Honeywell International Inc.
115 Tabor Road
Morris Plains, NJ 07950

March 22, 2021

Thomas Budroe
USEPA Facilities
Raritan Depot
2890 Woodbridge Avenue
Mail Code: MS211
Edison, NJ 08837-3679

Subject: Administrative Settlement Agreement and Order on Consent
Index No. CERCLA – 02-02-2019-2006
Site 108 of the Tonawanda Coke Corporation Superfund Site
Removal Action Summary Report
3800 River Road, Tonawanda, NY

Dear Mr. Budroe,

In accordance with Paragraph 28 of the subject Settlement Agreement, please find attached the revised Removal Action Summary Report along with responses to comments received on 3/16/21. If you have any questions in regards to the information provided, feel free to contact me at 973-455-4640 or Tom Abrams (Parsons) at 315-552-9670.

Regards,

Richard Galloway
Honeywell

cc: Peter Lisichenko, USEPA
Margo Ludmer, USEPA
Mark Pane, USEPA
Dan Harkay, USEPA
Tom Abrams, Parsons
Ed Glaza, Parsons
Michelle McDonald, Parsons

Honeywell Responses to EPA Comments Regarding Honeywell's Tonawanda Coke Site 108 Removal Action Final Report Revision 1 – March 22, 2021

1. Section 1.2, paragraph 3, 3rd line: This sentence is incomplete. The intended last word of this sentence may have been, "EPA".

   Response:
   Revision made.

2. Section 1.2, paragraph 3, sixth line: Insert, "s" after, "berm"

   Response:
   Correction made.

3. Section 3.4.3, 3rd paragraph, 5th line: Delete, "Based on discussions with the OSC, additional excavation into the silty loam layer was stopped."
   Response:
   Revision made.

4. Section 3.4.3, 3rd paragraph: Delete, "Several" and insert, "Three".
   Response:
   Revision made.

5. Section 3.4.3, 3rd paragraph: Provide the dimensions, including the depth, of the three test pits. Also, provide the findings and conclusions from the test pits.
   Response:
   Revisions made.

6. Section 3.4.3, 3rd paragraph, 8th line: Delete, "Based on discussions with the OSC, additional excavation into the berm was stopped." and insert, "EPA approved Parson's request to halt the excavation of Area three at this base depth and horizontal extent into the southern wall."
   Response:
   Revision made.

7. Section 3.4.4: Provided a brief discussion of how the soil was loaded-out.
   Response:
   Revision made.

8. Section 3.4.5. first paragraph, first line: After, "tank" insert, "and subsequently through bag filters".
   Response:
   Revision made.

9. Section 3.6: Delete, "Appendix K includes a discussion of removal and disposal options considered under this project." and insert, "A discussion of the disposal options can be found in Section 4 of the Tank Removal Work Plan in Appendix K."
   Response:
   Revision made.

10. Section 3.8, 2nd line: Delete, “3.6.2” and insert, “3.7.2”.
    Response:
    Revision made.
11. Figure 4: There is no “Area E” listed on the figure. Is this an oversight?
    Response:
    The area called out as F was changed to E and the Area F legend text was removed.
12. Table 1, Pick Up Column, 7th line and 9th line: The correct dates are 1/29/20 and 2/3/20 respectively.
    Response:
    Revisions made.
13. Table 2: The first five manifests listed on Table 2 are not present in Appendix G. Please provide those missing manifests.
    Response:
    The manifests have been added.
14. Table 2, Pick Up Column, 14th line: The correct date is, 11/19/2019.
    Response:
    Revision made.
15. Table 3, Pick Up Column, 4th line: The correct date is, 12/18/2019.
    Response:
    Revision made.
16. Table 3: Please provide a total row for the weights.
    Response:
    Revision made.
17. Table 4: The last two manifests listed in this table are not preset in Appendix G. Please provide those missing manifests.
    Response:
    The manifests have been added.
18. Table 5: In the Table 5 title, delete “Soil Pile” and insert, “Asbestos”.
    Response:
    Revision made.
19. Table 7, Pick Up Column, 8th line and 11th line: The correct dates are 12/13/19 and 1/20/20 respectively.
    Response:
    Revisions made. Note the correct pickup date for the 8th line is 12/16/19.
20. Table 7: Ticket No. 220458, dated 1/31/20 for 6,060 lbs. is not included in the table. Please include the information from this ticket into the table.
    Response:
    Revision made.
21. Appendix H: Manifest 0256325 is from a job not related to Tonawanda Coke Site 108.
    Response:
    The manifest has been removed.
22. Appendix I: Please provide additional photographs of former Tank Area 3 which show the coal tar remaining in the base and south wall of the excavation.

Response:
Additional photographs have been added.

23. Appendix I: Please provide the date and the cardinal direction the camera was facing for all pictures included in the photo log.
Response:
Revisions made.

TANK REMOVAL ACTION SUMMARY REPORT
TONAWANDA COKE CORPORATION SITE 108
3800 RIVER ROAD
TONAWANDA, NEW YORK

Prepared For:

Honeywell

115 Tabor Road
Morris Plains, NJ 09750

Prepared By:

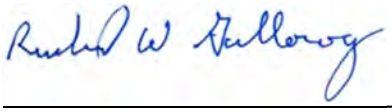
PARSONS

301 Plainfield Road
Suite 350
Syracuse, New York 13212

MARCH 2021

CERTIFICATION

Pursuant to item the Administrative Settlement Agreement and Order on Consent for a Removal Action, Index No. CERCLA-02-2019-2006, Paragraph 28, I, Richard Galloway, certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Signature

3/22/21

Date

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LIST OF ACRONYMS

ACRONYM	Definition
BCP	Brownfields Cleanup Program
CAMP	Community Air Monitoring Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
ELAP	Environmental Laboratory Approved Program
f/cc	fibers per cubic centimeter
ft.	foot/feet
GAC	granulated activated carbon
HASP	Health and Safety Plan
Honeywell	Honeywell International, Inc.
ICR	Industrial Code Rule
lbs.	pounds
NYSDEC	New York State Department of Environmental Conservation
NYSDOL	New York State Department of Labor
OSC	On-Scene Coordinator
POTW	Publicly Owned Treatment Works
RITC	Riverview Innovation & Technology Campus, Inc.
SVOCs	semivolatile organic compounds
TCC	Tonawanda Coke Corporation
TEM	transmission electron microscopy
USEPA	United States Environmental Protection Agency
VOCs	volatile organic compounds
WTS	Waste Technology Services

EXECUTIVE SUMMARY

The Tonawanda Coke Site 108 is part of the former Tonawanda Coke Corporation (TCC) facility. The former main plant is located at 3875 River Road in Tonawanda, NY; Site 108 is located across the street at 3800 River Road. Site 108 extends from River Road to the Niagara River. Background information indicates the Site 108 portion of the property was primarily used for shipping and deliveries by way of the Niagara River, including coke, coal, and coal tar. Three on-site aboveground storage tanks were reportedly used for storage of coal tar produced from main plant coking operations, with conveyance piping extending from the main plant to a pumphouse associated with the tanks and to the river edge.

In February 2019, Honeywell implemented interim measures to address immediate concerns at Site 108 in accordance with an Interim Measures Work Plan approved by the United States Environmental Protection Agency (USEPA) (Parsons 2018). The interim measures included repairs and enhancements to the berm around the coal tar tanks, covering of soil piles from previous site activities by TCC, and ongoing management of stormwater within the tank berms (Parsons 2019).

In response to Administrative Settlement Agreement and Order on Consent for a Removal Action, Index No. CERCLA-02-2019-2006, a removal action was implemented by Honeywell in accordance with the Tank Removal Plan for Site 108 (Parsons 2019) involving:

- Removal of tank contents
- Demolition of the tanks
- Removal of visually impacted soils within the secondary containment
- Backfill, grading and restoration of the former tank area
- Removal of impacted soil piles from previous site activities by TCC
- Removal of asbestos-containing pipe insulation
- Disposal of tar, tar impacted soils, soil piles and asbestos
- Water treatment for discharge to the Town of Tonawanda Publicly Owned Treatment Works (POTW)

Site work was completed consistent with the USEPA-approved Tank Removal Work Plan (Parsons 2019) and the Asbestos Abatement Work Plan (CHA 2020b). Site activities were overseen by the USEPA. Site activities were managed by Parsons on behalf of Honeywell International. Tank demolition and soil removal were conducted by Ontario Specialty Contracting from September 16, 2019 to February 4, 2020, with final site restoration activities conducted from May 26, 2020 to May 27, 2020. Conveyance pipeline asbestos abatement activities were conducted by Precision Environmental from August 31, 2020 to October 8, 2020.

Removals resulted in off-site disposal of the following materials:

- 1,028 tons of stabilized tar as hazardous waste
- 1,850 tons of tar-impacted soils as hazardous waste
- 850 tons of tar-impacted concrete as hazardous waste
- 96 tons of tar-impacted metal as hazardous waste
- 2,460 tons of soil as nonregulated waste
- 22 tons of asbestos waste
- 92 tons of decontaminated metal for recycle
- 323,000 gallons of water treated and discharged to the Town of Tonawanda sanitary system

A Remedial Investigation and Feasibility Study are scheduled for Site 108 under the New York State Superfund Program pursuant to an Order on Consent and Administrative Settlement (Index No. B9-85-2-77D) entered into between Honeywell International, Inc. (Honeywell) and the New York State Department of Environmental Conservation (NYSDEC) on February 24, 2020.

1.0 INTRODUCTION

1.1 Site Description

The Tonawanda Coke Site 108 is located at 3800 River Road, between River Road and the Niagara River in the Town of Tonawanda, New York. The Site is part of the former TCC facility (**Figure 1**). The former main plant is located at 3875 River Road in Tonawanda, NY and Site 108 is located across the street. Site 108 extends from River Road to the Niagara River. Site access is restricted with a locked gate on the property boundary along River Road. Site 108 is approximately 26-acres and contains several structures, including the three subject inactive coal tar storage tanks (removed as part of this project), a former pump station associated with the coal tar tanks, a river water pumphouse and a conveyor and pipe rack system spanning the site from River Road to the Niagara River. The surrounding area is primarily industrial, including a warehouse facility (Niagara River World) to the north and the Erie County Water Authority Van de Water Treatment Plant to the south. Site 108 has an undulating surface in portions of it and topography locally dips slightly towards a drainage ditch, which runs northeast to southwest through the Site.

1.2 Site History

The TCC facility was an operating coke making and by-products facility from 1917 through late 2018. The Coke making process involves the removal of gasses, liquids (oils) and tar from coal by heating the coal in the absence of oxygen. The resulting carbon material "coke" was used, among other things, in foundries and for the production of steel. The by-products were used in the process or sold for off-site use. Background information indicates Site 108 was primarily used for main plant shipping and deliveries by way of the Niagara River, including coke, coal, and coal tar (GHD 2017). Although no definitive information was identified, it appears the storage tanks which are the subject of this report were used for storage of coal tar as a product. Several rounds of investigation have been conducted at the Site by Conestoga-Rovers & Associates (now GHD). Additional details on the site history and previous investigations are presented in the Tank Removal Work Plan (Parsons 2019).

The Buffalo Coke Plant was owned and operated from 1917 through 1947 by Semet-Solvay Company, which was a subsidiary of Allied Chemical and Dye Corporation. In 1947, Semet-Solvay Company was merged into Allied Chemical Corporation, which owned and operated the facility until January 27, 1978, when it was sold to TCC. TCC filed for bankruptcy protection in 2018 and all manufacturing on the property was idled. On September 23, 2019, the sale of the property to Riverview Innovation & Technology Campus, Inc. (RITC) was approved by the U.S. Bankruptcy Court. RITC purchased the Site in October 2019.

On October 17, 2018, USEPA mobilized to perform emergency response activities pursuant to its Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) removal authority to address potential threats to public health and the environment posed by conditions at the manufacturing plant. In February 2019, Honeywell implemented interim measures to address immediate concerns at Site 108 in accordance with an Interim Measures Work Plan approved by the USEPA (Parsons 2018). The interim action included repairs and enhancements to berms around the coal tar tanks, covering of soil piles from previous site activities by TCC, and ongoing management of stormwater within the tank berms (Parsons 2019).

Remaining legacy environmental conditions at the former TCC facility are being addressed under two separate NYSDEC programs. Sites 108, 109 and 110 make up the Tonawanda Coke Site, listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 915055 with a Site Classification of

2 pursuant to ECL 27-1305. These three areas are being addressed under the New York State Superfund Program pursuant to the Order on Consent and Administrative Settlement (Index No. B9-85-2-77D) entered into between Honeywell International, Inc. (Honeywell) and the NYSDEC on February 24, 2020. The remainder of the former TCC facility at 3875 River Road is being addressed under the New York State Brownfields Cleanup Program (BCP) pursuant to BCP Agreement (Index No. C915353-02-20) between the NYSDEC and RITC dated February 14, 2020.

2.0 SUMMARY OF INTERIM MEASURES AND REMOVAL ACTION

2.1 Interim Measures and Removal Action Objectives

The primary objectives of the Interim Measures work were as follows (Parsons 2018):

- Remove standing water within the berms to increase storage capacity through the winter, if needed.
- Stabilize and repair the berm to match undisturbed conditions.
- Monitor and manage water levels within the berms through the winter, if needed.
- Re-tarp soil piles along the south property boundary.
- Characterize tank products and prepare plans for product removal and tank demolition.
- Monitor Tank 2 for a potential discharge from the cut pipe/fittings on the north side of the tank.
- Monitor cut pipes from the pumphouse to the berm area.

The primary objectives of the Removal Action were as follows (Parsons 2019):

- Remove piping and ancillary equipment within the secondary containment area and associated piping containing hazardous substances up to the point of the pump house.
- Remove water from the secondary containment area (treat, sample, and discharge to the POTW).
- Remove tar and water from the tanks and stabilize the material prior to off-site transport.
- Remove the aboveground steel tanks and associated underlying concrete pads.
- Remove surficial coal tar waste and other coal tar waste encountered during the work from within the secondary containment areas.
- Remove two soil piles staged on-site from previous cleanup actions by TCC.
- Regrade the tank area to promote drainage to the northeast and seed disturbed areas.
- Remove friable asbestos pipe insulation and associated debris.

2.2 Interim Measures and Removal Action Entities and Roles

2.2.1 Regulatory Agency

The USEPA was the regulatory agency responsible for oversight of the project relative to the Order and applicable regulations. All work at the TCC Site 108 was conducted under the oversight of the USEPA On-Scene Coordinator (OSC) or their designee. Weekly status reports were issued to the USEPA during site activities and monthly during periods when there were no site activities. The OSC coordinated disposal facility reviews under the Off-Site Rule and participated in weekly status review meetings.

A representative from the NYSDEC periodically visited the Site. Information regarding the manifesting, day-to-day operations, and schedule updates were made available to the NYSDEC. Pretreatment and discharge of stormwater during construction activities were coordinated with the Town of Tonawanda Pretreatment Coordinator. Contact information is presented below.

Firm	Contact	Role
USEPA	Tom Budroe USEPA Facilities Raritan Depot 2890 Woodbridge Avenue Mail Code: MS211 Edison, NJ 08837-3679 732.906.6191	▪ On-Scene Coordinator
NYSDEC	Ben McPherson Division of Environmental Remediation 270 Michigan Avenue Buffalo, NY 14203 716.851.7220	▪ Project Manager
Town of Tonawanda	Paul Morrow 779 Two Mile Creek Road Tonawanda, NY 14150 716.693.4900	▪ Town of Tonawanda Pretreatment Coordinator

2.2.2 Interim Measures and Removal Action Contractors and Consultants

The construction team consisted of Honeywell, Parsons, Ontario Specialty Contracting and Precision working with the USEPA, NYSDEC, the Town of Tonawanda, and the community to ensure the safe successful implementation of the removal actions. Parsons functioned as construction manager on behalf of Honeywell managing procurement, scheduling, site operations, quality, and safety. Parson's prepared and enforced the Work Plan and Health and Safety Plan (HASP), conducted environmental sampling and air monitoring, and coordinated waste disposal. Parson's maintained a full-time field staff to ensure site activities were performed in accordance with approved Work Plans and permits.

Ontario Specialty Contracting was the lead construction contractor for tar removal, tank demolition, soil excavation, and waste loading. Ontario and their subcontractor provided necessary equipment and trained certified staff to complete the required operations for the removal action. OSC was directly involved in scheduling on-site activities. Arric Corp was subcontracted by Ontario for removal of asbestos pipe insulation necessary to facilitate tank demolition.

Precision Environmental was contracted for removal of friable pipe insulation and associated debris on the balance of site piping. AMD Environmental Consultants, Inc. was contracted to conduct asbestos abatement project monitoring and air monitoring. Waste Technology Services (WTS) contacted and coordinated transportation and disposal of hazardous and nonhazardous materials for final off-site disposition. Primary contacts and roles are presented below.

Firm	Contact	Role
Honeywell	Rich Galloway 115 Tabor Road Morris Plains, NJ 07950 973.455.4640	▪ Remediation Manager
Parsons	Tom Abrams Ed Glaza, PE 301 Plainfield Road Syracuse, NY 13212 315.552.9670	▪ Project Manager ▪ Technical Director/Certifying Engineer
Ontario Specialty Contracting	Alen Trpevski 333 Ganson Street, Buffalo, NY 14203 716.856.3333	▪ Project Manager ▪ Tank demolition and site restoration
Arric Corp.	Darryl Cassata 5033 Transit Road Depew, NY 14043 716.681.3535	▪ Asbestos abatement associated with tank demolition (under contract to Ontario Specialty Contracting)
AMD Environmental Consultants, Inc.	Anthony DeMiglio 712 Main St. Suite L1 Buffalo, NY 14202 716.833.0043	▪ Asbestos abatement monitoring
WTS, Inc.	James Weber 435 N 2nd Street Lewiston, NY 14092 716.754.5400	▪ Waste disposal
Precision Environmental Company	Dan Eureka 5500 Old Brecksville Road Independence Ohio 44131 216.642.6040	▪ Pipeline/debris asbestos abatement
CHA Consulting	Chris Burns 111 Winners Circle Albany, NY 12205 518.453.4500	▪ Asbestos inspection/survey

3.0 INTERIM MEASURES AND REMOVAL ACTION CONSTRUCTION

The interim measures activities included:

- Stabilize and repair the secondary containment berm to match higher undisturbed conditions.
- Monitor water levels within the berms prior to start of the removal action.
- Re-tarp soil piles along the south property boundary.
- Monitor Tank 2 for potential discharge from the cut pipe/fittings on the north side of the tank.
- Monitor cut pipes from the pumphouse to the berm area.

The tank removal construction activities included:

- Site preparation.
- Removal of tar and water from the tanks.
- Demolition and off-site disposal of the steel tanks and underlying concrete pads.
- Removal and off-site disposal of tar and tar-impacted soils encountered during demolition.
- Disposal of soil stockpiled from previous site activities.
- An asbestos survey of pipe insulation.
- Pretreatment, sampling, and discharge of secondary containment of stormwater, tank water and stormwater to the local POTW.
- Asbestos abatement.

Site work was completed consistent with the USEPA-approved Interim Measures Work Plan (Parsons 2018), the Tank Removal Work Plan (Parsons 2019) and the Asbestos Abatement Work Plan (CHA 2020b). The USEPA monitored construction activities.

3.1 Governing Documents

The guidance documents utilized for the implementation of the removal action included the following:

- Interim Measures Work Plan, Tonawanda Coke Corporation Site 108 (Parsons 2018) (Appendix J)
- Administrative Settlement Agreement and Order on Consent for a Removal Action, Index No. CERCLA-02-2019-2006
- Tank Removal Work Plan Tonawanda Coke Site 108 (Parsons 2019) (Appendix K)
- Asbestos Abatement Work Plan for Tonawanda Coke Site 108 (CHA 2020b) (Appendix L; Appendix M includes the Pre-Demolition Asbestos-Containing Material Survey Report)

3.2 Interim Measures and Removal Action Elements

3.2.1 Interim Measures

Interim measures completed were as follows:

- Stabilized and repaired the secondary containment berm to match higher undisturbed conditions.
- Monitored water levels within the berms prior to start of the removal action.
- Re-tarped soil piles along the south property boundary.
- Monitored Tank 2 for potential discharge from the cut pipe/fittings on the north side of the tank.
- Monitored cut pipes from the pumphouse to the berm area.

Damaged berm sections surrounding the tanks were repaired. In general, this involved raising the berm height in the damaged areas to about five feet or more above the base of the area inside the berms. Repairs were done entirely with imported clay. Approximately 294 cubic yards of clay were delivered and used in the berm repairs. Site activities were conducted from February 25 through February 28, 2019, and demobilization was conducted on February 29. Analytical data and imported material approval documentation are included in **Appendix A**.

The two soil piles along the south property boundary were re-tarped with 12-millimeter UV-resistant plastic sheeting, secured with sandbags around the perimeter, along overlaps, and intermediate locations throughout. Eight-inch diameter filter socks were secured downgradient of the soil piles to provide additional control of erosion from the piles if needed.

Post-interim measures monitoring was conducted to ensure that water within the berm areas did not overtop the berms. As specified in the approved Work Plan, monthly monitoring of the berm system, cut pipes and the tarped soil piles was conducted prior to the follow-up removal action.

To assess the acceptability of discharge to the sanitary sewer system, two water samples from the eastern and three water samples from the western berm areas were collected as outlined in the Interim Measures Work Plan. Sampling was coordinated with the USEPA to allow the opportunity to collect split samples. The analytical results are included in **Appendix B**. An Industrial Pretreatment Program application was submitted to the Town of Tonawanda for discharge to the municipal sanitary sewer.

3.2.2 Site Preparation for Removal Action

Equipment and materials involved in the removal of tar and water, tank cleaning and tank removal activities were mobilized and staged in the vicinity of the project area. Mobilization and site preparation activities included:

- Establishment of work zone demarcation.
- Mobilization of dust and emission controls systems (water truck and odor suppressant foam).
- Importing of aggregate road base for construction of temporary roads and ramps for access to the tanks and soil piles.
- Construction of erosion and sediment controls.
- Construction of temporary waste staging/decontamination pads.
- Setup of temporary facilities and imported material to establish a support zone and staging areas.
- Setup of a water pretreatment system.

Figure 2 presents the site layout. **Figure 3** presents additional details of the work area, including work and support zones, temporary roads, and erosion and sediment controls. Imported materials were tested as required under NYSDEC DER-10 5.4(e) (**Appendix A**). **Appendix I** includes a photograph log of construction activities.

The water pretreatment system consisted of a weir tank, granulated activated carbon (GAC) vessels and a series of frac tanks for water storage. The stored pretreated water was periodically sampled and analyzed to monitor for compliance with discharge permit requirements for the Town of Tonawanda. See Sections 3.2.5 and 3.4.5. for detailed information regarding the water treatment system.

3.2.3 Site Control

The project area was secured from access by unauthorized personnel by use of the gate off River Road. The gate was kept closed except during active truck transport operations and locked at the conclusion of each workday. Only authorized vehicles and personnel were allowed into the project area. Site orientation, including review of the project HASP, was required for all site workers and visitors. All employees, subcontractors and visitors were required to sign in and out before entering/leaving the site. Vehicular traffic was limited to the designated roads and parking areas. Work zone control was accomplished by using appropriate barriers (barrier tape, high vis fencing, cones, natural barriers, etc.).

3.2.4 Temporary Soil Erosion and Stormwater Control

Prior to the start of construction activities, temporary erosion control and stormwater management structures were installed throughout the project area as necessary to control surface water run-off and minimize the potential for erosion (**Figures 2 and 3**). The existing berms and tank shells were used to contain impacted materials and other residual tar during project activities. Filter socks were installed around the perimeter of the work areas, temporary check dams and diversion ditches diverted surface water flow around the work area as needed and sumps were installed adjacent to work areas and in decontamination zones to control water flow. Daily inspections of these controls were performed as a part of the site maintenance activities and required corrections and adjustments/modifications made in a timely manner.

3.2.5 Water Treatment System

Stormwater from the secondary containment areas, tank water, and water collected from on-site activities were treated through a weir tank and GAC system prior to discharge to frac tanks under Town of Tonawanda Industrial Sewer Connection Permit Number 711 (**Appendix B**). The stored pretreated water was periodically sampled and analyzed to verify compliance with discharge permit requirements (**Appendix B**). Water exceeding permit requirements was held and retreated as necessary to achieve compliance. The analytical data was provided to the Town of Tonawanda Sanitary Engineer prior to discharge to the sanitary sewer system. Pretreated water was pumped to a sanitary manhole in the adjacent Niagara River World driveway (**Figure 2**). The water treatment system consisted of the following (in order of flow):

- Weir tank
- Bag filters
- GAC vessel (2,000 lbs.)
- Storage tank

The water treatment system was operated as follows:

- Water was collected via sump pump or mud suction pump and discharged to the weir tank using dedicated lay flat hose with camlock fittings.
- Water flowed through the internal baffles (over and under) to facilitate settling of solids and retaining floatables.
- Water was then pumped through twin bag filters (1 to 25-micron filters).

- Filtered water was then pumped through a 2,000-pound granular activated carbon vessel.
- Treated water was stored in frac tanks prior to discharge to the POTW.

A total of approximately 323,000 gallons of water was pretreated prior to discharge to the Town of Tonawanda sanitary system.

3.2.6 Air Monitoring

Air monitoring for volatile organic compounds (VOCs) and particulates was conducted during tank demolition construction activities at locations downwind and upwind of the perimeter of the work area in accordance with the Work Plan Community Air Monitoring Plan (CAMP). VOCs were monitored using MiniRAE 3000 and a DustTrak2 Desktop Monitor 8530 was used for monitoring dust. An UltraRAE 3000 (with a 9.8 eV bulb) was also periodically used to monitor specifically for benzene. The monitoring results are presented in **Appendix C**. No exceedances of CAMP criteria were identified throughout the removal action.

Air monitoring was also conducted during asbestos abatement activities in accordance with New York State Department of Labor (NYSDOL) Industrial Code Rule (ICR)- 56 and approved variances; no exceedances of ICR criteria occurred.

3.3 Chronology of Events

Task Name	Task Start	Task Completion
Conducted interim measures	2/25/19	2/29/19
Tank demolition mobilization and site preparation	9/16/19	10/08/19
Water treatment system operation	10/04/19	01/19/20
Tar removal and tank demolition	10/17/19	12/20/19
Loadout of soil piles	12/02/19	12/12/19
Excavation and removal of tar impacted surficial soils inside berm area	12/3/19	1/21/20
Tank concrete pad demolition	12/06/19	12/21/19
Loadout of concrete and tar impacted debris	12/13/19	1/08/20
Loadout of tar impacted steel fragments	12/06/19	1/29/20
Rough grading of former tank/berm area	1/07/20	1/21/20
Completion of tank demolition demobilization		2/05/19
Final grading and restoration seeding	5/26/20	5/27/20
Pipeline asbestos abatement mobilization	8/31/20	9/4/20
Pipeline asbestos abatement	9/8/20	10/7/20
Completion of pipeline asbestos abatement demobilization		10/8/20

3.4 Tank Demolition and Construction Activities

3.4.1 Tank Demolition and Pad Removal

Tank demolition was done using a mechanical shear and an oxyacetylene torch, along with a grapple. The tanks were demolished from the top down. The bottom of the tanks was initially left intact to about 2 to 3 feet (ft.) above the level of the tank contents to facilitate content stabilization and removal, as discussed in Section 3.4.2.

Cut tank sections of sheet steel were inspected for residual tar. Sections of sheet steel with no visual evidence of tar were placed in roll-off containers for recycling. Pieces with residual tar were transported to the decontamination pad for cleaning using a hot water pressure washer. Cleaned steel that was acceptable to USEPA was placed in a roll-off container for recycling. Steel that could not be adequately cleaned was stockpiled separately and placed in a sealed roll-off container for off-site disposal.

Water on top of the tar was removed and managed as described in Section 3.4.5. The remaining bottom portion of the tanks were left intact for use as mixing basins for tar stabilization. After bulk tar removal from the tanks, the remaining tank portions were cleaned prior to cutting, to the extent practical by way of scraping and/or pressure washing. The steel was sorted based on inspection findings, for recycling or additional cleaning on the decontamination pad. Load tickets for recycled metal are included in **Appendix F**. As discussed above, steel that could not be adequately cleaned was placed in sealed roll-off containers for off-site disposal.

Asbestos was removed from piping (aboveground and below ground) between the pumphouse and the tanks. Section 3.4.6 has additional details on tank demolition asbestos abatement. The pipes were then cut, drained to the extent practical and placed in a containment area for inspection and sorting. In most cases the pipes contained product that could not be practically cleaned. The pipes were crushed to remove flowable product prior to loading into sealed containers. Pipes exiting the pump house were cut flush to the pump house building face and plugged in place.

Concrete pad demolition was implemented with a combination of a hydraulic hammer and bulk pulverize to reduce the size of the fragmented concrete and separate rebar from the concrete. The impacted concrete fragments were staged on-site and loaded for off-site disposal. The rebar removed from the concrete was recycled.

3.4.2 Tar Removal and Processing

Prior to stabilization, water remaining in the tanks was removed by pumping and managed in accordance with Section 3.4.5. Abzorb (a cellulose fiber product) and sawdust were used to stabilize the tar for transport for off-site disposal. Residual water that could not be removed from the tar tanks was mixed with sawdust. The stabilization agents were added to the tar within the tanks in an adequate quantity to ensure the mixed material was adequately stabilized to meet paint filter test requirements. Mixing and stabilization of the tar was done with an excavator bucket. Paint filter testing was done on the stabilized tar in the field in accordance with SW-846 Test Method 9095B. The stabilized tar and residual water were placed directly into lined and covered tractor trailers beds. Plastic sheeting was placed under and around the transportation containers during loading to capture any drippings from the bucket during loading.

3.4.3 Surficial Tar Excavation

The secondary containment berms around the tar storage tanks were left intact until removal of the tank contents was completed. Surficial tar removal proceeded following completion of tank and pad removal activities. **Figure 4** shows the approximate depth and orientation of the excavation and surficial soils removed.

During surficial tar removal visually clean berm material was removed and stockpiled adjacent to the excavation area. Concrete piers (supporting the concrete tank pads) were removed during excavation. Excavations were expanded within the tank berm footprint as necessary based on visual inspection by Parsons and the USEPA. Orange geotextile fabric was installed prior to backfill as a demarcation layer once USEPA approved the backfilling of the area. Surficial tar materials were stockpiled adjacent to the work area on 20-millimeter plastic sheeting and covered as necessary prior to loadout for off-site disposal.

Excavations typically were advanced horizontally and vertically to an underlying silty loam layer or until tar-impacted soils were no longer evident. One area under the concrete pad supporting Tank 3 was extended to a depth of 5 to 6 feet to the top of the silty loam layer. Residual tar was observed in crevices within the silty loam layer. The excavation was further extended into the silty loam layer to evaluate the vertical extent of the tar "veins". The tar veins continued beyond the excavation depth. Three test pits were installed adjacent to the deeper excavation to assess the horizontal extent of the tar veins (**Figure 4**). The test pits were extended to a depth of 5 to 6 feet and were about 3 feet wide, extending 5 to 12 feet horizontally. No coal tar was encountered within the silty loam layer in the three test pits beyond the limits of the deeper excavation. Minor amounts of coal tar continued to be encountered within the south sidewall of the Tank 3 berm. The USEPA approved Parsons' request to halt the vertical advancement of the excavation within the Tank 3 area at the base depth and the horizontal extent into the southern sidewall. The demarcation layer was installed and the Tank 3 excavation was backfilled.

3.4.4 Soil Pile Removal

As discussed in Section 2, two soil piles generated from earlier site activities by Tonawanda Coke Corporation were stockpiled along the south property line. One pile consisted of approximately 100 cubic yards and a second larger pile consisted of approximately 2,500 cubic yards. Waste characterization sampling was conducted prior to the start of construction activities to assess disposal requirements. Soil samples were collected at eight locations from approximately 2 ft. below surface. The sampling effort was observed by the USEPA. Analytical results showed the soils were nonregulated, as presented in **Appendix D**. Soils were direct loaded into tandem dump trucks with an excavator for disposal transport. Underlying soils were removed as directed by the USEPA, generally to a depth of 6 to 10 inches below grade.

