1,2-Dichloroethane	10	--	--	173
1,1-Dichloroethene	10	--	--	17.5 J
cis-1,2-Dichloroethene	10	--	--	1190
trans-1,2-Dichloroethene	10	--	--	10.1 J
Ethylbenzene	5	--	--	89.2
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	368
4-Methyl-2-pentanone	140	--	--	23.3 J
1,1,2,2-Tetrachloroethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	39.8
Toluene	5	--	--	3280
1,2,3-Trichlorobenzene	10	--	--	37.3
1,2,4-Trichlorobenzene	10	--	--	170
1,1,1-Trichloroethane	10	--	--	30.2
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	5110
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	132
Sum of o, m, & p-Xylene	15	--	--	318
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	9.2	150	180

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - February 26, 2015 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (February 26, 2015)	HIPOx Disc (February 26, 2015)	Air Stripper Disc (February 26, 2015)	Bio/Clarifier Disc (February 26, 2015)	Influent (February 26, 2015)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.18	8.15	8.30	7.15	7.24
Dissolved Oxygen (Field)	5.0 minimum	6.7	--	11.5	7.1	8.0
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	4.27	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.152	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	83	3.4 J	100	400
Benzene	5	ND	ND	ND	130	3600
2-Butanone	280	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	570	1300
Chloroethane	10	ND	ND	ND	4.3	7.2
Chloroform	50	ND	ND	ND	220	300
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	42.4	53.9
1,1-Dichloroethane	10	ND	ND	ND	65	84
1,2-Dichloroethane	10	ND	ND	ND	240	280
1,1-Dichloroethene	10	ND	ND	ND	12	35
cis-1,2-Dichloroethene	10	ND	ND	ND	1600	2000
trans-1,2-Dichloroethene	10	ND	ND	ND	16	6.1
Ethylbenzene	5	ND	ND	ND	23	130
Isopropylbenzene	14	ND	ND	ND	1.1	3.5
Methylene Chloride	10	ND	ND	ND	530	730
4-Methyl-2-pentanone	140	ND	ND	ND	24	36
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	32	74
Toluene	5	ND	1.0	ND	1.9	3200
1,2,3-Trichlorobenzene	10	ND	ND	ND	45	66
1,2,4-Trichlorobenzene	10	ND	ND	ND	180	160
1,1,1-Trichloroethane	10	ND	ND	ND	33	59
1,1,2-Trichloroethane	10	ND	ND	ND	1.2	1.9
Trichloroethylene	10	ND	2.2	ND	4300	9000
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	110	260
Sum of o, m, & p-Xylene	15	ND	ND	ND	80	240
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	--	--	--	ND	ND
2-Chlorophenol	--	--	--	--	5.5 J	3.5 J
2,4-Dimethylphenol	10	--	--	--	1.7 J	9.6 J
2-Methylphenol	10	--	--	--	20	72
Sum of 3- & 4-Methylphenol	10	--	--	--	ND	40
Pentachlorophenol	--	--	--	--	4.5 J	5.1 J
Phenol	10	--	--	--	ND	15
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.17 J	8.3	170	--	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - March 4, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (March 4, 2015)	Air Stripper Disc (March 4, 2015)	Influent (March 4, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.16
Dissolved Oxygen (Field)	5.0 minimum	--	--	8.3
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	210 J
Benzene	5	--	--	3100
2-Butanone	280	--	--	ND
Chlorobenzene	10	--	--	1200
Chloroethane	10	--	--	7.4
Chloroform	50	--	--	300
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	46.3
1,1-Dichloroethane	10	--	--	79
1,2-Dichloroethane	10	--	--	270
1,1-Dichloroethene	10	--	--	29
cis-1,2-Dichloroethene	10	--	--	1900
trans-1,2-Dichloroethene	10	--	--	5.7
Ethylbenzene	5	--	--	110
Isopropylbenzene	14	--	--	3.1
Methylene Chloride	10	--	--	770
4-Methyl-2-pentanone	140	--	--	31
1,1,2,2-Tetrachloroethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	62
Toluene	5	--	--	2900
1,2,3-Trichlorobenzene	10	--	--	49
1,2,4-Trichlorobenzene	10	--	--	190
1,1,1-Trichloroethane	10	--	--	49
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	8000
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	210
Sum of o, m, & p-Xylene	15	--	--	270
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	15	160	190

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - March 11, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (March 11, 2015)	Air Stripper Disc (March 11, 2015)	Influent (March 11, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.27
Dissolved Oxygen (Field)	5.0 minimum	--	--	7.4
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	370
Benzene	5	--	--	4000
2-Butanone	280	--	--	ND
Chlorobenzene	10	--	--	1200
Chloroethane	10	--	--	6.9
Chloroform	50	--	--	350
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	50.4
1,1-Dichloroethane	10	--	--	99
1,2-Dichloroethane	10	--	--	340
1,1-Dichloroethene	10	--	--	41
cis-1,2-Dichloroethene	10	--	--	2400
trans-1,2-Dichloroethene	10	--	--	8.0
Ethylbenzene	5	--	--	140
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	880
4-Methyl-2-pentanone	140	--	--	37
1,1,2,2-Tetrachloroethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	72
Toluene	5	--	--	3300
1,2,3-Trichlorobenzene	10	--	--	60
1,2,4-Trichlorobenzene	10	--	--	170
1,1,1-Trichloroethane	10	--	--	58
1,1,2-Trichloroethane	10	--	--	1.9
Trichloroethylene	10	--	--	9100
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	300
Sum of o, m, & p-Xylene	15	--	--	250
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	7.1	160	200

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - March 18, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (March 18, 2015)	Air Stripper Disc (March 18, 2015)	Influent (March 18, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.43
Dissolved Oxygen (Field)	5.0 minimum	--	--	8.1
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	680
Benzene	5	--	--	4000
2-Butanone	280	--	--	ND
Chlorobenzene	10	--	--	1200
Chloroethane	10	--	--	ND
Chloroform	50	--	--	280
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	28
1,1-Dichloroethane	10	--	--	96
1,2-Dichloroethane	10	--	--	300
1,1-Dichloroethene	10	--	--	34
cis-1,2-Dichloroethene	10	--	--	2000
trans-1,2-Dichloroethene	10	--	--	ND
Ethylbenzene	5	--	--	130
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	680
4-Methyl-2-pentanone	140	--	--	42 J
1,1,2,2-Tetrachloroethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	53
Toluene	5	--	--	4200
1,2,3-Trichlorobenzene	10	--	--	35
1,2,4-Trichlorobenzene	10	--	--	150
1,1,1-Trichloroethane	10	--	--	56
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	6600
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	300
Sum of o, m, & p-Xylene	15	--	--	340
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	6.6	180	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - March 25, 2015 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (March 25, 2015)	HIPOx Disc (March 25, 2015)	Air Stripper Disc (March 25, 2015)	Bio/Clarifier Disc (March 25, 2015)	Influent (March 25, 2015)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	6.97	8.14	8.17	7.04	7.22
Dissolved Oxygen (Field)	5.0 minimum	7.1	--	9.9	7.3	7.7
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	3.13	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.123	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	81	5.9	37 J	190
Benzene	5	ND	ND	ND	340	2500
2-Butanone	280	ND	3.0 J	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	480	740
Chloroethane	10	ND	ND	ND	ND	ND
Chloroform	50	ND	ND	ND	200	210
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	22	22
1,1-Dichloroethane	10	ND	ND	ND	57	60
1,2-Dichloroethane	10	ND	ND	ND	210	200
1,1-Dichloroethene	10	ND	ND	ND	ND	25
cis-1,2-Dichloroethene	10	ND	ND	ND	1500	1300
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	24	93
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	390	540
4-Methyl-2-pentanone	140	ND	ND	ND	ND	18 J
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	36	52
Toluene	5	ND	ND	ND	34	2600
1,2,3-Trichlorobenzene	10	ND	ND	ND	35	36
1,2,4-Trichlorobenzene	10	ND	ND	ND	130	150
1,1,1-Trichloroethane	10	ND	ND	ND	34	40
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	ND	ND	4300	6500
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	110	170
Sum of o, m, & p-Xylene	15	ND	ND	ND	72	200
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	--	--	--	ND	ND
2-Chlorophenol	--	--	--	--	ND	2.4 J
2,4-Dimethylphenol	10	--	--	--	ND	3.4 J
2-Methylphenol	10	--	--	--	15	40
Sum of 3- & 4-Methylphenol	10	--	--	--	ND	16
Pentachlorophenol	--	--	--	--	3.4 J	4.2 J
Phenol	10	--	--	--	ND	3.2 J
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	2.9	1.9	150	--	150

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - April 1, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (April 1, 2015)	Air Stripper Disc (April 1, 2015)	Influent (April 1, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.19
Dissolved Oxygen (Field)	5.0 minimum	--	--	7.5
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	600
Benzene	5	--	--	4000
2-Butanone	280	--	--	ND
Chlorobenzene	10	--	--	1100
Chloroethane	10	--	--	ND
Chloroform	50	--	--	340
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	ND
1,1-Dichloroethane	10	--	--	100
1,2-Dichloroethane	10	--	--	360
1,1-Dichloroethene	10	--	--	ND
cis-1,2-Dichloroethene	10	--	--	2100
trans-1,2-Dichloroethene	10	--	--	ND
Ethylbenzene	5	--	--	140
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	880
4-Methyl-2-pentanone	140	--	--	ND
1,1,2,2-Tetrachloroethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	60
Toluene	5	--	--	4300
1,2,3-Trichlorobenzene	10	--	--	ND
1,2,4-Trichlorobenzene	10	--	--	120
1,1,1-Trichloroethane	10	--	--	62
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	9500
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	290
Sum of o, m, & p-Xylene	15	--	--	460
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	3.4	140	150

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - April 8, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (April 8, 2015)	Air Stripper Disc (April 8, 2015)	Influent (April 8, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.26
Dissolved Oxygen (Field)	5.0 minimum	--	--	6.8
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	270
Benzene	5	--	--	2900
2-Butanone	280	--	--	ND
Chlorobenzene	10	--	--	890
Chloroethane	10	--	--	ND
Chloroform	50	--	--	280
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	25
1,1-Dichloroethane	10	--	--	89
1,2-Dichloroethane	10	--	--	300
1,1-Dichloroethene	10	--	--	30
cis-1,2-Dichloroethene	10	--	--	1800
trans-1,2-Dichloroethene	10	--	--	ND
Ethylbenzene	5	--	--	100
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	740
4-Methyl-2-pentanone	140	--	--	ND
1,1,2,2-Tetrachloroethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	50
Toluene	5	--	--	1200
1,2,3-Trichlorobenzene	10	--	--	40
1,2,4-Trichlorobenzene	10	--	--	150
1,1,1-Trichloroethane	10	--	--	54
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	8800
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	250
Sum of o, m, & p-Xylene	15	--	--	160
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	1.4	170	140