3.4.5 Water Treatment System

Stormwater in open excavations, from the decontamination pads and in the tanks was pumped to a weir tank, and subsequently through bag filters and a GAC treatment system prior to discharge to the Town of Tonawanda sanitary system. Stormwater and water collected from on-site activities were treated through a weir tank and GAC system prior to discharge to frac tanks under Town of Tonawanda Industrial Sewer Connection Permit Number 711 (**Appendix B**). The stored pretreated water was periodically sampled and analyzed to monitor compliance with discharge permit requirements (**Appendix B**). Water samples were analyzed for the following parameters:

- VOCs – USEPA Method 624.1
- SVOCs – USEPA Method 625.1
- Priority pollutant metals – USEPA Method 200.7
- pH – field measurement.
- Cyanide – USEPA Method 335.4
- Mercury – USEPA Method 245.1
- Oil and Grease (1664B)

The analytical data was provided to the Town of Tonawanda Sanitary Engineer prior to discharge to the sanitary sewer system. A summary of analytical results is presented **Appendix B**. Pretreated water was pumped at a rate of less than 100 gallons per minute to the sanitary system. Bag filters and GAC were changed out as necessary based on analytical data. Spent GAC and bag filters were disposed along with the tar wastes.

A cyanide permit exceedance was identified from a frac sample collected on November 15, 2019. The Town of Tonawanda POTW was notified and discharge to the POTW was stopped. The GAC unit was replaced on

December 3, 2019 and the bag filters were replaced with 10-micron filters. Water stored in the tanks were recirculated through the new GAC vessel and bag filters. Based on follow-up analytical results, the bag filters were replaced with 1-micron filters. The analytical results from samples collected between December 16 and 23, 2019 met discharge criteria. However, the Town of Tonawanda POTW suspended discharge again on December 19 because of concern for pumping water from the storage tanks. On December 23, the suspension was rescinded allowing for treatment and discharge of berm water only, pending additional discussions with the USEPA Pretreatment Coordinator. On January 17,2020, the Tonawanda POTW approved a modified permit allowing for discharge of all treated water. Final discharge of treated water to the POTW was January 31, 2020.

3.4.6 Tank Demolition Asbestos Abatement

As part of the tank demolition, asbestos abatement on piping located between the pumphouse and the storage tanks was conducted to facilitate tank demolition activities (**Figure 4**). Asbestos removal was conducted in accordance with NYSDOL ICR- 56 by a NYSDOL-licensed asbestos abatement contractor using NYSDOL-certified workers. The asbestos abatement was primarily done using glovebags. Glovebag removal on the conveyance piping and debris cleanup was conducted using a remote decontamination unit. Work areas were demarcated with flagging to restrict access. Air and Project Monitoring were conducted by AMD Environmental Consultants using NYSDOL-certified staff. AMD's role included air sample analysis and final clearance inspections. No work area or clearance samples exceeded clearance criteria of 0.01 fibers per cubic centimeter (f/cc). Asbestos waste was staged in the subcontractor's lockable trailer at the end of each shift. A total of 93 bags (estimated weight of 2 tons) of waste were generated. Asbestos documentation is presented in **Appendix E**. As part of the asbestos abatement, seven drums of mixed waste (asbestos with tar) were generated and transported to US Ecology Idaho in Grand View, Idaho (**Appendix G**).

3.5 Conveyance Pipeline Asbestos Abatement

An asbestos inspection survey was conducted by CHA Consulting in October 2019 (CHA 2020a) to assess conveyance pipe insulation and debris along the pipe rack system from River Road to the Pumphouse and to the Niagara River (CHA 2020a). Based on the survey findings, CHA prepared an Asbestos Abatement Work Plan (CHA 2020b) identifying removal of about 4,075 linear feet of intact asbestos insulation and fittings, and asbestos ground debris in various locations along the pipeline encompassing a total area of about 4,760 square feet. The asbestos abatement work was conducted by Precision Environmental. Precision conducted the abatement work under a variance approved by the NYSDOL. The abatement approach included the following:

- Pumphouse – Bulk removal under full containment
- Pipe insulation – Glovebag removal
- Ground debris – Removal of visual asbestos debris and surrounding soils

Abatement of the pumphouse was conducted with a dedicated decontamination unit. Glovebag removal on the conveyance piping and debris cleanup was conducted using a remote decontamination unit. Work areas were demarcated with flagging to restrict access. Air and Project Monitoring were conducted by AMD Environmental Consultants using NYSDOL-certified staff. AMD's role included air sample analysis and final clearance inspections. No work area or clearance samples exceeded clearance criteria of 0.01 f/cc. However, some of the work area samples were overloaded with dust because of dry conditions. Use of a water truck reduced the number of overloaded samples. Transmission Electron Microscopy (TEM) was required for the pumphouse clearance samples because of the dust conditions. A total of about 20 tons of asbestos waste was transported by Waste Management and disposed at the Chaffee Landfill in Chaffee, New York. Pipeline asbestos abatement documentation is included in **Appendix E**. Ground debris areas were demarcated with flagging for sampling to

be conducted under the Site 108 Remedial Investigation Site 108 under the Order on Consent and Administrative Settlement (Index No. B9-85-2-77D) entered into between Honeywell and the NYSDEC on February 24, 2020.

As part of the abatement work activity, surficial tar and associated soils removal was conducted as requested by the USEPA at three locations where the conveyance pipe had leaked coal tar (**Figure 5**). The soil removals were relatively shallow and only required limited, if any, backfill. Adjacent road gravel was used as backfill where needed. Ontario Specialty Contracting conducted this work along with wrapping pipe with plastic sheeting at two locations and removing a corroded section of pipe and plugging the pipe with a wooden dowel at a third location. The conveyance pipe will be addressed along with the rest of the site under the Order on Consent and Administrative Settlement (Index No. B9-85-2-77D). Ontario Specialty Contracting also removed silt sock erosion control installed as part of the prior tank demolition work. A total of 10 drums of tar-impacted soils were generated for disposal. One of the drums exceeded hazardous waste criteria for benzene; composite sample results from the other 9 drums were nonhazardous (**Appendix G**). The silt sock materials were loaded into a 30-yard container and disposed of at Modern Disposal Services Inc., Model City Road, Model City NY.

3.6 Disposal

A discussion of the disposal options considered can be found in Section 4 of the Tank Removal Work Plan in **Appendix K.**

3.6.1 Metal

Metal was inspected by Parsons and the USEPA and sorted either for recycling or disposal. The metal waste included sheet and structural steel associated with the tank shells, concrete rebar, and pipe. Metal that could be reasonably cleaned for recycling was hot water pressure washed where possible. Rebar from the tank concrete pads was removed from the concrete with a pulverizing attachment on an excavator and had no visual tar residue. About 92 tons of metal was sent to Diamond Hurwitz Scrap in Buffalo, New York, for recycling (**Appendix F**). As summarized in **Table 1**, about 97 tons of tar impacted metal debris was transported off-site for microencapsulation and subsequent landfill disposal at US Ecology in Belleville, Michigan (**Appendix G**).

3.6.2 Tar

As summarized in **Table 2**, 33 loads (about 1,028 tons) of stabilized tar were transported to RSI Environmental in Saint-Ambroise, Quebec, Canada, for incineration (**Appendix G**).

3.6.3 Concrete and Construction Debris

As summarized in **Table 3**, 38 loads (approximately 843 tons) of tar impacted concrete and debris were transported for microencapsulation and disposal at the US Ecology in Belleville, Michigan (**Appendix G**).

3.6.4 Surficial Tar

As summarized in **Table 4**, 54 loads (approximately 1,850 tons) of coal tar impacted soil were transported for incineration at RSI Environmental in Saint-Ambroise, Quebec, Canada, (**Appendix G**) under the tank demolition project.

Under the conveyance pipe asbestos abatement work, nine drums of nonregulated tar-impacted soils (1.8 tons) and one drum of hazardous waste (D018) tar-impacted soils (0.2 tons) were disposed at EQ Detroit, in Detroit, Michigan (**Appendix H**).

3.6.5 Asbestos

As summarized in **Table 5**, under the tank demolition project 130 bags of asbestos waste (about 2.6 tons) were disposed at Minerva Enterprises, Inc, in Waynesburg, Ohio (**Appendix E**). In addition, nine drums of tar-impacted asbestos waste generated as part of the tank demolition work were shipped as mixed waste (K142 and asbestos) to US Ecology of Idaho in Grand View, Idaho (**Appendix G**).

Under the conveyance pipe asbestos abatement work, 19.63 tons of asbestos waste (including debris and impacted soils) were disposed at the Waste Management Chaffee landfill in Chaffee, New York (**Appendix E**).

3.6.6 Soil Piles

As summarized in **Table 6**, 97 loads (approximately 2,397 tons) of nonregulated soil were transported for off-site disposal at Modern Disposal Services, Inc. in Model City, New York (**Appendix G**).

3.6.7 Recycled Metal

As summarized in **Table 7**, approximately 92 tons of non-impacted or cleaned metal was transported off-site for recycling at Diamond Hurwitz Scrap LLC in Buffalo, New York.

3.7 Imported Materials

3.7.1 Road and Staging Area Aggregate

A total of 115 loads (about 2,500 tons) of aggregate was imported for road, staging/support area, and decontamination pad construction from Lafarge Lockport Quarry in Lockport, New York. Imported road aggregate did not require analysis based on NYSDEC DER-10 as the material was from an acceptable source and contained less than 10 percent by weight material which would pass through a size 80 sieve. Import approval documentation is included in **Appendix A**.

3.7.2 Backfill and Site Grading Material

Clay material was imported for supplemental backfill and final grading during final restoration. A total of 100 cubic yards of backfill material was imported for backfill and rough grading from Pariso Logistics, Inc., in Tonawanda, New York, under the previous approval for berm repair work (**Appendix A**). An additional 320 cubic yards of clay was imported from Pariso Logistics, Inc., in Tonawanda, New York, for final grading in May 2020. Approval documentation for this quantity of material is also included in **Appendix A**.

3.8 Site Restoration

Site restoration, including final grading and seeding was completed in the May 2020. Final site grading included import of additional clay (see Section 3.7.2) to facilitate water drainage from the former tank area to the north and east. Disturbed areas were hydro seeded as follows (**Figure 5**):

- Seed Mix
  - 30% Perennial rye
  - 30% Annual rye
  - 20% Kentucky Blue
  - 20% Creeping Red Fescue
  - Application rate - 7 to 8 lbs./1,000 sq. ft.
- Starter Fertilizer
  - 21-14-7 with 48% slow release nitrogen
  - Application rate – 50 lbs./13,000 sq. ft.
- Hydro Mulch
  - 70/30 Enviro Blend Hydro Mulch
  - Application rate - 35 lbs./1000 sq. ft.

A second fertilizer application of slow-release (21-14-7) fertilizer was applied and the silt socks for erosion control were removed in September 2020.

3.9 Supplier Licenses and Certifications

Supplier	Activity	Company License/Certificate
Arric Corp. Depew, NY	Asbestos abatement	NYSDOL 29332
AMD Environmental Consultants, Inc. Buffalo, NY	Asbestos project and air monitoring	NYSDOL 56177
Precision Environmental Company Independance, OH	Asbestos abatement	NYSDOL 29861
CHA Consulting Albany, NY	Asbestos inspection	NYSDOL 60318
Modern Disposal Services Inc., Model City, NY	Nonregulated soils and debris disposal	NYSDEC 9-2924-00016/00043
RSI Saint-Ambroise, Canada	Tank coal tar and coal tar impacted soil disposal	USEPA 1169045474
US Ecology Bellevile, MI	Concrete and metal debris disposal	USEPA MID000724831
US Ecology Grand View, ID	Asbestos with coal tar disposal	USEPA IDD073114654
US Ecology Detroit, MI	Conveyance pipe surficial coal tar/soil disposal	USPEA MID980991566

Supplier	Activity	Company License/Certificate
Minerva Enterprises, Inc. Waynesburg, OH	Tank removal asbestos disposal	OhioEPA P0104984
Waste Management Chaffee Landfill Chaffee, NY	Conveyance pipe asbestos disposal	NYSDEC 9-1462-00001/00006
Diamond Hurwitz Scrap LLC Buffalo, NY	Metal recycling	NYSDEC 15V50051

4.0 REFERENCES

CHA. 2020a. *Pre-Demolition Asbestos-Containing Material Survey Report, Tonawanda Coke Site 108*. Prepared by CHA Consulting. January 20, 2020.

CHA. 2020b. *Asbestos Abatement Work Plan, Tonawanda Coke Site 108*. Prepared by CHA Consulting. February 24, 2020.

GHD. 2017. *Confirmation Investigation Report for Site 108 – Tonawanda Coke Corporation*. Prepared by GHD, Buffalo, New York. Revised March 17, 2017. https://www.dec.ny.gov/docs/remediation_hudson_pdf/tc2.pdf

Parsons. 2019. *Tank Removal Work Plan, Tonawanda Coke Site 108*. Prepared by Parsons. August 2019.

Parsons. 2018. *Interim Measures Work Plan, Tonawanda Coke Corporation Site 108*. Prepared by Parsons for Honeywell International. December 3, 2018.

TABLES

Table 1
Metal Debris Disposal Summary

Material	Hauler	Pick Up	Delivery	Disposal Facility	Location	Manifest #	Weight (LBS)	Weight (tons)
K142 Steel Debris	Tonawanda Tank	12/6/2019	12/9/2019	US Ecology	Belleville, MI	020451426JJK	20,920	10.46
K142 Steel Debris	Tonawanda Tank	12/23/2019	12/30/2019	US Ecology	Belleville, MI	019832683JJK	24,140	12.07
K142 Steel Debris	Tonawanda Tank	12/30/2019	1/2/2020	US Ecology	Belleville, MI	019832684JJK	20,220	10.11
K142 Steel Debris	Tonawanda Tank	1/2/2020	1/3/2020	US Ecology	Belleville, MI	019832686JJK	13,780	6.89
K142 Steel Debris	Tonawanda Tank	1/2/2020	1/6/2020	US Ecology	Belleville, MI	019832694JJK	23,220	11.61
K142 Steel Debris	Tonawanda Tank	1/2/2020	1/6/2020	US Ecology	Belleville, MI	019832695JJK	25,500	12.75
K142 Steel Debris	Tonawanda Tank	1/29/2020	2/4/2020	US Ecology	Belleville, MI	019832812JJK	20,520	10.26
K142 Steel Debris	Tonawanda Tank	2/3/2020	2/10/2020	US Ecology	Belleville, MI	019832807JJK	29,780	14.89
K142 Steel Debris	Tonawanda Tank	2/3/2020	2/12/2020	US Ecology	Belleville, MI	019832808JJK	14,340	7.17
Total							192,420	96.21

Table 2
Tar Disposal Summary

Material	Transporter	Pick Up Date	RSI Tag #	Disposal Facility	Location	Manifest #	Weight (LBS)	Weight (tons)
Tar -K142	Goulet	11/4/2019	35580	RSI Environmental	Saint-Ambroise, QC	003725833 GBF	54,560	27.28
Tar -K142	Goulet	11/4/2019	35591	RSI Environmental	Saint-Ambroise, QC	003725832 GBF	55,600	27.8
Tar -K142	Goulet	11/4/2019	35592	RSI Environmental	Saint-Ambroise, QC	003725831 GBF	45,120	22.56
Tar -K142	Laidlaw	11/4/2019	35610	RSI Environmental	Saint-Ambroise, QC	019443520 JJK	62,560	31.28
Tar -K142	Goulet	11/5/2019	35570	RSI Environmental	Saint-Ambroise, QC	003725830 GBF	47,780	23.89
Tar -K142	Laidlaw	11/13/2019	35594	RSI Environmental	Saint-Ambroise, QC	019443521JJK	67,220	33.61
Tar -K142	Laidlaw	11/13/2019	35595	RSI Environmental	Saint-Ambroise, QC	019443522JJK	57,980	28.99
Tar -K142	Laidlaw	11/13/2019	35596	RSI Environmental	Saint-Ambroise, QC	019443523JJK	60,160	30.08
Tar -K142	Laidlaw	11/14/2019	35597	RSI Environmental	Saint-Ambroise, QC	019443524JJK	60,380	30.19
Tar -K142	Laidlaw	11/18/2019	35598	RSI Environmental	Saint-Ambroise, QC	019443525JJK	60,140	30.07
Tar -K142	Goulet	11/18/2019	35593	RSI Environmental	Saint-Ambroise, QC	003725828GBF	59,100	29.55
Tar -K142	Goulet	11/18/2019	35599	RSI Environmental	Saint-Ambroise, QC	003725834GBF	63,980	31.99
Tar -K142	Laidlaw	11/18/2019	35600	RSI Environmental	Saint-Ambroise, QC	019443526JJK	60,320	30.16
Tar -K142	Goulet	11/19/2019	35571	RSI Environmental	Saint-Ambroise, QC	003725709GBF	65,400	32.7
Tar -K142	Laidlaw	11/18/2019	35579	RSI Environmental	Saint-Ambroise, QC	019443527JJK	63,740	31.87
Tar -K142	Goulet	11/19/2019	35578	RSI Environmental	Saint-Ambroise, QC	003725703GBF	61,400	30.7
Tar -K142	Laidlaw	11/19/2019	35577	RSI Environmental	Saint-Ambroise, QC	019443528JJK	70,940	35.47
Tar -K142	Goulet	11/19/2019	35576	RSI Environmental	Saint-Ambroise, QC	003725704GBF	56,080	28.04
Tar -K142	Laidlaw	11/20/2019	35575	RSI Environmental	Saint-Ambroise, QC	019443529JJK	66,960	33.48
Tar -K142	Laidlaw	11/20/2019	35574	RSI Environmental	Saint-Ambroise, QC	019443534JJK	66,780	33.39
Tar -K142	Goulet	11/21/2019	35573	RSI Environmental	Saint-Ambroise, QC	003725705GBH	64,300	32.15
Tar -K142	Goulet	11/25/2019	35572	RSI Environmental	Saint-Ambroise, QC	003725707GBH	67,000	33.5
Tar -K142	Goulet	11/25/2019	35569	RSI Environmental	Saint-Ambroise, QC	003725708GBH	64,260	32.13
Tar -K142	Goulet	11/25/2019	35568	RSI Environmental	Saint-Ambroise, QC	003725713GBH	62,440	31.22
Tar -K142	Laidlaw	11/25/2019	35567	RSI Environmental	Saint-Ambroise, QC	019443536JJK	70,900	35.45
Tar -K142	Laidlaw	11/26/2019	35566	RSI Environmental	Saint-Ambroise, QC	019443537JJK	67,940	33.97
Tar -K142	Laidlaw	12/2/2019	35565	RSI Environmental	Saint-Ambroise, QC	019443538JJK	65,860	32.93
Tar -K142	Goulet	12/2/2019	35564	RSI Environmental	Saint-Ambroise, QC	003725714GBF	56,540	28.27
Tar -K142	Laidlaw	12/2/2019	35563	RSI Environmental	Saint-Ambroise, QC	019443539JJK	71,680	35.84
Tar -K142	Goulet	12/2/2019	35562	RSI Environmental	Saint-Ambroise, QC	003725715GBF	62,420	31.21
Tar -K142	Goulet	12/2/2019	33561	RSI Environmental	Saint-Ambroise, QC	003725716GBF	65,120	32.56
Tar -K142	Goulet	12/3/2019	35620	RSI Environmental	Saint-Ambroise, QC	003725717GBF	64,280	32.14
Tar -K142	Laidlaw	12/3/2019	35601	RSI Environmental	Saint-Ambroise, QC	019443540JJK	67,820	33.91
Total							2,056,760	1028.38

Table 3
Concrete Debris Disposal Summary

Material	Hauler	Pick Up	Delivery	Dispsal Facility	Location	Manifest #	Weight (Lbs.)	Weight (tons)
Concrete	US Bulk	12/13/2019	12/16/2019	US Ecology	Belleville, MI	019832726JJK	46,180	23.09
Concrete	US Bulk	12/16/2019	12/17/2019	US Ecology	Belleville, MI	019832727JJK	47,460	23.73
Concrete	US Bulk	12/17/2019	12/18/2019	US Ecology	Belleville, MI	019832728JJK	47,700	23.85
Concrete	US Bulk	12/18/2019	12/19/2019	US Ecology	Belleville, MI	019832729JJK	45,060	22.53
Concrete	US Bulk	12/23/2019	12/23/2019	US Ecology	Belleville, MI	019832730JJK	46,040	23.02
Concrete	US Bulk	12/23/2019	12/23/2019	US Ecology	Belleville, MI	019832834JJK	46,080	23.04
Concrete	US Bulk	12/23/2019	12/23/2019	US Ecology	Belleville, MI	019832731JJK	43,680	21.84
Concrete	US Bulk	12/23/2019	12/23/2019	US Ecology	Belleville, MI	019832832JJK	47,120	23.56
Concrete	US Bulk	12/23/2019	12/23/2019	US Ecology	Belleville, MI	019832732JJK	44,560	22.28
Concrete	US Bulk	12/23/2019	12/23/2019	US Ecology	Belleville, MI	019832733JJK	43,360	21.68
Concrete	US Bulk	12/23/2019	12/23/2019	US Ecology	Belleville, MI	019832734JJK	46,520	23.26
Concrete	US Bulk	12/30/2019	12/30/2019	US Ecology	Belleville, MI	019832835JJK	46,260	23.13
Concrete	US Bulk	12/30/2019	12/30/2019	US Ecology	Belleville, MI	019832836JJK	46,100	23.05
Concrete	US Bulk	12/30/2019	12/30/2019	US Ecology	Belleville, MI	019732735JJK	43,560	21.78
Concrete	US Bulk	12/30/2019	12/30/2019	US Ecology	Belleville, MI	019732736JJK	43,700	21.85
Concrete	US Bulk	12/30/2019	12/30/2019	US Ecology	Belleville, MI	019732737JJK	42,560	21.28
Concrete	US Bulk	12/30/2019	12/30/2019	US Ecology	Belleville, MI	019732738JJK	43,840	21.92
Concrete	US Bulk	12/30/2019	12/30/2019	US Ecology	Belleville, MI	019732739JJK	41,680	20.84
Concrete	US Bulk	12/30/2019	12/30/2019	US Ecology	Belleville, MI	019732740JJK	45,360	22.68
Concrete	US Bulk	12/30/2019	12/31/2019	US Ecology	Belleville, MI	019732741JJK	45,960	22.98
Concrete	US Bulk	12/30/2019	12/31/2019	US Ecology	Belleville, MI	019732742JJK	45,520	22.76
Concrete	US Bulk	12/30/2019	12/31/2019	US Ecology	Belleville, MI	019732744JJK	41,420	20.71
Concrete	US Bulk	12/30/2019	12/31/2019	US Ecology	Belleville, MI	019732743JJK	43,600	21.8
Concrete	US Bulk	1/2/2020	1/3/2020	US Ecology	Belleville, MI	019732748JJK	42,660	21.33
Concrete	US Bulk	1/2/2020	1/3/2020	US Ecology	Belleville, MI	019732746JJK	42,140	21.07
Concrete	US Bulk	1/2/2020	1/3/2020	US Ecology	Belleville, MI	019732749JJK	41,760	20.88
Concrete	US Bulk	1/2/2020	1/3/2020	US Ecology	Belleville, MI	019732750JJK	44,820	22.41
Concrete	US Bulk	1/2/2020	1/3/2020	US Ecology	Belleville, MI	019732747JJK	46,900	23.45
Concrete	US Bulk	1/2/2020	1/3/2020	US Ecology	Belleville, MI	019832813JJK	46,860	23.43
Concrete	US Bulk	1/2/2020	1/3/2020	US Ecology	Belleville, MI	019832814JJK	47,040	23.52
Concrete	US Bulk	1/2/2020	1/3/2020	US Ecology	Belleville, MI	019832745JJK	40,540	20.27

Table 3
Concrete Debris Disposal Summary

Material	Hauler	Pick Up	Delivery	Dispsal Facility	Location	Manifest #	Weight (Lbs.)	Weight (tons)
Concrete	US Bulk	1/6/2020	1/6/2020	US Ecology	Belleville, MI	019832817JJK	42,700	21.35
Concrete	US Bulk	1/6/2020	1/6/2020	US Ecology	Belleville, MI	019832816JJK	45,300	22.65
Concrete	US Bulk	1/6/2020	1/6/2020	US Ecology	Belleville, MI	019832815JJK	44,740	22.37
Concrete	US Bulk	1/6/2020	1/6/2020	US Ecology	Belleville, MI	019832818JJK	42,300	21.15
Concrete	US Bulk	1/7/2020	1/8/2020	US Ecology	Belleville, MI	019832819JJK	43,800	21.9
Concrete	US Bulk	1/8/2020	1/9/2020	US Ecology	Belleville, MI	019832821JJK	45,160	22.58
Concrete	US Bulk	1/8/2020	1/9/2020	US Ecology	Belleville, MI	019832820JJK	47,420	23.71
Total							1,697,460	848.73

Table 4
Surficial Tar and Soil Disposal Summary

Material	Transporter	Pick Up Date	RSI Tag #	Disposal Facility	Location	Manifest #	Weight (lbs)	Weight (tons)
Surficial Tar	Goulet	12/3/2019	35602	RSI Environmental	Saint-Ambroise, QC	003725718GBF	67,940	33.97
Surficial Tar	Laidlaw	12/5/2019	35603	RSI Environmental	Saint-Ambroise, QC	019443541JJK	65,200	32.6
Surficial Tar	Laidlaw	12/5/2019	35604	RSI Environmental	Saint-Ambroise, QC	019443542JJK	69,900	34.95
Surficial Tar	Goulet	12/9/2019	35606	RSI Environmental	Saint-Ambroise, QC	003725719GBF	66,780	33.39
Surficial Tar	Laidlaw	12/9/2019	35605	RSI Environmental	Saint-Ambroise, QC	019443543JJK	68,300	34.15
Surficial Tar	Laidlaw	12/9/2019	35607	RSI Environmental	Saint-Ambroise, QC	019443544JJK	69,380	34.69
Surficial Tar	Goulet	12/10/2019	35608	RSI Environmental	Saint-Ambroise, QC	003725720GBF	67,840	33.92
Surficial Tar	Goulet	12/10/2019	35609	RSI Environmental	Saint-Ambroise, QC	003725721GBF	59,860	29.93
Surficial Tar	Laidlaw	12/10/2019	35611	RSI Environmental	Saint-Ambroise, QC	019443545JJK	69,120	34.56
Surficial Tar	Goulet	12/10/2019	35612	RSI Environmental	Saint-Ambroise, QC	003725722GBF	66,980	33.49
Surficial Tar	Goulet	12/10/2019	35613	RSI Environmental	Saint-Ambroise, QC	003725723GBF	63,080	31.54
Surficial Tar	Laidlaw	12/11/2019	35614	RSI Environmental	Saint-Ambroise, QC	019443546JJK	71,340	35.67
Surficial Tar	Laidlaw	12/12/2019	35616	RSI Environmental	Saint-Ambroise, QC	019443548JJK	71,280	35.64
Surficial Tar	Goulet	12/13/2019	35617	RSI Environmental	Saint-Ambroise, QC	003725835GBF	67,440	33.72
Surficial Tar	Goulet	12/13/2019	35618	RSI Environmental	Saint-Ambroise, QC	003725836GBF	60,900	30.45
Surficial Tar	Laidlaw	12/16/2019	35615	RSI Environmental	Saint-Ambroise, QC	019443547JJK	65,320	32.66
Surficial Tar	Laidlaw	12/16/2019	35619	RSI Environmental	Saint-Ambroise, QC	019443549JJK	71,400	35.7
Surficial Tar	PHH	12/16/2019	N/A	RSI Environmental	Saint-Ambroise, QC	003725837GBF	69,800	34.9
Surficial Tar	Goulet	12/16/2019	N/A	RSI Environmental	Saint-Ambroise, QC	003725838GBF	64,640	32.32
Surficial Tar	Laidlaw	12/17/2019	35801	RSI Environmental	Saint-Ambroise, QC	019443550JJK	69,700	34.85
Surficial Tar	Laidlaw	12/17/2019	35802	RSI Environmental	Saint-Ambroise, QC	019443551JJK	68,320	34.16
Surficial Tar	Laidlaw	12/18/2019	35803	RSI Environmental	Saint-Ambroise, QC	019443552JJK	66,720	33.36
Surficial Tar	Laidlaw	12/18/2019	35804	RSI Environmental	Saint-Ambroise, QC	019443553JJK	62,480	31.24
Surficial Tar	Laidlaw	12/18/2019	35805	RSI Environmental	Saint-Ambroise, QC	019443554JJK	70,440	35.22
Surficial Tar	Goulet	12/18/2019	35806	RSI Environmental	Saint-Ambroise, QC	003725839GBF	65,280	32.64
Surficial Tar	Laidlaw	12/19/2019	N/A	RSI Environmental	Saint-Ambroise, QC	019443555JJK	64,780	32.39
Surficial Tar	Goulet	12/23/2019	35807	RSI Environmental	Saint-Ambroise, QC	003725840GBF	59,060	29.53
Surficial Tar	Goulet	1/6/2020	35808	RSI Environmental	Saint-Ambroise, QC	003725841GBF	56,060	28.03
Surficial Tar	Laidlaw	1/6/2020	35809	RSI Environmental	Saint-Ambroise, QC	019443556JJK	66,740	33.37
Surficial Tar	Goulet	1/6/2020	35811	RSI Environmental	Saint-Ambroise, QC	019443557JJK	72,840	36.42
Surficial Tar	Laidlaw	1/6/2020	35810	RSI Environmental	Saint-Ambroise, QC	003725842GBF	62,460	31.23
Surficial Tar	Laidlaw	1/7/2020	35812	RSI Environmental	Saint-Ambroise, QC	019443558JJK	66,340	33.17
Surficial Tar	Goulet	1/7/2020	35813	RSI Environmental	Saint-Ambroise, QC	003725843GBF	62,960	31.48
Surficial Tar	Laidlaw	1/7/2020	35814	RSI Environmental	Saint-Ambroise, QC	019443559JJK	71,040	35.52
Surficial Tar	Laidlaw	1/7/2020	35815	RSI Environmental	Saint-Ambroise, QC	019443560JJK	72,280	36.14

Table 4
Surficial Tar and Soil Disposal Summary

Material	Transporter	Pick Up Date	RSI Tag #	Disposal Facility	Location	Manifest #	Weight (lbs)	Weight (tons)
Surficial Tar	Laidlaw	1/7/2020	35816	RSI Environmental	Saint-Ambroise, QC	019443561JJK	67,800	33.9
Surficial Tar	Laidlaw	1/8/2020	35817	RSI Environmental	Saint-Ambroise, QC	019443562JJK	68,300	34.15
Surficial Tar	Laidlaw	1/9/2020	35818	RSI Environmental	Saint-Ambroise, QC	019443563JJK	69,140	34.57
Surficial Tar	Laidlaw	1/9/2020	35820	RSI Environmental	Saint-Ambroise, QC	019443641JJK	71,780	35.89
Surficial Tar	Laidlaw	1/9/2020	35819	RSI Environmental	Saint-Ambroise, QC	019443642JJK	71,360	35.68
Surficial Tar	Laidlaw	1/13/2020	35841	RSI Environmental	Saint-Ambroise, QC	019443643JJK	71,240	35.62
Surficial Tar	Laidlaw	1/13/2020	35842	RSI Environmental	Saint-Ambroise, QC	019443644JJK	71,280	35.64
Surficial Tar	Goulet	1/13/2020	35843	RSI Environmental	Saint-Ambroise, QC	003725844GBF	66,660	33.33
Surficial Tar	Laidlaw	1/14/2020	35844	RSI Environmental	Saint-Ambroise, QC	019443631JJK	72,020	36.01
Surficial Tar	Laidlaw	1/14/2020	35845	RSI Environmental	Saint-Ambroise, QC	019443633JJK	70,020	35.01
Surficial Tar	Laidlaw	1/14/2020	35846	RSI Environmental	Saint-Ambroise, QC	019443634JJK	68,700	34.35
Surficial Tar	Laidlaw	1/14/2020	35847	RSI Environmental	Saint-Ambroise, QC	019443635JJK	70,400	35.2
Surficial Tar	Laidlaw	1/16/2020	35848	RSI Environmental	Saint-Ambroise, QC	019443636JJK	70,740	35.37
Surficial Tar	Laidlaw	1/16/2020	35849	RSI Environmental	Saint-Ambroise, QC	019443637JJK	71,400	35.7
Surficial Tar	Goulet	1/17/2020	35850	RSI Environmental	Saint-Ambroise, QC	003725845GBF	71,040	35.52
Surficial Tar	Laidlaw	1/20/2020	35851	RSI Environmental	Saint-Ambroise, QC	019443638JJK	70,480	35.24
Surficial Tar	Laidlaw	1/20/2020	35852	RSI Environmental	Saint-Ambroise, QC	019443639JJK	68,820	34.41
Surficial Tar	Laidlaw	1/20/2020	35853	RSI Environmental	Saint-Ambroise, QC	019443640JJK	69,680	34.84
Surficial Tar	Laidlaw	1/21/2020	35854	RSI Environmental	Saint-Ambroise, QC	019443645JJK	59,480	29.74
Surficial Tar	Goulet	2/11/2020	35855	RSI Environmental	Saint-Ambroise, QC	003725846GBF	24,060	12.03
Surficial Tar	Goulet	2/11/2020	35856	RSI Environmental	Saint-Ambroise, QC	003725847GBF	20,260	10.13
Total							**3,698,660**	**1849.33**

Table 5
Asbestos Disposal Summary

Material	Pick Up Date	Disposal Facility	Location	Manifest/Ticket	Bags	Weight (tons)
Asbestos	10/17/2019	Minerva Enterprises	Waynesburg, OH	19271	23	-
Asbestos	12/23/2019	Minerva Enterprises	Waynesburg, OH	19332	93	-
Asbestos	12/17/2019	Minerva Enterprises	Waynesburg, OH	19330	14	-
Asbestos	9/22/2020	Waste Management Chaffee LF	Chaffee, NY	652753	-	3.78
Asbestos	9/29/2020	Waste Management Chaffee LF	Chaffee, NY	653603	-	3.47
Asbestos	9/29/2020	Waste Management Chaffee LF	Chaffee, NY	653558	-	3.06
Asbestos	10/6/2020	Waste Management Chaffee LF	Chaffee, NY	654320	-	5.34
Asbestos	10/8/2020	Waste Management Chaffee LF	Chaffee, NY	654629	-	3.98
Total					**130**	**19.63**

Table 6
Soil Pile Disposal Summary

Material	Pick Up Date	Disposal Facility	Location	Work Order #	Weight (LBS)	Weight (tons)
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002909951	33,020	16.51
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910033	44,780	22.39
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910105	37,640	18.82
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910213	37,400	18.7
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910017	48,060	24.03
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910103	41,960	20.98
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910192	43,700	21.85
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910004	39,940	19.97
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910086	43,280	21.64
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910177	41,260	20.63
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910245	43,380	21.69
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002909984	46,560	23.28
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910070	44,880	22.44
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910159	38,660	19.33
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002909958	41,140	20.57
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910048	41,940	20.97
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910122	40,240	20.12
Nonhaz soils	12/2/2019	Modern Disposal Services Inc.	Model City, NY	1002910222	36,760	18.38
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910483	44,460	22.23
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910570	44,140	22.07
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910661	41,060	20.53
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910605	41,180	20.59
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910698	42,400	21.2
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910365	41,420	20.71
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910459	40,800	20.4
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910540	45,120	22.56
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910634	43,940	21.97
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910414	40,380	20.19
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910399	44,240	22.12

Table 6
Soil Pile Disposal Summary

Material	Pick Up Date	Disposal Facility	Location	Work Order #	Weight (LBS)	Weight (tons)
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910703	42,100	21.05
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910351	46,180	23.09
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910434	48,480	24.24
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910516	48,380	24.19
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910614	46,580	23.29
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910709	42,600	21.3
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910591	46,900	23.45
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910507	39,440	19.72
Nonhaz soils	12/3/2019	Modern Disposal Services Inc.	Model City, NY	1002910504	44,420	22.21
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002910846	47,020	23.51
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002910850	41,780	20.89
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002910841	45,560	22.78
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002910918	44,160	22.08
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002911013	40,040	20.02
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002911117	40,480	20.24
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002910885	49,800	24.9
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002910995	46,400	23.2
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002911079	46,880	23.44
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002911181	45,860	22.93
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002910867	43,880	21.94
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002910970	44,660	22.33
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002911062	38,980	19.49
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002911173	44,900	22.45
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002910947	44,300	22.15
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002911037	36,320	18.16
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002911158	42,860	21.43
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002910951	49,000	24.5
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002911028	41,960	20.98
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002911140	43,160	21.58

Table 6
Soil Pile Disposal Summary

Material	Pick Up Date	Disposal Facility	Location	Work Order #	Weight (LBS)	Weight (tons)
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002910827	44,760	22.38
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002910906	45,340	22.67
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002911003	43,680	21.84
Nonhaz soils	12/4/2019	Modern Disposal Services Inc.	Model City, NY	1002911128	46,900	23.45
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911290	43,980	21.99
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911367	42,780	21.39
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911453	45,700	22.85
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911538	47,940	23.97
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911639	46,880	23.44
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911513	47,220	23.61
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911617	40,500	20.25
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911628	46,260	23.13
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911332	44,860	22.43
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911440	43,660	21.83
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911413	41,700	20.85
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911531	43,540	21.77
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911316	43,520	21.76
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911304	39,560	19.78
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911471	40,260	20.13
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911295	40,580	20.29
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911379	39,600	19.8
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911450	44,560	22.28
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911549	41,600	20.8
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911385	42,500	21.25
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911645	40,620	20.31
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911563	39,260	19.63
Nonhaz soils	12/5/2019	Modern Disposal Services Inc.	Model City, NY	1002911651	42,280	21.14
Nonhaz soils	12/6/2019	Modern Disposal Services Inc.	Model City, NY	1002911751	41,740	20.87
Nonhaz soils	12/6/2019	Modern Disposal Services Inc.	Model City, NY	1002911849	42,760	21.38

Table 6
Soil Pile Disposal Summary

Material	Pick Up Date	Disposal Facility	Location	Work Order #	Weight (LBS)	Weight (tons)
Nonhaz soils	12/6/2019	Modern Disposal Services Inc.	Model City, NY	1002911925	47,400	23.7
Nonhaz soils	12/6/2019	Modern Disposal Services Inc.	Model City, NY	1002912012	48,200	24.1
Nonhaz soils	12/6/2019	Modern Disposal Services Inc.	Model City, NY	1002911761	44,240	22.12
Nonhaz soils	12/6/2019	Modern Disposal Services Inc.	Model City, NY	1002911839	44,940	22.47
Nonhaz soils	12/6/2019	Modern Disposal Services Inc.	Model City, NY	1002911910	45,300	22.65
Nonhaz soils	12/6/2019	Modern Disposal Services Inc.	Model City, NY	1002911981	50,380	25.19
Nonhaz soils	12/6/2019	Modern Disposal Services Inc.	Model City, NY	1002911772	40,080	20.04
Nonhaz soils	12/6/2019	Modern Disposal Services Inc.	Model City, NY	1002911865	45,720	22.86
Nonhaz soils	12/6/2019	Modern Disposal Services Inc.	Model City, NY	1002911946	46,940	23.47
Nonhaz soils	12/6/2019	Modern Disposal Services Inc.	Model City, NY	1002912052	46,420	23.21
Nonhaz soils	12/10/2019	Modern Disposal Services Inc.	Model City, NY	1002912701	47,980	23.99
Nonhaz soils	12/10/2019	Modern Disposal Services Inc.	Model City, NY	1002912890	45,000	22.5
Nonhaz soils	12/10/2019	Modern Disposal Services Inc.	Model City, NY	1002912750	42,640	21.32
Nonhaz soils	12/10/2019	Modern Disposal Services Inc.	Model City, NY	1002912939	50,180	25.09
Nonhaz soils	12/10/2019	Modern Disposal Services Inc.	Model City, NY	1002913048	46,980	23.49
Nonhaz soils	12/10/2019	Modern Disposal Services Inc.	Model City, NY	1002912776	49,080	24.54
Nonhaz soils	12/10/2019	Modern Disposal Services Inc.	Model City, NY	1002912844	45,240	22.62
Nonhaz soils	12/11/2019	Modern Disposal Services Inc.	Model City, NY	1002913162	46,620	23.31
Nonhaz soils	12/11/2019	Modern Disposal Services Inc.	Model City, NY	1002913236	47,320	23.66
Nonhaz soils	12/11/2019	Modern Disposal Services Inc.	Model City, NY	1002913300	49,620	24.81
Nonhaz soils	12/11/2019	Modern Disposal Services Inc.	Model City, NY	1002913377	49,300	24.65
Nonhaz soils	12/11/2019	Modern Disposal Services Inc.	Model City, NY	1002913280	45,300	22.65
Nonhaz soils	12/11/2019	Modern Disposal Services Inc.	Model City, NY	1002913347	48,700	24.35
Nonhaz soils	12/12/2019	Modern Disposal Services Inc.	Model City, NY	1002913537	49,200	24.6
Nonhaz soils	12/12/2019	Modern Disposal Services Inc.	Model City, NY	1002913546	48,400	24.2
Total					**4,922,540**	**2461.27**

Table 7
Recycled Metal Summary

Material	Pick Up Date	Disposal Facility	Location	Containers	Weight (LBS)	Weight (tons)
Scrap Metal	10/23/2019	Diamond Hurwitz Scrap LLC	Buffalo, NY	1	12,380	6.19
Scrap Metal	10/24/2019	Diamond Hurwitz Scrap LLC	Buffalo, NY	1	8,820	4.41
Scrap Metal	10/25/2019	Diamond Hurwitz Scrap LLC	Buffalo, NY	1	12,100	6.05
Scrap Metal	11/5/2019	Diamond Hurwitz Scrap LLC	Buffalo, NY	1	14,240	7.12
Scrap Metal	11/22/2019	Diamond Hurwitz Scrap LLC	Buffalo, NY	1	13,820	6.91
Scrap Metal	12/4/2019	Diamond Hurwitz Scrap LLC	Buffalo, NY	1	30,980	15.49
Scrap Metal	12/9/2019	Diamond Hurwitz Scrap LLC	Buffalo, NY	1	27,140	13.57
Scrap Metal	12/16/2019	Diamond Hurwitz Scrap LLC	Buffalo, NY	1	14,040	7.02
Scrap Metal	12/23/2019	Diamond Hurwitz Scrap LLC	Buffalo, NY	1	15,740	7.87
Scrap Metal	1/2/2020	Diamond Hurwitz Scrap LLC	Buffalo, NY	1	13,560	6.78
Scrap Metal	1/20/2020	Diamond Hurwitz Scrap LLC	Buffalo, NY	1	20,300	10.15
Scrap Metal	1/31/2020	Diamond Hurwitz Scrap LLC	Buffalo, NY	1	6,060	3.03
Total					**189,180**	**94.59**

FIGURES

FIGURE 1

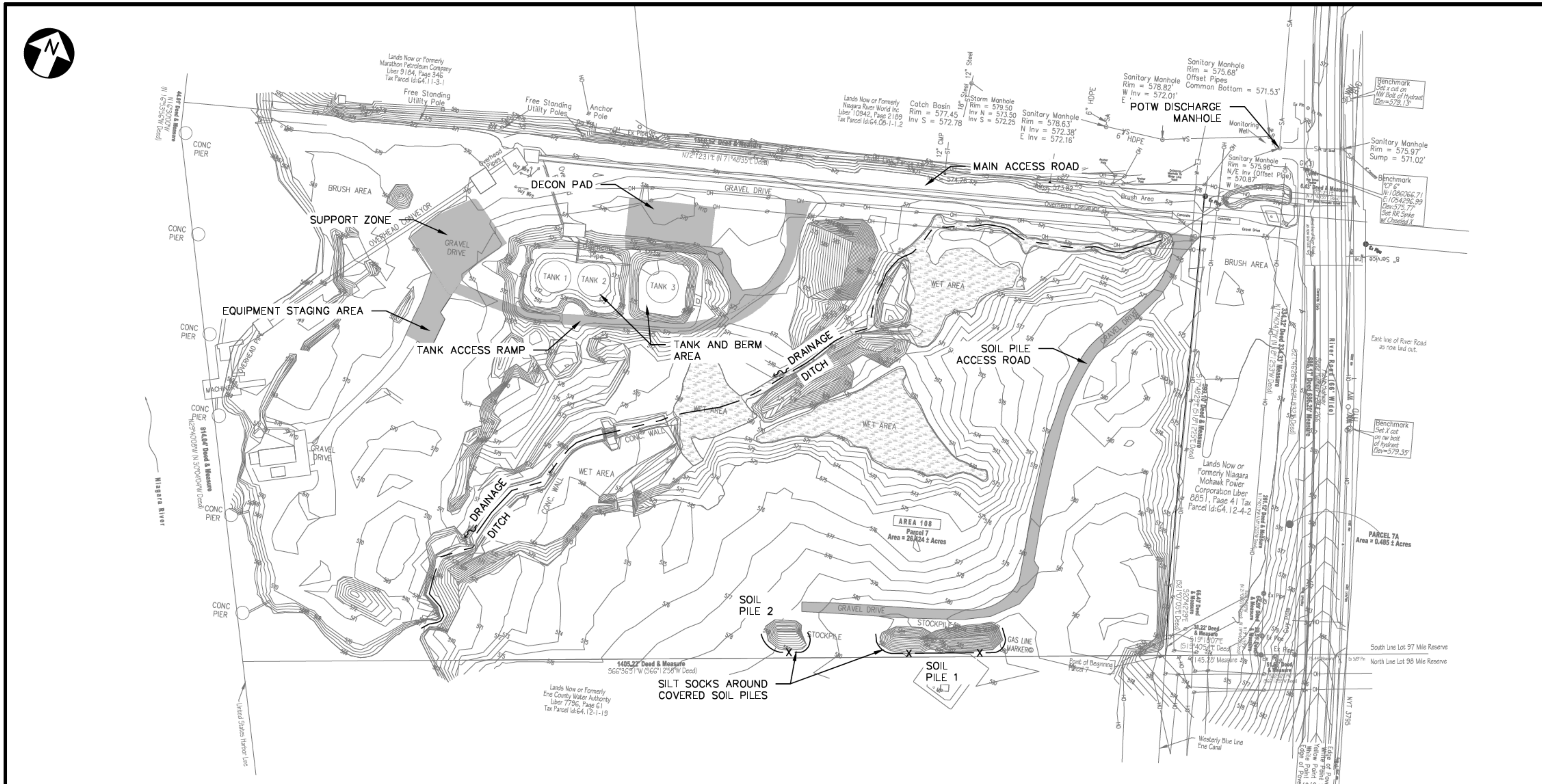
Honeywell

TONAWANDA COKE CORPORATION SITE 108
3800 RIVER RD, TONAWANDA, NEW YORK

SITE LOCATION MAP

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 • 315 451 9560

FILE NAME: P:\HONEYWELL\TONAWANDA COKE\10 TECHNICAL CATEGORIES\SK001.DWG
PLOT DATE: 1/13/2018 12:55 PM PLOTTED BY: RUSSO, JILL



LEGEND:

——x—— SILT SOCK

150 0 150 300

SCALE: 1"=150'

FILE NAME: P:\HONEYWELL -SYR\451872 TONAWANDA COKE SITE 108\10.0 TECHNICAL CATEGORIES\CAD\FIGURE 2 SITE OVERVIEW.DWG
PLOT DATE: 2/16/2021 10:54 AM PLOTTED BY: NASSIMOS, JEFFREY

FIGURE 2

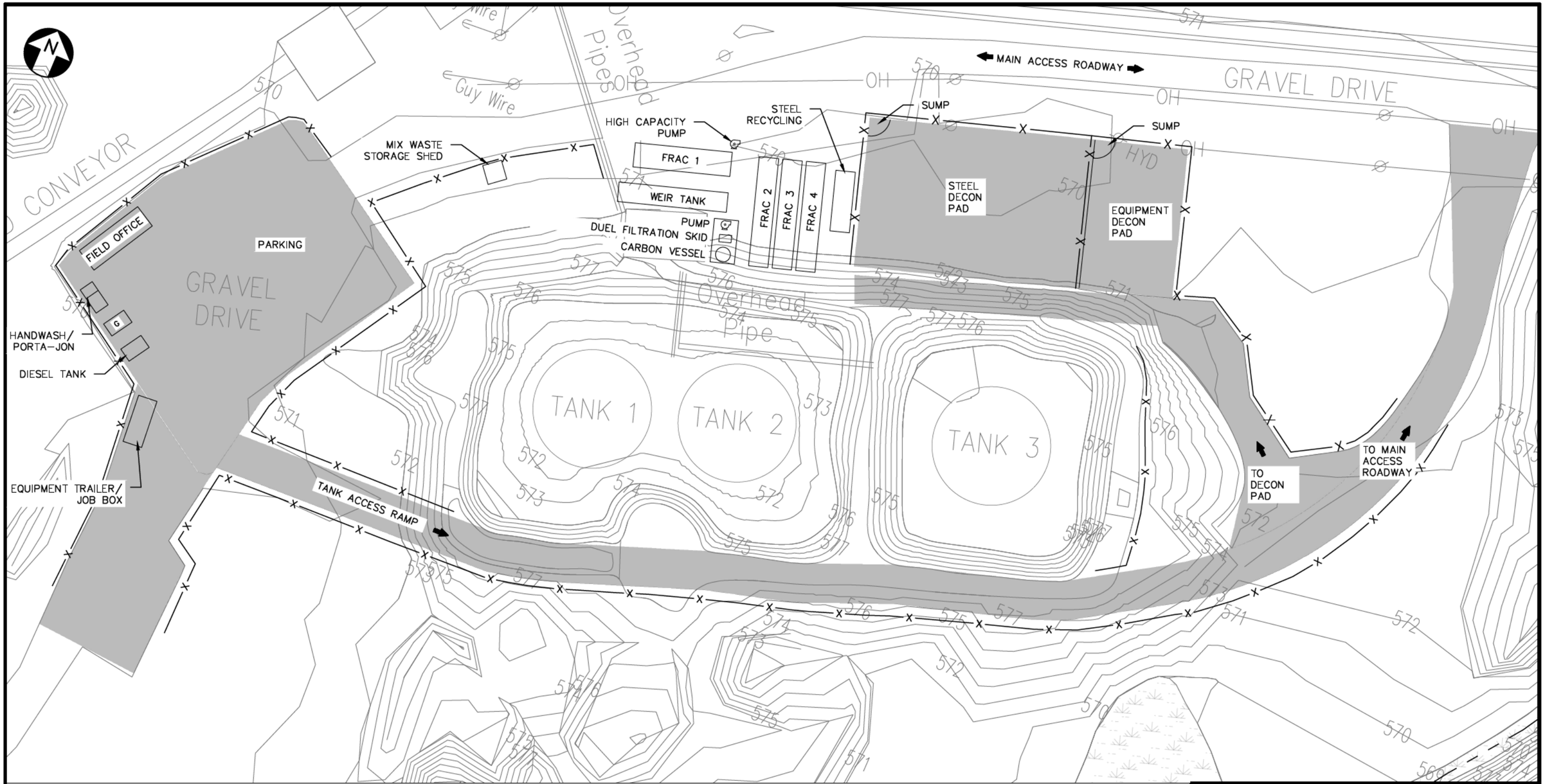
Honeywell

TONAWANDA COKE SITE
TONAWANDA, NEW YORK

SITE OVERVIEW

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560



LEGEND:

——x—— SILT SOCK

40 20 0 40 80

SCALE: 1"=40'

FIGURE 3

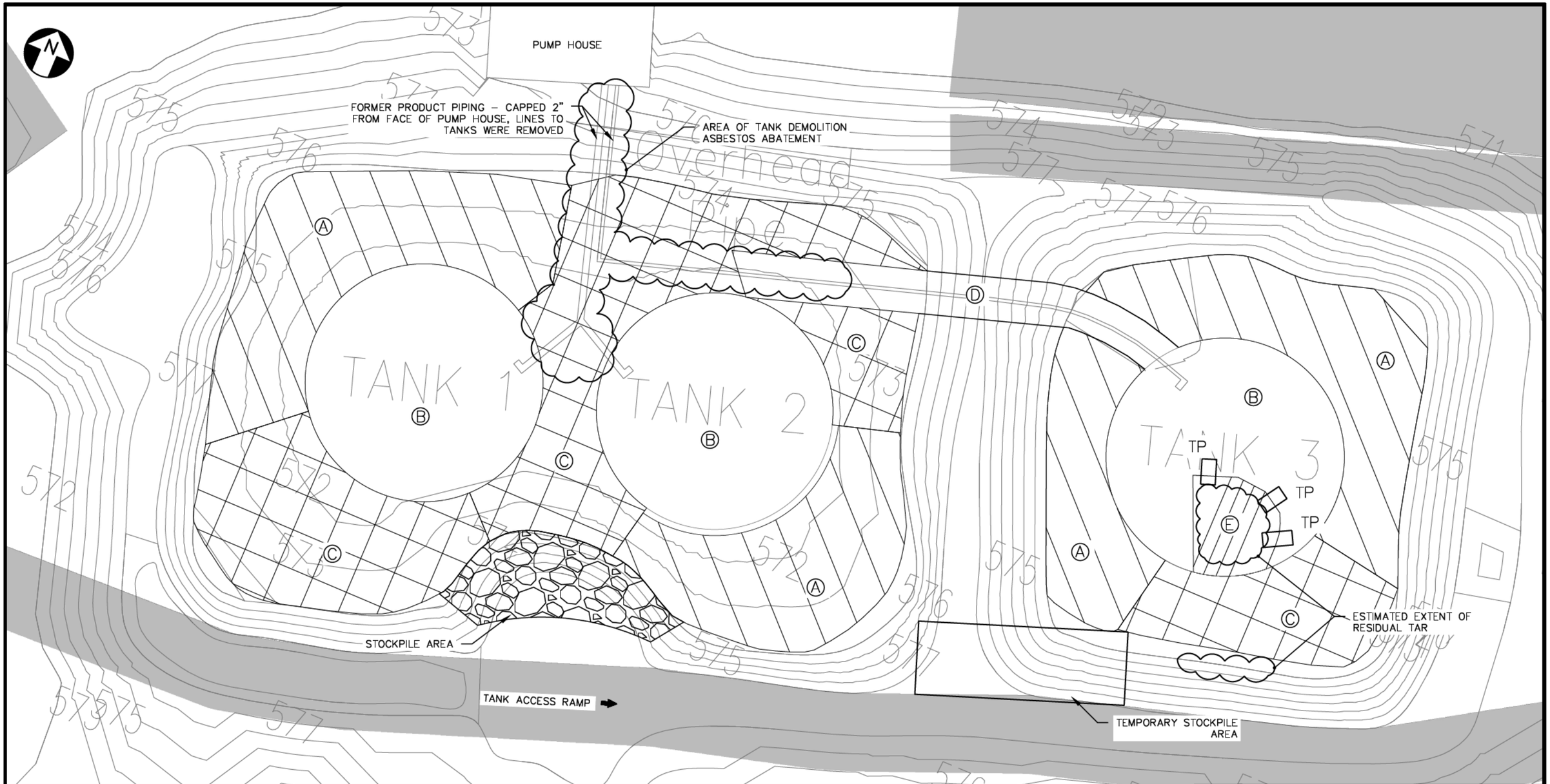
Honeywell

TONAWANDA COKE SITE
TONAWANDA, NEW YORK

WORK AREA LAYOUT

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\451872 TONAWANDA COKE SITE 108\10.0 TECHNICAL CATEGORIES\CAD\FIGURE 3 WORK AREA LAYOUT.DWG
PLOT DATE: 2/16/2021 11:00 AM PLOTTED BY: NASSIMOS, JEFFREY



LEGEND:

- Ⓐ AREA A
- Ⓑ AREA B – TANK BOTTOM AREA
- Ⓒ AREA C
- Ⓓ AREA D – FORMER PRODUCT PIPING
- Ⓔ AREA E
- Ⓕ AREA F
- TP TEST PIT

NOTES:

AREA A = EXCAVATION TO THE BOTTOM OF IMPORTED BERM CLAY 1–1.5 FEET BELOW GROUND SURFACE (BGS).
AREA B = EXCAVATION OF HISTORIC FILL AND BREEZE 1.5–2.5 FEET BELOW BASE OF THE CONCRETE PAD.
AREA C = EXCAVATION THRU INTERMITTENT CLAY LAYER 2.5–3.5 FEET BGS.
AREA D = EXCAVATION AND REMOVAL OF FORMER PRODUCT PIPING, REMOVED CLEAN OVERBURDEN 0–2.5 FEET BGS, REMOVE IMPACT MATERIAL 2.5–3.5 FEET BGS.
AREA E = OVER EXCAVATION TO REMOVE TAR IMPACTS TO TOP OF SILTY LOAM, DEPTH 5–6 FEET BGS.

20 10 0 20 40

SCALE: 1"=20'

FILE NAME: P:\HONEYWELL –SYR\451872 TONAWANDA COKE SITE 108\10.0 TECHNICAL CATEGORIES\CAD\FIGURE 4 EXTENT OF EXCAVATION AND ESTIMATE FINAL DEPTHS.DWG
PLOT DATE: 3/18/2021 2:31 PM PLOTTED BY: NASSIMOS, JEFFREY

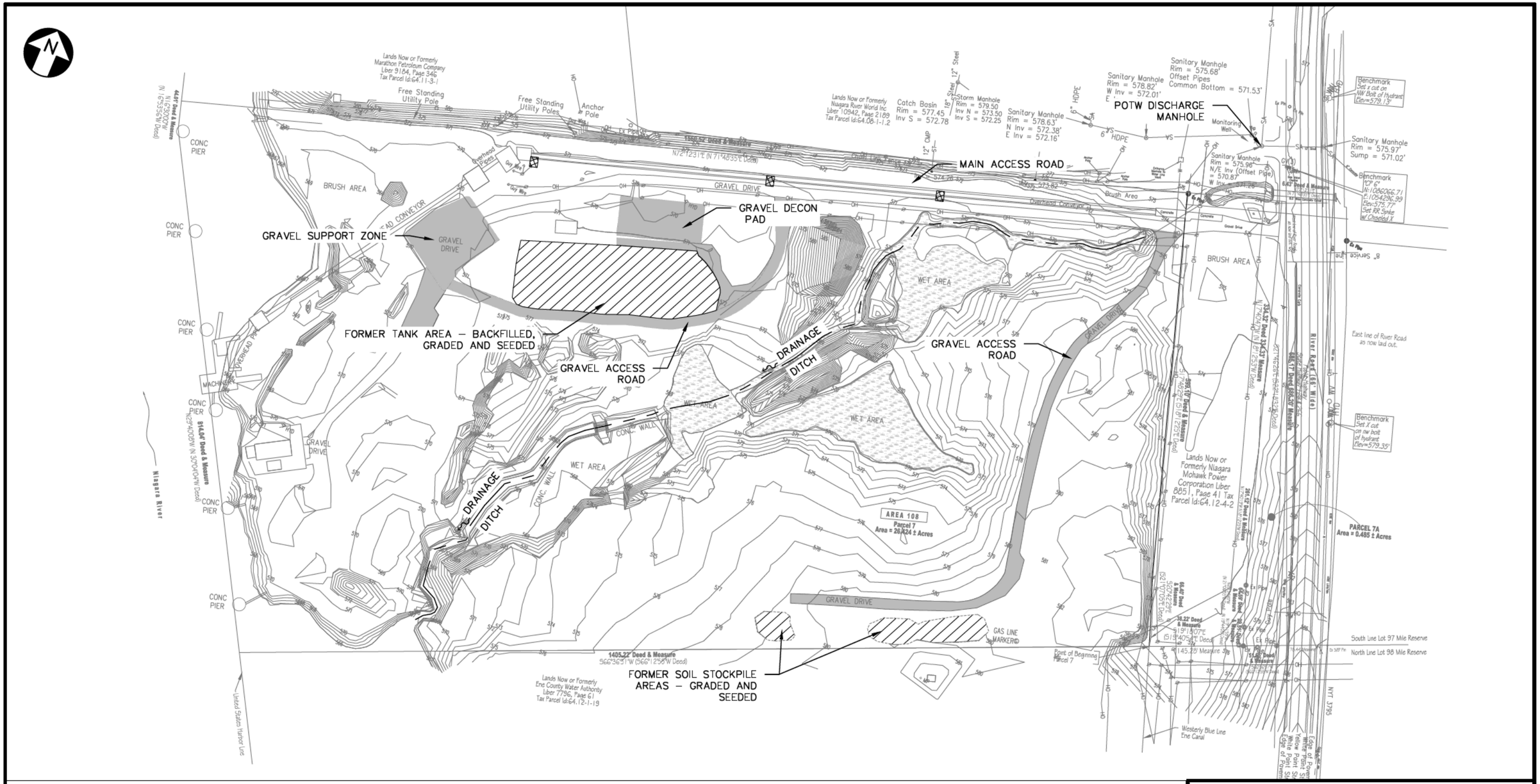
FIGURE 4

Honeywell

TONAWANDA COKE SITE
TONAWANDA, NEW YORK

EXTENT OF EXCAVATION AND ESTIMATED FINAL DEPTHS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560



LEGEND:

- PIPE REPAIR AND TAR IMPACTED SOIL REMOVAL LOCATIONS
- RESTORATION AREAS

150 0 150 300

SCALE: 1"=150'

FIGURE 5

Honeywell TONAWANDA COKE SITE TONAWANDA, NEW YORK

SITE RESTORATION/ POST CONSTRUCTION CONDITIONS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\451872 TONAWANDA COKE SITE 108\10.0 TECHNICAL CATEGORIES\CAD\FIGURE 5 SITE RESTORATION.DWG
PLOT DATE: 2/16/2021 4:15 PM PLOTTED BY: NASSIMOS, JEFFREY

APPENDIX A MATERIAL IMPORT DOCUMENTATION

APPENDIX B WATER TREATMENT DOCUMENTATION

APPENDIX C COMMUNITY AIR MONITORING PLAN (CAMP) RESULTS

APPENDIX D SOIL PILE ANALYTICAL DATA

APPENDIX E ASBESTOS ABATEMENT DOCUMENTATION

APPENDIX F RECYCLED STEEL DOCUMENTATION

APPENDIX G DISPOSAL DOCUMENTATION

APPENDIX H CONVEYANCE PIPE TAR AND SOIL DISPOSAL DOCUMENTATION

APPENDIX I PHOTO LOG

APPENDIX J INTERIM MEASURES WORK PLAN

APPENDIX K TANK REMOVAL WORK PLAN

APPENDIX L ASBESTOS ABATEMENT WORK PLAN

APPENDIX M PRE-DEMOLITION ASBESTOS-CONTAINING MATERIAL SURVEY REPORT

APPENDIX A MATERIAL IMPORT DOCUMENTATION

From: Mcpherson, Benjamin J (DEC)
To: Abrams, Tom
Cc: Budroe, Thomas
Subject: [EXTERNAL] RE: Tonawanda Coke Site 108, #915055-OU3
Date: Thursday, May 21, 2020 7:42:38 AM
Attachments:

Tom,

The Department has reviewed the request dated May 20, 2020 to import up to 500 cubic yards of clay fill material from Pariso Logistics. Based on the information provided, the request is hereby approved. The proposed fill material meets the commercial soil cleanup objectives (SCOs).

Testing in accordance with DER-10 and approval by the Department is required for any additional material imported from this source. Please let me know if you have any questions.