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - April 15, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (April 15, 2015)	Air Stripper Disc (April 15, 2015)	Influent (April 15, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.16
Dissolved Oxygen (Field)	5.0 minimum	--	--	7.3
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	270
Benzene	5	--	--	2500
2-Butanone	280	--	--	ND
Chlorobenzene	10	--	--	810
Chloroethane	10	--	--	ND
Chloroform	50	--	--	170
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	ND
1,1-Dichloroethane	10	--	--	65
1,2-Dichloroethane	10	--	--	190
1,1,1-Trichloroethane	10	--	--	ND
cis-1,2-Dichloroethene	10	--	--	1100
trans-1,2-Dichloroethene	10	--	--	ND
Ethylbenzene	5	--	--	71
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	390
4-Methyl-2-pentanone	140	--	--	24 J
1,1,2,2-Tetrachloroethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	36
Toluene	5	--	--	290
1,2,3-Trichlorobenzene	10	--	--	23
1,2,4-Trichlorobenzene	10	--	--	74
1,1,1-Trichloroethane	10	--	--	34
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	5600
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	220
Sum of o, m, & p-Xylene	15	--	--	100
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	1.9	150	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - April 22, 2015 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (April 22, 2015)	HIPOx Disc (April 22, 2015)	Air Stripper Disc (April 22, 2015)	Bio/Clarifier Disc (April 22, 2015)	Influent (April 22, 2015)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	6.56	7.96	8.06	6.99	7.41
Dissolved Oxygen (Field)	5.0 minimum	7.5	--	8.4	6.8	7.1
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	4.98	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.173	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	120	ND	7.4	270
Benzene	5	ND	ND	ND	32	2800
2-Butanone	280	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	460	950
Chloroethane	10	ND	ND	ND	4.6	ND
Chloroform	50	ND	ND	ND	280	270
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	39.9	25
1,1-Dichloroethane	10	ND	ND	ND	86	85
1,2-Dichloroethane	10	ND	ND	ND	330	280
1,1-Dichloroethene	10	ND	ND	ND	13	24
cis-1,2-Dichloroethene	10	ND	ND	ND	1600	1600
trans-1,2-Dichloroethene	10	ND	ND	ND	15	ND
Ethylbenzene	5	ND	ND	ND	13	90
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	420	640
4-Methyl-2-pentanone	140	ND	ND	ND	25	ND
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	31	45
Toluene	5	ND	ND	ND	17	580
1,2,3-Trichlorobenzene	10	ND	ND	ND	39	29
1,2,4-Trichlorobenzene	10	ND	ND	ND	180	120
1,1,1-Trichloroethane	10	ND	ND	ND	41	47
1,1,2-Trichloroethane	10	ND	ND	ND	1.6	ND
Trichloroethylene	10	ND	ND	ND	5100	7700
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	140	250
Sum of o, m, & p-Xylene	15	ND	ND	ND	64	140
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	--	--	--	ND	ND
2-Chlorophenol	--	--	--	--	6.2 J	4.8 J
2,4-Dimethylphenol	10	--	--	--	2.9 J	12
2-Methylphenol	10	--	--	--	13	120
Sum of 3- & 4-Methylphenol	10	--	--	--	ND	12
Pentachlorophenol	--	--	--	--	2.1 J	3.8 J
Phenol	10	--	--	--	ND	8.2 J
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	13	4.2	160	--	180

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - April 29, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (April 29, 2015)	Air Stripper Disc (April 29, 2015)	Influent (April 29, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	7.62
Dissolved Oxygen (Field)	5.0 minimum	---	---	7.2
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	---	---	180
Benzene	5	---	---	2100
2-Butanone	280	---	---	ND
Chlorobenzene	10	---	---	740
Chloroethane	10	---	---	ND
Chloroform	50	---	---	140
Chloromethane	10	---	---	ND
Sum of o, m, & p-Dichlorobenzene	27	---	---	17
1,1-Dichloroethane	10	---	---	58
1,2-Dichloroethane	10	---	---	160
1,1,1-Trichloroethane	10	---	---	17
cis-1,2-Dichloroethene	10	---	---	920
trans-1,2-Dichloroethene	10	---	---	ND
Ethylbenzene	5	---	---	53
Isopropylbenzene	14	---	---	ND
Methylene Chloride	10	---	---	320
4-Methyl-2-pentanone	140	---	---	23 J
1,1,2,2-Tetrachloroethane	50	---	---	ND
Tetrachloroethene	5.4 / 10	---	---	31
Toluene	5	---	---	830
1,2,3-Trichlorobenzene	10	---	---	19
1,2,4-Trichlorobenzene	10	---	---	72
1,1,1-Trichloroethane	10	---	---	32
1,1,2-Trichloroethane	10	---	---	ND
Trichloroethylene	10	---	---	4500
Trichlorofluoromethane	10	---	---	ND
Vinyl Chloride	10	---	---	190
Sum of o, m, & p-Xylene	15	---	---	100
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.55	130	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - May 6, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (May 6, 2015)	Air Stripper Disc (May 6, 2015)	Influent (May 6, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.39
Dissolved Oxygen (Field)	5.0 minimum	--	--	7.6
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	100
Benzene	5	--	--	1200
2-Butanone	280	--	--	ND
Chlorobenzene	10	--	--	660
Chloroethane	10	--	--	ND
Chloroform	50	--	--	150
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	20
1,1-Dichloroethane	10	--	--	46
1,2-Dichloroethane	10	--	--	140
1,1-Dichloroethene	10	--	--	17
cis-1,2-Dichloroethene	10	--	--	950
trans-1,2-Dichloroethene	10	--	--	ND
Ethylbenzene	5	--	--	49
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	360
4-Methyl-2-pentanone	140	--	--	ND
1,1,2,2-Tetrachloroethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	38
Toluene	5	--	--	880
1,2,3-Trichlorobenzene	10	--	--	27
1,2,4-Trichlorobenzene	10	--	--	98
1,1,1-Trichloroethane	10	--	--	34
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	5600
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	140
Sum of o, m, & p-Xylene	15	--	--	93
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	1.2	140	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - May 13, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (May 13, 2015)	Air Stripper Disc (May 13, 2015)	Influent (May 13, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.49
Dissolved Oxygen (Field)	5.0 minimum	--	--	6.9
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	88
Benzene	5	--	--	2500
2-Butanone	280	--	--	ND
Chlorobenzene	10	--	--	900
Chloroethane	10	--	--	ND
Chloroform	50	--	--	140
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	28
1,1-Dichloroethane	10	--	--	50
1,2-Dichloroethane	10	--	--	130
1,1-Dichloroethene	10	--	--	22
cis-1,2-Dichloroethene	10	--	--	1100
trans-1,2-Dichloroethene	10	--	--	5.5
Ethylbenzene	5	--	--	64
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	340
4-Methyl-2-pentanone	140	--	--	15 J
1,1,2,2-Tetrachloroethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	39
Toluene	5	--	--	370
1,2,3-Trichlorobenzene	10	--	--	19
1,2,4-Trichlorobenzene	10	--	--	110
1,1,1-Trichloroethane	10	--	--	31
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	5400
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	170
Sum of o, m, & p-Xylene	15	--	--	100
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.10 J	140	150

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - May 20, 2015 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (May 20, 2015)	HIPOx Disc (May 20, 2015)	Air Stripper Disc (May 20, 2015)	BioClarifier Disc (May 20, 2015)	Influent (May 20, 2015)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	6.68	7.88	8.14	7.23	7.34
Dissolved Oxygen (Field)	5.0 minimum	6.0	--	8.0	6.5	5.8
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	6.59	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.237	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	34	ND	ND	180
Benzene	5	ND	ND	ND	3.3	2600
2-Butanone	280	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	170	910
Chloroethane	10	ND	ND	ND	2.5	ND
Chloroform	50	ND	ND	ND	180	190
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	23.8	22
1,1-Dichloroethane	10	ND	ND	ND	49	64
1,2-Dichloroethane	10	ND	ND	ND	220	190
1,1-Dichloroethene	10	ND	ND	ND	7.1	26
cis-1,2-Dichloroethene	10	ND	ND	ND	690	1400
trans-1,2-Dichloroethene	10	ND	ND	ND	7.4	11
Ethylbenzene	5	ND	ND	ND	ND	90
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	350	430
4-Methyl-2-pentanone	140	ND	ND	ND	6.6	22 J
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	24	44
Toluene	5	ND	ND	ND	9.5	1000
1,2,3-Trichlorobenzene	10	ND	ND	ND	22	16
1,2,4-Trichlorobenzene	10	ND	ND	ND	110	110
1,1,1-Trichloroethane	10	ND	ND	ND	27	45
1,1,2-Trichloroethane	10	ND	ND	ND	1.2	ND
Trichloroethylene	10	ND	ND	ND	4000	6500
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	56	200
Sum of o, m, & p-Xylene	15	ND	ND	ND	3.2	120
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	--	--	--	ND	ND
2-Chlorophenol	--	--	--	--	ND	3.7 J
2,4-Dimethylphenol	10	--	--	--	ND	9.3 J
2-Methylphenol	10	--	--	--	1.5 J	91
Sum of 3- & 4-Methylphenol	10	--	--	--	ND	13
Pentachlorophenol	--	--	--	--	4.8 J	5.5 J
Phenol	10	--	--	--	ND	5.5 J
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	10	0.05 J	130	--	130

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - May 27, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (May 27, 2015)	Air Stripper Disc (May 27, 2015)	Influent (May 27, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.24
Dissolved Oxygen (Field)	5.0 minimum	--	--	6.0
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	240
Benzene	5	--	--	2800
2-Butanone	280	--	--	ND
Chlorobenzene	10	--	--	930
Chloroethane	10	--	--	ND
Chloroform	50	--	--	230
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	28.9
1,1-Dichloroethane	10	--	--	73
1,2-Dichloroethane	10	--	--	240
1,1-Dichloroethene	10	--	--	26
cis-1,2-Dichloroethene	10	--	--	1600
trans-1,2-Dichloroethene	10	--	--	9.3
Ethylbenzene	5	--	--	70
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	530
4-Methyl-2-pentanone	140	--	--	26
1,1,2,2-Tetrachlorethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	47
Toluene	5	--	--	2100
1,2,3-Trichlorobenzene	10	--	--	32
1,2,4-Trichlorobenzene	10	--	--	140
1,1,1-Trichloroethane	10	--	--	46
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	6300
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	210
Sum of o, m, & p-Xylene	15	--	--	150
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.20	130	140

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - June 3, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (June 3, 2015)	Air Stripper Disc (June 3, 2015)	Influent (June 3, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.42
Dissolved Oxygen (Field)	5.0 minimum	--	--	6.4
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	470
Benzene	5	--	--	4800
2-Butanone	280	--	--	ND
Chlorobenzene	10	--	--	1400
Chloroethane	10	--	--	6.9
Chloroform	50	--	--	400
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	49
1,1-Dichloroethane	10	--	--	110
1,2-Dichloroethane	10	--	--	370
1,1-Dichloroethene	10	--	--	44
cis-1,2-Dichloroethene	10	--	--	2900
trans-1,2-Dichloroethene	10	--	--	8.1
Ethylbenzene	5	--	--	150
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	990
4-Methyl-2-pentanone	140	--	--	36
1,1,2,2-Tetrachlorethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	76
Toluene	5	--	--	4900
1,2,3-Trichlorobenzene	10	--	--	57
1,2,4-Trichlorobenzene	10	--	--	270
1,1,1-Trichloroethane	10	--	--	71
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	11000
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	270
Sum of o, m, & p-Xylene	15	--	--	290
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.77	150	150