Thank you,
Ben

Benjamin McPherson, P.E.
Professional Engineer 1 (Environmental), Division of Environmental Remediation

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, NY 14203
P: (716) 851-7220 | F: (716) 851-7226 | benjamin.mcpherson@dec.ny.gov
www.dec.ny.gov [dec.ny.gov]

From: Abrams, Tom <Tom.Abrams@parsons.com>
Sent: Wednesday, May 20, 2020 1:28 PM
To: Mcpherson, Benjamin J (DEC) <benjamin.mcpherson@dec.ny.gov>
Subject: Tonawanda Coke Site 108, #915055-OU3

Ben,
On behalf of Honeywell, Parsons conducted additional testing for additional clay material to finish the former tank area grading and restoration work. The data is all below commercial standards and PFAS requirements. This is the same material/source approved last winter (email chain below). Sending the attached completed Request to Import Soil form and data summary table for your review and approval. We are tentatively scheduled to start the work next Tuesday (5/26). Let me know if you need more information.
Regards,

Tom

Thomas H. Abrams
Senior Project Manager
Suite 350
301 Plainfield Road, Syracuse, New York 13212
tom.abrams@parsons.com - (Direct Office Line) 315.552.9670; (Cell) 315.263.5109

PARSONS

From: Mcpherson, Benjamin J (DEC) <benjamin.mcpherson@dec.ny.gov>
Sent: Tuesday, February 26, 2019 11:37 AM
To: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>; Lisichenko, Peter <lisichenko.peter@epa.gov>
Cc: Sweitzer, Mark <Mark.Sweitzer@Honeywell.com>; Glaza, Edward <Edward.Glaza@parsons.com>; Coladonato, Steve <Steven.Coladonato@Honeywell.com>; Prohaska, Ronald <Ronald.Prohaska@parsons.com>; Alen Trpevski <atrpevski@oscinc.com>; Dale@allendesnoyers.com; Harkay, Dan <Harkay.Dan@epa.gov>; Reuben, Peter A (DEC) <peter.reuben@dec.ny.gov>; Staniszewski, Chad (DEC) <chad.staniszewski@dec.ny.gov>; Abrams, Tom <Tom.Abrams@parsons.com>
Subject: RE: Tonawanda Coke Site 108, #915055-OU3

Jeff,

The Department has reviewed the request dated February 19, 2019 to import up to 400 cubic yards of clay soil from Pariso Logistics Inc. Based on the information provided, the request is hereby approved.

The proposed soil material substantially meets the lower of the commercial or groundwater protection soil cleanup objectives (SCOs) (Appendix 5 of DER-10). This material is to be used to stabilize the Site 108 Tank Farm berms in accordance with the USEPA approved work plan. Additional testing in accordance with DER-10 and approval by the Department is required for any additional material imported from this source.

Please let me know if you have any questions. Thank you,
Ben McPherson

Benjamin McPherson, P.E.
Assistant Engineer (Environmental), Division of Environmental Remediation

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, NY 14203
P: (716) 851-7220 | F: (716) 851-7226 | benjamin.mcpherson@dec.ny.gov
www.dec.ny.gov[dec.ny.gov] | [facebook.com] | [twitter.com]

From: Mcpherson, Benjamin J (DEC)

Sent: Thursday, February 21, 2019 12:12 PM
To: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>; Lisichenko, Peter <lisichenko.peter@epa.gov>
Cc: Sweitzer, Mark <Mark.Sweitzer@Honeywell.com>; Glaza, Edward <Edward.Glaza@parsons.com>; Coladonato, Steve <Steven.Coladonato@Honeywell.com>; Prohaska, Ronald <Ronald.Prohaska@parsons.com>; Alen Trpevski <atrpevski@oscinc.com>; Dale@allendesnoyers.com; Harkay, Dan <Harkay.Dan@epa.gov>; Reuben, Peter A (DEC) <peter.reuben@dec.ny.gov>; Staniszewski, Chad (DEC) <chad.staniszewski@dec.ny.gov>; Abrams, Tom <Tom.Abrams@parsons.com>
Subject: Re: Tonawanda Coke Site 108

Jeff,
Thanks for getting that info. I would agree that the acetone exceedance is likely lab contamination. I do not have an issue with this material being imported to the site to repair the tank farm berms.

I can send a more formal approval when I return to the office next week.

Ben

Benjamin McPherson, P.E.
Assistant Engineer (Environmental), Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, NY 14203
P: (716) 851-7220 | F: (716) 851-7226 | benjamin.mcpherson@dec.ny.gov

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From: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>
Sent: Wednesday, February 20, 2019 2:13:17 PM
To: Mcpherson, Benjamin J (DEC); Lisichenko, Peter
Cc: Sweitzer, Mark; Glaza, Edward; Coladonato, Steve; Prohaska, Ronald; Alen Trpevski; Dale@allendesnoyers.com; Harkay, Dan; Reuben, Peter A (DEC); Staniszewski, Chad (DEC); Abrams, Tom
Subject: RE: Tonawanda Coke Site 108

Ben,

We have talked to Pariso;

The clay material that is stockpiled at the yard on river road originated from the:
First Source Job Site located at
100 Pirson Pkwy, Tonawanda NY 14150

I hope that this answers any questions that you have.

Jeff

Jeffrey Poulsen, PG LEED-AP
Project Manager/Principal Geologist
jeffrey.poulsen@parsons.com
716.432.7685 Mobile

From: Mcpherson, Benjamin J (DEC) <benjamin.mcpherson@dec.ny.gov>
Sent: Tuesday, February 19, 2019 7:24 PM
To: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>; Lisichenko, Peter <lisichenko.peter@epa.gov>
Cc: Sweitzer, Mark <Mark.Sweitzer@Honeywell.com>; Glaza, Edward <Edward.Glaza@parsons.com>; Coladonato, Steve <Steven.Coladonato@Honeywell.com>; Prohaska, Ronald <Ronald.Prohaska@parsons.com>; Alen Trpevski <atrpevski@oscinc.com>; Dale@allendesnoyers.com; Harkay, Dan <Harkay.Dan@epa.gov>; Reuben, Peter A (DEC) <peter.reuben@dec.ny.gov>; Staniszewski, Chad (DEC) <chad.staniszewski@dec.ny.gov>; Abrams, Tom <Tom.Abrams@parsons.com>
Subject: Re: Tonawanda Coke Site 108

Jeff,
Please inquire with Pariso Logistics and determine the project/address where the soil originated.

Thank you,
Ben

Benjamin McPherson, P.E.
Assistant Engineer (Environmental), Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, NY 14203
P: (716) 851-7220 | F: (716) 851-7226 | benjamin.mcpherson@dec.ny.gov

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From: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>
Sent: Tuesday, February 19, 2019 4:57:37 PM
To: Lisichenko, Peter
Cc: Sweitzer, Mark; Glaza, Edward; Coladonato, Steve; Prohaska, Ronald; Alen Trpevski; Dale@allendesnoyers.com; Harkay, Dan; Mcpherson, Benjamin J (DEC); Reuben, Peter A (DEC); Staniszewski, Chad (DEC); Abrams, Tom
Subject: RE: Tonawanda Coke Site 108

Peter,

On behalf of Honeywell, Parsons has completed the sampling of the clay soil stockpile which we would like to import to the Area 108 Site.
This material will be used for berm stabilization as described in the approved work plan.

We look forward to your review of the attached and approve for the import of the fill.

Jeff Poulsen

Jeffrey Poulsen, PG LEED-AP
Project Manager/Principal Geologist
jeffrey.poulsen@parsons.com
716.432.7685 Mobile

From: Lisichenko, Peter <lisichenko.peter@epa.gov>
Sent: Friday, February 15, 2019 5:40 PM
To: Abrams, Tom <Tom.Abrams@parsons.com>
Cc: Sweitzer, Mark <Mark.Sweitzer@Honeywell.com>; Glaza, Edward <Edward.Glaza@parsons.com>; Coladonato, Steve <Steven.Coladonato@Honeywell.com>; Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>; Prohaska, Ronald <Ronald.Prohaska@parsons.com>; Alen Trpevski <atrpevski@oscinc.com>; Dale Desnoyer (dale@allendesnoyers.com) <dale@allendesnoyers.com>; Budroe, Thomas <Budroe.Thomas@epa.gov>; Harkay, Dan <Harkay.Dan@epa.gov>; Mcpherson, Benjamin J (DEC) <benjamin.mcpherson@dec.ny.gov>; Peter Reuben <peter.reuben@dec.ny.gov>; Chad Staniszewski (DEC) <chad.staniszewski@dec.ny.gov>
Subject: Re: Tonawanda Coke Site 108

Hi Tom,
Thank you for the update.
Please have the data summarized in data tables and compared to NYS DER-10 standards once finalized. Any exceedances should be highlighted.

Best regards,
-Pete

Sent from a mobile device
Peter Lisichenko
On-Scene Coordinator
Region 2 USEPA
347-276-6251

On Feb 15, 2019, at 4:25 PM, Abrams, Tom <Tom.Abrams@parsons.com> wrote:

Pete, Wanted to give you a status update before I leave for vacation (out next week).

1. Jeff Poulsen (716.432.7685) is coordinating with DEC on Material Import paperwork. Preliminary data is in and material looks good.
2. Planning on doing berm work and soil pile covering w/o 2/25.
3. Ron Prohaska (716.564.7033) is coordinating with OSC on start of work, including evaluating projected weather conditions. Ron will confirm start arrangements with you later next week.
4. Arranging rental of onsite roll off with WTS.

Please call me if you would like to discuss. Thanks.
Tom

Thomas H. Abrams
Senior Project Manager
Suite 350
301 Plainfield Road, Syracuse, New York 13212
tom.abrams@parsons.com - (Direct Office Line) 315.552.9670; (Cell) 315.263.5109

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NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Commercial or Industrial Use

Have Ecological Resources been identified? no

Is this soil originating from the site? no

How many cubic yards of soil will be imported/reused? 400-500

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? no

Does it contain less than 10%, by weight, material that would pass a size 80 sieve? no

Is this virgin material from a permitted mine or quarry? no

Is this material recycled concrete or brick from a DEC registered processing facility? no

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Samples were collected from the soil stockpile on May 6, 2020 as follows:
- 5 discrete samples were collected and analyzed for VOCs
- 2 composite samples were collected and analyzed for SVOCs, inorganics, PCBs, pesticides and PFOA/PFAS.

Data summary tables attached.

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

The analytical data summary table is attached
All concentrations were below the DER-10, Appendix 5 commercial limits, including PFAS requirements.

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Pariso Logistics Inc. owner

Location where fill was obtained:

Originally from a building Site in Wheatfield, currently stockpiled at 5630 River Road, Tonawanda

Identification of any state or local approvals as a fill source:

NA

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Originally obtained from a construction site in Wheatfield, the clay fill is stockpiled at 5630 River Road in Tonawanda, NY. Pariso Logistics, current owns the material. OSC, Parsons' subcontractor will be purchasing and placing the material.

Provide a list of supporting documentation included with this request:

SGS laboratory analytical report JD6951.

The information provided on this form is accurate and complete.

	5/20/2020
Signature	Date
Tom Abrams	
Print Name	
Parsons	
Firm	

Client Sample ID:		Allowable Constituent Levels for Imported Fill or Soil[1]		CLAY05_050620	CLAY06_050620	CLAY07_050620	CLAY08_050620	CLAY09_050620	CLAY10_050620	CLAY11_050620
Lab Sample ID:		Restricted Residential	Commercial	JD6951-1	JD6951-2	JD6951-3	JD6951-4	JD6951-5	JD6951-6/6A	JD6951-7/7A
Date Sampled:		SCOs	SCOs	5/6/2020	5/6/2020	5/6/2020	5/6/2020	5/6/2020	5/6/2020	5/6/2020
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil
MS Volatiles (SW846 8260C)										
Acetone	mg/kg	0.05	0.05	0.0022 U	0.002 U	0.0027 U	0.028	0.0032 U	-	-
Benzene	mg/kg	0.06	0.06	0.00025 U	0.00023 U	0.0003 U	0.00024 U	0.00036 U	-	-
2-Butanone (MEK)	mg/kg	0.12	0.12	0.002 U	0.0019 U	0.0025 U	0.0019 U	0.003 U	-	-
n-Butylbenzene	mg/kg	12	12	0.00022 U	0.00021 U	0.00027 U	0.00021 U	0.00032 U	-	-
sec-Butylbenzene	mg/kg	11	11	0.00023 U	0.00022 U	0.00029 U	0.00022 U	0.00034 U	-	-
tert-Butylbenzene	mg/kg	5.9	5.9	0.00027 U	0.00025 U	0.00033 U	0.00026 U	0.0004 U	-	-
Carbon tetrachloride	mg/kg	0.76	0.76	0.00034 U	0.00031 U	0.00041 U	0.00032 U	0.00049 U	-	-
Chlorobenzene	mg/kg	1.1	1.1	0.00025 U	0.00023 U	0.00031 U	0.00024 U	0.00036 U	-	-
Chloroform	mg/kg	0.37	0.37	0.00027 U	0.00025 U	0.00033 U	0.00025 U	0.00039 U	-	-
1,2-Dichlorobenzene	mg/kg	1.1	1.1	0.0003 U	0.00028 U	0.00036 U	0.00028 U	0.00043 U	-	-
1,3-Dichlorobenzene	mg/kg	2.4	2.4	0.00027 U	0.00025 U	0.00033 U	0.00026 U	0.00039 U	-	-
1,4-Dichlorobenzene	mg/kg	1.8	1.8	0.00027 U	0.00025 U	0.00033 U	0.00026 U	0.00039 U	-	-
1,1-Dichloroethane	mg/kg	0.27	0.27	0.00027 U	0.00025 U	0.00033 U	0.00026 U	0.00039 U	-	-
1,2-Dichloroethane	mg/kg	0.02	0.02	0.00026 U	0.00024 U	0.00031 U	0.00024 U	0.00037 U	-	-
1,1-Dichloroethene	mg/kg	0.33	0.33	0.00036 U	0.00033 U	0.00044 U	0.00034 U	0.00052 U	-	-
cis-1,2-Dichloroethene	mg/kg	0.25	0.25	0.00046 U	0.00042 U	0.00056 U	0.00044 U	0.00067 U	-	-
trans-1,2-Dichloroethene	mg/kg	0.19	0.19	0.00033 U	0.00031 U	0.00041 U	0.00032 U	0.00048 U	-	-
Ethylbenzene	mg/kg	1	1	0.0003 U	0.00028 U	0.00037 U	0.00029 U	0.00044 U	-	-
Methyl Tert Butyl Ether	mg/kg	0.93	0.93	0.00025 U	0.00024 U	0.00031 U	0.00024 U	0.00037 U	-	-
Methylene chloride	mg/kg	0.05	0.05	0.0014 U	0.0013 U	0.0017 U	0.0013 U	0.002 U	-	-
n-Propylbenzene	mg/kg	3.9	3.9	0.00026 U	0.00024 U	0.00031 U	0.00024 U	0.00037 U	-	-
Tetrachloroethene	mg/kg	1.3	1.3	0.00032 U	0.00029 U	0.00039 U	0.0003 U	0.00046 U	-	-
Toluene	mg/kg	0.7	0.7	0.00029 U	0.00027 U	0.00035 U	0.00027 U	0.00042 U	-	-
1,1,1-Trichloroethane	mg/kg	0.68	0.68	0.00026 U	0.00024 U	0.00032 U	0.00025 U	0.00038 U	-	-
Trichloroethene	mg/kg	0.47	0.47	0.00041 U	0.00038 U	0.00051 U	0.0004 U	0.0006 U	-	-
1,2,4-Trimethylbenzene	mg/kg	3.6	3.6	0.00035 U	0.00032 U	0.00042 U	0.00033 U	0.0005 U	-	-
1,3,5-Trimethylbenzene	mg/kg	8.4	8.4	0.00023 U	0.00022 U	0.00029 U	0.00022 U	0.00034 U	-	-
Vinyl chloride	mg/kg	0.02	0.02	0.00026 U	0.00024 U	0.00032 U	0.00025 U	0.00038 U	-	-
m,p-Xylene	mg/kg	1.6	1.6	0.00049 U	0.00045 U	0.0006 U	0.00047 U	0.00071 U	-	-
o-Xylene	mg/kg	1.6	1.6	0.00032 U	0.00029 U	0.00039 U	0.0003 U	0.00046 U	-	-
Xylene (total)	mg/kg	1.6	1.6	0.00032 U	0.00029 U	0.00039 U	0.0003 U	0.00046 U	-	-
MS Semi-volatiles (SW846 8270D)										
Acenaphthene	mg/kg	98	98	-	-	-	-	-	0.011 U	0.011 U
Acenaphthylene	mg/kg	100	107	-	-	-	-	-	0.017 U	0.017 U
Anthracene	mg/kg	100	500	-	-	-	-	-	0.02 U	0.02 U
Benzo(a)anthracene	mg/kg	1	1	-	-	-	-	-	0.0147 J	0.0135 J
Benzo(a)pyrene	mg/kg	1	1	-	-	-	-	-	0.015 U	0.015 U
Benzo(b)fluoranthene	mg/kg	1	1.7	-	-	-	-	-	0.0157 J	0.0161 J
Benzo(g,h,i)perylene	mg/kg	100	500	-	-	-	-	-	0.016 U	0.016 U
Benzo(k)fluoranthene	mg/kg	1.7	1.7	-	-	-	-	-	0.015 U	0.015 U
Chrysene	mg/kg	1	1	-	-	-	-	-	0.014 J	0.0133 J
1,4-Dioxane	mg/kg	0.1	0.1	-	-	-	-	-	0.022 U	0.022 U
Dibenzo(a,h)anthracene	mg/kg	0.33	0.56	-	-	-	-	-	0.014 U	0.014 U
Dibenzofuran	mg/kg	59	210	-	-	-	-	-	0.013 U	0.013 U

Client Sample ID:		Allowable Constituent Levels for Imported Fill or Soil[1]		CLAY05_050620	CLAY06_050620	CLAY07_050620	CLAY08_050620	CLAY09_050620	CLAY10_050620	CLAY11_050620
Lab Sample ID:		Restricted Residential	Commercial	JD6951-1	JD6951-2	JD6951-3	JD6951-4	JD6951-5	JD6951-6/6A	JD6951-7/7A
Date Sampled:		SCOs	SCOs	5/6/2020	5/6/2020	5/6/2020	5/6/2020	5/6/2020	5/6/2020	5/6/2020
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil
Fluoranthene	mg/kg	100	500	-	-	-	-	-	0.021 J	0.0151 J
Fluorene	mg/kg	100	386	-	-	-	-	-	0.015 U	0.015 U
Hexachlorobenzene	mg/kg	1.2	3.2	-	-	-	-	-	0.0082 U	0.0083 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	5.6	-	-	-	-	-	0.015 U	0.015 U
2-Methylphenol	mg/kg	0.33	0.33	-	-	-	-	-	0.021 U	0.021 U
3&4-Methylphenol	mg/kg	0.33	0.33	-	-	-	-	-	0.027 U	0.027 U
Naphthalene	mg/kg	12	12	-	-	-	-	-	0.0092 U	0.0092 U
Pentachlorophenol	mg/kg	0.8	0.8	-	-	-	-	-	0.031 U	0.031 U
Phenanthrene	mg/kg	100	500	-	-	-	-	-	0.011 U	0.011 U
Phenol	mg/kg	0.33	0.33	-	-	-	-	-	0.017 U	0.017 U
Pyrene	mg/kg	100	500	-	-	-	-	-	0.0164 J	0.0119 J
Pesticides (SW846 8081B)										
Aldrin	mg/kg	0.097	0.19	-	-	-	-	-	0.00053 U	0.00053 U
alpha-BHC	mg/kg	0.02	0.02	-	-	-	-	-	0.00052 U	0.00052 U
beta-BHC	mg/kg	0.09	0.09	-	-	-	-	-	0.00058 U	0.00058 U
delta-BHC	mg/kg	0.25	0.25	-	-	-	-	-	0.00062 U	0.00062 U
gamma-BHC (Lindane)	mg/kg	0.1	0.1	-	-	-	-	-	0.00048 U	0.00047 U
alpha-Chlordane	mg/kg	2.9	2.9	-	-	-	-	-	0.00052 U	0.00052 U
Dieldrin	mg/kg	0.1	0.1	-	-	-	-	-	0.00044 U	0.00044 U
4,4'-DDD	mg/kg	13	14	-	-	-	-	-	0.00059 U	0.00059 U
4,4'-DDE	mg/kg	8.9	17	-	-	-	-	-	0.00057 U	0.00056 U
4,4'-DDT	mg/kg	7.9	47	-	-	-	-	-	0.00057 U	0.00057 U
Endrin	mg/kg	0.06	0.06	-	-	-	-	-	0.0005 U	0.0005 U
Endosulfan sulfate	mg/kg	24	200	-	-	-	-	-	0.0005 U	0.0005 U
Endosulfan-I	mg/kg	24	102	-	-	-	-	-	0.00037 U	0.00037 U
Endosulfan-II	mg/kg	24	102	-	-	-	-	-	0.0004 U	0.0004 U
Heptachlor	mg/kg	0.38	0.38	-	-	-	-	-	0.00056 U	0.00055 U
PCBs (SW846 8082A)										
Aroclor 1016	mg/kg	1	1	-	-	-	-	-	0.015 U	0.015 U
Aroclor 1221	mg/kg	1	1	-	-	-	-	-	0.02 U	0.02 U
Aroclor 1232	mg/kg	1	1	-	-	-	-	-	0.02 U	0.02 U
Aroclor 1242	mg/kg	1	1	-	-	-	-	-	0.013 U	0.013 U
Aroclor 1248	mg/kg	1	1	-	-	-	-	-	0.029 U	0.029 U
Aroclor 1254	mg/kg	1	1	-	-	-	-	-	0.017 U	0.017 U
Aroclor 1260	mg/kg	1	1	-	-	-	-	-	0.014 U	0.014 U
Aroclor 1268	mg/kg	1	1	-	-	-	-	-	0.014 U	0.014 U
Aroclor 1262	mg/kg	1	1	-	-	-	-	-	0.021 U	0.021 U
Metals Analysis										
Arsenic	mg/kg	16	16	-	-	-	-	-	3.8	3.2
Barium	mg/kg	400	400	-	-	-	-	-	77	73.5
Beryllium	mg/kg	47	47	-	-	-	-	-	0.51	0.48
Cadmium	mg/kg	4.3	7.5	-	-	-	-	-	0.49 U	0.51 U
Chromium	mg/kg	19	19	-	-	-	-	-	14.5	13.7
Copper	mg/kg	270	270	-	-	-	-	-	14.7	12.1
Lead	mg/kg	400	450	-	-	-	-	-	9.7	8.3

Client Sample ID:		Allowable Constituent Levels for Imported Fill or Soil[1]		CLAY05_050620	CLAY06_050620	CLAY07_050620	CLAY08_050620	CLAY09_050620	CLAY10_050620	CLAY11_050620
Lab Sample ID:		Restricted Residential	Commercial	JD6951-1	JD6951-2	JD6951-3	JD6951-4	JD6951-5	JD6951-6/6A	JD6951-7/7A
Date Sampled:		SCOs	SCOs	5/6/2020	5/6/2020	5/6/2020	5/6/2020	5/6/2020	5/6/2020	5/6/2020
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil
Manganese	mg/kg	2000	2000	-	-	-	-	-	383	411
Mercury	mg/kg	0.73	0.73	-	-	-	-	-	0.031 U	0.031 U
Nickel	mg/kg	130	130	-	-	-	-	-	15.9	14.8
Selenium	mg/kg	4	4	-	-	-	-	-	1.9 U	2 U
Silver	mg/kg	8.3	8.3	-	-	-	-	-	0.49 U	0.51 U
Zinc	mg/kg	2480	2480	-	-	-	-	-	55.5	47.7
General Chemistry										
Chromium, Hexavalent	mg/kg	19	19	-	-	-	-	-	0.82	1.2
Chromium, Trivalent	mg/kg	180	1500	-	-	-	-	-	13.7	12.5
Cyanide	mg/kg	27	27	-	-	-	-	-	0.25 U	0.27
PFAS/PFOS (EPA 537M BY ID)										
Perfluorobutanoic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
Perfluoropentanoic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.00016 U	0.00016 U
Perfluorohexanoic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.00016 U	0.00016 U
Perfluoroheptanoic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
Perfluorooctanoic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
Perfluorononanoic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
Perfluorodecanoic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
Perfluoroundecanoic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
Perfluorododecanoic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
Perfluorotridecanoic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
Perfluorotetradecanoic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
Perfluorobutanesulfonic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
Perfluorohexanesulfonic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
Perfluoroheptanesulfonic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
Perfluorooctanesulfonic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
Perfluorodecanesulfonic acid	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
PFOSA	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
MeFOSAA	mg/kg	0.001	0.001	-	-	-	-	-	0.0004 U	0.0004 U
EtFOSAA	mg/kg	0.001	0.001	-	-	-	-	-	0.0004 U	0.0004 U
6:2 Fluorotelomer sulfonate	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U
8:2 Fluorotelomer sulfonate	mg/kg	0.001	0.001	-	-	-	-	-	0.0002 U	0.0002 U

[1]Allowable Constituent Levels for Imported Fill or Soil, Final DER-10, Technical Guidance for Site Investigation and Remediation, May 2010. PFAS/PFOS values are from NYSDEC Guidelines for Sampling and Analysis of PFAS, January, 2020.

- Value exceeds Restricted Residential SCO.

BOLD - Value exceeds Commercial SCO.

J - Value estimated.

U - Non-detect.

From:	Mcpherson, Benjamin J (DEC)
To:	Abrams, Tom
Cc:	Wollen, Tom; Conden, Robert; Coladonato, Steve; Christodoulatos, Eric; Galloway, Rich; Peter Lisichenko (lisichenko.peter@epa.gov); Thomas Budroe (Budroe.thomas@epa.gov); Poulsen, Jeffrey
Subject:	[EXTERNAL] RE: Tonawanda Coke Site 108, #915055-OU3
Date:	Tuesday, September 17, 2019 12:22:35 PM
Attachments:	

Tom,

The Department has reviewed the request dated 9/17/2019 to import up to 2,800 cubic yards of crushed stone material from the LaFarge Lockport quarry. Based on the information provided, the request is hereby approved. The proposed fill material meets the requirements for material other than soil (i.e., gravel, rock, stone, recycled concrete or recycled brick) as specified in section 5.4(e)5 of DER-10.

Testing in accordance with DER-10 and approval by the Department is required for any additional material imported from this source.

Thank you,
Ben McPherson

Benjamin McPherson, P.E.
Professional Engineer 1 (Environmental), Division of Environmental Remediation

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, NY 14203
P: (716) 851-7220 | F: (716) 851-7226 | benjamin.mcpherson@dec.ny.gov
www.dec.ny.gov [dec.ny.gov] | [facebook.com] | [twitter.com]

From: Abrams, Tom <Tom.Abrams@parsons.com>
Sent: Tuesday, September 17, 2019 11:52 AM
To: Mcpherson, Benjamin J (DEC) <benjamin.mcpherson@dec.ny.gov>
Cc: Wollen, Tom <Tom.Wollen@parsons.com>; Conden, Robert <Robert.Conden@parsons.com>; Coladonato, Steve <Steven.Coladonato@Honeywell.com>; Christodoulatos, Eric <Eric.Christodoulatos@Honeywell.com>; Galloway, Rich <rich.galloway@honeywell.com>; Peter Lisichenko (lisichenko.peter@epa.gov) <lisichenko.peter@epa.gov>; Thomas Budroe (Budroe.thomas@epa.gov) <Budroe.thomas@epa.gov>; Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>
Subject: RE: Tonawanda Coke Site 108, #915055-OU3

Ben,
On behalf of Honeywell, requesting NYSDEC review and approval for import of the attached material for the subject project. Please call me if you would like to discuss. Thanks.

Tom

Thomas H. Abrams
Senior Project Manager
Suite 350
301 Plainfield Road, Syracuse, New York 13212
tom.abrams@parsons.com - (Direct Office Line) 315.552.9670; (Cell) 315.263.5109

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From: Mcpherson, Benjamin J (DEC) <benjamin.mcpherson@dec.ny.gov>
Sent: Tuesday, February 26, 2019 11:37 AM
To: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>; Lisichenko, Peter <lisichenko.peter@epa.gov>
Cc: Sweitzer, Mark <Mark.Sweitzer@Honeywell.com>; Glaza, Edward <Edward.Glaza@parsons.com>; Coladonato, Steve <Steven.Coladonato@Honeywell.com>; Prohaska, Ronald <Ronald.Prohaska@parsons.com>; Alen Trpevski <atrpevski@oscinc.com>; Dale@allendesnoyers.com; Harkay, Dan <Harkay.Dan@epa.gov>; Reuben, Peter A (DEC) <peter.reuben@dec.ny.gov>; Staniszewski, Chad (DEC) <chad.staniszewski@dec.ny.gov>; Abrams, Tom <Tom.Abrams@parsons.com>
Subject: RE: Tonawanda Coke Site 108, #915055-OU3

Jeff,

The Department has reviewed the request dated February 19, 2019 to import up to 400 cubic yards of clay soil from Pariso Logistics Inc. Based on the information provided, the request is hereby approved.

The proposed soil material substantially meets the lower of the commercial or groundwater protection soil cleanup objectives (SCOs) (Appendix 5 of DER-10). This material is to be used to stabilize the Site 108 Tank Farm berms in accordance with the USEPA approved work plan. Additional testing in accordance with DER-10 and approval by the Department is required for any additional material imported from this source.

Please let me know if you have any questions. Thank you,
Ben McPherson

Benjamin McPherson, P.E.
Assistant Engineer (Environmental), Division of Environmental Remediation

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, NY 14203
P: (716) 851-7220 | F: (716) 851-7226 | benjamin.mcpherson@dec.ny.gov
www.dec.ny.gov[dec.ny.gov] | [facebook.com] | [twitter.com]

From: Mcpherson, Benjamin J (DEC)
Sent: Thursday, February 21, 2019 12:12 PM
To: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>; Lisichenko, Peter <lisichenko.peter@epa.gov>
Cc: Sweitzer, Mark <Mark.Sweitzer@Honeywell.com>; Glaza, Edward <Edward.Glaza@parsons.com>; Coladonato, Steve <Steven.Coladonato@Honeywell.com>; Prohaska, Ronald <Ronald.Prohaska@parsons.com>; Alen Trpevski <atrpevski@oscinc.com>; Dale@allendesnoyers.com; Harkay, Dan <Harkay.Dan@epa.gov>; Reuben, Peter A (DEC) <peter.reuben@dec.ny.gov>; Staniszewski, Chad (DEC) <chad.staniszewski@dec.ny.gov>; Abrams, Tom <Tom.Abrams@parsons.com>
Subject: Re: Tonawanda Coke Site 108

Jeff,
Thanks for getting that info. I would agree that the acetone exceedance is likely lab contamination. I do not have an issue with this material being imported to the site to repair the tank farm berms.

I can send a more formal approval when I return to the office next week.

Ben

Benjamin McPherson, P.E.
Assistant Engineer (Environmental), Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, NY 14203
P: (716) 851-7220 | F: (716) 851-7226 | benjamin.mcpherson@dec.ny.gov

---

From: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>
Sent: Wednesday, February 20, 2019 2:13:17 PM
To: Mcpherson, Benjamin J (DEC); Lisichenko, Peter
Cc: Sweitzer, Mark; Glaza, Edward; Coladonato, Steve; Prohaska, Ronald; Alen Trpevski; Dale@allendesnoyers.com; Harkay, Dan; Reuben, Peter A (DEC); Staniszewski, Chad (DEC); Abrams, Tom
Subject: RE: Tonawanda Coke Site 108

Ben,

We have talked to Pariso;

The clay material that is stockpiled at the yard on river road originated from the:

First Source Job Site located at
100 Pirson Pkwy, Tonawanda NY 14150

I hope that this answers any questions that you have.