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - June 12, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (June 12, 2015)	Air Stripper Disc (June 12, 2015)	Influent (June 12, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.19
Dissolved Oxygen (Field)	5.0 minimum	--	--	6.0
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	280
Benzene	5	--	--	4500
2-Butanone	280	--	--	ND
Chlorobenzene	10	--	--	790
Chloroethane	10	--	--	ND
Chloroform	50	--	--	310
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	18.2
1,1-Dichloroethane	10	--	--	93
1,2-Dichloroethane	10	--	--	310
1,1-Dichloroethene	10	--	--	31
cis-1,2-Dichloroethene	10	--	--	2600
trans-1,2-Dichloroethene	10	--	--	6.9
Ethylbenzene	5	--	--	59
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	780
4-Methyl-2-pentanone	140	--	--	30
1,1,2,2-Tetrachlorethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	40
Toluene	5	--	--	2500
1,2,3-Trichlorobenzene	10	--	--	20
1,2,4-Trichlorobenzene	10	--	--	78
1,1,1-Trichloroethane	10	--	--	57
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	11000
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	200
Sum of o, m, & p-Xylene	15	--	--	120
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.21	110	140

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - June 17, 2015 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (June 17, 2015)	HIPOx Disc (June 17, 2015)	Air Stripper Disc (June 17, 2015)	BioClarifier Disc (June 17, 2015)	Influent (June 17, 2015)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	6.45	7.39	7.81	6.85	6.92
Dissolved Oxygen (Field)	5.0 minimum	7.3	--	8.3	5.6	5.8
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	4.52	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.256	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	41	ND	12	ND
Benzene	5	ND	ND	ND	ND	4800
2-Butanone	280	ND	ND	ND	ND	42
Chlorobenzene	10	ND	ND	ND	160	1400
Chloroethane	10	ND	ND	ND	3.0	4.6
Chloroform	50	ND	ND	ND	140	270
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	20.4	65.8
1,1-Dichloroethane	10	ND	ND	ND	52	86
1,2-Dichloroethane	10	ND	ND	ND	170	280
1,1,1-Dichloroethene	10	ND	ND	ND	8.6	29
cis-1,2-Dichloroethene	10	ND	ND	ND	1200	2200
trans-1,2-Dichloroethene	10	ND	ND	ND	5.6	7.8
Ethylbenzene	5	ND	ND	ND	2.7	150
Isopropylbenzene	14	ND	ND	ND	ND	3.5
Methylene Chloride	10	ND	ND	ND	240	700
4-Methyl-2-pentanone	140	ND	ND	ND	5.9	40
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	26	77
Toluene	5	ND	ND	ND	87	4800
1,2,3-Trichlorobenzene	10	ND	ND	ND	25	72
1,2,4-Trichlorobenzene	10	ND	ND	ND	87	340
1,1,1-Trichloroethane	10	ND	ND	ND	22	56
1,1,2-Trichloroethane	10	ND	ND	ND	ND	1.8
Trichloroethylene	10	ND	ND	ND	4100	10000
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	76	230
Sum of o, m, & p-Xylene	15	ND	ND	ND	19	190
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	--	--	--	ND	ND
2-Chlorophenol	--	--	--	--	ND	2.9 J
2,4-Dimethylphenol	10	--	--	--	1.5 J	17
2-Methylphenol	10	--	--	--	13	60
Sum of 3- & 4-Methylphenol	10	--	--	--	ND	63
Pentachlorophenol	--	--	--	--	2.9 J	5.6 J
Phenol	10	--	--	--	ND	20
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	7.4	2.8	140	--	190

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - June 24, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (June 24, 2015)	Air Stripper Disc (June 24, 2015)	Influent (June 24, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	6.65
Dissolved Oxygen (Field)	5.0 minimum	--	--	6.3
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	280
Benzene	5	--	--	3100
2-Butanone	280	--	--	ND
Chlorobenzene	10	--	--	970
Chloroethane	10	--	--	5.3
Chloroform	50	--	--	220
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	33.7
1,1-Dichloroethane	10	--	--	73
1,2-Dichloroethane	10	--	--	230
1,1-Dichloroethene	10	--	--	23
cis-1,2-Dichloroethene	10	--	--	1400
trans-1,2-Dichloroethene	10	--	--	ND
Ethylbenzene	5	--	--	86
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	480
4-Methyl-2-pentanone	140	--	--	27
1,1,2,2-Tetrachloroethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	48
Toluene	5	--	--	2900
1,2,3-Trichlorobenzene	10	--	--	42
1,2,4-Trichlorobenzene	10	--	--	180
1,1,1-Trichloroethane	10	--	--	51
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	6700
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	190
Sum of o, m, & p-Xylene	15	--	--	320
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.46	140	150

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - July 1, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (July 1, 2015)	Air Stripper Disc (July 1, 2015)	Influent (July 1, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	7.42
Dissolved Oxygen (Field)	5.0 minimum	---	---	4.5
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	---	---	340
Benzene	5	---	---	4600
2-Butanone	280	---	---	ND
Chlorobenzene	10	---	---	1200
Chloroethane	10	---	---	ND
Chloroform	50	---	---	210
Chloromethane	10	---	---	ND
Sum of o, m, & p-Dichlorobenzene	27	---	---	35.3
1,1-Dichloroethane	10	---	---	78
1,2-Dichloroethane	10	---	---	210
1,1-Dichloroethene	10	---	---	29
cis-1,2-Dichloroethene	10	---	---	1800
trans-1,2-Dichloroethene	10	---	---	8.1
Ethylbenzene	5	---	---	110
Isopropylbenzene	14	---	---	ND
Methylene Chloride	10	---	---	480
4-Methyl-2-pentanone	140	---	---	35
1,1,2,2-Tetrachloroethane	50	---	---	ND
Tetrachloroethene	5.4 / 10	---	---	46
Toluene	5	---	---	3700
1,2,3-Trichlorobenzene	10	---	---	40
1,2,4-Trichlorobenzene	10	---	---	180
1,1,1-Trichloroethane	10	---	---	43
1,1,2-Trichloroethane	10	---	---	ND
Trichloroethylene	10	---	---	7300
Trichlorofluoromethane	10	---	---	ND
Vinyl Chloride	10	---	---	220
Sum of o, m, & p-Xylene	15	---	---	200
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.089 J	120	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - July 8, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (July 8, 2015)	Air Stripper Disc (July 8, 2015)	Influent (July 8, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	--	--	7.28
Dissolved Oxygen (Field)	5.0 minimum	--	--	6.3
Total Suspended Solids (SM 2540D)	20	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--
BOD5 (SM 5210 B)	30	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	--	--	--
Total Arsenic	50 / 100	--	--	--
Total Cobalt	27	--	--	--
Total Copper	86	--	--	--
Total Iron	2000 / 4000	--	--	--
Total Lead	51	--	--	--
Total Manganese	1000 / 2000	--	--	--
Total Selenium	25	--	--	--
Total Silver	22	--	--	--
Total Thallium	43	--	--	--
Total Vanadium	76	--	--	--
Total Zinc	400	--	--	--
VOCs (624) (micrograms per liter)				
Acetone	280	--	--	330
Benzene	5	--	--	4500
2-Butanone	280	--	--	31
Chlorobenzene	10	--	--	1200
Chloroethane	10	--	--	ND
Chloroform	50	--	--	270
Chloromethane	10	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	44
1,1-Dichloroethane	10	--	--	86
1,2-Dichloroethane	10	--	--	280
1,1-Dichloroethene	10	--	--	33
cis-1,2-Dichloroethene	10	--	--	2300
trans-1,2-Dichloroethene	10	--	--	9.9
Ethylbenzene	5	--	--	130
Isopropylbenzene	14	--	--	ND
Methylene Chloride	10	--	--	640
4-Methyl-2-pentanone	140	--	--	36
1,1,2,2-Tetrachlorethane	50	--	--	ND
Tetrachloroethene	5.4 / 10	--	--	57
Toluene	5	--	--	4200
1,2,3-Trichlorobenzene	10	--	--	54
1,2,4-Trichlorobenzene	10	--	--	230
1,1,1-Trichloroethane	10	--	--	54
1,1,2-Trichloroethane	10	--	--	ND
Trichloroethylene	10	--	--	9000
Trichlorofluoromethane	10	--	--	ND
Vinyl Chloride	10	--	--	210
Sum of o, m, & p-Xylene	15	--	--	410
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	--	--	--
2-Chlorophenol	--	--	--	--
2,4-Dimethylphenol	10	--	--	--
2-Methylphenol	10	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--
Pentachlorophenol	--	--	--	--
Phenol	10	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	--	--	--
Aroclor 1242	0.2	--	--	--
Aroclor 1248	0.2	--	--	--
Aroclor 1254	0.2	--	--	--
Aroclor 1260	0.2	--	--	--
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	--	--	--
delta-BHC	0.043	--	--	--
alpha-Chlordane	0.05	--	--	--
gamma-Chlordane	0.05	--	--	--
4,4'-DDE	0.01	--	--	--
Dieldrin	0.005	--	--	--
Endosulfan II	0.049	--	--	--
Endosulfan Sulfate	0.2	--	--	--
Heptachlor	0.01	--	--	--
Methoxychlor	0.4	--	--	--
Mercury (1631) (micrograms per liter)				
Mercury	0.05	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	--	0.23	110	140

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - July 15, 2015 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (July 15, 2015)	HIPOx Disc (July 15, 2015)	Air Stripper Disc (July 15, 2015)	BioClarifier Disc (July 15, 2015)	Influent (July 15, 2015)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	6.61	7.78	8.00	6.90	7.10
Dissolved Oxygen (Field)	5.0 minimum	5.7	--	7.7	6.1	5.0
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	5.87	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.240	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	31	ND	ND	250
Benzene	5	ND	ND	ND	220	3300
2-Butanone	280	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	180	970
Chloroethane	10	ND	ND	ND	ND	ND
Chloroform	50	ND	ND	ND	160	260
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	12	42
1,1-Dichloroethane	10	ND	ND	ND	48	74
1,2-Dichloroethane	10	ND	ND	ND	190	240
1,1-Dichloroethene	10	ND	ND	ND	8.6	28
cis-1,2-Dichloroethene	10	ND	ND	ND	1000	1900
trans-1,2-Dichloroethene	10	ND	ND	ND	6.0	10
Ethylbenzene	5	ND	ND	ND	5.3	110
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	180	620
4-Methyl-2-pentanone	140	ND	ND	ND	ND	25 J
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	24	54
Toluene	5	ND	ND	ND	160	3100
1,2,3-Trichlorobenzene	10	ND	ND	ND	28	49
1,2,4-Trichlorobenzene	10	ND	ND	ND	56	220
1,1,1-Trichloroethane	10	ND	ND	ND	22	49
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	ND	ND	4300	8200
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	33	170
Sum of o, m, & p-Xylene	15	ND	ND	ND	13	230
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	--	--	--	ND	ND
2-Chlorophenol	--	--	--	--	ND	2.2 J
2,4-Dimethylphenol	10	--	--	--	ND	4.2 J
2-Methylphenol	10	--	--	--	3.1 J	35
Sum of 3- & 4-Methylphenol	10	--	--	--	ND	15
Pentachlorophenol	--	--	--	--	2.4 J	2.7 J
Phenol	10	--	--	--	ND	3.5 J
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	7.0	0.25	90	--	110