Jeff

Jeffrey Poulsen, PG LEED-AP
Project Manager/Principal Geologist
jeffrey.poulsen@parsons.com
716.432.7685 Mobile

From: Mcpherson, Benjamin J (DEC) <benjamin.mcpherson@dec.ny.gov>
Sent: Tuesday, February 19, 2019 7:24 PM
To: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>; Lisichenko, Peter <lisichenko.peter@epa.gov>
Cc: Sweitzer, Mark <Mark.Sweitzer@Honeywell.com>; Glaza, Edward <Edward.Glaza@parsons.com>; Coladonato, Steve <Steven.Coladonato@Honeywell.com>; Prohaska, Ronald <Ronald.Prohaska@parsons.com>; Alen Trpevski <atrpevski@oscinc.com>; Dale@allendesnoyers.com; Harkay, Dan <Harkay.Dan@epa.gov>; Reuben, Peter A (DEC) <peter.reuben@dec.ny.gov>; Staniszewski, Chad (DEC) <chad.staniszewski@dec.ny.gov>; Abrams, Tom <Tom.Abrams@parsons.com>
Subject: Re: Tonawanda Coke Site 108

Jeff,
Please inquire with Pariso Logistics and determine the project/address where the soil originated.

Thank you,
Ben

Benjamin McPherson, P.E.
Assistant Engineer (Environmental), Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, NY 14203
P: (716) 851-7220 | F: (716) 851-7226 | benjamin.mcpherson@dec.ny.gov

---

From: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>
Sent: Tuesday, February 19, 2019 4:57:37 PM
To: Lisichenko, Peter
Cc: Sweitzer, Mark; Glaza, Edward; Coladonato, Steve; Prohaska, Ronald; Alen Trpevski; Dale@allendesnoyers.com; Harkay, Dan; Mcpherson, Benjamin J (DEC); Reuben, Peter A (DEC);

Staniszewski, Chad (DEC); Abrams, Tom
Subject: RE: Tonawanda Coke Site 108

Peter,
On behalf of Honeywell, Parsons has completed the sampling of the clay soil stockpile which we would like to import to the Area 108 Site.
This material will be used for berm stabilization as described in the approved work plan.

We look forward to your review of the attached and approve for the import of the fill.

Jeff Poulsen

_____

Jeffrey Poulsen, PG LEED-AP
Project Manager/Principal Geologist
jeffrey.poulsen@parsons.com
716.432.7685 Mobile

From: Lisichenko, Peter <lisichenko.peter@epa.gov>
Sent: Friday, February 15, 2019 5:40 PM
To: Abrams, Tom <Tom.Abrams@parsons.com>
Cc: Sweitzer, Mark <Mark.Sweitzer@Honeywell.com>; Glaza, Edward <Edward.Glaza@parsons.com>; Coladonato, Steve <Steven.Coladonato@Honeywell.com>; Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>; Prohaska, Ronald <Ronald.Prohaska@parsons.com>; Alen Trpevski <atrpevski@oscinc.com>; Dale Desnoyer (dale@allendesnoyers.com) <dale@allendesnoyers.com>; Budroe, Thomas <Budroe.Thomas@epa.gov>; Harkay, Dan <Harkay.Dan@epa.gov>; Mcpherson, Benjamin J (DEC) <benjamin.mcpherson@dec.ny.gov>; Peter Reuben <peter.reuben@dec.ny.gov>; Chad Staniszewski (DEC) <chad.staniszewski@dec.ny.gov>
Subject: Re: Tonawanda Coke Site 108

Hi Tom,
Thank you for the update.
Please have the data summarized in data tables and compared to NYS DER-10 standards once finalized. Any exceedances should be highlighted.

Best regards,
-Pete

Sent from a mobile device
Peter Lisichenko
On-Scene Coordinator

Region 2 USEPA
347-276-6251

On Feb 15, 2019, at 4:25 PM, Abrams, Tom <Tom.Abrams@parsons.com> wrote:

Pete, Wanted to give you a status update before I leave for vacation (out next week).

1. Jeff Poulsen (716.432.7685) is coordinating with DEC on Material Import paperwork. Preliminary data is in and material looks good.
2. Planning on doing berm work and soil pile covering w/o 2/25.
3. Ron Prohaska (716.564.7033) is coordinating with OSC on start of work, including evaluating projected weather conditions. Ron will confirm start arrangements with you later next week.
4. Arranging rental of onsite roll off with WTS.

Please call me if you would like to discuss. Thanks.
Tom

Thomas H. Abrams
Senior Project Manager
Suite 350
301 Plainfield Road, Syracuse, New York 13212
tom.abrams@parsons.com - (Direct Office Line) 315.552.9670; (Cell) 315.263.5109

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NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Commercial or Industrial Use

Have Ecological Resources been identified? no

Is this soil originating from the site? no

How many cubic yards of soil will be imported/reused? >1000

If greater than 1000 cubic yards will be imported, enter volume to be imported: 2800

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? yes

Does it contain less than 10%, by weight, material that would pass a size 80 sieve? yes

Is this virgin material from a permitted mine or quarry? yes

Is this material recycled concrete or brick from a DEC registered processing facility? no

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

NA; exempt from testing as per DER-10 Section 5.4(e)5

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

NA; exempt from testing as per DER-10 Section 5.4(e)5

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

LaFarge, Lockport; owner

Location where fill was obtained:

Lockport quarry

Identification of any state or local approvals as a fill source:

NYSDEC Permit 9-2999-00002/00015

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

LaFarge letter and sieve analysis

The information provided on this form is accurate and complete.

	9/17/19
Signature	Date
Thomas H. Abrams	
Print Name	
Parsons	
Firm	

LAFARGE

9/17/2019

Daniel Thomas
400 Hinman Rd.
Lockport, NY 14094
716-260-6017 (cell)

Re: Tonawanda Coke
To Whom It May Concern:

This letter is to confirm that the crushed stone material provided out of our Lockport quarry to the above stated project is virgin material, and is from an approved DEC source. Our DEC permit number is 9-2999-00002/00015. Our quarry is compiled of a dolomitic limestone material, and contains no hazardous or deleterious materials. Our Source number from New York State DOT is 5-5R and the most recent Test number is 18AR61.

Please feel free to contact me at the number above with any questions and I would be happy to assist in any way possible. Thank you.

Regards,

Daniel Thomas
Quality Control

LAFARGE

Daniel Thomas
400 Hinman Rd.
Lockport, NY 14094
716-260-6017 (cell)
716-433-4930 (fax)

9/11/2019

Pariso

Att:
Re: Tonawanda Coke
Email:

To whom it may concern:

This is to certify that the material being supplied to the above project conforms to the outlined NYSDOT requirements for 304-2.02 Bases and Subbases. Below is the gradation for Subbase Course Type 2 item 304.12.

Location: Lockport
Material Type: Subbase Course Type 2

Source No. 5-5R
Test No. 18AR61

Sieve Size	Weight	% Ret	% Pass	Spec
2"	0.0	0.0	100.0	100
1 1/2"	615.2	5.6	94.4	
1"	1988.3	18.1	76.3	
3/4"	1329.2	12.1	64.2	
1/2"	2131.1	19.4	44.8	
1/4"	1603.9	14.6	30.2	25-60
1/8"	845.9	7.7	22.5	
#20	988.7	9.0	13.5	
#40	219.7	2.0	11.5	5-40
#80	208.7	1.9	9.6	
#200	218.6	2.0	7.6	0-8
pan	836.0	7.6		
Total	10985.3			

Sincerely,

Daniel Thomas
Quality Control
Lafarge A&C

From:	Mcpherson, Benjamin J (DEC)
To:	Poulsen, Jeffrey; Lisichenko, Peter
Cc:	Sweitzer, Mark; Glaza, Edward; Coladonato, Steve; Prohaska, Ronald; Alen Trpevski; Dale@allendesnoyers.com; Harkay, Dan; Reuben, Peter A (DEC); Staniszewski, Chad (DEC); Abrams, Tom
Subject:	RE: Tonawanda Coke Site 108, #915055-OU3
Date:	Tuesday, February 26, 2019 11:37:23 AM
Attachments:	

Jeff,

The Department has reviewed the request dated February 19, 2019 to import up to 400 cubic yards of clay soil from Pariso Logistics Inc. Based on the information provided, the request is hereby approved.

The proposed soil material substantially meets the lower of the commercial or groundwater protection soil cleanup objectives (SCOs) (Appendix 5 of DER-10). This material is to be used to stabilize the Site 108 Tank Farm berms in accordance with the USEPA approved work plan. Additional testing in accordance with DER-10 and approval by the Department is required for any additional material imported from this source.

Please let me know if you have any questions. Thank you,
Ben McPherson

Benjamin McPherson, P.E.
Assistant Engineer (Environmental), Division of Environmental Remediation

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, NY 14203
P: (716) 851-7220 | F: (716) 851-7226 | benjamin.mcpherson@dec.ny.gov
www.dec.ny.gov[dec.ny.gov] | [facebook.com] | [twitter.com]

From: Mcpherson, Benjamin J (DEC)
Sent: Thursday, February 21, 2019 12:12 PM
To: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>; Lisichenko, Peter <lisichenko.peter@epa.gov>
Cc: Sweitzer, Mark <Mark.Sweitzer@Honeywell.com>; Glaza, Edward <Edward.Glaza@parsons.com>; Coladonato, Steve <Steven.Coladonato@Honeywell.com>; Prohaska, Ronald <Ronald.Prohaska@parsons.com>; Alen Trpevski <atrpevski@oscinc.com>; Dale@allendesnoyers.com; Harkay, Dan <Harkay.Dan@epa.gov>; Reuben, Peter A (DEC) <peter.reuben@dec.ny.gov>; Staniszewski, Chad (DEC) <chad.staniszewski@dec.ny.gov>; Abrams, Tom <Tom.Abrams@parsons.com>
Subject: Re: Tonawanda Coke Site 108

Jeff,
Thanks for getting that info. I would agree that the acetone exceedance is likely lab contamination. I do not have an issue with this material being imported to the site to repair the tank farm berms.

I can send a more formal approval when I return to the office next week.

Ben

Benjamin McPherson, P.E.
Assistant Engineer (Environmental), Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, NY 14203
P: (716) 851-7220 | F: (716) 851-7226 | benjamin.mcpherson@dec.ny.gov

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From: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>
Sent: Wednesday, February 20, 2019 2:13:17 PM
To: Mcpherson, Benjamin J (DEC); Lisichenko, Peter
Cc: Sweitzer, Mark; Glaza, Edward; Coladonato, Steve; Prohaska, Ronald; Alen Trpevski; Dale@allendesnoyers.com; Harkay, Dan; Reuben, Peter A (DEC); Staniszewski, Chad (DEC); Abrams, Tom
Subject: RE: Tonawanda Coke Site 108

Ben,

We have talked to Pariso;

The clay material that is stockpiled at the yard on river road originated from the:
First Source Job Site located at
100 Pirson Pkwy, Tonawanda NY 14150

I hope that this answers any questions that you have.

Jeff

Jeffrey Poulsen, PG LEED-AP
Project Manager/Principal Geologist
jeffrey.poulsen@parsons.com
716.432.7685 Mobile

From: Mcpherson, Benjamin J (DEC) <benjamin.mcpherson@dec.ny.gov>
Sent: Tuesday, February 19, 2019 7:24 PM
To: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>; Lisichenko, Peter <lisichenko.peter@epa.gov>

Cc: Sweitzer, Mark <Mark.Sweitzer@Honeywell.com>; Glaza, Edward <Edward.Glaza@parsons.com>; Coladonato, Steve <Steven.Coladonato@Honeywell.com>; Prohaska, Ronald <Ronald.Prohaska@parsons.com>; Alen Trpevski <atrpevski@oscinc.com>; Dale@allendesnoyers.com; Harkay, Dan <Harkay.Dan@epa.gov>; Reuben, Peter A (DEC) <peter.reuben@dec.ny.gov>; Staniszewski, Chad (DEC) <chad.staniszewski@dec.ny.gov>; Abrams, Tom <Tom.Abrams@parsons.com>
Subject: Re: Tonawanda Coke Site 108

Jeff,
Please inquire with Pariso Logistics and determine the project/address where the soil originated.

Thank you,
Ben

Benjamin McPherson, P.E.
Assistant Engineer (Environmental), Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, NY 14203
P: (716) 851-7220 | F: (716) 851-7226 | benjamin.mcpherson@dec.ny.gov

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From: Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>
Sent: Tuesday, February 19, 2019 4:57:37 PM
To: Lisichenko, Peter
Cc: Sweitzer, Mark; Glaza, Edward; Coladonato, Steve; Prohaska, Ronald; Alen Trpevski; Dale@allendesnoyers.com; Harkay, Dan; Mcpherson, Benjamin J (DEC); Reuben, Peter A (DEC); Staniszewski, Chad (DEC); Abrams, Tom
Subject: RE: Tonawanda Coke Site 108

Peter,
On behalf of Honeywell, Parsons has completed the sampling of the clay soil stockpile which we would like to import to the Area 108 Site.
This material will be used for berm stabilization as described in the approved work plan.

We look forward to your review of the attached and approve for the import of the fill.

Jeff Poulsen

Jeffrey Poulsen, PG LEED-AP
Project Manager/Principal Geologist
jeffrey.poulsen@parsons.com
716.432.7685 Mobile

From: Lisichenko, Peter <lisichenko.peter@epa.gov>
Sent: Friday, February 15, 2019 5:40 PM
To: Abrams, Tom <Tom.Abrams@parsons.com>
Cc: Sweitzer, Mark <Mark.Sweitzer@Honeywell.com>; Glaza, Edward <Edward.Glaza@parsons.com>; Coladonato, Steve <Steven.Coladonato@Honeywell.com>; Poulsen, Jeffrey <Jeffrey.Poulsen@parsons.com>; Prohaska, Ronald <Ronald.Prohaska@parsons.com>; Alen Trpevski <atrpevski@oscinc.com>; Dale Desnoyer (dale@allendesnoyers.com) <dale@allendesnoyers.com>; Budroe, Thomas <Budroe.Thomas@epa.gov>; Harkay, Dan <Harkay.Dan@epa.gov>; Mcpherson, Benjamin J (DEC) <benjamin.mcpherson@dec.ny.gov>; Peter Reuben <peter.reuben@dec.ny.gov>; Chad Staniszewski (DEC) <chad.staniszewski@dec.ny.gov>
Subject: Re: Tonawanda Coke Site 108

Hi Tom,
Thank you for the update.
Please have the data summarized in data tables and compared to NYS DER-10 standards once finalized. Any exceedances should be highlighted.

Best regards,
-Pete

Sent from a mobile device
Peter Lisichenko
On-Scene Coordinator
Region 2 USEPA
347-276-6251

On Feb 15, 2019, at 4:25 PM, Abrams, Tom <Tom.Abrams@parsons.com> wrote:

> Pete, Wanted to give you a status update before I leave for vacation (out next week).
> 1. Jeff Poulsen (716.432.7685) is coordinating with DEC on Material Import paperwork. Preliminary data is in and material looks good.
> 2. Planning on doing berm work and soil pile covering w/o 2/25.
> 3. Ron Prohaska (716.564.7033) is coordinating with OSC on start of work, including evaluating projected weather conditions. Ron will confirm start arrangements with you later next week.
> 4. Arranging rental of onsite roll off with WTS.
>
> Please call me if you would like to discuss. Thanks.
> Tom
>
> Thomas H. Abrams
> Senior Project Manager
> Suite 350
> 301 Plainfield Road, Syracuse, New York 13212

tom.abrams@parsons.com - (Direct Office Line) 315.552.9670; (Cell) 315.263.5109

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NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Commercial or Industrial Use

Have Ecological Resources been identified? no

Is this soil originating from the site? no

How many cubic yards of soil will be imported/reused? 300-400

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? no

Does it contain less than 10%, by weight, material that would pass a size 80 sieve? no

Is this virgin material from a permitted mine or quarry? no

Is this material recycled concrete or brick from a DEC registered processing facility? no

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

A total of 5 samples were collected from the soil stockpile February 4, 2019.
4 discrete samples were collected and analyzed for VOCs
2 composite samples were collected and analyzed for SVOCs, inorganics, PCBs and pesticides

---

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

The analytical data table is attached
There was one detection of acetone above the DER-10 limits, however, this may be the results of lab contamination.

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Pariso Logistics Inc. owner

Location where fill was obtained:

Originally from a building Site in Wheatfield, currently stockpiled at 5630 River Road, Tonawanda

Identification of any state or local approvals as a fill source:

NA

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Originally obtained from a construction site in Wheatfield, the clay fill is stockpiled at 5630 River Road in Tonawanda, NY. Pariso Logistics, current owns the material. it will be purcase by OSC, Parsons contractor

Provide a list of supporting documentation included with this request:

TestAmerica Laboratory Analytical Report J148602

The information provided on this form is accurate and complete.

Jeffrey Poulsen Digitally signed by Jeffrey Poulsen
Date: 2019.02.19 16:20:40 -05'00'

Signature

2/19/2019

Date

Jeffrey Poulsen

Print Name

Parsons

Firm

Revised August 2014

ATTACHMENT 1

ANALYTICAL RESULTS

CLAY STOCKPILE AT 5630 RIVER ROAD

	Location ID:	Soil Cleaup Objectives(1)	CLAY 1	CLAY 2	CLAY 3	CLAY 4
	Sample ID:		Clay 1_02042019	Clay 2_02042020	Clay 3_02042021	Clay 4_02042022
Analytical Parameter	Sample Date:		2/4/2019	2/4/2019	2/4/2019	2/4/2019
	UNITS					
Volatile Organic Compounds - TOTAL						
1,1,1-Trichloroethane	mg/kg	0.68	4.2 U	4.9 U	4.5 U	4.7 U
1,1-Dichloroethane	mg/kg	0.27	4.2 U	0.0049 U	0.0045 U	0.0047 U
1,1-Dichloroethene	mg/kg	0.33	0.0042 U	0.0049 U	0.0045 U	0.0047 U
1,2,4-Trimethylbenzene	mg/kg	3.6	0.0042 U	0.0049 U	0.0045 U	0.0047 U
1,3,5-Trimethylbenzene	mg/kg	8.4	0.0042 U	0.0049 U	0.0045 U	0.0047 U
1,2-Dichlorobenzene	mg/kg	1.1	0.0042 U	0.0049 U	0.0045 U	0.0047 U
1,2-Dichloroethane	mg/kg	0.02	0.0042 U	0.0049 U	0.0045 U	0.0047 U
1,3-Dichlorobenzene	mg/kg	2.4	0.0042 U	0.0049 U	0.0045 U	0.0047 U
1,4-Dichlorobenzene	mg/kg	1.8	0.0042 U	0.0049 U	0.0045 U	0.0047 U
1,4-Dioxane	mg/kg	0.1	0.087 U	0.097 U	0.089 U	0.094 U
2-Butanone (MEK)	mg/kg	0.12	0.021 U	0.024 U	0.022 U	0.023 U
Acetone	mg/kg	0.05	**0.0087 J**	**0.12**	0.022 U	0.023 U
Benzene	mg/kg	0.06	0.0042 U	0.0049 U	0.0045 U	0.0047 U
Butylbenzene	mg/kg	12	0.0042 U	0.0049 U	0.0045 U	0.0047 U
sec-butyl benzene	mg/kg	11	0.0042 U	0.0049 U	0.0045 U	0.0047 U
tert-butylbenzene	mg/kg	5.9	0.0042 U	0.0049 U	0.0045 U	0.0047 U
Carbon tetrachloride	mg/kg	0.76	0.0042 U	0.0049 U	0.0045 U	0.0047 U
Chlorobenzene	mg/kg	1.1	0.0042 U	0.0049 U	0.0045 U	0.0047 U
Chloroform	mg/kg	0.37	0.0042 U	0.0049 U	0.0045 U	**0.30 J**
cis-1,2-Dichloroethene	mg/kg	0.25	0.0042 U	0.0049 U	0.0045 U	0.0047 U
Ethylbenzene	mg/kg	1	0.0042 U	0.0049 U	0.0045 U	0.0047 U
Methyl tert-butyl ether	mg/kg	0.93	0.0042 U	0.0049 U	0.0045 U	0.0047 U
Methylene Chloride	mg/kg	0.05	0.0042 U	0.0049 U	0.0045 U	0.0047 U
propylbenzene-n	mg/kg	3.9	0.0042 U	0.0049 U	0.0045 U	0.0047 U
Tetrachloroethene	mg/kg	1.3	0.0042 U	0.0049 U	0.0045 U	0.0047 U
Toluene	mg/kg	0.7	0.0042 U	0.0049 U	0.0045 U	0.0047 U
trans-1,2-Dichloroethene	mg/kg	0.19	0.0042 U	0.0049 U	0.0045 U	0.0047 U
Trichloroethene	mg/kg	0.47	0.0042 U	0.0049 U	0.0045 U	0.0047 U
Vinyl chloride	mg/kg	0.02	0.0042 U	0.0049 U	0.0045 U	0.0047 U
Xylenes, Total	mg/kg	1.6	0.0084 U	0.0097 U	0.0089 U	0.0094 U
Semivolatile Organic Compounds - TOTAL						
Acenaphthene	mg/kg	98	2.0 U	0.2 U		
Acenaphthylene	mg/kg	107	2.0 U	0.2 U		
Anthracene	mg/kg	500	2.0 U	0.2 U		
Benzo[a]anthracene	mg/kg	1	**0.30 J**	0.2 U		
Benzo[a]pyrene	mg/kg	1	**0.33 J**	0.2 U		
Benzo[b]fluoranthene	mg/kg	1.7	**0.34 J**	0.2 U		
Benzo[g,h,i]perylene	mg/kg	500	**0.28 J**	0.2 U		
Benzo[k]fluoranthene	mg/kg	1.7	2.0 U	0.2 U		
Chrysene	mg/kg	1	2.0 U	0.2 U		
Dibenz(a,h)anthracene	mg/kg	0.56	2.0 U	0.2 U		
Dibenzofuran	mg/kg	210	2.0 U	0.2 U		
Fluoranthene	mg/kg	500	**0.54 J**	0.2 U		
Fluorene	mg/kg	386	2.0 U	0.2 U		
Hexachlorobenzene	mg/kg	5.6	2.0 U	0.2 U		
m-Cresol	mg/kg	0.33	2.0 U	0.2 U		
o-Cresol	mg/kg	0.33	3.9 U	0.39 U		
p-Cresol	mg/kg	0.33	3.9 U	0.39 U		
Indeno(1,2,3-cd)pyrene	mg/kg	5.6	2.0 U	0.2 U		
Naphthalene	mg/kg	12	2.0 U	0.2 U		
Pentachlorophenol	mg/kg	0.8	3.9 U	0.39 U		
Phenanthrene	mg/kg	500	2.0 U	0.2 U		
Phenol	mg/kg	0.33	2.0 U	0.2 U		
Pyrene	mg/kg	500	**0.44 J**	0.2 U		
Organochlorine Pesticides - TOTAL						
4,4'-DDD	mg/kg	17	0.099 U F1	0.2 U		
4,4'-DDE	mg/kg	47	0.099 U	0.2 U		
4,4'-DDT	mg/kg	17	0.099 U	0.2 U		
Aldrin	mg/kg	0.19	0.099 U	0.2 U		
alpha-BHC	mg/kg	0.02	0.099 U F1	0.2 U		
beta-BHC	mg/kg	0.09	0.099 U F1	0.2 U		
delta-BHC	mg/kg	0.25	0.099 U F1	0.2 U		
gamma-BHC (Lindane)	mg/kg	0.1	0.099 U F1	0.2 U		
alpha-Chlordane	mg/kg	2.9	0.099 U	0.2 U		
Dieldrin	mg/kg	0.1	0.099 U	0.2 U		
Endosulfan I	mg/kg	102	0.099 U F1	0.2 U		
Endosulfan II	mg/kg	102	0.099 U F1	0.2 U		
Endosulfan sulfate	mg/kg	200	0.099 U F1	0.2 U		
Endrin	mg/kg	0.06	0.099 U F1	0.2 U		
Heptachlor	mg/kg	0.38	0.099 U	0.2 U		
PCBs - TOTAL						
PCB-1016	mg/Kg	1	0.25 U	0.23 U		
PCB-1221	mg/Kg	1	0.25 U	0.23 U		
PCB-1232	mg/Kg	1	0.25 U	0.23 U		
PCB-1242	mg/Kg	1	0.25 U	0.23 U		
PCB-1248	mg/Kg	1	0.25 U	0.23 U		
PCB-1254	mg/Kg	1	0.25 U	0.23 U		
PCB-1260	mg/Kg	1	0.25 U	0.23 U		
INORGANICS - TOTAL						
Arsenic	mg/kg	16	**2.0 J**	**4.3**		
Barium	mg/kg	400	**46.9**	**96.5**		
Beryllium	mg/kg	47	**0.36**	**0.73**		
Cadmium	mg/kg	7.5	**0.27**	**0.38**		
Chromium, hexavalent	mg/kg	19	2.4 U	2.4 U		
Copper	mg/kg	270	**9.4**	**17.6**		
Chromium (III)	mg/kg	1500	**8.9**	**20.8**		
Lead	mg/kg	450	**16.0**	**16.4**		
Manganese	mg/kg	2000	**324 B**	**450 B**		
Mercury	mg/kg	0.73	**0.026**	**0.017 J**		
Nickel	mg/kg	130	**9.7**	**26.2**		
Selenium	mg/kg	4	4.9 U	4.7 U		
Silver	mg/kg	8.3	0.73 U	0.71 U		
Zinc	mg/kg	2480	**57.0**	**97.9**		
Cyanide	mg/kg	27	1.2 U	**0.83 J**		

Notes:

B : Cpmpund was found in the blank and sample

F1 : MS and/or MSD recovery is outside of acceptance lmits

J : Results is an approximate value

U : The analyte was analyzed for but not detected

mg/kg : milligram per kilogram

BOLD : parameter detected

(1) : Soil Cleanup Objectives are based on NYSDEC DER-10 Appendix 5 - Allowable Constituent Levels for Imported Fill or Soil - Industrial Use

HIGHLIGHT : Value exceeds the SCO

Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

Laboratory Test Report

PROJECT: **Seaway Tonawanda Project**

CLIENT: **Sevenson Environmental**

DATE: **June 30, 2017** **PROJECT NO.: BD-17-045**

Attached are the results of laboratory testing conducted on one (1) common fill material sample collected for the above referenced project.

The testing conducted was as follows:

ASTM D-4318: Liquid Limit, Plastic Limit, and Plasticity Index of Soil

ASTM D-422: Particle Size Analysis of Soils

ASTM D-2487: Classification of Soils for Engineering Purposes

ASTM D-1557: Laboratory Compaction Characteristics of Soil Using Modified Effort

ASTM D-5084: Measurement of Hydraulic Conductivity of Saturated Porous Material Using a Flexible Wall Permeameter

Sample was collected by the Client, and received at the SJB Services, Inc. laboratory on June 2, 2017 where they were processed for testing.

The results of this report relate only to the items inspected or tested. The report shall not be reproduced, expect in full, without the written approval of SJB Services. If the reviewer should have any questions concerning this report, please do not hesitate to contact our office at any time.

SJB Services, Inc.

Paul Gregorczyk
Laboratory Manager

Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

Laboratory Test Report

PROJECT: **Seaway Tonawanda Project**
CLIENT: **Sevenson Environmental**
DATE: **June 30, 2017**

PROJECT NO.: BD-17-045
REPORT NO.: LTR-1

Sample Number: 17-473
Sample Description: Imported Soil Fill

ASTM D-4318: Liquid Limit, Plastic Limit, and Plasticity Index of Soil

Liquid Limit	Plastic Limit	Plasticity Index
32	16	16

ASTM D-422: Particle Size Analysis of Soils

Sieve Size	*Percent Passing*
2"	100.0
1 ½"	99.8
1"	98.2
¾"	96.0
½"	93.2
3/8"	90.9
¼"	88.2
#4	86.7
#10	85.1
#20	83.4
#40	79.0
#100	76.0
#200	73.0

PERCENT COMPONENTS

GRAVEL	SAND	SILT	CLAY
13.3 %	13.7 %	29.4 %	43.6 %

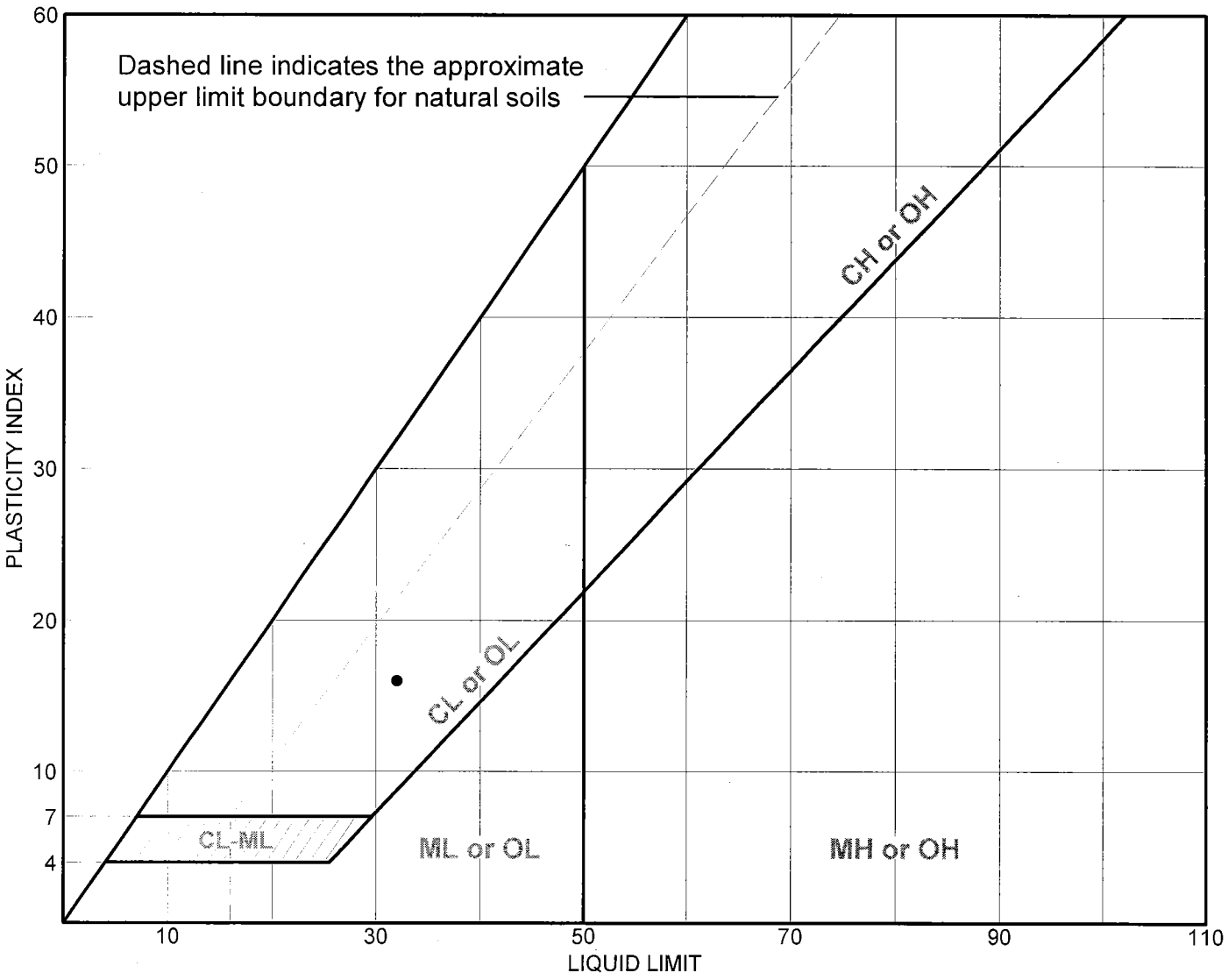
ASTM D-2487: Classification of Soils for Engineering Purposes
USCS Group Symbol: CL
USCS Group Name: Lean Clay with sand

ASTM D-1557: Laboratory Compaction Characteristics of Soil Using Modified Effort
Method Applied: A
Maximum Dry Density: 126.1 pcf
Optimum Moisture: 11.0 %

ASTM D-5084: Measurement of Hydraulic Conductivity of Saturated Porous Material Using a Flexible Wall Permeameter
Coefficient of Permeability: 5.35×10^{-8} cm/sec

REMARKS:
sample was remolded to 90.1% compaction at a moisture content of 11.4 %

LIQUID AND PLASTIC LIMITS TEST REPORT



SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	IMPORTED	17-473			16	32	16	CL

LIQUID AND PLASTIC LIMITS TEST REPORT

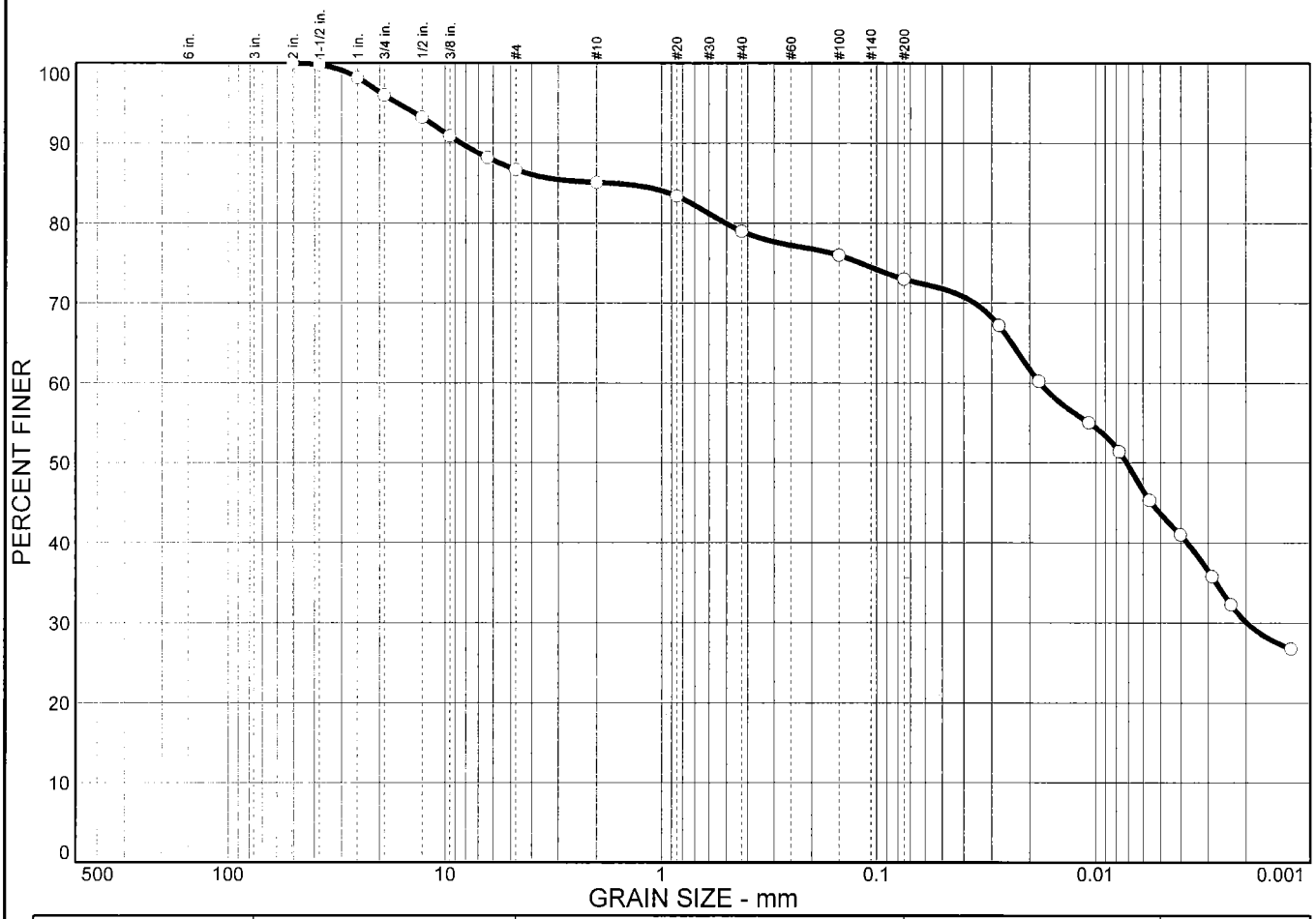
SJB SERVICES, INC.