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - July 22, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (July 22, 2015)	Air Stripper Disc (July 22, 2015)	Influent (July 22, 2015)
Water Quality (milligrams per liter)				
pH (Field)	6.5 to 8.5	---	---	6.98
Dissolved Oxygen (Field)	5.0 minimum	---	---	6.3
Total Suspended Solids (SM 2540D)	20	---	---	---
Total Dissolved Solids (SM 2540C)	2700	---	---	---
BOD5 (SM 5210 B)	30	---	---	---
Ammonia (USEPA 350.1)	8.1	---	---	---
Oil & Grease (USEPA 1664A)	15	---	---	---
Total Phosphorus (SM 4500-P E)	1	---	---	---
Metals (200.7) (micrograms per liter)				
Total Aluminum	2000 / 4000	---	---	---
Total Arsenic	50 / 100	---	---	---
Total Cobalt	27	---	---	---
Total Copper	86	---	---	---
Total Iron	2000 / 4000	---	---	---
Total Lead	51	---	---	---
Total Manganese	1000 / 2000	---	---	---
Total Selenium	25	---	---	---
Total Silver	22	---	---	---
Total Thallium	43	---	---	---
Total Vanadium	76	---	---	---
Total Zinc	400	---	---	---
VOCs (624) (micrograms per liter)				
Acetone	280	---	---	75 J
Benzene	5	---	---	4400
2-Butanone	280	---	---	ND
Chlorobenzene	10	---	---	1300
Chloroethane	10	---	---	ND
Chloroform	50	---	---	310
Chloromethane	10	---	---	ND
Sum of o, m, & p-Dichlorobenzene	27	---	---	ND
1,1-Dichloroethane	10	---	---	86
1,2-Dichloroethane	10	---	---	310
1,1,1-Trichloroethane	10	---	---	ND
cis-1,2-Dichloroethene	10	---	---	2600
trans-1,2-Dichloroethene	10	---	---	ND
Ethylbenzene	5	---	---	140
Isopropylbenzene	14	---	---	ND
Methylene Chloride	10	---	---	740
4-Methyl-2-pentanone	140	---	---	ND
1,1,2,2-Tetrachloroethane	50	---	---	ND
Tetrachloroethene	5.4 / 10	---	---	59
Toluene	5	---	---	4300
1,2,3-Trichlorobenzene	10	---	---	71
1,2,4-Trichlorobenzene	10	---	---	230
1,1,1-Trichloroethane	10	---	---	64
1,1,2-Trichloroethane	10	---	---	ND
Trichloroethylene	10	---	---	10000
Trichlorofluoromethane	10	---	---	ND
Vinyl Chloride	10	---	---	210
Sum of o, m, & p-Xylene	15	---	---	510
SVOCs (625) (micrograms per liter)				
Bis(2-Ethylhexyl)phthalate	10	---	---	---
2-Chlorophenol	---	---	---	---
2,4-Dimethylphenol	10	---	---	---
2-Methylphenol	10	---	---	---
Sum of 3- & 4-Methylphenol	10	---	---	---
Pentachlorophenol	---	---	---	---
Phenol	10	---	---	---
Phenols, Total Chlorinated (Sum of Detected)	5.4	---	---	---
Phenols, Total Unchlorinated (Sum of Detected)	27	---	---	---
PCBs (608) (micrograms per liter)				
Aroclor 1221	0.2	---	---	---
Aroclor 1242	0.2	---	---	---
Aroclor 1248	0.2	---	---	---
Aroclor 1254	0.2	---	---	---
Aroclor 1260	0.2	---	---	---
Pesticides (608) (micrograms per liter)				
beta-BHC	0.038	---	---	---
delta-BHC	0.043	---	---	---
alpha-Chlordane	0.05	---	---	---
gamma-Chlordane	0.05	---	---	---
4,4'-DDE	0.01	---	---	---
Dieldrin	0.005	---	---	---
Endosulfan II	0.049	---	---	---
Endosulfan Sulfate	0.2	---	---	---
Heptachlor	0.01	---	---	---
Methoxychlor	0.4	---	---	---
Mercury (1631) (micrograms per liter)				
Mercury	0.05	---	---	---
1,4-Dioxane (8270D) (micrograms per liter)				
1,4-Dioxane	---	0.28	110	120

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - July 29, 2015 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (July 29, 2015)	HIPOx Disc (July 29, 2015)	Air Stripper Disc (July 29, 2015)	Influent (July 29, 2015)
Water Quality (milligrams per liter)					
pH (Field)	6.5 to 8.5	--	--	--	6.96
Dissolved Oxygen (Field)	5.0 minimum	--	--	--	6.0
Total Suspended Solids (SM 2540D)	20	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	--
Metals (200.7) (micrograms per liter)					
Total Aluminum	2000 / 4000	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--
Total Cobalt	27	--	--	--	--
Total Copper	86	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--
Total Lead	51	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--
Total Selenium	25	--	--	--	--
Total Silver	22	--	--	--	--
Total Thallium	43	--	--	--	--
Total Vanadium	76	--	--	--	--
Total Zinc	400	--	--	--	--
VOCs (624) (micrograms per liter)					
Acetone	280	--	--	--	200
Benzene	5	--	--	--	3300
2-Butanone	280	--	--	--	ND
Chlorobenzene	10	--	--	--	930
Chloroethane	10	--	--	--	ND
Chloroform	50	--	--	--	220
Chloromethane	10	--	--	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	--	--	34.1
1,1-Dichloroethane	10	--	--	--	66
1,2-Dichloroethane	10	--	--	--	230
1,1,1-Trichloroethane	10	--	--	--	25
cis-1,2-Dichloroethane	10	--	--	--	1700
trans-1,2-Dichloroethane	10	--	--	--	7.8
Ethylbenzene	5	--	--	--	92
Isopropylbenzene	14	--	--	--	ND
Methylene Chloride	10	--	--	--	480
4-Methyl-2-pentanone	140	--	--	--	24 J
1,1,2,2-Tetrachloroethane	50	--	--	--	ND
Tetrachloroethane	5.4 / 10	--	--	--	44
Toluene	5	--	--	--	1900
1,2,3-Trichlorobenzene	10	--	--	--	38
1,2,4-Trichlorobenzene	10	--	--	--	160
1,1,1-Trichloroethane	10	--	--	--	45
1,1,2-Trichloroethane	10	--	--	--	ND
Trichloroethylene	10	--	--	--	7400
Trichlorofluoromethane	10	--	--	--	ND
Vinyl Chloride	10	--	--	--	150
Sum of o, m, & p-Xylene	15	--	--	--	120
SVOCs (625) (micrograms per liter)					
Bis(2-Ethylhexyl)phthalate	10	--	--	--	--
2-Chlorophenol	--	--	--	--	--
2,4-Dimethylphenol	10	--	--	--	--
2-Methylphenol	10	--	--	--	--
Sum of 3- & 4-Methylphenol	10	--	--	--	--
Pentachlorophenol	--	--	--	--	--
Phenol	10	--	--	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--
PCBs (608) (micrograms per liter)					
Aroclor 1221	0.2	--	--	--	--
Aroclor 1242	0.2	--	--	--	--
Aroclor 1248	0.2	--	--	--	--
Aroclor 1254	0.2	--	--	--	--
Aroclor 1260	0.2	--	--	--	--
Pesticides (608) (micrograms per liter)					
beta-BHC	0.038	--	--	--	--
delta-BHC	0.043	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--
4,4'-DDE	0.01	--	--	--	--
Dieldrin	0.005	--	--	--	--
Endosulfan II	0.049	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--
Heptachlor	0.01	--	--	--	--
Methoxychlor	0.4	--	--	--	--
Mercury (1631) (micrograms per liter)					
Mercury	0.05	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)					
1,4-Dioxane	--	4.8	0.26	110	140

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - August 5, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (August 5, 2015)	Influent (August 5, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	--	6.87
Dissolved Oxygen (Field)	5.0 minimum	--	7.4
Total Suspended Solids (SM 2540D)	20	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--
BOD5 (SM 5210 B)	30	--	--
Ammonia (USEPA 350.1)	8.1	--	--
Oil & Grease (USEPA 1664A)	15	--	--
Total Phosphorus (SM 4500-P E)	1	--	--
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	--
Total Arsenic	50 / 100	--	--
Total Cobalt	27	--	--
Total Copper	86	--	--
Total Iron	2000 / 4000	--	--
Total Lead	51	--	--
Total Manganese	1000 / 2000	--	--
Total Selenium	25	--	--
Total Silver	22	--	--
Total Thallium	43	--	--
Total Vanadium	76	--	--
Total Zinc	400	--	--
VOCs (624) (micrograms per liter)			
Acetone	280	--	400
Benzene	5	--	6300
2-Butanone	280	--	ND
Chlorobenzene	10	--	1600
Chloroethane	10	--	ND
Chloroform	50	--	360
Chloromethane	10	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	44
1,1-Dichloroethane	10	--	110
1,2-Dichloroethane	10	--	360
1,1-Dichloroethene	10	--	47
cis-1,2-Dichloroethene	10	--	2700
trans-1,2-Dichloroethene	10	--	12
Ethylbenzene	5	--	130
Isopropylbenzene	14	--	ND
Methylene Chloride	10	--	630
4-Methyl-2-pentanone	140	--	41
1,1,2,2-Tetrachloroethane	50	--	ND
Tetrachloroethene	5.4 / 10	--	55
Toluene	5	--	4300
1,2,3-Trichlorobenzene	10	--	48
1,2,4-Trichlorobenzene	10	--	220
1,1,1-Trichloroethane	10	--	100
1,1,2-Trichloroethane	10	--	ND
Trichloroethylene	10	--	8300
Trichlorofluoromethane	10	--	ND
Vinyl Chloride	10	--	230
Sum of o, m, & p-Xylene	15	--	470
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	--	--
2-Chlorophenol	--	--	--
2,4-Dimethylphenol	10	--	--
2-Methylphenol	10	--	--
Sum of 3- & 4-Methylphenol	10	--	--
Pentachlorophenol	--	--	--
Phenol	10	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	--
Aroclor 1242	0.2	--	--
Aroclor 1248	0.2	--	--
Aroclor 1254	0.2	--	--
Aroclor 1260	0.2	--	--
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	--
delta-BHC	0.043	--	--
alpha-Chlordane	0.05	--	--
gamma-Chlordane	0.05	--	--
4,4'-DDE	0.01	--	--
Dieldrin	0.005	--	--
Endosulfan II	0.049	--	--
Endosulfan Sulfate	0.2	--	--
Heptachlor	0.01	--	--
Methoxychlor	0.4	--	--
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	--
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.26	150

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - August 12, 2015 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (August 12, 2015)	HIPOx Disc (August 12, 2015)	Air Stripper Disc (August 12, 2015)	BioClarifier Disc (August 12, 2015)	Influent (August 12, 2015)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	6.71	7.25	7.75	6.80	7.06
Dissolved Oxygen (Field)	5.0 minimum	6.1	--	8.9	6.7	6.1
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	1.59	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.152	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	53	ND	ND	420
Benzene	5	ND	ND	ND	2.8	6600
2-Butanone	280	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	210	1500
Chloroethane	10	ND	ND	ND	2.5	6.5
Chloroform	50	ND	ND	ND	260	310
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	16.7	34.2
1,1-Dichloroethane	10	ND	ND	ND	79	110
1,2-Dichloroethane	10	ND	ND	ND	300	320
1,1-Dichloroethene	10	ND	ND	ND	14	37
cis-1,2-Dichloroethene	10	ND	ND	ND	1500	2700
trans-1,2-Dichloroethene	10	ND	ND	ND	9.5	12
Ethylbenzene	5	ND	ND	ND	ND	110
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	260	640
4-Methyl-2-pentanone	140	ND	ND	ND	8.6	44
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	22	40
Toluene	5	ND	ND	ND	ND	4300
1,2,3-Trichlorobenzene	10	ND	ND	ND	22	41
1,2,4-Trichlorobenzene	10	ND	ND	ND	54	160
1,1,1-Trichloroethane	10	ND	ND	ND	41	76
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	ND	ND	4600	7500
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	70	260
Sum of o, m, & p-Xylene	15	ND	ND	ND	ND	230
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	--	--	--	ND	ND
2-Chlorophenol	--	--	--	--	ND	3.7 J
2,4-Dimethylphenol	10	--	--	--	ND	13
2-Methylphenol	10	--	--	--	ND	63
Sum of 3- & 4-Methylphenol	10	--	--	--	ND	46
Pentachlorophenol	--	--	--	--	4.4 J	5.7 J
Phenol	10	--	--	--	ND	21
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	2.6	0.37	120	--	160

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - August 19, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (August 19, 2015)	Influent (August 19, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	--	6.48
Dissolved Oxygen (Field)	5.0 minimum	--	3.9
Total Suspended Solids (SM 2540D)	20	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--
BOD5 (SM 5210 B)	30	--	--
Ammonia (USEPA 350.1)	8.1	--	--
Oil & Grease (USEPA 1664A)	15	--	--
Total Phosphorus (SM 4500-P E)	1	--	--
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	--
Total Arsenic	50 / 100	--	--
Total Cobalt	27	--	--
Total Copper	86	--	--
Total Iron	2000 / 4000	--	--
Total Lead	51	--	--
Total Manganese	1000 / 2000	--	--
Total Selenium	25	--	--
Total Silver	22	--	--
Total Thallium	43	--	--
Total Vanadium	76	--	--
Total Zinc	400	--	--
VOCs (624) (micrograms per liter)			
Acetone	280	--	360
Benzene	5	--	5200
2-Butanone	280	--	ND
Chlorobenzene	10	--	1100
Chloroethane	10	--	5.1
Chloroform	50	--	240
Chloromethane	10	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	23
1,1-Dichloroethane	10	--	90
1,2-Dichloroethane	10	--	260
1,1-Dichloroethene	10	--	31
cis-1,2-Dichloroethene	10	--	1900
trans-1,2-Dichloroethene	10	--	12
Ethylbenzene	5	--	92
Isopropylbenzene	14	--	ND
Methylene Chloride	10	--	480
4-Methyl-2-pentanone	140	--	42
1,1,2,2-Tetrachloroethane	50	--	ND
Tetrachloroethene	5.4 / 10	--	28
Toluene	5	--	3500
1,2,3-Trichlorobenzene	10	--	24
1,2,4-Trichlorobenzene	10	--	100
1,1,1-Trichloroethane	10	--	57
1,1,2-Trichloroethane	10	--	ND
Trichloroethylene	10	--	5000
Trichlorofluoromethane	10	--	ND
Vinyl Chloride	10	--	250
Sum of o, m, & p-Xylene	15	--	180
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	--	--
2-Chlorophenol	--	--	--
2,4-Dimethylphenol	10	--	--
2-Methylphenol	10	--	--
Sum of 3- & 4-Methylphenol	10	--	--
Pentachlorophenol	--	--	--
Phenol	10	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	--
Aroclor 1242	0.2	--	--
Aroclor 1248	0.2	--	--
Aroclor 1254	0.2	--	--
Aroclor 1260	0.2	--	--
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	--
delta-BHC	0.043	--	--
alpha-Chlordane	0.05	--	--
gamma-Chlordane	0.05	--	--
4,4'-DDE	0.01	--	--
Dieldrin	0.005	--	--
Endosulfan II	0.049	--	--
Endosulfan Sulfate	0.2	--	--
Heptachlor	0.01	--	--
Methoxychlor	0.4	--	--
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	--
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.24	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - August 26, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (August 26, 2015)	Influent (August 26, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	--	7.05
Dissolved Oxygen (Field)	5.0 minimum	--	6.2
Total Suspended Solids (SM 2540D)	20	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--
BOD5 (SM 5210 B)	30	--	--
Ammonia (USEPA 350.1)	8.1	--	--
Oil & Grease (USEPA 1664A)	15	--	--
Total Phosphorus (SM 4500-P E)	1	--	--
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	--
Total Arsenic	50 / 100	--	--
Total Cobalt	27	--	--
Total Copper	86	--	--
Total Iron	2000 / 4000	--	--
Total Lead	51	--	--
Total Manganese	1000 / 2000	--	--
Total Selenium	25	--	--
Total Silver	22	--	--
Total Thallium	43	--	--
Total Vanadium	76	--	--
Total Zinc	400	--	--
VOCs (624) (micrograms per liter)			
Acetone	280	--	320
Benzene	5	--	4800
2-Butanone	280	--	37
Chlorobenzene	10	--	1200
Chloroethane	10	--	ND
Chloroform	50	--	210
Chloromethane	10	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	23.2
1,1-Dichloroethane	10	--	78
1,2-Dichloroethane	10	--	210
1,1-Dichloroethene	10	--	31
cis-1,2-Dichloroethene	10	--	2000
trans-1,2-Dichloroethene	10	--	9
Ethylbenzene	5	--	92
Isopropylbenzene	14	--	ND
Methylene Chloride	10	--	440
4-Methyl-2-pentanone	140	--	32
1,1,2,2-Tetrachloroethane	50	--	ND
Tetrachloroethene	5.4 / 10	--	32
Toluene	5	--	2800
1,2,3-Trichlorobenzene	10	--	26
1,2,4-Trichlorobenzene	10	--	110
1,1,1-Trichloroethane	10	--	56
1,1,2-Trichloroethane	10	--	ND
Trichloroethylene	10	--	5500
Trichlorofluoromethane	10	--	ND
Vinyl Chloride	10	--	220
Sum of o, m, & p-Xylene	15	--	130
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	--	--
2-Chlorophenol	--	--	--
2,4-Dimethylphenol	10	--	--
2-Methylphenol	10	--	--
Sum of 3- & 4-Methylphenol	10	--	--
Pentachlorophenol	--	--	--
Phenol	10	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	--
Aroclor 1242	0.2	--	--
Aroclor 1248	0.2	--	--
Aroclor 1254	0.2	--	--
Aroclor 1260	0.2	--	--
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	--
delta-BHC	0.043	--	--
alpha-Chlordane	0.05	--	--
gamma-Chlordane	0.05	--	--
4,4'-DDE	0.01	--	--
Dieldrin	0.005	--	--
Endosulfan II	0.049	--	--
Endosulfan Sulfate	0.2	--	--
Heptachlor	0.01	--	--
Methoxychlor	0.4	--	--
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	--
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.11 J	180

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - September 2, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (September 2, 2015)	Influent (September 2, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	--	7.01
Dissolved Oxygen (Field)	5.0 minimum	--	5.9
Total Suspended Solids (SM 2540D)	20	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--
BOD5 (SM 5210 B)	30	--	--
Ammonia (USEPA 350.1)	8.1	--	--
Oil & Grease (USEPA 1664A)	15	--	--
Total Phosphorus (SM 4500-P E)	1	--	--
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	--
Total Arsenic	50 / 100	--	--
Total Cobalt	27	--	--
Total Copper	86	--	--
Total Iron	2000 / 4000	--	--
Total Lead	51	--	--
Total Manganese	1000 / 2000	--	--
Total Selenium	25	--	--
Total Silver	22	--	--
Total Thallium	43	--	--
Total Vanadium	76	--	--
Total Zinc	400	--	--
VOCs (624) (micrograms per liter)			
Acetone	280	--	590
Benzene	5	--	6500
2-Butanone	280	--	ND
Chlorobenzene	10	--	1800
Chloroethane	10	--	5.5
Chloroform	50	--	340
Chloromethane	10	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	56.9
1,1-Dichloroethane	10	--	120
1,2-Dichloroethane	10	--	ND
1,1-Dichloroethene	10	--	40
cis-1,2-Dichloroethene	10	--	3300
trans-1,2-Dichloroethene	10	--	13
Ethylbenzene	5	--	150
Isopropylbenzene	14	--	3.5
Methylene Chloride	10	--	630
4-Methyl-2-pentanone	140	--	61
1,1,2,2-Tetrachloroethane	50	--	ND
Tetrachloroethene	5.4 / 10	--	67
Toluene	5	--	5100
1,2,3-Trichlorobenzene	10	--	51
1,2,4-Trichlorobenzene	10	--	200
1,1,1-Trichloroethane	10	--	93
1,1,2-Trichloroethane	10	--	1.8
Trichloroethylene	10	--	8000
Trichlorofluoromethane	10	--	ND
Vinyl Chloride	10	--	330
Sum of o, m, & p-Xylene	15	--	500
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	--	--
2-Chlorophenol	--	--	--
2,4-Dimethylphenol	10	--	--
2-Methylphenol	10	--	--
Sum of 3- & 4-Methylphenol	10	--	--
Pentachlorophenol	--	--	--
Phenol	10	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	--
Aroclor 1242	0.2	--	--
Aroclor 1248	0.2	--	--
Aroclor 1254	0.2	--	--
Aroclor 1260	0.2	--	--
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	--
delta-BHC	0.043	--	--
alpha-Chlordane	0.05	--	--
gamma-Chlordane	0.05	--	--
4,4'-DDE	0.01	--	--
Dieldrin	0.005	--	--
Endosulfan II	0.049	--	--
Endosulfan Sulfate	0.2	--	--
Heptachlor	0.01	--	--
Methoxychlor	0.4	--	--
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	--
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.67	170