Client: SEVENSON ENVIROMENTAL SERVICES, INC.

Project: SEAWAY TONWANDA

Project No.: BD-17-045 **Plate**

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	13.3	13.7	29.4	43.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2 in.	100.0		
1.5 in.	99.8		
1 in.	98.2		
.75 in.	96.0		
.5 in.	93.2		
.375 in.	90.9		
.25 in.	88.2		
#4	86.7		
#10	85.1		
#20	83.4		
#40	79.0		
#100	76.0		
#200	73.0		

* (no specification provided)

Soil Description

IMPORTED SOIL FILL

Atterberg Limits

PL= 16 LL= 32 PI= 16

Coefficients

D_{85}= 1.69 D_{60}= 0.0179 D_{50}= 0.0071
D_{30}= 0.0020 D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= CL AASHTO=

Remarks

LTR-1
SAMPLED BY: CLIENT
DATE RECEIVED: 5-30-2017

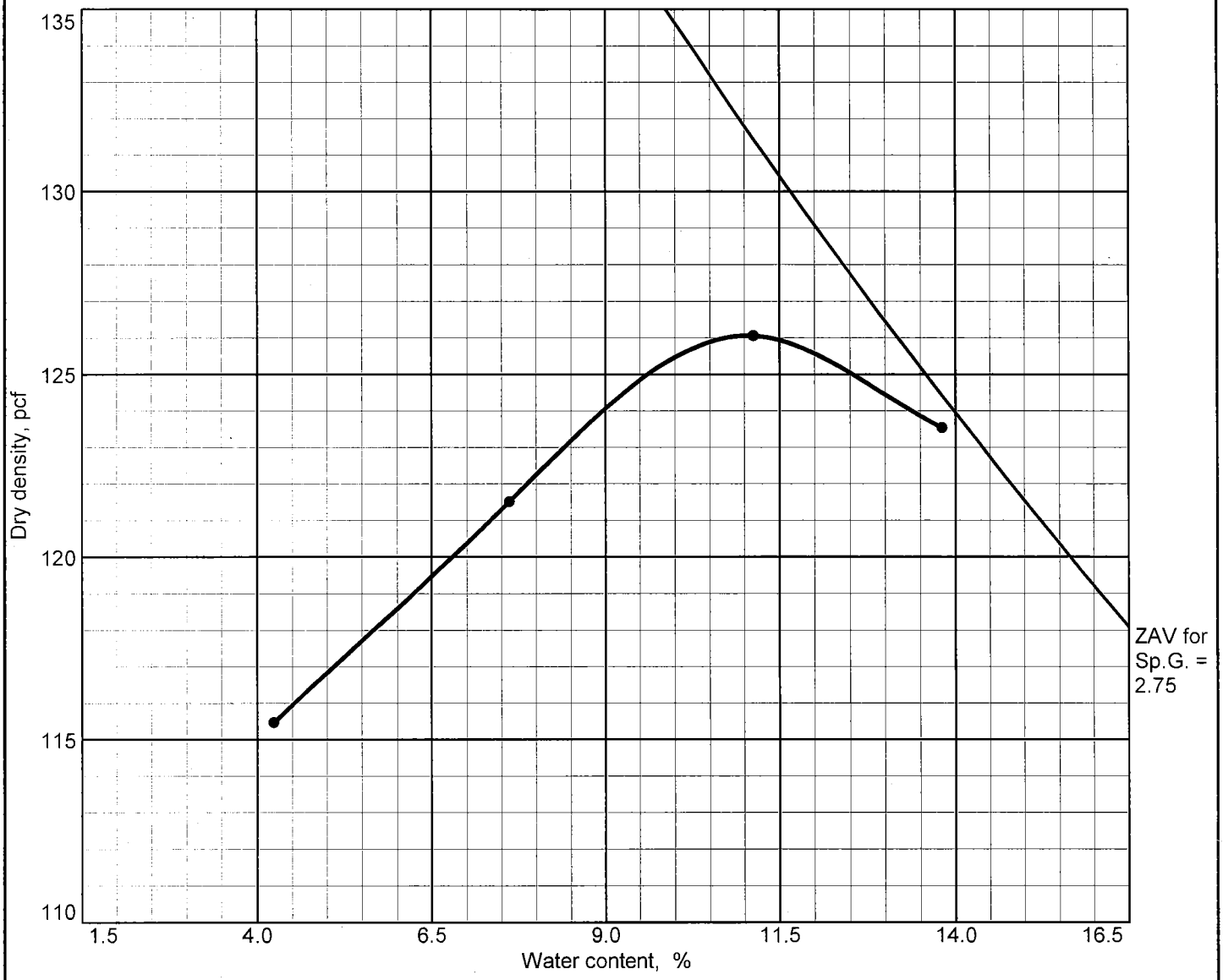
Sample No.: 17-473 **Source of Sample:** IMPORTED SOIL FILL **Date:** 6-29-2017
Location: IMPORTED SOIL FILL **Elev./Depth:**

SJB SERVICES, INC.

Client: SEVENSON ENVIROMENTAL SERVICES, INC.
Project: SEAWAY TONWANDA

Project No: BD-17-045 **Plate**

COMPACTION TEST REPORT



Test specification: ASTM D 1557-12 Procedure A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
	CL			2.65	32	16	13.3	73.0

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 126.1 pcf Optimum moisture = 11.0 %	IMPORTED SOIL FILL

Project No. BD-17-045 **Client:** SEVENSON ENVIROMENTAL SERVICES, INC.
Project: SEAWAY TONWANDA

● **Location:** IMPORTED SOIL FILL

Remarks:
LTR-1
SAMPLE NUMBER: 17-473

COMPACTION TEST REPORT

SJB SERVICES, INC.

Plate

Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

PROJECT: **Seaway Tonawanda Project**
CLIENT: **Sevenson Environmental**
DATE: **June 30, 2017**

PROJECT NO.: BD-17-045
REPORT NO.: LTR-1

Sample Number: 17-473
Sample Description: Imported Soil Fill

ASTM D-5084: Measurement of Hydraulic Conductivity of Saturated Porous Material Using a Flexible Wall Permeameter

REMARKS

Sample was remolded to a dry density of 113.6 pcf at a moisture content of 11.4 %
Percent Compaction = 90.1 %

Coefficient of Permeability: 5.35 x 10^{-8} cm/sec

Sample Number:	17-473
Sample Location:	Imported Soil Fill
Sample Type:	CL = Lean Clay with sand
Remolding Protocol:	113.5 pcf @ 11.0 %
Height:	14.41 cm
Diameter:	7.26 cm
Dry unit weight:	113.6 pcf
Percent Compaction:	90.1 %
Moisture before test:	11.4 %
Moisture after test:	17.3 %
Cell pressure:	85 psi
Saturation pressure:	70 psi
Differential head pressure:	2.5 psi
Specific gravity:	2.75 (assumed value)
Test Procedure:	CONSTANT VOLUME
Permeability @ 20°C:	5.35 x 10^{-8} cm/sec

APPENDIX B WATER TREATMENT DOCUMENTATION

Permit No. 711

TOWN OF TONAWANDA

INDUSTRIAL SEWER CONNECTION PERMIT

Company Name: Honeywell
Division Name (if Applicable)

Mailing Address: 115 Tabor Rd.
Street or P.O. Box
Morris Plains, NJ 07590
City, State and Zip Code

Facility Address: 3800 River Rd.
Street or P.O. Box
Tonawanda, New York 14150
City, State and Zip Code

The above Industrial User is authorized to discharge industrial wastewater to the Town of Tonawanda sewer system in compliance with the Town's Sewer Use Ordinance Number 2-2000, any applicable provisions of Federal or State law or regulation, and in accordance with discharge point(s), effluent limitations, monitoring requirements, and other conditions set forth herein.

This permit is granted in accordance with the application filed on February 19, 2019 in the office of the Pretreatment Administrator, and in conformity with plans, specifications, and other data submitted to the Town in support of the above application.

Effective Date: 5/15/2019

Expiration Date: 5/14/2022

Permit No. 711

Date: 5/13/19 Signed: Paul Morrow

Paul Morrow
Town of Tonawanda
Pretreatment Coordinator

Permit No. 711

Modified Date: _____

WASTEWATER STREAMS AUTHORIZED FOR DISCHARGE

WASTEWATER STREAM	APPROXIMATE FLOW(GPD)	YES	NO
A. Sanitary Discharge	_____	____	____
B. Cooling Water	_____	____	____
C. Boiler Blowdown	_____	____	____
D. Process Wastewater	_____	____	____
E. Stormwater	**100 GPM or less**	x	____
F. Other	_____	____	____
	_____	____	____

PART 1 - WASTEWATER DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

A. **LOCALLY DERIVED LIMITATIONS**

The industrial user shall comply with the following locally derived effluent limitations effective as of: ***5/15/19***

MONITORING LOCATION: Bermed Area around tanks

SAMPLE TYPE: Grab from bermed area(s) around above ground tanks

PARAMETERS	SAMPLE FREQUENCY	LIMIT	PURPOSE
Priority Pollutants less Asbestos and Dioxin	Annually	*	Monitoring/Compliance
Oil and Grease	"	300 mg/l	Compliance
Ammonia	"		Monitoring
Total Phosphorus	"	6 mg/l	Surcharge
BOD	"	250 mg/l	"
TSS	"	250 mg/l	"
pH	Once per Discharge	5.0-9.5	Compliance
Flow	Monthly		

*Limits may apply depending on parameter. See Town Sewer Use Ordinance

Note: The complete list of discharge limitations for dischargers to the Town Treatment Plant is contained in the Town's Local Law 2-2000. On the basis of the application and previous monitoring, parameters deemed applicable to this discharge have been excerpted and their limitations included above. The discharger should be aware that all other limitations apply and should consider all such limitations when considering process changes or plant modifications.

PART II - SPECIAL CONDITIONS/COMPLIANCE SCHEDULE

1. *There is no sanitary discharge manhole at 3800 River Road, Tonawanda. Permittee plans on discharging to a manhole on an adjoining property. It is the responsibility of the permittee to obtain permission from the property owner of the adjoining property to discharge to this manhole.*

PART III - REPORTING REQUIREMENTS

1. *All Industries requiring submittal of self-monitoring reports (SMR's) must submit all laboratory results on all discharged samples. If a lab analysis was performed using an EPA approved test method, then those results must be included in the SMR.*
   Persons signing SMR's must be a responsible company official, ie; owner, corporate manager, or supervise more than two hundred fifty (250) employees. Any of the above may appoint a company representative to sign SMR's but written notice must be supplied to this office authorizing said employee to sign.

The following statement will be required on all SMR's and baseline monitoring reports (BMR):

" I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violation."

2. *If an Industrial User knows in advance of the need for a bypass, it shall submit prior notice to the Town, if possible at least ten days before the date of the bypass. An Industrial User shall submit oral notice of an unanticipated bypass or slug discharge that exceeds applicable Pretreatment Standards to the Town within 24 hours from the time the Industrial User becomes aware of the bypass or slug discharge. A written submission shall also be provided within 5 days of the time the Industrial User becomes aware of the bypass or slug discharge. The written submission shall contain a description of the bypass or slug discharge and its cause; the duration of the bypass/ slug discharge , including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass/ slug discharge. The Town may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.*

3. *The Industrial User shall notify the Town 30 days prior to the introduction of new wastewater or pollutants or any substantial change in the volume or characteristics of the wastewater being introduced into the POTW from the User's industrial processes. The Industrial User Is required to notify the Town immediately of any changes to its facility affecting it potential for slug discharge.*

4. *Any upset experienced by the Industrial User of its treatment that places it in a temporary state of non-compliance with wastewater discharge limitations contained in this permit or other limitations specified in the Town's Ordinance shall be reported to the Town within 24 hours of first awareness of the commencement of the upset. Immediate resampling for the non-compliance pollutant shall begin. A detailed report shall be filed within 5 days.*

5. *The Industrial User is required to submit to the Town reports on the results of its sampling of the pollutants specified in Part I of this Permit. This report shall also contain monthly flows.*

6. *Analytical procedures must be performed in accordance with 40 CFR Part 136. Additional pollutants not contained in Part 136 must be performed using validated analytical methods approved by EPA (40 CFR 403.12 [g] [4]).*

7. *All self-monitoring reports shall be submitted to the following address by the 25th day of the month following the reporting period:*

Paul Morrow, Pretreatment Coordinator
Wastewater Treatment Facility
Two Mile Creek Road
Tonawanda, New York 14150

PART IV - STANDARD CONDITIONS

1. *The Industrial User shall comply with all the general prohibitive discharge standards in Article IV of the Local Law 2-2000.*

   a. *BOD 250 mg/l, SS 250 mg/l, P 6 mg/l are not to be construed as discharge limits of the above pollutants but as a baseline for generating abnormal sewer charges. Permitees that sample more frequently than required for surchargeable parameters and have a greater then 30% variation in flow per reportable day will have a flow averaged used for surcharge calculation.*

2. RIGHT OF ENTRY

The Industrial User shall, after reasonable notification by the Town, allow the Town or its representatives, exhibiting proper credentials and identification, to enter upon the premises of the User, at all reasonable hours, for the purposes of inspection, sampling, or records inspection. Reasonable hours in the context of inspection and sampling includes any time the Industrial User is operating any process which results in a process wastewater discharge to the Town's sewerage system.

3. RECORDS RETENTION

The Industrial User shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence and all summaries thereof, relating to monitoring, sampling and chemical analysis made by or in behalf of the User in connection with its discharge.

a) *All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the Town shall be retained and preserved by the Industrial User until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.*

4. CONFIDENTIAL INFORMATION

Except for data determined to be confidential under Article VII, Section 4 of the Town's Ordinance, all reports required by this permit shall be available for public inspection at the office of the Pretreatment Coordinator, Wastewater Treatment Facility, Two Mile Creek Road, Tonawanda, New York 14150.

5. RECORDING OF RESULTS

For each measurement or sample taken pursuant to the requirements of this permit, the user shall record the following information:

a) *The exact place, date and time of sampling;*
b) *The dates the analyses were performed;*
c) *The person(s) who performed the analyses;*
d) *The analytical techniques or methods used, and*
e) *The results of all required analyses.*
f) Where sanitary sewer discharge is measured by a mechanical or electronic device, accuracy of device shall be certified correct every year.
g) Where sanitary sewer discharge is measured as consumed water, the water meter must be certified as per the following schedule: meter size 5/8 to 1 inch every ten years, meter size 1 inch to 4 inch every five years, and meter size 4 inches and larger every year.

6. DILUTION

No Industrial User shall increase the use of potable or process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit

7. PROPER DISPOSAL OF PRETREATMENT SLUDGES AND SPENT CHEMICALS

The disposal of sludges and spent chemicals generated shall be done in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

8. TOXIC SUBSTANCES

All waters shall be maintained free of toxic substances in concentrations that are toxic to or produce detrimental physiological responses in human, plant, animal, or aquatic life.

9. SIGNATORY REQUIREMENTS

All reports required by this permit shall be signed by a principal executive officer of the User, or his designee.

10. REVOCATION OF PERMIT

The permit issued to the Industrial User by the Town may be revoked when after inspection, monitoring or analysis it is determined that the discharge of wastewater to the sanitary sewer is in violation of Federal, State, or local laws, ordinances, or regulations. Additionally, falsification or intentional misrepresentation of data or statements pertaining to the permit application or any other required reporting form, shall be cause for permit revocation.

11. LIMITATIONS ON PERMIT TRANSFER

Transfer of permit. Industrial waste permits are issued to a specific user for a specific operation. In the event of any change in ownership of the industrial facility, the permittee shall notify the new owner of the existence of the permit by letter, a copy of which shall be forwarded to the Pretreatment Administrator 30 days prior to change of ownership. A new industrial waste permit must be issued to the new owner.

12. FALSIFYING INFORMATION OR TAMPERING WITH MONITORING EQUIPMENT

Knowingly making any false statement on any report or other document required by this permit or knowingly rendered any monitoring device or method inaccurate, may result in punishment under the criminal law of the Town, as well as being subjected to civil penalties and relief.

13. MODIFICATION OR REVISION OF THE PERMIT

a) The terms and conditions of this permit may be subject to modification by the Town at any time as limitations or requirements as identified the Town's Ordinance, are modified or other just cause exists.

b) This permit may also be modified to incorporate special conditions resulting from the issuance of a special order.

c) The terms and conditions may be modified as a result of EPA promulgating a new federal Pretreatment standard.

d) Any permit modifications which result in new conditions in the permit shall include a reasonable time schedule for compliance if necessary.

14. DUTY TO REAPPLY

The Town shall notify a User sixty (60) days prior to the expiration of the User's Permit. Within thirty (30) days of the notification, the User shall reapply for re- issuance of the permit on a form provided by the Town.

15. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

16. LIMITATIONS

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of Federal, State or Local regulations.

17. ENFORCEMENT OF THE SEWER USE LAW AND PERMITS

The Town has developed and received USEPA approval of its Enforcement Response Plan which details the standard responses to be taken by the Town when it encounters various violations of the Sewer Use Law or the terms of this permit. Copies of this document are available at the office of the Pretreatment Administrator. Town of Tonawanda Sewer Use Ordinance 2-2000 Article VI 165-33 allows for punitive Administrative fines of up to $5,000 per day. The Town of Tonawanda may also maintain an action or proceeding in the name of the Town of Tonawanda in a court of competent jurisdiction for injunctive relief of any violation Article 6 of the Town Sewer Use Ordinance 2-2000

Permit No. 711

Modified Date: 1/24/2020 PKM 1/24/2020

WASTEWATER STREAMS AUTHORIZED FOR DISCHARGE

WASTEWATER STREAM	APPROXIMATE FLOW(GPD)	YES	NO
A. Sanitary Discharge			
B. Cooling Water			
C. Boiler Blowdown			
D. Process Wastewater			
E. Stormwater from around Tanks	**100 GPM or less**	**x**	

The Town reserves the right to restrict discharge during times of high flow.

PART 1 - WASTEWATER DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

A. **LOCALLY DERIVED LIMITATIONS**

The industrial user shall comply with the following locally derived effluent limitations effective as of: ***2/1/2020***

MONITORING LOCATION: Bermed Area around tanks

SAMPLE TYPE: Grab from bermed area(s) around above ground tanks

PARAMETERS	SAMPLE FREQUENCY	LIMIT	PURPOSE
Priority Pollutants Volatiles	Every 20,000 Gallons	*	Monitoring/Compliance
Priority Pollutant Semi-volatiles	"	*	"
Total Cyanide	"	1.1 mg/l	Compliance
Town Metals (9)	"	see below	Compliance
SGT-HEM	"	100 mg/l	Compliance
Ammonia	"		Monitoring
Total Phosphorus	"	6 mg/l	Surcharge
BOD	"	250 mg/l	"
TSS	"	250 mg/l	"
pH	Every 20,000- Gallons	5.0-9.5	Compliance
Flow	Monthly		

Results must be received by Pretreatment Coordinator for approval prior to discharge

*Limits may apply depending on parameter. See Town Sewer Use Ordinance

Town Metals and Limits T-As- 0.5 mg/l, T-Cd-0.2mg/l, T-Cr- 1.5mg/l, T-Pb- 0.5 mg/l, T-Hg- 0.001 mg/l, T-Ni- 5.0 mg/l, T-Ag-1.3 mg/l, T-Zn- 4.4.mg/l

Note: The complete list of discharge limitations for dischargers to the Town Treatment Plant is contained in the Town's Local Law 2-2000. On the basis of the application and previous monitoring, parameters deemed applicable to this discharge have been excerpted and their limitations included above. The discharger should be aware that all other limitations apply and should consider all such limitations when considering process changes or plant modifications.

Tonawanda Coke Site 108
Water Treatment Monitoring Data

		SYS_LOC_CODE	FRAC1		FRAC1		FRAC1		FRAC1		FRAC1		FRAC2		FRAC2		FRAC3	
		SYS_SAMPLE_CODE	FRAC-20191007		FRAC-20191008		FRAC-20191009		FRAC-20191108		FRAC-20191115		FRAC-20191127		FRAC2-20191216		FRAC3-20191216	
		SAMPLEDATE	07 Oct 2019		08 Oct 2019		09 Oct 2019		11-Nov-19		15-Nov-19		27-Nov-19		16-Dec-19		16-Dec-19	
		MATRIX_CODE	W-WASTE		W-WASTE		W-WASTE		W-WASTE		W-WASTE		W-WASTE		W-WASTE		W-WASTE	
		LAB_SDG	JC96365		JC96424		JC96509		JC98290		JC98703		JC99396		JD440		JD440	
CAS_RN	CHEMICAL_NAME	UNIT																
67-64-1	ACETONE	ug/l	5	U	5	U	5	U	5	U	60.3		42.3					
71-43-2	BENZENE	ug/l	1	U	1	U	1	U	1.8		412		26.6					
74-97-5	BROMOCHLOROMETHANE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
75-27-4	BROMODICHLOROMETHANE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
75-25-2	BROMOFORM	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
74-83-9	BROMOMETHANE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
78-93-3	2-BUTANONE	ug/l	5	U	5	U	5	U	5	U	13	U	5	U				
75-15-0	CARBON DISULFIDE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
56-23-5	Tetrachloromethane	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
108-90-7	CHLOROBENZENE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
75-00-3	CHLOROETHANE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
67-66-3	Tricholoromethane	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
74-87-3	CHLOROMETHANE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
98-82-8	ISOPROPYLBENZENE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
110-82-7	CYCLOHEXANE	ug/l	2	U	2	U	2	U	2	U	5	U	2	U				
124-48-1	Dibromochloromethane	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
106-93-4	1,2-DIBROMOETHANE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/l	2	U	2	U	2	U	2	U	5	U	2	U				
95-50-1	1,2-DICHLOROBENZENE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
541-73-1	1,3-DICHLOROBENZENE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
106-46-7	1,4-DICHLOROBENZENE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
75-71-8	DICHLORODIFLUOROMETHANE	ug/l	2	U	2	U	2	U	2	U	5	U	2	U				
75-34-3	1,1-DICHLOROETHANE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
107-06-2	1,2-Dichloroethane	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
75-35-4	1,1-DICHLOROETHENE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
156-59-2	CIS-1,2-DICHLOROETHENE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
78-87-5	1,2-DICHLOROPROPANE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
100-41-4	ETHYLBENZENE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	2	U	2	U	2	U	2	U	5	U	2	U				
591-78-6	2-HEXANONE	ug/l	5	U	5	U	5	U	5	U	13	U	5	U				
1634-04-4	METHYL TERT-BUTYL ETHER	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
108-10-1	4-METHYL-2-PENTANONE	ug/l	5	U	5	U	5	U	5	U	13	U	5	U				
75-09-2	METHYLENE CHLORIDE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				
79-20-9	METHYL ACETATE	ug/l	5	U	5	U	5	U	5	U	13	U	5	U				
108-87-2	METHYLCYCLOHEXANE	ug/l	5	U	5	U	5	U	5	U	13	U	5	U				
100-42-5	STYRENE	ug/l	2	U	2	U	2	U	2	U	2.2	J	2	U				
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/l	1	U	1	U	1	U	1	U	2.5	U	1	U				

Tonawanda Coke Site 108
Water Treatment Monitoring Data

		SYS_LOC_CODE	FRAC1	FRAC1	FRAC1	FRAC1	FRAC1	FRAC2	FRAC2	FRAC3
		SYS_SAMPLE_CODE	FRAC-20191007	FRAC-20191008	FRAC-20191009	FRAC-20191108	FRAC-20191115	FRAC-20191127	FRAC2-20191216	FRAC3-20191216
		SAMPLEDATE	07 Oct 2019	08 Oct 2019	09 Oct 2019	11-Nov-19	15-Nov-19	27-Nov-19	16-Dec-19	16-Dec-19
		MATRIX_CODE	W-WASTE	W-WASTE	W-WASTE	W-WASTE	W-WASTE	W-WASTE	W-WASTE	W-WASTE
		LAB_SDG	JC96365	JC96424	JC96509	JC98290	JC98703	JC99396	JD440	JD440
CAS_RN	CHEMICAL_NAME	UNIT								
127-18-4	Tetrachloroethene	ug/l	1 U	1 U	1 U	1 U	2.5 U	1 U		
108-88-3	TOLUENE	ug/l	1 U	1 U	1 U	0.41 J	52.5	2.4		
120-82-1	1,2,4-TRICHLOROBENZENE	ug/l	2 U	2 U	2 U	2 U	5 U	2 U		
87-61-6	1,2,3-TRICHLOROBENZENE	ug/l	2 U	2 U	2 U	2 U	5 U	2 U		
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	1 U	1 U	1 U	1 U	2.5 U	1 U		
79-00-5	1,1,2-TRICHLOROETHANE	ug/l	1 U	1 U	1 U	1 U	2.5 U	1 U		
79-01-6	TRICHLOROETHENE	ug/l	1 U	1 U	1 U	1 U	2.5 U	1 U		
75-69-4	TRICHLOROFLUOROMETHANE	ug/l	2 U	2 U	2 U	2 U	5 U	2 U		
75-01-4	VINYL CHLORIDE	ug/l	1 U	1 U	1 U	1 U	2.5 U	1 U		
XYLENES1314	XYLENES, m & p	ug/l	1 U	1 U	1 U	1 U	11.7	0.78 J		
95-47-6	O-XYLENE	ug/l	1 U	1 U	1 U	1 U	4.1	0.4 J		
1330-20-7	XYLENES, TOTAL	ug/l	1 U	1 U	1 U	1 U	15.8	1.2		
95-57-8	2-CHLOROPHENOL	ug/l	4.9 U	5 U	5.1 U	4.8 U	5.6 U	5.1 U		
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/l	4.9 U	5 U	5.1 U	4.8 U	5.6 U	5.1 U		
120-83-2	2,4-DICHLOROPHENOL	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
105-67-9	2,4-DIMETHYLPHENOL	ug/l	4.9 U	5 U	5.1 U	4.8 U	316	11.4		
51-28-5	2,4-DINITROPHENOL	ug/l	9.7 U	10 U	10 U	9.5 U	11 U	10 U		
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/l	4.9 U	5 U	5.1 U	4.8 U	5.6 U	5.1 U		
95-48-7	2-METHYLPHENOL	ug/l	1.9 U	2 U	2 U	1.9 U	739	14.8		
1319-77-3MP	m,p-Cresol	ug/l	1.9 U	2 U	2 U	1.9 U	2720	39.8		
88-75-5	2-NITROPHENOL	ug/l	4.9 U	5 U	5.1 U	4.8 U	5.6 U	5.1 U		
100-02-7	4-NITROPHENOL	ug/l	9.7 U	10 U	10 U	10 U	11 U	10 U		
87-86-5	PENTACHLOROPHENOL	ug/l	4.9 U	5 U	5.1 U	4.8 U	5.6 U	5.1 U		
108-95-2	PHENOL	ug/l	1.9 U	2 U	2 U	1.9 U	3660	38.5		
58-90-2	2,3,4,6-TETRACHLOROPHENOL	ug/l	4.9 U	5 U	5.1 U	4.8 U	5.6 U	5.1 U		
95-95-4	2,4,5-TRICHLOROPHENOL	ug/l	4.9 U	5 U	5.1 U	4.8 U	5.6 U	5.1 U		
88-06-2	2,4,6-TRICHLOROPHENOL	ug/l	4.9 U	5 U	5.1 U	4.8 U	5.6 U	5.1 U		
83-32-9	ACENAPHTHENE	ug/l	0.97 U	1 U	1 U	0.95 U	5.1	1.6		
208-96-8	ACENAPHTHYLENE	ug/l	0.97 U	1 U	1 U	0.95 U	23.4	3.4		
98-86-2	ACETOPHENONE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
120-12-7	ANTHRACENE	ug/l	0.97 U	1 U	1 U	0.95 U	23.2	5.2		
1912-24-9	ATRAZINE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
100-52-7	BENZALDEHYDE	ug/l	4.9 U	5 U	5.1 U	4.8 U	3.4 J	5.1 U		
56-55-3	BENZO(A)ANTHRACENE	ug/l	0.97 U	1 U	1 U	0.95 U	32.8	6.9		
50-32-8	BENZO(A)PYRENE	ug/l	0.97 U	1 U	1 U	0.95 U	34	8.2		
205-99-2	BENZO(B)FLUORANTHENE	ug/l	0.97 U	1 U	1 U	0.95 U	42.8	11.6		
191-24-2	BENZO(G,H,I)PERYLENE	ug/l	0.97 U	1 U	1 U	0.95 U	26.3	5.4		
207-08-9	BENZO(K)FLUORANTHENE	ug/l	0.97 U	1 U	1 U	0.95 U	12.1	3.2		
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
85-68-7	BUTYLBENZYL PHTHALATE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		