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - September 9, 2015 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (September 9, 2015)	HIPOx Disc (September 9, 2015)	Air Stripper Disc (September 9, 2015)	BioClarifier Disc (September 9, 2015)	Influent (September 9, 2015)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	6.84	7.52	7.80	6.80	6.99
Dissolved Oxygen (Field)	5.0 minimum	8.7	--	8.3	5.5	5.3
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	1.76	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.188	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	50	ND	ND	640
Benzene	5	ND	ND	ND	1.5	7100
2-Butanone	280	ND	2.2 J	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	170	990
Chloroethane	10	ND	ND	ND	1.7	6.7
Chloroform	50	ND	ND	ND	150	270
Chloromethane	10	ND	ND	ND	ND	100
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	19.1	39
1,1-Dichloroethane	10	ND	ND	ND	48	99
1,2-Dichloroethane	10	ND	ND	ND	250	340
1,1-Dichloroethene	10	ND	ND	ND	8.6	40
cis-1,2-Dichloroethene	10	ND	ND	ND	1500	2900
trans-1,2-Dichloroethene	10	ND	ND	ND	8.6	40
Ethylbenzene	5	ND	ND	ND	ND	130
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	190	650
4-Methyl-2-pentanone	140	ND	ND	ND	6.6	45
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	18	48
Toluene	5	ND	ND	ND	ND	6900
1,2,3-Trichlorobenzene	10	ND	ND	ND	26	25
1,2,4-Trichlorobenzene	10	ND	ND	ND	100	160
1,1,1-Trichloroethane	10	ND	ND	ND	30	63
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	ND	ND	2600	7900
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	91	260
Sum of o, m, & p-Xylene	15	ND	ND	ND	ND	570
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	--	--	--	ND	ND
2-Chlorophenol	--	--	--	--	1.3 J	4.6 J
2,4-Dimethylphenol	10	--	--	--	ND	33
2-Methylphenol	10	--	--	--	1.1 J	72
Sum of 3- & 4-Methylphenol	10	--	--	--	ND	170
Pentachlorophenol	--	--	--	--	2.1 J	5.5 J
Phenol	10	--	--	--	ND	87
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.093 J	7.8	140	--	180

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - September 16, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (September 16, 2015)	Influent (September 16, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	--	6.94
Dissolved Oxygen (Field)	5.0 minimum	--	4.8
Total Suspended Solids (SM 2540D)	20	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--
BOD5 (SM 5210 B)	30	--	--
Ammonia (USEPA 350.1)	8.1	--	--
Oil & Grease (USEPA 1664A)	15	--	--
Total Phosphorus (SM 4500-P E)	1	--	--
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	--
Total Arsenic	50 / 100	--	--
Total Cobalt	27	--	--
Total Copper	86	--	--
Total Iron	2000 / 4000	--	--
Total Lead	51	--	--
Total Manganese	1000 / 2000	--	--
Total Selenium	25	--	--
Total Silver	22	--	--
Total Thallium	43	--	--
Total Vanadium	76	--	--
Total Zinc	400	--	--
VOCs (624) (micrograms per liter)			
Acetone	280	--	780 B
Benzene	5	--	8300
2-Butanone	280	--	ND
Chlorobenzene	10	--	2200
Chloroethane	10	--	7.7
Chloroform	50	--	360
Chloromethane	10	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	54.1
1,1-Dichloroethane	10	--	160
1,2-Dichloroethane	10	--	ND
1,1-Dichloroethene	10	--	47
cis-1,2-Dichloroethene	10	--	3600
trans-1,2-Dichloroethene	10	--	14
Ethylbenzene	5	--	200
Isopropylbenzene	14	--	ND
Methylene Chloride	10	--	940
4-Methyl-2-pentanone	140	--	66
1,1,2,2-Tetrachloroethane	50	--	ND
Tetrachloroethene	5.4 / 10	--	72 B
Toluene	5	--	7600
1,2,3-Trichlorobenzene	10	--	48
1,2,4-Trichlorobenzene	10	--	230
1,1,1-Trichloroethane	10	--	87
1,1,2-Trichloroethane	10	--	ND
Trichloroethylene	10	--	9000
Trichlorofluoromethane	10	--	ND
Vinyl Chloride	10	--	440
Sum of o, m, & p-Xylene	15	--	800
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	--	--
2-Chlorophenol	--	--	--
2,4-Dimethylphenol	10	--	--
2-Methylphenol	10	--	--
Sum of 3- & 4-Methylphenol	10	--	--
Pentachlorophenol	--	--	--
Phenol	10	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	--
Aroclor 1242	0.2	--	--
Aroclor 1248	0.2	--	--
Aroclor 1254	0.2	--	--
Aroclor 1260	0.2	--	--
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	--
delta-BHC	0.043	--	--
alpha-Chlordane	0.05	--	--
gamma-Chlordane	0.05	--	--
4,4'-DDE	0.01	--	--
Dieldrin	0.005	--	--
Endosulfan II	0.049	--	--
Endosulfan Sulfate	0.2	--	--
Heptachlor	0.01	--	--
Methoxychlor	0.4	--	--
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	--
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	2.4	180

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- B = Denotes analyte is also detected in the method blank
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - September 23, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (September 23, 2015)	Influent (September 23, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	--	6.98
Dissolved Oxygen (Field)	5.0 minimum	--	5.3
Total Suspended Solids (SM 2540D)	20	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--
BOD5 (SM 5210 B)	30	--	--
Ammonia (USEPA 350.1)	8.1	--	--
Oil & Grease (USEPA 1664A)	15	--	--
Total Phosphorus (SM 4500-P E)	1	--	--
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	--
Total Arsenic	50 / 100	--	--
Total Cobalt	27	--	--
Total Copper	86	--	--
Total Iron	2000 / 4000	--	--
Total Lead	51	--	--
Total Manganese	1000 / 2000	--	--
Total Selenium	25	--	--
Total Silver	22	--	--
Total Thallium	43	--	--
Total Vanadium	76	--	--
Total Zinc	400	--	--
VOCs (624) (micrograms per liter)			
Acetone	280	--	410
Benzene	5	--	5300
2-Butanone	280	--	ND
Chlorobenzene	10	--	1300
Chloroethane	10	--	10
Chloroform	50	--	180
Chloromethane	10	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	30.8
1,1-Dichloroethane	10	--	82
1,2-Dichloroethane	10	--	ND
1,1-Dichloroethene	10	--	28
cis-1,2-Dichloroethene	10	--	1800
trans-1,2-Dichloroethene	10	--	19
Ethylbenzene	5	--	120
Isopropylbenzene	14	--	ND
Methylene Chloride	10	--	410
4-Methyl-2-pentanone	140	--	39
1,1,2,2-Tetrachloroethane	50	--	ND
Tetrachloroethene	5.4 / 10	--	44
Toluene	5	--	4200
1,2,3-Trichlorobenzene	10	--	36
1,2,4-Trichlorobenzene	10	--	170
1,1,1-Trichloroethane	10	--	54
1,1,2-Trichloroethane	10	--	ND
Trichloroethylene	10	--	5100
Trichlorofluoromethane	10	--	ND
Vinyl Chloride	10	--	260
Sum of o, m, & p-Xylene	15	--	230
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	--	--
2-Chlorophenol	--	--	--
2,4-Dimethylphenol	10	--	--
2-Methylphenol	10	--	--
Sum of 3- & 4-Methylphenol	10	--	--
Pentachlorophenol	--	--	--
Phenol	10	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	--
Aroclor 1242	0.2	--	--
Aroclor 1248	0.2	--	--
Aroclor 1254	0.2	--	--
Aroclor 1260	0.2	--	--
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	--
delta-BHC	0.043	--	--
alpha-Chlordane	0.05	--	--
gamma-Chlordane	0.05	--	--
4,4'-DDE	0.01	--	--
Dieldrin	0.005	--	--
Endosulfan II	0.049	--	--
Endosulfan Sulfate	0.2	--	--
Heptachlor	0.01	--	--
Methoxychlor	0.4	--	--
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	--
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	0.96	140

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - September 30, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (September 30, 2015)	Influent (September 30, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	--	7.01
Dissolved Oxygen (Field)	5.0 minimum	--	5.6
Total Suspended Solids (SM 2540D)	20	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--
BOD5 (SM 5210 B)	30	--	--
Ammonia (USEPA 350.1)	8.1	--	--
Oil & Grease (USEPA 1664A)	15	--	--
Total Phosphorus (SM 4500-P E)	1	--	--
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	--
Total Arsenic	50 / 100	--	--
Total Cobalt	27	--	--
Total Copper	86	--	--
Total Iron	2000 / 4000	--	--
Total Lead	51	--	--
Total Manganese	1000 / 2000	--	--
Total Selenium	25	--	--
Total Silver	22	--	--
Total Thallium	43	--	--
Total Vanadium	76	--	--
Total Zinc	400	--	--
VOCs (624) (micrograms per liter)			
Acetone	280	--	740
Benzene	5	--	8000
2-Butanone	280	--	ND
Chlorobenzene	10	--	2100
Chloroethane	10	--	11
Chloroform	50	--	300
Chloromethane	10	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	44
1,1-Dichloroethane	10	--	140
1,2-Dichloroethane	10	--	480
1,1-Dichloroethene	10	--	40
cis-1,2-Dichloroethene	10	--	3200
trans-1,2-Dichloroethene	10	--	18
Ethylbenzene	5	--	180
Isopropylbenzene	14	--	ND
Methylene Chloride	10	--	780
4-Methyl-2-pentanone	140	--	65
1,1,2,2-Tetrachloroethane	50	--	ND
Tetrachloroethene	5.4 / 10	--	57
Toluene	5	--	7900
1,2,3-Trichlorobenzene	10	--	47
1,2,4-Trichlorobenzene	10	--	210
1,1,1-Trichloroethane	10	--	66
1,1,2-Trichloroethane	10	--	ND
Trichloroethylene	10	--	8000
Trichlorofluoromethane	10	--	ND
Vinyl Chloride	10	--	560
Sum of o, m, & p-Xylene	15	--	620
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	--	--
2-Chlorophenol	--	--	--
2,4-Dimethylphenol	10	--	--
2-Methylphenol	10	--	--
Sum of 3- & 4-Methylphenol	10	--	--
Pentachlorophenol	--	--	--
Phenol	10	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	--
Aroclor 1242	0.2	--	--
Aroclor 1248	0.2	--	--
Aroclor 1254	0.2	--	--
Aroclor 1260	0.2	--	--
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	--
delta-BHC	0.043	--	--
alpha-Chlordane	0.05	--	--
gamma-Chlordane	0.05	--	--
4,4'-DDE	0.01	--	--
Dieldrin	0.005	--	--
Endosulfan II	0.049	--	--
Endosulfan Sulfate	0.2	--	--
Heptachlor	0.01	--	--
Methoxychlor	0.4	--	--
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	--
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	7.9	150

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - October 7, 2015 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (October 7, 2015)	HIPOx Disc (October 7, 2015)	Air Stripper Disc (October 7, 2015)	Bio/Clarifier Disc (October 7, 2015)	Influent (October 7, 2015)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	6.99	8.02	8.23	6.93	7.13
Dissolved Oxygen (Field)	5.0 minimum	7.4	--	8.1	5.3	5.4
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	3.69	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.204	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	100 B	21 B	13 B	510 B
Benzene	5	ND	ND	ND	75	6600
2-Butanone	280	ND	3.8 J	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	470	1700
Chloroethane	10	ND	ND	ND	3.2	5.7
Chloroform	50	ND	ND	ND	160	150
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	26	26.7
1,1-Dichloroethane	10	ND	ND	ND	84	90
1,2-Dichloroethane	10	ND	ND	ND	360	ND
1,1,1-Dichloroethene	10	ND	ND	ND	11	23
cis-1,2-Dichloroethene	10	ND	ND	ND	1700	2200
trans-1,2-Dichloroethene	10	ND	ND	ND	11	9.4
Ethylbenzene	5	ND	ND	ND	1.1	140
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	220	370
4-Methyl-2-pentanone	140	ND	ND	ND	15	44
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	21	33
Toluene	5	ND	ND	ND	ND	6300
1,2,3-Trichlorobenzene	10	ND	ND	ND	31	29
1,2,4-Trichlorobenzene	10	ND	ND	ND	100	130
1,1,1-Trichloroethane	10	ND	ND	ND	32	46
1,1,2-Trichloroethane	10	ND	ND	ND	1.0	ND
Trichloroethylene	10	ND	ND	ND	3100	4300
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	170	400
Sum of o, m, & p-Xylene	15	ND	ND	ND	28	360
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	--	--	--	ND	ND
2-Chlorophenol	--	--	--	--	3.7 J	4.4 J
2,4-Dimethylphenol	10	--	--	--	1.4 J	34
2-Methylphenol	10	--	--	--	2.1 J	67
Sum of 3- & 4-Methylphenol	10	--	--	--	ND	220
Pentachlorophenol	--	--	--	--	2.5 J	2.9 J
Phenol	10	--	--	--	1.8 J	74
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4,4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	0.49	11	200	--	210

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- B = Denotes analyte is also detected in the method blank
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - October 14, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (October 14, 2015)	Influent (October 14, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	--	7.22
Dissolved Oxygen (Field)	5.0 minimum	--	6.1
Total Suspended Solids (SM 2540D)	20	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--
BOD5 (SM 5210 B)	30	--	--
Ammonia (USEPA 350.1)	8.1	--	--
Oil & Grease (USEPA 1664A)	15	--	--
Total Phosphorus (SM 4500-P E)	1	--	--
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	--
Total Arsenic	50 / 100	--	--
Total Cobalt	27	--	--
Total Copper	86	--	--
Total Iron	2000 / 4000	--	--
Total Lead	51	--	--
Total Manganese	1000 / 2000	--	--
Total Selenium	25	--	--
Total Silver	22	--	--
Total Thallium	43	--	--
Total Vanadium	76	--	--
Total Zinc	400	--	--
VOCs (624) (micrograms per liter)			
Acetone	280	--	520
Benzene	5	--	5500
2-Butanone	280	--	85
Chlorobenzene	10	--	1400
Chloroethane	10	--	13
Chloroform	50	--	110
Chloromethane	10	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	21.1
1,1-Dichloroethane	10	--	83
1,2-Dichloroethane	10	--	230
1,1-Dichloroethene	10	--	20
cis-1,2-Dichloroethene	10	--	1600
trans-1,2-Dichloroethene	10	--	13
Ethylbenzene	5	--	110
Isopropylbenzene	14	--	ND
Methylene Chloride	10	--	320
4-Methyl-2-pentanone	140	--	49
1,1,2,2-Tetrachloroethane	50	--	ND
Tetrachloroethene	5.4 / 10	--	25
Toluene	5	--	5200
1,2,3-Trichlorobenzene	10	--	20
1,2,4-Trichlorobenzene	10	--	97
1,1,1-Trichloroethane	10	--	34
1,1,2-Trichloroethane	10	--	ND
Trichloroethylene	10	--	2800
Trichlorofluoromethane	10	--	ND
Vinyl Chloride	10	--	450
Sum of o, m, & p-Xylene	15	--	400
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	--	--
2-Chlorophenol	--	--	--
2,4-Dimethylphenol	10	--	--
2-Methylphenol	10	--	--
Sum of 3- & 4-Methylphenol	10	--	--
Pentachlorophenol	--	--	--
Phenol	10	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	--
Aroclor 1242	0.2	--	--
Aroclor 1248	0.2	--	--
Aroclor 1254	0.2	--	--
Aroclor 1260	0.2	--	--
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	--
delta-BHC	0.043	--	--
alpha-Chlordane	0.05	--	--
gamma-Chlordane	0.05	--	--
4,4'-DDE	0.01	--	--
Dieldrin	0.005	--	--
Endosulfan II	0.049	--	--
Endosulfan Sulfate	0.2	--	--
Heptachlor	0.01	--	--
Methoxychlor	0.4	--	--
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	--
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	4.9	190

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - October 21, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (October 21, 2015)	Influent (October 21, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	--	7.19
Dissolved Oxygen (Field)	5.0 minimum	--	5.6
Total Suspended Solids (SM 2540D)	20	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--
BOD5 (SM 5210 B)	30	--	--
Ammonia (USEPA 350.1)	8.1	--	--
Oil & Grease (USEPA 1664A)	15	--	--
Total Phosphorus (SM 4500-P E)	1	--	--
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	--
Total Arsenic	50 / 100	--	--
Total Cobalt	27	--	--
Total Copper	86	--	--
Total Iron	2000 / 4000	--	--
Total Lead	51	--	--
Total Manganese	1000 / 2000	--	--
Total Selenium	25	--	--
Total Silver	22	--	--
Total Thallium	43	--	--
Total Vanadium	76	--	--
Total Zinc	400	--	--
VOCs (624) (micrograms per liter)			
Acetone	280	--	730
Benzene	5	--	7200
2-Butanone	280	--	24 J
Chlorobenzene	10	--	2000
Chloroethane	10	--	12
Chloroform	50	--	310
Chloromethane	10	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	49
1,1-Dichloroethane	10	--	140
1,2-Dichloroethane	10	--	430
1,1-Dichloroethene	10	--	43
cis-1,2-Dichloroethene	10	--	3300
trans-1,2-Dichloroethene	10	--	21
Ethylbenzene	5	--	190
Isopropylbenzene	14	--	ND
Methylene Chloride	10	--	990
4-Methyl-2-pentanone	140	--	63
1,1,2,2-Tetrachloroethane	50	--	ND
Tetrachloroethene	5.4 / 10	--	70
Toluene	5	--	7100
1,2,3-Trichlorobenzene	10	--	54
1,2,4-Trichlorobenzene	10	--	250
1,1,1-Trichloroethane	10	--	78
1,1,2-Trichloroethane	10	--	ND
Trichloroethylene	10	--	9200
Trichlorofluoromethane	10	--	ND
Vinyl Chloride	10	--	580
Sum of o, m, & p-Xylene	15	--	790
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	--	--
2-Chlorophenol	--	--	--
2,4-Dimethylphenol	10	--	--
2-Methylphenol	10	--	--
Sum of 3- & 4-Methylphenol	10	--	--
Pentachlorophenol	--	--	--
Phenol	10	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	--
Aroclor 1242	0.2	--	--
Aroclor 1248	0.2	--	--
Aroclor 1254	0.2	--	--
Aroclor 1260	0.2	--	--
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	--
delta-BHC	0.043	--	--
alpha-Chlordane	0.05	--	--
gamma-Chlordane	0.05	--	--
4,4'-DDE	0.01	--	--
Dieldrin	0.005	--	--
Endosulfan II	0.049	--	--
Endosulfan Sulfate	0.2	--	--
Heptachlor	0.01	--	--
Methoxychlor	0.4	--	--
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	--
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	7.5	150

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - October 28, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (October 28, 2015)	Influent (October 28, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	--	7.04
Dissolved Oxygen (Field)	5.0 minimum	--	5.0
Total Suspended Solids (SM 2540D)	20	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--
BOD5 (SM 5210 B)	30	--	--
Ammonia (USEPA 350.1)	8.1	--	--
Oil & Grease (USEPA 1664A)	15	--	--
Total Phosphorus (SM 4500-P E)	1	--	--
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	--
Total Arsenic	50 / 100	--	--
Total Cobalt	27	--	--
Total Copper	86	--	--
Total Iron	2000 / 4000	--	--
Total Lead	51	--	--
Total Manganese	1000 / 2000	--	--
Total Selenium	25	--	--
Total Silver	22	--	--
Total Thallium	43	--	--
Total Vanadium	76	--	--
Total Zinc	400	--	--
VOCs (624) (micrograms per liter)			
Acetone	280	--	400
Benzene	5	--	7000
2-Butanone	280	--	78
Chlorobenzene	10	--	1800
Chloroethane	10	--	15
Chloroform	50	--	130
Chloromethane	10	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	28.6
1,1-Dichloroethane	10	--	88
1,2-Dichloroethane	10	--	250
1,1-Dichloroethene	10	--	23
cis-1,2-Dichloroethene	10	--	1900
trans-1,2-Dichloroethene	10	--	14
Ethylbenzene	5	--	150
Isopropylbenzene	14	--	ND
Methylene Chloride	10	--	400
4-Methyl-2-pentanone	140	--	50
1,1,2,2-Tetrachloroethane	50	--	ND
Tetrachloroethene	5.4 / 10	--	37
Toluene	5	--	6900
1,2,3-Trichlorobenzene	10	--	28
1,2,4-Trichlorobenzene	10	--	130
1,1,1-Trichloroethane	10	--	41
1,1,2-Trichloroethane	10	--	ND
Trichloroethylene	10	--	4100
Trichlorofluoromethane	10	--	ND
Vinyl Chloride	10	--	550
Sum of o, m, & p-Xylene	15	--	660
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	--	--
2-Chlorophenol	--	--	--
2,4-Dimethylphenol	10	--	--
2-Methylphenol	10	--	--
Sum of 3- & 4-Methylphenol	10	--	--
Pentachlorophenol	--	--	--
Phenol	10	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	--
Aroclor 1242	0.2	--	--
Aroclor 1248	0.2	--	--
Aroclor 1254	0.2	--	--
Aroclor 1260	0.2	--	--
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	--
delta-BHC	0.043	--	--
alpha-Chlordane	0.05	--	--
gamma-Chlordane	0.05	--	--
4,4'-DDE	0.01	--	--
Dieldrin	0.005	--	--
Endosulfan II	0.049	--	--
Endosulfan Sulfate	0.2	--	--
Heptachlor	0.01	--	--
Methoxychlor	0.4	--	--
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	--
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	13	210

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - November 4, 2015 Process Monitoring