Tonawanda Coke Site 108
Water Treatment Monitoring Data

		SYS_LOC_CODE	FRAC1	FRAC1	FRAC1	FRAC1	FRAC1	FRAC2	FRAC2	FRAC3
		SYS_SAMPLE_CODE	FRAC-20191007	FRAC-20191008	FRAC-20191009	FRAC-20191108	FRAC-20191115	FRAC-20191127	FRAC2-20191216	FRAC3-20191216
		SAMPLEDATE	07 Oct 2019	08 Oct 2019	09 Oct 2019	11-Nov-19	15-Nov-19	27-Nov-19	16-Dec-19	16-Dec-19
		MATRIX_CODE	W-WASTE	W-WASTE	W-WASTE	W-WASTE	W-WASTE	W-WASTE	W-WASTE	W-WASTE
		LAB_SDG	JC96365	JC96424	JC96509	JC98290	JC98703	JC99396	JD440	JD440
CAS_RN	CHEMICAL_NAME	UNIT								
92-52-4	1,1'-BIPHENYL	ug/l	0.97 U	1 U	1 U	0.95 U	4.8	0.99 J		
91-58-7	2-CHLORONAPHTHALENE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
106-47-8	4-CHLOROANILINE	ug/l	4.9 U	5 U	5.1 U	4.8 U	5.6 U	5.1 U		
86-74-8	CARBAZOLE	ug/l	0.97 U	1 U	1 U	0.95 U	53.4	5.2		
105-60-2	CAPROLACTAM	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
218-01-9	CHRYSENE	ug/l	0.97 U	1 U	1 U	0.95 U	49.1	9.9		
111-91-1	BIS(2-CHLOROETHOXY)METHANE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
111-44-4	BIS(2-CHLOROETHYL)ETHER	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
108-60-1	2,2'-OXYBIS(1-CHLOROPROPANE)	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
121-14-2	2,4-DINITROTOLUENE	ug/l	0.97 U	1 U	1 U	0.95 U	1.1 U	1 U		
606-20-2	2,6-DINITROTOLUENE	ug/l	0.97 U	1 U	1 U	0.95 U	1.1 U	1 U		
91-94-1	3,3'-DICHLOROBENZIDINE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
123-91-1	1,4-DIOXANE	ug/l	0.97 U	1 U	1 U	0.95 U	1.3	1 U		
53-70-3	DIBENZO(A,H)ANTHRACENE	ug/l	0.97 U	1 U	1 U	0.95 U	5.3	1.3		
132-64-9	DIBENZOFURAN	ug/l	4.9 U	5 U	5.1 U	4.8 U	21	4.4		
84-74-2	DI-N-BUTYL PHTHALATE	ug/l	1.9 U	2 U	2 U	1.2 J	8.5	2 U		
117-84-0	DI-N-OCTYL PHTHALATE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
84-66-2	DIETHYL PHTHALATE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
131-11-3	DIMETHYL PHTHALATE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
206-44-0	FLUORANTHENE	ug/l	0.97 U	1 U	1 U	0.46 J	103	18.7		
86-73-7	FLUORENE	ug/l	0.97 U	1 U	1 U	0.95 U	34.1	5.5		
118-74-1	HEXACHLOROBENZENE	ug/l	0.97 U	1 U	1 U	0.95 U	1.1 U	1 U		
87-68-3	HEXACHLOROBUTADIENE	ug/l	0.97 U	1 U	1 U	0.95 U	1.1 U	1 U		
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/l	9.7 U	10 U	10 U	9.5 U	11 U	10 U		
67-72-1	HEXACHLOROETHANE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
193-39-5	INDENO(1,2,3-CD)PYRENE	ug/l	0.97 U	1 U	1 U	0.95 U	24.9	5.4		
78-59-1	ISOPHORONE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
91-57-6	2-METHYLNAPHTHALENE	ug/l	0.97 U	1 U	1 U	0.95 U	23.4	3.5		
88-74-4	2-NITROANILINE	ug/l	4.9 U	5 U	5.1 U	4.8 U	5.6 U	5.1 U		
99-09-2	3-NITROANILINE	ug/l	4.9 U	5 U	5.1 U	4.8 U	5.6 U	5.1 U		
100-01-6	4-NITROANILINE	ug/l	4.9 U	5 U	5.1 U	4.8 U	5.6 U	5.1 U		
91-20-3	NAPHTHALENE	ug/l	0.97 U	1 U	1 U	0.95 U	646	23.8		
98-95-3	NITROBENZENE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		
86-30-6	N-NITROSODIPHENYLAMINE	ug/l	4.9 U	5 U	5.1 U	4.8 U	5.6 U	5.1 U		
85-01-8	PHENANTHRENE	ug/l	0.97 U	1 U	1 U	0.95 U	143	1 U		
129-00-0	PYRENE	ug/l	0.97 U	1 U	1 U	0.4 J	79.2	1 J		
95-94-3	1,2,4,5-TETRACHLOROBENZENE	ug/l	1.9 U	2 U	2 U	1.9 U	2.2 U	2 U		

Tonawanda Coke Site 108
Water Treatment Monitoring Data

		SYS_LOC_CODE	FRAC1		FRAC1		FRAC1		FRAC1		FRAC1		FRAC2		FRAC2		FRAC3	
		SYS_SAMPLE_CODE	FRAC-20191007		FRAC-20191008		FRAC-20191009		FRAC-20191108		FRAC-20191115		FRAC-20191127		FRAC2-20191216		FRAC3-20191216	
		SAMPLEDATE	07 Oct 2019		08 Oct 2019		09 Oct 2019		11-Nov-19		15-Nov-19		27-Nov-19		16-Dec-19		16-Dec-19	
		MATRIX_CODE	W-WASTE		W-WASTE		W-WASTE		W-WASTE		W-WASTE		W-WASTE		W-WASTE		W-WASTE	
		LAB_SDG	JC96365		JC96424		JC96509		JC98290		JC98703		JC99396		JD440		JD440	
CAS_RN	CHEMICAL_NAME	UNIT																
7429-90-5	ALUMINUM	ug/l	200	U	200	U	200	U	1770		10000	U	1810					
7440-36-0	ANTIMONY	ug/l	6	U	6	U	6	U	6	U	300	U	6	U				
7440-38-2	ARSENIC	ug/l	3	U	3	U	3	U	4.1		485		55.2					
7440-39-3	BARIUM	ug/l	200	U	200	U	200	U	200	U	10000	U	200	U				
7440-41-7	BERYLLIUM	ug/l	1	U	1	U	1	U	1	U	50	U	3	U				
7440-43-9	CADMIUM	ug/l	3	U	3	U	3	U	3	U	150	U	3	U				
7440-70-2	CALCIUM	ug/l	5000	U	32400		47100		51500		250000	U	46200					
7440-47-3	CHROMIUM	ug/l	10	U	10	U	10	U	10	U	500	U	10	U				
7440-48-4	COBALT	ug/l	50	U	50	U	50	U	50	U	2500	U	50	U				
7440-50-8	COPPER	ug/l	10	U	10	U	10	U	10	U	500	U	14.1					
7439-89-6	IRON	ug/l	637		2580		1590		2750		8400		4840					
7439-92-1	LEAD	ug/l	3	U	3	U	3	U	3.7		150	U	9	U				
7439-95-4	MAGNESIUM	ug/l	5000	U	5610		7220		12300		250000	U	11300					
7439-96-5	MANGANESE	ug/l	15	U	51.1		112		213		750	U	260					
7439-97-6	MERCURY	ug/l	0.2	U	0.2	U	0.2	U	0.2	U	6	U	0.2	U				
7440-02-0	NICKEL	ug/l	10	U	10	U	10	U	10	U	500	U	12.3					
7440-09-7	POTASSIUM	ug/l	79600		10000	U	10000	U	10000	U	500000	U	18300					
7782-49-2	SELENIUM	ug/l	10	U	10	U	10	U	10	U	500	U	10	U				
7440-22-4	SILVER	ug/l	10	U	10	U	10	U	10	U	500	U	10	U				
7440-23-5	SODIUM	ug/l	10000	U	10000	U	10000	U	30800		573000		90000					
7440-28-0	THALLIUM	ug/l	10	U	10	U	10	U	10	U	500	U	10	U				
7440-62-2	VANADIUM	ug/l	50	U	50	U	50	U	50	U	2500	U	50	U				
7440-66-6	ZINC	ug/l	20	U	20	U	20	U	52		1000	U	34.5					
BOD5	BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	mg/L	1.6		6.6		2.8		16				82.3					
57-12-5	CYANIDE	mg/L	0.01	U	0.01	U	0.01	U	0.027		5.6		1.9		0.43		1.1	
OILGREASE	OIL & GREASE, TOTAL REC	mg/L	5	U	5	U	5	U	5	U	7.4		5.2	U				
7664-41-7	NITROGEN, AMMONIA (AS N)	mg/L	9		6.1		0.26		4.4		2560		504					
7723-14-0	Phosphorus	mg/L	1.9		0.093		0.063		0.12		0.58		0.15					
TSS	Total Suspended Solids	mg/L	4	U	12.4		4.9		44.4		134		55					
IGNITB	IGNITABILITY	deg F	>200															

Tonawanda Coke Site 108
Water Treatment Monitoring Data

		SYS_LOC_CODE	FRAC1		FRAC2		FRAC1		FRAC4	
		SYS_SAMPLE_CODE	FRAC1-20191219		FRAC2-20191219		FRAC1-20191223		FRAC4-20191231	
		SAMPLEDATE	19-Dec-19		19-Dec-19		23-Dec-19		31-Dec-19	
		MATRIX_CODE	W-WASTE		W-WASTE		W-WASTE		W-WASTE	
		LAB_SDG	JD670		JD670		JC882		JD1054	
CAS_RN	CHEMICAL_NAME	UNIT								
67-64-1	ACETONE	ug/l	23.3		9.3				7.1	
71-43-2	BENZENE	ug/l	1.3		1.1				1	U
74-97-5	BROMOCHLOROMETHANE	ug/l	1	U	1	U			1	U
75-27-4	BROMODICHLOROMETHANE	ug/l	1	U	1	U			1	U
75-25-2	BROMOFORM	ug/l	1	U	1	U			1	U
74-83-9	BROMOMETHANE	ug/l	1	U	1	U			1	U
78-93-3	2-BUTANONE	ug/l	5	U	5	U			5	U
75-15-0	CARBON DISULFIDE	ug/l	1	U	1	U			1	U
56-23-5	Tetrachloromethane	ug/l	1	U	1	U			1	U
108-90-7	CHLOROBENZENE	ug/l	1	U	1	U			1	U
75-00-3	CHLOROETHANE	ug/l	1	U	1	U			1	U
67-66-3	Tricholoromethane	ug/l	1	U	1	U			1	U
74-87-3	CHLOROMETHANE	ug/l	1	U	1	U			1	U
98-82-8	ISOPROPYLBENZENE	ug/l	1	U	1	U			1	U
110-82-7	CYCLOHEXANE	ug/l	2	U	2	U			2	U
124-48-1	Dibromochloromethane	ug/l	1	U	1	U			1	U
106-93-4	1,2-DIBROMOETHANE	ug/l	1	U	1	U			1	U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/l	2	U	2	U			2	U
95-50-1	1,2-DICHLOROBENZENE	ug/l	1	U	1	U			1	U
541-73-1	1,3-DICHLOROBENZENE	ug/l	1	U	1	U			1	U
106-46-7	1,4-DICHLOROBENZENE	ug/l	1	U	1	U			1	U
75-71-8	DICHLORODIFLUOROMETHANE	ug/l	2	U	2	U			2	U
75-34-3	1,1-DICHLOROETHANE	ug/l	1	U	1	U			1	U
107-06-2	1,2-Dichloroethane	ug/l	1	U	1	U			1	U
75-35-4	1,1-DICHLOROETHENE	ug/l	1	U	1	U			1	U
156-59-2	CIS-1,2-DICHLOROETHENE	ug/l	1	U	1	U			1	U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	1	U	1	U			1	U
78-87-5	1,2-DICHLOROPROPANE	ug/l	1	U	1	U			1	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/l	1	U	1	U			1	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/l	1	U	1	U			1	U
100-41-4	ETHYLBENZENE	ug/l	1	U	1	U			1	U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	2	U	2	U			2	U
591-78-6	2-HEXANONE	ug/l	5	U	5	U			5	U
1634-04-4	METHYL TERT-BUTYL ETHER	ug/l	1	U	1	U			1	U
108-10-1	4-METHYL-2-PENTANONE	ug/l	5	U	5	U			5	U
75-09-2	METHYLENE CHLORIDE	ug/l	1	U	1	U			1	U
79-20-9	METHYL ACETATE	ug/l	5	U	5	U			5	U
108-87-2	METHYLCYCLOHEXANE	ug/l	5	U	5	U			5	U
100-42-5	STYRENE	ug/l	2	U	2	U			2	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/l	1	U	1	U			1	U

Tonawanda Coke Site 108
Water Treatment Monitoring Data

		SYS_LOC_CODE	FRAC1		FRAC2		FRAC1		FRAC4	
		SYS_SAMPLE_CODE	FRAC1-20191219		FRAC2-20191219		FRAC1-20191223		FRAC4-20191231	
		SAMPLEDATE	19-Dec-19		19-Dec-19		23-Dec-19		31-Dec-19	
		MATRIX_CODE	W-WASTE		W-WASTE		W-WASTE		W-WASTE	
		LAB_SDG	JD670		JD670		JC882		JD1054	
CAS_RN	CHEMICAL_NAME	UNIT								
127-18-4	Tetrachloroethene	ug/l	1	U	1	U			1	U
108-88-3	TOLUENE	ug/l	0.42	J	1	U			1	U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/l	2	U	2	U			2	U
87-61-6	1,2,3-TRICHLOROBENZENE	ug/l	2	U	2	U			2	U
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	1	U	1	U			1	U
79-00-5	1,1,2-TRICHLOROETHANE	ug/l	1	U	1	U			1	U
79-01-6	TRICHLOROETHENE	ug/l	1	U	1	U			1	U
75-69-4	TRICHLOROFLUOROMETHANE	ug/l	2	U	2	U			2	U
75-01-4	VINYL CHLORIDE	ug/l	1	U	1	U			1	U
XYLENES1314	XYLENES, m & p	ug/l	1	U	1	U			1	U
95-47-6	O-XYLENE	ug/l	1	U	1	U			1	U
1330-20-7	XYLENES, TOTAL	ug/l	1	U	1	U			1	U
95-57-8	2-CHLOROPHENOL	ug/l	5.1	U	5.5	U			4.8	U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/l	5.1	U	5.5	U			4.8	U
120-83-2	2,4-DICHLOROPHENOL	ug/l	2	U	2.2	U			1.9	U
105-67-9	2,4-DIMETHYLPHENOL	ug/l	3	J	5.5	U			4.8	U
51-28-5	2,4-DINITROPHENOL	ug/l	10	U	11	U			9.5	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/l	5.1	U	5.5	U			4.8	U
95-48-7	2-METHYLPHENOL	ug/l	2.2		2.2	U			1.9	U
1319-77-3MP	m,p-Cresol	ug/l	5.2		2.2	U			1.9	U
88-75-5	2-NITROPHENOL	ug/l	5.1	U	5.5	U			4.8	U
100-02-7	4-NITROPHENOL	ug/l	10	U	11	U			9.5	U
87-86-5	PENTACHLOROPHENOL	ug/l	5.1	U	5.5	U			4.8	U
108-95-2	PHENOL	ug/l	2	U	2.2	U			1.9	U
58-90-2	2,3,4,6-TETRACHLOROPHENOL	ug/l	5.1	U	5.5	U			4.8	U
95-95-4	2,4,5-TRICHLOROPHENOL	ug/l	5.1	U	5.5	U			4.8	U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/l	5.1	U	5.5	U			4.8	U
83-32-9	ACENAPHTHENE	ug/l	1	U	0.35	J			0.95	U
208-96-8	ACENAPHTHYLENE	ug/l	0.53	J	1.2				0.17	J
98-86-2	ACETOPHENONE	ug/l	2	U	2.2	U			1.9	U
120-12-7	ANTHRACENE	ug/l	0.71	J	1.6				0.29	J
1912-24-9	ATRAZINE	ug/l	2	U	2.2	U			1.9	U
100-52-7	BENZALDEHYDE	ug/l	5.1	U	5.5	U			4.8	U
56-55-3	BENZO(A)ANTHRACENE	ug/l	0.73	J	2.8				0.42	J
50-32-8	BENZO(A)PYRENE	ug/l	0.47	J	3.1				0.29	J
205-99-2	BENZO(B)FLUORANTHENE	ug/l	0.54	J	3.7				0.38	J
191-24-2	BENZO(G,H,I)PERYLENE	ug/l	1	U	1.9				0.95	U
207-08-9	BENZO(K)FLUORANTHENE	ug/l	0.24	J	1.1				0.95	U
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/l	2	U	2.2	U			1.9	U
85-68-7	BUTYLBENZYL PHTHALATE	ug/l	2	U	2.2	U			1.9	U

Tonawanda Coke Site 108
Water Treatment Monitoring Data

		SYS_LOC_CODE	FRAC1		FRAC2		FRAC1		FRAC4	
		SYS_SAMPLE_CODE	FRAC1-20191219		FRAC2-20191219		FRAC1-20191223		FRAC4-20191231	
		SAMPLEDATE	19-Dec-19		19-Dec-19		23-Dec-19		31-Dec-19	
		MATRIX_CODE	W-WASTE		W-WASTE		W-WASTE		W-WASTE	
		LAB_SDG	JD670		JD670		JC882		JD1054	
CAS_RN	CHEMICAL_NAME	UNIT								
92-52-4	1,1'-BIPHENYL	ug/l	1	U	0.27	J			0.95	U
91-58-7	2-CHLORONAPHTHALENE	ug/l	2	U	2.2	U			1.9	U
106-47-8	4-CHLOROANILINE	ug/l	5.1	U	5.5	U			4.8	U
86-74-8	CARBAZOLE	ug/l	0.53	J	0.94	J			0.95	U
105-60-2	CAPROLACTAM	ug/l	2	U	2.2	U			1.9	U
218-01-9	CHRYSENE	ug/l	0.58	J	3				0.29	J
111-91-1	BIS(2-CHLOROETHOXY)METHANE	ug/l	2	U	2.2	U			1.9	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	ug/l	2	U	2.2	U			1.9	U
108-60-1	2,2'-OXYBIS(1-CHLOROPROPANE)	ug/l	2	U	2.2	U			1.9	U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/l	2	U	2.2	U			1.9	U
121-14-2	2,4-DINITROTOLUENE	ug/l	1	U	1.1	U			0.95	U
606-20-2	2,6-DINITROTOLUENE	ug/l	1	U	1.1	U			0.95	U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/l	2	U	2.2	U			1.9	U
123-91-1	1,4-DIOXANE	ug/l	1	U	1.1	U			0.95	U
53-70-3	DIBENZO(A,H)ANTHRACENE	ug/l	1	U	1.1	U			0.95	U
132-64-9	DIBENZOFURAN	ug/l	0.41	J	0.38	J			4.8	U
84-74-2	DI-N-BUTYL PHTHALATE	ug/l	2	U	0.89	J			1.9	U
117-84-0	DI-N-OCTYL PHTHALATE	ug/l	2	U	2.2	U			1.9	U
84-66-2	DIETHYL PHTHALATE	ug/l	2	U	2.2	U			1.9	U
131-11-3	DIMETHYL PHTHALATE	ug/l	2	U	2.2	U			1.9	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	ug/l	2	U	2.2	U			1.9	U
206-44-0	FLUORANTHENE	ug/l	2.5		8.1				0.75	J
86-73-7	FLUORENE	ug/l	0.81	J	1.2				0.19	J
118-74-1	HEXACHLOROBENZENE	ug/l	1	U	1.1	U			0.95	U
87-68-3	HEXACHLOROBUTADIENE	ug/l	1	U	1.1	U			0.95	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/l	10	U	11	U			9.5	U
67-72-1	HEXACHLOROETHANE	ug/l	2	U	2.2	U			1.9	U
193-39-5	INDENO(1,2,3-CD)PYRENE	ug/l	1	U	1.5				0.95	U
78-59-1	ISOPHORONE	ug/l	2	U	2.2	U			1.9	U
91-57-6	2-METHYLNAPHTHALENE	ug/l	1	U	0.38	J			0.95	U
88-74-4	2-NITROANILINE	ug/l	5.1	U	5.5	U			4.8	U
99-09-2	3-NITROANILINE	ug/l	5.1	U	5.5	U			4.8	U
100-01-6	4-NITROANILINE	ug/l	5.1	U	5.5	U			4.8	U
91-20-3	NAPHTHALENE	ug/l	0.52	J	2.1				0.34	J
98-95-3	NITROBENZENE	ug/l	2	U	2.2	U			1.9	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	ug/l	2	U	2.2	U			1.9	U
86-30-6	N-NITROSODIPHENYLAMINE	ug/l	5.1	U	5.5	U			4.8	U
85-01-8	PHENANTHRENE	ug/l	1.5		4				0.56	J
129-00-0	PYRENE	ug/l	1.9		5.8				0.62	J
95-94-3	1,2,4,5-TETRACHLOROBENZENE	ug/l	2	U	2.2	U			1.9	U

Tonawanda Coke Site 108
Water Treatment Monitoring Data

		SYS_LOC_CODE	FRAC1		FRAC2		FRAC1		FRAC4	
		SYS_SAMPLE_CODE	FRAC1-20191219		FRAC2-20191219		FRAC1-20191223		FRAC4-20191231	
		SAMPLEDATE	19-Dec-19		19-Dec-19		23-Dec-19		31-Dec-19	
		MATRIX_CODE	W-WASTE		W-WASTE		W-WASTE		W-WASTE	
		LAB_SDG	JD670		JD670		JC882		JD1054	
CAS_RN	CHEMICAL_NAME	UNIT								
7429-90-5	ALUMINUM	ug/l	1250		1980				200	U
7440-36-0	ANTIMONY	ug/l	6	U	6	U			6	U
7440-38-2	ARSENIC	ug/l	6.7		10.8				7.5	
7440-39-3	BARIUM	ug/l	200	U	200	U			200	U
7440-41-7	BERYLLIUM	ug/l	1	U	1	U			1	U
7440-43-9	CADMIUM	ug/l	3	U	3	U			3	U
7440-70-2	CALCIUM	ug/l	93600		61700				90600	
7440-47-3	CHROMIUM	ug/l	10	U	10	U			10	U
7440-48-4	COBALT	ug/l	50	U	50	U			50	U
7440-50-8	COPPER	ug/l	10	U	10	U			10	U
7439-89-6	IRON	ug/l	2130		3810				446	
7439-92-1	LEAD	ug/l	4		6.3				3	U
7439-95-4	MAGNESIUM	ug/l	9910		12900				5000	U
7439-96-5	MANGANESE	ug/l	331		348				43.7	
7439-97-6	MERCURY	ug/l	0.2	U	0.2	U			0.2	U
7440-02-0	NICKEL	ug/l	10	U	10	U			10	U
7440-09-7	POTASSIUM	ug/l	18700		29900				17600	
7782-49-2	SELENIUM	ug/l	10	U	10	U			10	U
7440-22-4	SILVER	ug/l	10	U	10	U			10	U
7440-23-5	SODIUM	ug/l	28600		34000				32500	
7440-28-0	THALLIUM	ug/l	10	U	10	U			10	U
7440-62-2	VANADIUM	ug/l	50	U	50	U			50	U
7440-66-6	ZINC	ug/l	20	U	24.3				20	U
BOD5	BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	mg/L	44.1		34				17.4	
57-12-5	CYANIDE	mg/L					0.18		0.094	
OILGREASE	OIL & GREASE, TOTAL REC	mg/L	5.1	U	5.2	U			5	U
7664-41-7	NITROGEN, AMMONIA (AS N)	mg/L	26.4		84.6				12.6	
7723-14-0	Phosphorus	mg/L	0.17		0.38				0.075	
TSS	Total Suspended Solids	mg/L	36		58				4	U
IGNITB	IGNITABILITY	deg F								

APPENDIX C COMMUNITY AIR MONITORING PLAN (CAMP) RESULTS

Community Air Monitoring Plan Report (CAMP)

TONAWANDA COKE, NY

Site # 108

CAMP Summary Report for: 9/16/2019 to 01/24/2020

Submitted via Email to:

Tom Abrams, PARSONS Senior Project Manager
Tom Wollen, PARSONS Construction Manager

Submittal Date: 02/24/2020

From: Aditya Kumar Singh, PARSONS Field Engineer/CAMP

Notes:

26th September 2019 - heavy rain event from 7:00 AM to 9:00 AM; CAMP equipment was setup after the rain event at 9:30 AM.

16th October 2019 -operations were shut down by 4:00 PM due to heavy rainfall and lightning.

1st November 2019 - operations were shut down early due to harsh weather condition.

24th January 2020 - intrusive activities completed; last day of CAMP monitoring.

The CAMP data recorded for September 16, 2019 to January 24, 2020 during hours of work only.

16-Sep					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
10:30 AM	65.1 °F	0.45	ENE	5.8 mph	N/A
11:30 AM	68.1 °F	0.47	ENE	10.4 mph	N/A
12:30 PM	68.7 °F	0.39	ENE	7.5 mph	N/A
1:30 PM	68.7 °F	0.34	EN	6.3 mph	N/A
2:30 PM	69.0 °F	0.33	EN	9.2 mph	N/A
3:30 PM	69.2 °F	0.36	ENE	8.1 mph	N/A
4:30 PM	69.8 °F	0.35	ENE	8.7 mph	N/A
5:30 PM	69.8 °F	0.35	EN	8.7 mph	N/A

17-Sep					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	57 °F	0.62	NE	1.25 mph	N/A
9:00 AM	65 °F	0.70	E	1.9 mph	N/A
10:00 AM	68 °F	0.51	E	1.9 mph	N/A
11:00 AM	72 °F	0.50	E	3.8 mph	N/A
12:00 PM	73 °F	0.50	ENE	3.8 mph	N/A
1:00 PM	74 °F	0.49	NE	3.8 mph	N/A
2:00 PM	74 °F	0.49	NNE	5 mph	N/A
3:00 PM	74 °F	0.49	NNE	5 mph	N/A
4:00 PM	73 °F	0.49	NE	2.5 mph	N/A
5:00 PM	73 °F	0.49	NNE	2.5 mph	N/A

18-Sep					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	65 °F	0.58	ENE	5 mph	N/A
9:00 AM	65 °F	0.52	ENE	6.2 mph	N/A
10:00 AM	68 °F	0.48	ENE	5.4 mph	N/A
11:00 AM	72 °F	0.48	E	7.5 mph	N/A
12:00 PM	73 °F	0.45	E	8.1 mph	N/A
1:00 PM	76 °F	0.44	ESE	8.7 mph	N/A
2:00 PM	76 °F	0.42	ESE	8.7 mph	N/A
3:00 PM	77 °F	0.41	ENE	8.7 mph	N/A
4:00 PM	77 °F	0.41	ENE	8.3 mph	N/A
5:00 PM	76 °F	0.40	ENE	8.3 mph	N/A

19-Sep					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	5 °F	0.93	ESE	0 mph	N/A
9:00 AM	51 °F	0.89	ESE	7 mph	N/A
10:00 AM	53 °F	0.89	ESE	9 mph	N/A
11:00 AM	66 °F	0.70	S	10 mph	N/A
12:00 PM	68 °F	0.59	S	7 mph	N/A
1:00 PM	70 °F	0.55	S	7 mph	N/A
2:00 PM	72 °F	0.49	S	0 mph	N/A
3:00 PM	72 °F	0.44	SSE	8 mph	N/A
4:00 PM	73 °F	0.43	SSE	6 mph	N/A
5:00 PM	73 °F	0.42	SW	0 mph	N/A

20-Sep					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	50 °F	0.89	E	0 mph	N/A
9:00 AM	53 °F	0.80	S	0 mph	N/A
10:00 AM	60 °F	0.70	S	3 mph	N/A
11:00 AM	65 °F	0.63	S	5 mph	N/A
12:00 PM	69 °F	0.57	S	7 mph	N/A
1:00 PM	72 °F	0.50	SE	8 mph	N/A
2:00 PM	75 °F	0.46	SE	5 mph	N/A
3:00 PM	77 °F	0.45	SSE	6 mph	N/A
4:00 PM	78 °F	0.45	SSE	6 mph	N/A
5:00 PM	78 °F	0.48	S	6 mph	N/A

23-Sep					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	62 °F	0	WSW	24 mph	N/A
9:00 AM	57 °F	0	WSW	24 mph	N/A
10:00 AM	57 °F	0	WSW	17 mph	N/A
11:00 AM	42 °F	0.79	WSW	11 mph	N/A
12:00 PM	48 °F	0.84	W	11 mph	N/A
1:00 PM	55 °F	0.87	W	15 mph	0.3 in
2:00 PM	68 °F	0.87	WSW	14 mph	0.2 in
3:00 PM	70 °F	0.94	WSW	9 mph	N/A
4:00 PM	69 °F	0.93	W	7 mph	N/A
5:00 PM	73 °F	0.78	W	8 mph	N/A

24-Sep					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	58 °F	0.81	NW	7 mph	N/A
9:00 AM	58 °F	0.81	NW	12 mph	N/A
10:00 AM	60 °F	0.83	NNW	10 mph	N/A
11:00 AM	62 °F	0.75	NW	9 mph	N/A
12:00 PM	64 °F	0.67	NNW	9 mph	N/A
1:00 PM	65 °F	0.67	NW	13 mph	N/A
2:00 PM	67 °F	0.63	NW	10 mph	N/A
3:00 PM	68 °F	0.58	NNW	13 mph	N/A
4:00 PM	69 °F	0.54	NNW	15 mph	N/A
5:00 PM	66 °F	0.50	N	12 mph	N/A

25-Sep					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	57 °F	0.81	S	8 mph	N/A
9:00 AM	53 °F	0.72	SSW	8 mph	N/A
10:00 AM	66 °F	0.65	SSW	13 mph	N/A
11:00 AM	70 °F	0.59	SSW	15 mph	N/A
12:00 PM	73 °F	0.57	SW	17 mph	N/A
1:00 PM	73 °F	0.53	SW	18 mph	N/A
2:00 PM	76 °F	0.48	SW	17 mph	N/A
3:00 PM	77 °F	0.48	SW	20 mph	N/A
4:00 PM	76 °F	0.48	SW	16 mph	N/A
5:00 PM	75 °F	0.50	SW	13 mph	N/A

26-Sep					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	59 °F	0.93	W	6 mph	0.1 in
9:00 AM	60 °F	0.90	W	5 mph	0.1 in
10:00 AM	61 °F	0.90	WSW	9 mph	0.1 in
11:00 AM	62 °F	0.90	WSW	13 mph	N/A
12:00 PM	65 °F	0.80	W	15 mph	N/A
1:00 PM	69 °F	0.70	W	16 mph	N/A
2:00 PM	70 °F	0.61	WSW	20 mph	N/A
3:00 PM	70 °F	0.49	WSW	20 mph	N/A
4:00 PM	71 °F	0.47	WSW	23 mph	N/A
5:00 PM	67 °F	0.38	WSW	14 mph	N/A