Analytes	Discharge Limits	Between LPGAC (November 4, 2015)	HIPOx Disc (November 4, 2015)	Air Stripper Disc (November 4, 2015)	BioClarifier Disc (November 4, 2015)	Influent (November 4, 2015)
Water Quality (milligrams per liter)						
pH (Field)	6.5 to 8.5	7.12	8.09	8.15	7.11	7.08
Dissolved Oxygen (Field)	5.0 minimum	7.8	--	8.4	5.1	6.6
Total Suspended Solids (SM 2540D)	20	--	--	--	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--	--	--	--
BOD5 (SM 5210 B)	30	--	--	--	--	--
Ammonia (USEPA 350.1)	8.1	--	--	--	1.10	--
Oil & Grease (USEPA 1664A)	15	--	--	--	--	--
Total Phosphorus (SM 4500-P E)	1	--	--	--	0.156	--
Metals (200.7) (micrograms per liter)						
Total Aluminum	2000 / 4000	--	--	--	--	--
Total Arsenic	50 / 100	--	--	--	--	--
Total Cobalt	27	--	--	--	--	--
Total Copper	86	--	--	--	--	--
Total Iron	2000 / 4000	--	--	--	--	--
Total Lead	51	--	--	--	--	--
Total Manganese	1000 / 2000	--	--	--	--	--
Total Selenium	25	--	--	--	--	--
Total Silver	22	--	--	--	--	--
Total Thallium	43	--	--	--	--	--
Total Vanadium	76	--	--	--	--	--
Total Zinc	400	--	--	--	--	--
VOCs (624) (micrograms per liter)						
Acetone	280	ND	170	100	220 J	280 J
Benzene	5	ND	ND	ND	2900	7300
2-Butanone	280	ND	8.9	12	69 J	ND
Chlorobenzene	10	ND	ND	ND	830	1700
Chloroethane	10	ND	ND	ND	ND	ND
Chloroform	50	ND	ND	ND	140	160
Chloromethane	10	ND	ND	ND	ND	ND
Sum of o, m, & p-Dichlorobenzene	27	ND	ND	ND	ND	ND
1,1-Dichloroethane	10	ND	ND	ND	100	110
1,2-Dichloroethane	10	ND	ND	ND	280	360
1,1-Dichloroethene	10	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10	ND	ND	ND	1900	2100
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	56	160
Isopropylbenzene	14	ND	ND	ND	ND	ND
Methylene Chloride	10	ND	ND	ND	260	320
4-Methyl-2-pentanone	140	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	50	ND	ND	ND	ND	ND
Tetrachloroethene	5.4 / 10	ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	2800	7200
1,2,3-Trichlorobenzene	10	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	10	ND	ND	ND	99	130
1,1,1-Trichloroethane	10	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	ND	ND	2600	4200
Trichlorofluoromethane	10	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	320	690
Sum of o, m, & p-Xylene	15	ND	ND	ND	180	690
SVOCs (625) (micrograms per liter)						
Bis(2-Ethylhexyl)phthalate	10	--	--	--	ND	ND
2-Chlorophenol	--	--	--	--	2.1 J	2.1 J
2,4-Dimethylphenol	10	--	--	--	6.0 J	19
2-Methylphenol	10	--	--	--	33	41
Sum of 3- & 4-Methylphenol	10	--	--	--	9.3 J	100
Pentachlorophenol	--	--	--	--	2.3 J	2.3 J
Phenol	10	--	--	--	1.4 J	45
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--	--	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--	--	--	--
PCBs (608) (micrograms per liter)						
Aroclor 1221	0.2	--	--	--	--	--
Aroclor 1242	0.2	--	--	--	--	--
Aroclor 1248	0.2	--	--	--	--	--
Aroclor 1254	0.2	--	--	--	--	--
Aroclor 1260	0.2	--	--	--	--	--
Pesticides (608) (micrograms per liter)						
beta-BHC	0.038	--	--	--	--	--
delta-BHC	0.043	--	--	--	--	--
alpha-Chlordane	0.05	--	--	--	--	--
gamma-Chlordane	0.05	--	--	--	--	--
4'-DDE	0.01	--	--	--	--	--
Dieldrin	0.005	--	--	--	--	--
Endosulfan II	0.049	--	--	--	--	--
Endosulfan Sulfate	0.2	--	--	--	--	--
Heptachlor	0.01	--	--	--	--	--
Methoxychlor	0.4	--	--	--	--	--
Mercury (1631) (micrograms per liter)						
Mercury	0.05	--	--	--	--	--
1,4-Dioxane (8270D) (micrograms per liter)						
1,4-Dioxane	--	5.6	12	190	--	190

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- J = Detected at or above detection limit but less than reporting limit; estimated concentration
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - November 11, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (November 11, 2015)	Influent (November 11, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	--	7.03
Dissolved Oxygen (Field)	5.0 minimum	--	4.7
Total Suspended Solids (SM 2540D)	20	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--
BOD5 (SM 5210 B)	30	--	--
Ammonia (USEPA 350.1)	8.1	--	--
Oil & Grease (USEPA 1664A)	15	--	--
Total Phosphorus (SM 4500-P E)	1	--	--
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	--
Total Arsenic	50 / 100	--	--
Total Cobalt	27	--	--
Total Copper	86	--	--
Total Iron	2000 / 4000	--	--
Total Lead	51	--	--
Total Manganese	1000 / 2000	--	--
Total Selenium	25	--	--
Total Silver	22	--	--
Total Thallium	43	--	--
Total Vanadium	76	--	--
Total Zinc	400	--	--
VOCs (624) (micrograms per liter)			
Acetone	280	--	820
Benzene	5	--	9900
2-Butanone	280	--	130
Chlorobenzene	10	--	2400
Chloroethane	10	--	12
Chloroform	50	--	240
Chloromethane	10	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	36.2
1,1-Dichloroethane	10	--	170
1,2-Dichloroethane	10	--	470
1,1-Dichloroethene	10	--	40
cis-1,2-Dichloroethene	10	--	3100
trans-1,2-Dichloroethene	10	--	25
Ethylbenzene	5	--	200
Isopropylbenzene	14	--	ND
Methylene Chloride	10	--	740
4-Methyl-2-pentanone	140	--	84
1,1,2,2-Tetrachloroethane	50	--	ND
Tetrachloroethene	5.4 / 10	--	44
Toluene	5	--	10000
1,2,3-Trichlorobenzene	10	--	29
1,2,4-Trichlorobenzene	10	--	140
1,1,1-Trichloroethane	10	--	65
1,1,2-Trichloroethane	10	--	ND
Trichloroethylene	10	--	6000
Trichlorofluoromethane	10	--	ND
Vinyl Chloride	10	--	990
Sum of o, m, & p-Xylene	15	--	870
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	--	--
2-Chlorophenol	--	--	--
2,4-Dimethylphenol	10	--	--
2-Methylphenol	10	--	--
Sum of 3- & 4-Methylphenol	10	--	--
Pentachlorophenol	--	--	--
Phenol	10	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	--
Aroclor 1242	0.2	--	--
Aroclor 1248	0.2	--	--
Aroclor 1254	0.2	--	--
Aroclor 1260	0.2	--	--
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	--
delta-BHC	0.043	--	--
alpha-Chlordane	0.05	--	--
gamma-Chlordane	0.05	--	--
4,4'-DDE	0.01	--	--
Dieldrin	0.005	--	--
Endosulfan II	0.049	--	--
Endosulfan Sulfate	0.2	--	--
Heptachlor	0.01	--	--
Methoxychlor	0.4	--	--
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	--
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	13	21

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

Dewey Loeffel Landfill Superfund Site
Nassau, New York
Groundwater and Leachate Treatment System
Start-Up Sampling Results - November 18, 2015 Process Monitoring

Analytes	Discharge Limits	HIPOx Disc (November 18, 2015)	Influent (November 18, 2015)
Water Quality (milligrams per liter)			
pH (Field)	6.5 to 8.5	--	7.21
Dissolved Oxygen (Field)	5.0 minimum	--	5.3
Total Suspended Solids (SM 2540D)	20	--	--
Total Dissolved Solids (SM 2540C)	2700	--	--
BOD5 (SM 5210 B)	30	--	--
Ammonia (USEPA 350.1)	8.1	--	--
Oil & Grease (USEPA 1664A)	15	--	--
Total Phosphorus (SM 4500-P E)	1	--	--
Metals (200.7) (micrograms per liter)			
Total Aluminum	2000 / 4000	--	--
Total Arsenic	50 / 100	--	--
Total Cobalt	27	--	--
Total Copper	86	--	--
Total Iron	2000 / 4000	--	--
Total Lead	51	--	--
Total Manganese	1000 / 2000	--	--
Total Selenium	25	--	--
Total Silver	22	--	--
Total Thallium	43	--	--
Total Vanadium	76	--	--
Total Zinc	400	--	--
VOCs (624) (micrograms per liter)			
Acetone	280	--	590
Benzene	5	--	8500
2-Butanone	280	--	110
Chlorobenzene	10	--	2200
Chloroethane	10	--	8.1
Chloroform	50	--	230
Chloromethane	10	--	ND
Sum of o, m, & p-Dichlorobenzene	27	--	44
1,1-Dichloroethane	10	--	110
1,2-Dichloroethane	10	--	420
1,1-Dichloroethene	10	--	30
cis-1,2-Dichloroethene	10	--	3100
trans-1,2-Dichloroethene	10	--	11
Ethylbenzene	5	--	210
Isopropylbenzene	14	--	ND
Methylene Chloride	10	--	530
4-Methyl-2-pentanone	140	--	62
1,1,2,2-Tetrachloroethane	50	--	ND
Tetrachloroethene	5.4 / 10	--	56
Toluene	5	--	9900
1,2,3-Trichlorobenzene	10	--	50
1,2,4-Trichlorobenzene	10	--	240
1,1,1-Trichloroethane	10	--	66
1,1,2-Trichloroethane	10	--	ND
Trichloroethylene	10	--	7100
Trichlorofluoromethane	10	--	ND
Vinyl Chloride	10	--	530
Sum of o, m, & p-Xylene	15	--	890
SVOCs (625) (micrograms per liter)			
Bis(2-Ethylhexyl)phthalate	10	--	--
2-Chlorophenol	--	--	--
2,4-Dimethylphenol	10	--	--
2-Methylphenol	10	--	--
Sum of 3- & 4-Methylphenol	10	--	--
Pentachlorophenol	--	--	--
Phenol	10	--	--
Phenols, Total Chlorinated (Sum of Detected)	5.4	--	--
Phenols, Total Unchlorinated (Sum of Detected)	27	--	--
PCBs (608) (micrograms per liter)			
Aroclor 1221	0.2	--	--
Aroclor 1242	0.2	--	--
Aroclor 1248	0.2	--	--
Aroclor 1254	0.2	--	--
Aroclor 1260	0.2	--	--
Pesticides (608) (micrograms per liter)			
beta-BHC	0.038	--	--
delta-BHC	0.043	--	--
alpha-Chlordane	0.05	--	--
gamma-Chlordane	0.05	--	--
4,4'-DDE	0.01	--	--
Dieldrin	0.005	--	--
Endosulfan II	0.049	--	--
Endosulfan Sulfate	0.2	--	--
Heptachlor	0.01	--	--
Methoxychlor	0.4	--	--
Mercury (1631) (micrograms per liter)			
Mercury	0.05	--	--
1,4-Dioxane (8270D) (micrograms per liter)			
1,4-Dioxane	--	14	210

Notes:

- Field tests performed by ARCADIS personnel
- Water samples analyzed by Pace Analytical in Schenectady, NY and its subcontractors
- Analytical method numbers shown in parentheses
- BOD5 = Biological oxygen demand, 5 day
- VOCs = Volatile organic compounds
- SVOCs = Semi-volatile organic compounds
- PCBs = Polychlorinated biphenyls
- ND = Not detected at or above the detection limit
- = Not sampled or not applicable
- Discharge Limits are daily maximums and if there is also a monthly average, that value appears first before the backslash

ATTACHMENT C

Operations, Maintenance and Monitoring Plan
(Bound Separately)



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