27-Sep					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	50 °F	0.89	CALM	0 mph	N/A
9:00 AM	56 °F	0.80	W	8 mph	N/A
10:00 AM	60 °F	0.81	WSW	9 mph	N/A
11:00 AM	62 °F	0.78	WSW	13 mph	N/A
12:00 PM	63 °F	0.67	WSW	14 mph	N/A

30-Sep					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	52 °F	0.93	E	6 mph	N/A
9:00 AM	53 °F	0.89	E	9 mph	N/A
10:00 AM	56 °F	0.87	E	7 mph	N/A
11:00 AM	59 °F	0.81	ESE	6 mph	N/A
12:00 PM	62 °F	0.75	ES	5 mph	N/A
1:00 PM	64 °F	0.72	ES	5 mph	N/A
2:00 PM	67 °F	0.68	ES	5 mph	N/A
3:00 PM	68 °F	0.68	ES	3 mph	N/A
4:00 PM	68 °F	0.68	ESE	3 mph	N/A
5:00 PM	70 °F	0.65	ESE	5 mph	N/A

1-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	70 °F	0.87	SW	15 mph	N/A
9:00 AM	73 °F	0.81	SW	14 mph	N/A
10:00 AM	76 °F	0.74	SW	15 mph	N/A
11:00 AM	78 °F	0.71	SSW	17 mph	N/A
12:00 PM	80 °F	0.67	SW	15 mph	N/A
1:00 PM	81 °F	0.65	SW	15 mph	N/A
2:00 PM	82 °F	0.62	SW	20 mph	N/A
3:00 PM	83 °F	0.58	SW	17 mph	N/A
4:00 PM	79 °F	0.64	SW	18 mph	N/A
5:00 PM	74 °F	0.76	SW	18 mph	0.1 in

2-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	63 °F	1	NNE	5 mph	N/A
9:00 AM	62 °F	0.93	N	10 mph	N/A
10:00 AM	62 °F	0.96	N	7 mph	N/A
11:00 AM	62 °F	0.93	N	10 mph	N/A
12:00 PM	62 °F	0.96	NNE	9 mph	N/A
1:00 PM	60 °F	0.93	NE	15 mph	0.1 in
2:00 PM	58 °F	0.97	NNE	14 mph	0.1 in
3:00 PM	57 °F	0.93	NNE	13 mph	N/A
4:00 PM	56 °F	0.93	NE	13 mph	N/A
5:00 PM	55 °F	0.96	NE	13 mph	N/A

3-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	48 °F	0.89	E	10 mph	N/A
9:00 AM	48 °F	0.89	E	8 mph	N/A
10:00 AM	48 °F	0.93	E	13 mph	N/A
11:00 AM	48 °F	0.96	ENE	12 mph	N/A
12:00 PM	49 °F	0.97	E	13 mph	N/A
1:00 PM	50 °F	0.96	E	9 mph	N/A
2:00 PM	51°F	0.96	E	9 mph	N/A
3:00 PM	53 °F	0.93	E	8 mph	N/A
4:00 PM	54 °F	0.93	CALM	0 mph	N/A
5:00 PM	54 °F	0.97	CALM	0 mph	N/A

4-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	47 °F	0.86	N	8 mph	N/A
9:00 AM	46 °F	0.86	N	8 mph	N/A
10:00 AM	46 °F	0.79	NNE	9 mph	N/A
11:00 AM	46 °F	0.76	NNE	10 mph	N/A
12:00 PM	48 °F	0.71	N	9 mph	N/A

07-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	56 °F	0.97	SSW	7 mph	N/A
9:00 AM	57 °F	0.93	SSW	7 mph	N/A
10:00 AM	60 °F	0.80	SW	9 mph	N/A
11:00 AM	61 °F	0.81	SW	13 mph	N/A
12:00 PM	62 °F	0.78	SW	15 mph	N/A
1:00 PM	62 °F	0.62	SW	14 mph	N/A
2:00 PM	62 °F	0.64	SW	14 mph	N/A
3:00 PM	63 °F	0.64	SW	14 mph	N/A
4:00 PM	62 °F	0.72	SSW	9 mph	N/A
5:00 PM	61 °F	0.77	SSW	8 mph	N/A

08-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	43 °F	0.97	ENE	3 mph	N/A
9:00 AM	50 °F	0.93	CALM	0 mph	N/A
10:00 AM	55 °F	0.83	ENE	6 mph	N/A
11:00 AM	59 °F	0.69	ENE	9 mph	N/A
12:00 PM	61 °F	0.64	ENE	7 mph	N/A
1:00 PM	63 °F	0.56	ENE	7 mph	N/A
2:00 PM	64 °F	0.52	ENE	8 mph	N/A
3:00 PM	64 °F	0.52	ENE	8 mph	N/A
4:00 PM	64 °F	0.52	E	8 mph	N/A
5:00 PM	64 °F	0.50	E	8 mph	N/A

09-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	39 °F	0.89	CALM	0 mph	N/A
9:00 AM	47 °F	0.83	CALM	0 mph	N/A
10:00 AM	53 °F	0.77	E	3 mph	N/A
11:00 AM	58 °F	0.65	E	6 mph	N/A
12:00 PM	61 °F	0.56	ENE	8 mph	N/A
1:00 PM	63 °F	0.48	ENE	8 mph	N/A
2:00 PM	63 °F	0.45	ENE	8 mph	N/A
3:00 PM	65 °F	0.39	ENE	10 mph	N/A
4:00 PM	64 °F	0.41	ENE	12 mph	N/A
5:00 PM	62 °F	0.62	ENE	10 mph	N/A

10-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	41 °F	0.96	CALM	0 mph	N/A
9:00 AM	46 °F	0.89	E	3 mph	N/A
10:00 AM	53 °F	0.77	E	5 mph	N/A
11:00 AM	58 °F	0.65	E	8 mph	N/A
12:00 PM	60 °F	0.62	E	12 mph	N/A
1:00 PM	62 °F	0.53	E	9 mph	N/A
2:00 PM	64 °F	0.46	E	8 mph	N/A
3:00 PM	65 °F	0.43	E	10 mph	N/A
4:00 PM	64 °F	0.46	ENE	10 mph	N/A
5:00 PM	64 °F	0.48	ENE	13 mph	N/A

11-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	44 °F	0.89	E	3 mph	N/A
9:00 AM	48 °F	0.80	E	5 mph	N/A
10:00 AM	54 °F	0.69	ESE	7 mph	N/A
11:00 AM	59 °F	0.49	ESE	8 mph	N/A
12:00 PM	64 °F	0.43	E	5 mph	N/A

14-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	46 °F	0.73	W	13 mph	N/A
9:00 AM	46 °F	0.71	WNW	12 mph	N/A
10:00 AM	47 °F	0.63	WNW	12 mph	N/A
11:00 AM	49 °F	0.61	W	9 mph	N/A
12:00 PM	50 °F	0.56	W	10 mph	N/A
1:00 PM	51 °F	0.50	W	12 mph	N/A
2:00 PM	50 °F	0.50	W	10 mph	N/A
3:00 PM	51 °F	0.50	W	14 mph	N/A
4:00 PM	50 °F	0.50	W	14 mph	N/A
5:00 PM	51 °F	0.48	WNW	12 mph	N/A

15-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	34 °F	0.89	CALM	0 mph	N/A
9:00 AM	39 °F	0.89	CALM	0 mph	N/A
10:00 AM	49 °F	0.71	SSW	7 mph	N/A
11:00 AM	51 °F	0.63	SSW	9 mph	N/A
12:00 PM	54 °F	0.57	S	9 mph	N/A
1:00 PM	56 °F	0.53	S	10 mph	N/A
2:00 PM	57 °F	0.55	S	7 mph	N/A
3:00 PM	58 °F	0.51	SSW	7 mph	N/A
4:00 PM	58 °F	0.51	SSW	7 mph	N/A
5:00 PM	59 °F	0.48	CALM	0 mph	N/A

16-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	57 °F	0.72	S	8 mph	0.1 in
9:00 AM	54 °F	0.86	SSW	16 mph	0.2 in
10:00 AM	53 °F	0.93	SSW	13 mph	0.1 in
11:00 AM	52 °F	0.89	SW	13 mph	0.1 in
12:00 PM	50 °F	0.93	SW	9 mph	0.1 in
1:00 PM	50 °F	0.89	SW	10 mph	0.1 in
2:00 PM	51 °F	0.89	SSW	8 mph	N/A
3:00 PM	50 °F	0.93	S	7 mph	0.1 in
4:00 PM	50 °F	0.89	S	12 mph	N/A
5:00 PM	49 °F	0.93	SSW	17 mph	N/A

17-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	46 °F	0.76	W	8 mph	N/A
9:00 AM	45 °F	0.87	WNW	9 mph	N/A
10:00 AM	45 °F	0.87	WNW	9 mph	N/A
11:00 AM	45 °F	0.87	WNW	12 mph	0.1 in
12:00 PM	46 °F	0.83	WNW	12 mph	N/A
1:00 PM	46 °F	0.83	WN	13 mph	N/A
2:00 PM	46 °F	0.83	WN	13 mph	N/A
3:00 PM	46 °F	0.77	WN	4 mph	N/A
4:00 PM	47 °F	0.77	WNW	3 mph	N/A
5:00 PM	47 °F	0.77	WNW	2 mph	N/A

18-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	44 °F	0.76	WNW	3 mph	N/A
9:00 AM	44 °F	0.73	NW	6 mph	N/A
10:00 AM	45 °F	0.71	NW	4 mph	N/A
11:00 AM	47 °F	0.80	NW	2 mph	N/A
12:00 PM	50 °F	0.73	NNW	3 mph	N/A

21-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	40 °F	0.93	E	3 mph	N/A
9:00 AM	48 °F	0.89	ESE	7 mph	N/A
10:00 AM	53 °F	0.83	E	6 mph	N/A
11:00 AM	59 °F	0.67	ESE	9 mph	N/A
12:00 PM	63 °F	0.54	E	14 mph	N/A
1:00 PM	66 °F	0.48	E	14 mph	N/A
2:00 PM	68 °F	0.43	E	13 mph	N/A
3:00 PM	68 °F	0.45	E	14 mph	N/A
4:00 PM	68 °F	0.47	E	16 mph	N/A
5:00 PM	66 °F	0.50	ESE	12 mph	N/A

22-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	56 °F	0.93	SSW	9 mph	N/A
9:00 AM	57 °F	0.89	SSW	10 mph	N/A
10:00 AM	57 °F	0.96	S	8 mph	0.1 in
11:00 AM	58 °F	0.93	S	10 mph	0.1 in
12:00 PM	58 °F	0.93	S	10 mph	N/A
1:00 PM	59 °F	0.90	SSW	13 mph	N/A
2:00 PM	59 °F	0.81	S	13 mph	N/A
3:00 PM	58 °F	0.84	S	12 mph	N/A
4:00 PM	58 °F	0.82	SSW	10 mph	N/A
5:00 PM	59 °F	0.79	S	9 mph	N/A

23-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	45 °F	0.76	SW	9 mph	N/A
9:00 AM	48 °F	0.74	SW	8 mph	N/A
10:00 AM	49 °F	0.69	SSW	9 mph	N/A
11:00 AM	54 °F	0.66	SW	15 mph	N/A
12:00 PM	53 °F	0.64	SW	16 mph	N/A
1:00 PM	55 °F	0.51	SW	14 mph	N/A
2:00 PM	55 °F	0.49	SSW	14 mph	N/A
3:00 PM	54 °F	0.49	S	17 mph	N/A
4:00 PM	54 °F	0.53	S	13 mph	N/A
5:00 PM	54 °F	0.53	SSW	8 mph	N/A

24-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	55 °F	0.53	SW	8 mph	N/A
9:00 AM	56 °F	0.55	SW	9 mph	N/A
10:00 AM	57 °F	0.55	SW	9 mph	N/A
11:00 AM	55 °F	0.69	SW	12 mph	N/A
12:00 PM	57 °F	0.64	SW	12 mph	N/A
1:00 PM	57 °F	0.64	WN	10 mph	N/A
2:00 PM	55°F	0.64	WN	7 mph	N/A
3:00 PM	55 °F	0.62	WN	6 mph	N/A
4:00 PM	55 °F	0.61	WNW	6 mph	N/A
5:00 PM	53 °F	0.61	WNW	8 mph	N/A

25-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	42 °F	0.89	CALM	0 mph	N/A
9:00 AM	44 °F	0.85	CALM	0 mph	N/A
10:00 AM	45 °F	0.82	E	8 mph	N/A
11:00 AM	48 °F	0.77	E	6 mph	N/A
12:00 PM	50 °F	0.68	ENE	6 mph	N/A
1:00 PM	52 °F	0.67	CALM	0 mph	N/A
2:00 PM	52 °F	0.65	CALM	0 mph	N/A
3:00 PM	53 °F	0.62	E	5 mph	N/A
4:00 PM	53 °F	0.62	ENE	4 mph	N/A

28-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	42 °F	0.96	CALM	0 mph	N/A
9:00 AM	46 °F	0.96	CALM	0 mph	N/A
10:00 AM	52 °F	0.93	SW	6 mph	N/A
11:00 AM	56 °F	0.80	SSW	8 mph	N/A
12:00 PM	58 °F	0.72	SSW	10 mph	N/A
1:00 PM	59 °F	0.67	SSW	9 mph	N/A
2:00 PM	61 °F	0.62	SW	12 mph	N/A
3:00 PM	62 °F	0.56	SW	10 mph	N/A
4:00 PM	62 °F	0.53	SSW	5 mph	N/A
5:00 PM	63 °F	0.48	SW	7 mph	N/A

29-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	43 °F	0.93	S	2 mph	N/A
9:00 AM	55 °F	0.80	SW	8 mph	N/A
10:00 AM	58 °F	0.75	SW	6 mph	N/A
11:00 AM	63 °F	0.63	SSW	9 mph	N/A
12:00 PM	65 °F	0.61	SSW	9 mph	N/A
1:00 PM	67 °F	0.57	SSW	10 mph	N/A
2:00 PM	64 °F	0.60	S	8 mph	N/A
3:00 PM	64 °F	0.63	SW	7 mph	N/A
4:00 PM	62 °F	0.70	SW	7 mph	N/A
5:00 PM	59 °F	0.78	SW	6 mph	N/A

30-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	49 °F	0.83	E	7 mph	N/A
9:00 AM	49 °F	0.83	E	6 mph	N/A
10:00 AM	50 °F	0.80	NE	7 mph	N/A
11:00 AM	50 °F	0.80	NE	8 mph	N/A
12:00 PM	51 °F	0.80	NE	8 mph	N/A
1:00 PM	52 °F	0.77	NE	7 mph	N/A
2:00 PM	52 °F	0.80	ENE	10 mph	N/A
3:00 PM	54 °F	0.77	ENE	8 mph	N/A
4:00 PM	55 °F	0.80	NE	9 mph	N/A
5:00 PM	54 °F	0.80	E	10 mph	N/A

31-Oct					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	52 °F	0.97	S	8 mph	N/A
9:00 AM	52 °F	0.97	S	7 mph	N/A
10:00 AM	51 °F	0.98	NS	7 mph	0.1 in
11:00 AM	53 °F	0.97	S	7 mph	0.1 in
12:00 PM	53 °F	0.97	NS	5 mph	0.2 in
1:00 PM	54 °F	0.96	NSE	4 mph	0.2 in
2:00 PM	54 °F	0.96	S	3 mph	0.4 in
3:00 PM	52 °F	0.95	S	3 mph	0.6 in
4:00 PM	52 °F	0.95	CALM	0 mph	0.8 in
5:00 PM	53 °F	0.96	CALM	0 mph	1.11 in

01-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	40 °F	0.85	W	12 mph	N/A
9:00 AM	40 °F	0.85	W	8 mph	N/A
10:00 AM	40 °F	0.85	W	6 mph	N/A
11:00 AM	39 °F	0.84	W	5 mph	N/A
12:00 PM	39 °F	0.82	W	3 mph	N/A

04-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	43 °F	0.65	S	12 mph	N/A
9:00 AM	45 °F	0.58	S	10 mph	N/A
10:00 AM	46 °F	0.54	SW	13 mph	N/A
11:00 AM	50 °F	0.46	SSW	13 mph	N/A
12:00 PM	52 °F	0.45	SSW	15 mph	N/A
1:00 PM	53 °F	0.41	SSW	17 mph	N/A
2:00 PM	54 °F	0.41	SW	17 mph	N/A
3:00 PM	53 °F	0.38	SW	10 mph	N/A
4:00 PM	53 °F	0.41	SSW	12 mph	N/A
5:00 PM	53 °F	0.45	SW	13 mph	N/A

05-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	47 °F	0.77	W	10 mph	N/A
9:00 AM	45 °F	0.76	W	12 mph	N/A
10:00 AM	44 °F	0.65	WNW	12 mph	N/A
11:00 AM	43 °F	0.62	WNW	10 mph	N/A
12:00 PM	43 °F	0.56	WNW	13 mph	N/A
1:00 PM	44 °F	0.55	W	14 mph	N/A
2:00 PM	47 °F	0.50	W	17 mph	N/A
3:00 PM	45 °F	0.48	W	16 mph	N/A
4:00 PM	44 °F	0.53	W	15 mph	N/A
5:00 PM	43 °F	0.58	WNW	12 mph	N/A

06-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	31 °F	0.72	WSW	12 mph	N/A
9:00 AM	33 °F	0.66	WSW	12 mph	N/A
10:00 AM	36 °F	0.57	WSW	15 mph	N/A
11:00 AM	38 °F	0.51	SW	13 mph	N/A
12:00 PM	40 °F	0.45	SW	14 mph	N/A
1:00 PM	40 °F	0.47	WSW	16 mph	N/A
2:00 PM	40 °F	0.58	WSW	12 mph	N/A
3:00 PM	40 °F	0.63	WSW	10 mph	N/A
4:00 PM	41 °F	0.65	SW	9 mph	N/A
5:00 PM	42 °F	0.65	SW	7 mph	N/A

07-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	32 °F	0.96	N	12 mph	N/A
9:00 AM	32 °F	0.96	N	9 mph	N/A
10:00 AM	32 °F	0.92	N	10 mph	N/A
11:00 AM	31 °F	0.92	N	9 mph	N/A
12:00 PM	31 °F	0.89	N	9 mph	N/A
1:00 PM	31 °F	0.92	NW	6 mph	N/A
2:00 PM	32 °F	0.89	NW	3 mph	N/A
3:00 PM	32 °F	0.79	NW	3 mph	N/A
4:00 PM	33 °F	0.72	N	3 mph	N/A
5:00 PM	32 °F	0.75	NW	5 mph	N/A

08-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	36 °F	0.71	N	7 mph	N/A
9:00 AM	36 °F	0.66	N	9 mph	N/A
10:00 AM	35 °F	0.66	N	8 mph	N/A
11:00 AM	35 °F	0.66	N	5 mph	N/A
12:00 PM	35 °F	0.69	N	3 mph	N/A
1:00 PM	35 °F	0.69	N	3 mph	N/A
2:00 PM	35 °F	0.69	NNE	3 mph	N/A
3:00 PM	34 °F	0.67	NW	4 mph	N/A
4:00 PM	34 °F	0.64	NW	5 mph	N/A

11-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	31 °F	0.92	NE	12 mph	N/A
9:00 AM	31 °F	0.92	NE	10 mph	N/A
10:00 AM	31 °F	0.92	NE	13 mph	N/A
11:00 AM	31 °F	0.92	NE	13 mph	N/A
12:00 PM	29 °F	0.92	NNE	15 mph	N/A
1:00 PM	28 °F	0.88	NNE	17 mph	N/A
2:00 PM	27 °F	0.92	NNE	17 mph	N/A
3:00 PM	27 °F	0.89	NNE	10 mph	N/A
4:00 PM	27 °F	0.89	NE	12 mph	N/A
5:00 PM	26 °F	0.88	NE	13 mph	N/A

12-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	21 °F	0.88	NW	5 mph	N/A
9:00 AM	22 °F	0.78	NW	13 mph	N/A
10:00 AM	22 °F	0.72	WNW	12 mph	N/A
11:00 AM	21 °F	0.57	WNW	16 mph	N/A
12:00 PM	21 °F	0.68	WNW	15 mph	N/A
1:00 PM	21 °F	0.65	NW	17 mph	N/A
2:00 PM	22 °F	0.63	NW	9 mph	N/A
3:00 PM	23 °F	0.6	NW	9 mph	N/A
4:00 PM	22 °F	0.58	WNW	15 mph	N/A
5:00 PM	22 °F	0.51	WNW	16 mph	N/A

13-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	16 °F	0.92	ESE	5 mph	N/A
9:00 AM	18 °F	0.1	ESE	3 mph	N/A
10:00 AM	20 °F	0.81	ESE	3 mph	N/A
11:00 AM	20 °F	0.78	SE	6 mph	N/A
12:00 PM	22 °F	0.72	SE	3 mph	N/A
1:00 PM	25 °F	0.60	SE	5 mph	N/A
2:00 PM	24 °F	0.65	SE	7 mph	N/A
3:00 PM	25 °F	0.63	ESE	8 mph	N/A
4:00 PM	25 °F	0.66	ESE	5 mph	N/A
5:00 PM	24 °F	0.69	SE	7 mph	N/A

14-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	31 °F	0.85	WSW	13 mph	N/A
9:00 AM	31 °F	0.85	WSW	18 mph	N/A
10:00 AM	29 °F	0.92	WSW	8 mph	N/A
11:00 AM	29 °F	0.89	SW	8 mph	N/A
12:00 PM	29 °F	0.89	SW	7 mph	N/A
1:00 PM	29 °F	0.89	SW	6 mph	N/A
2:00 PM	30 °F	0.85	SW	8 mph	N/A
3:00 PM	30 °F	0.92	WSW	3 mph	N/A
4:00 PM	31 °F	0.82	WSW	9 mph	N/A
5:00 PM	31 °F	0.79	WSW	9 mph	N/A

15-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	30 °F	0.75	SW	7 mph	N/A
9:00 AM	30 °F	0.75	SW	5 mph	N/A
10:00 AM	32 °F	0.75	WSW	3 mph	N/A
11:00 AM	34 °F	0.70	WSW	3 mph	N/A
12:00 PM	35 °F	0.69	WSW	4 mph	N/A
1:00 PM	36 °F	0.69	WSW	6 mph	N/A

18-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	29 °F	0.89	NE	5 mph	N/A
9:00 AM	31 °F	0.92	NE	5 mph	N/A
10:00 AM	33 °F	0.85	NE	5 mph	N/A
11:00 AM	35 °F	0.82	NE	6 mph	N/A
12:00 PM	38 °F	0.76	ENE	5 mph	N/A
1:00 PM	38 °F	0.76	ENE	5 mph	N/A
2:00 PM	39 °F	0.73	ENE	5 mph	N/A
3:00 PM	39 °F	0.73	ENE	6 mph	N/A
4:00 PM	37 °F	0.76	ENE	7 mph	N/A
5:00 PM	36 °F	0.82	NE	7 mph	N/A

19-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	34 °F	0.89	ENE	6 mph	N/A
9:00 AM	35 °F	0.89	NE	5 mph	N/A
10:00 AM	36 °F	0.86	NE	4 mph	N/A
11:00 AM	39 °F	0.79	NE	3 mph	N/A
12:00 PM	40 °F	0.79	NE	5 mph	N/A
1:00 PM	41 °F	0.73	ENE	5 mph	N/A
2:00 PM	39 °F	0.76	ENE	7 mph	N/A
3:00 PM	38 °F	0.79	ENE	7 mph	N/A
4:00 PM	38 °F	0.79	ENE	3 mph	N/A
5:00 PM	37 °F	0.82	ENE	5 mph	N/A

20-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	34 °F	0.92	NW	6 mph	N/A
9:00 AM	36 °F	0.97	NW	6 mph	N/A
10:00 AM	38 °F	0.93	NW	6 mph	N/A
11:00 AM	39 °F	0.89	WNW	7 mph	N/A
12:00 PM	42 °F	0.86	WNW	5 mph	N/A
1:00 PM	41 °F	0.82	WNW	6 mph	N/A
2:00 PM	42 °F	0.79	WNW	5 mph	N/A
3:00 PM	42 °F	0.79	WNW	7 mph	N/A
4:00 PM	41 °F	0.79	WNW	7 mph	N/A
5:00 PM	40 °F	0.77	WNW	5 mph	N/A

21-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	37 °F	0.93	S	5 mph	N/A
9:00 AM	39 °F	0.82	S	8 mph	N/A
10:00 AM	41 °F	0.73	S	13 mph	N/A
11:00 AM	41 °F	0.73	SSW	13 mph	N/A
12:00 PM	41 °F	0.73	SSW	12 mph	N/A
1:00 PM	43 °F	0.71	S	10 mph	N/A
2:00 PM	44 °F	0.71	S	12 mph	N/A
3:00 PM	44 °F	0.71	S	13 mph	N/A
4:00 PM	45 °F	0.68	S	13 mph	N/A
5:00 PM	46 °F	0.63	S	10 mph	N/A

22-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	38 °F	0.76	W	14 mph	N/A
9:00 AM	37 °F	0.76	W	17 mph	N/A
10:00 AM	37 °F	0.67	W	15 mph	N/A
11:00 AM	37 °F	0.67	WNW	13 mph	N/A
12:00 PM	37 °F	0.62	WNW	16 mph	N/A
1:00 PM	36 °F	0.64	WNW	17 mph	N/A
2:00 PM	37 °F	0.59	W	18 mph	N/A
3:00 PM	35 °F	0.64	W	16 mph	N/A
4:00 PM	35 °F	0.61	W	14 mph	N/A
5:00 PM	34 °F	0.64	W	12 mph	N/A

23-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	28 °F	0.85	SW	5 mph	N/A
9:00 AM	31 °F	0.82	SW	5 mph	N/A
10:00 AM	33 °F	0.75	SW	5 mph	N/A
11:00 AM	34 °F	0.75	SW	5 mph	N/A
12:00 PM	36 °F	0.73	SW	7 mph	N/A

25-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	42 °F	0.89	SW	9 mph	N/A
9:00 AM	43 °F	0.86	SW	10 mph	N/A
10:00 AM	43 °F	0.86	SW	12 mph	N/A
11:00 AM	44 °F	0.82	WSW	14 mph	N/A
12:00 PM	44 °F	0.82	WSW	14 mph	N/A
1:00 PM	44 °F	0.79	WSW	15 mph	N/A
2:00 PM	44 °F	0.79	WSW	16 mph	N/A
3:00 PM	45 °F	0.76	SW	17 mph	N/A
4:00 PM	45 °F	0.76	SW	14 mph	N/A
5:00 PM	42 °F	0.82	SW	12 mph	N/A

26-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	46 °F	0.79	SW	14 mph	N/A
9:00 AM	48 °F	0.80	WSW	15 mph	N/A
10:00 AM	48 °F	0.80	WSW	14 mph	N/A
11:00 AM	50 °F	0.74	WSW	13 mph	N/A
12:00 PM	52 °F	0.66	WSW	10 mph	N/A
1:00 PM	51 °F	0.68	WSW	10 mph	N/A
2:00 PM	52 °F	0.66	WSW	14 mph	N/A
3:00 PM	52 °F	0.66	WSW	9 mph	N/A
4:00 PM	50 °F	0.71	WSW	8 mph	N/A
5:00 PM	46 °F	0.76	SW	6 mph	N/A

27-Nov					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	45 °F	0.76	SE	6 mph	N/A
9:00 AM	48 °F	0.68	SE	8 mph	N/A
10:00 AM	52 °F	0.57	ESE	10 mph	N/A
11:00 AM	56 °F	0.47	ESE	12 mph	N/A
12:00 PM	53 °F	0.74	ESE	17 mph	N/A

02-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	29 °F	0.96	NNE	17 mph	N/A
9:00 AM	30 °F	0.92	NNE	17 mph	N/A
10:00 AM	30 °F	0.96	NE	15 mph	N/A
11:00 AM	30 °F	0.96	NE	12 mph	N/A
12:00 PM	30 °F	0.96	NE	15 mph	N/A
1:00 PM	30 °F	0.92	NE	15 mph	N/A
2:00 PM	30 °F	0.88	NE	14 mph	N/A
3:00 PM	29 °F	0.92	NE	15 mph	N/A
4:00 PM	29 °F	0.89	NNE	9 mph	N/A
5:00 PM	29 °F	0.85	NE	12 mph	N/A

03-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	19 °F	0.96	WSW	3 mph	N/A
9:00 AM	20 °F	1.00	WSW	5 mph	N/A
10:00 AM	24 °F	1.00	WSW	7 mph	N/A
11:00 AM	28 °F	0.81	WSW	13 mph	N/A
12:00 PM	30 °F	0.88	SW	8 mph	N/A
1:00 PM	31 °F	0.92	SW	7 mph	N/A
2:00 PM	32 °F	0.88	SW	10 mph	N/A
3:00 PM	32 °F	0.82	WSW	10 mph	N/A
4:00 PM	32 °F	0.85	WSW	8 mph	N/A
5:00 PM	32 °F	0.85	SW	8 mph	N/A

04-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	34 °F	0.85	W	8 mph	N/A
9:00 AM	34 °F	0.85	W	9 mph	N/A
10:00 AM	34 °F	0.85	W	8 mph	N/A
11:00 AM	35 °F	0.85	W	12 mph	N/A
12:00 PM	35 °F	0.82	WSW	12 mph	N/A
1:00 PM	35 °F	0.82	WSW	16 mph	N/A
2:00 PM	35 °F	0.82	WSW	12 mph	N/A
3:00 PM	34 °F	0.85	W	10 mph	N/A
4:00 PM	34 °F	0.85	W	10 mph	N/A
5:00 PM	34 °F	0.85	WSW	10 mph	N/A

05-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	31 °F	0.79	NW	17 mph	N/A
9:00 AM	31 °F	0.79	NW	15 mph	N/A
10:00 AM	30 °F	0.82	NW	14 mph	N/A
11:00 AM	30 °F	0.92	W	10 mph	N/A
12:00 PM	32 °F	0.79	W	18 mph	N/A
1:00 PM	30 °F	0.88	W	12 mph	N/A
2:00 PM	31 °F	0.82	WNW	12 mph	N/A
3:00 PM	31 °F	0.76	WNW	13 mph	N/A
4:00 PM	31 °F	0.76	WNW	13 mph	N/A
5:00 PM	31 °F	0.72	WNW	10 mph	N/A

06-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	32 °F	0.88	WNW	6 mph	N/A
9:00 AM	33 °F	0.92	NW	7 mph	N/A
10:00 AM	35 °F	0.89	NW	10 mph	N/A
11:00 AM	33 °F	0.92	N	9 mph	N/A
12:00 PM	32 °F	0.96	N	15 mph	N/A
1:00 PM	32 °F	0.92	N	14 mph	N/A
2:00 PM	31 °F	0.89	N	15 mph	N/A
3:00 PM	31 °F	0.85	NW	12 mph	N/A
4:00 PM	31 °F	0.79	N	12 mph	N/A
5:00 PM	33 °F	0.85	NW	12 mph	N/A

07-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	27 °F	0.75	W	8 mph	N/A
9:00 AM	27 °F	0.78	W	6 mph	N/A
10:00 AM	27 °F	0.78	WNW	6 mph	N/A
11:00 AM	28 °F	0.75	WNW	8 mph	N/A
12:00 PM	29 °F	0.75	WNW	6 mph	N/A
1:00 PM	29 °F	0.74	W	6 mph	N/A

09-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	44 °F	0.65	SW	9 mph	N/A
9:00 AM	45 °F	0.65	SW	12 mph	N/A
10:00 AM	46 °F	0.73	SW	12 mph	0.01 in
11:00 AM	45 °F	0.82	SSW	13 mph	0.01 in
12:00 PM	44 °F	0.89	SSW	14 mph	0.01 in
1:00 PM	45 °F	0.90	SSW	15 mph	0.01 in
2:00 PM	45 °F	0.93	SSW	13 mph	0.01 in
3:00 PM	46 °F	0.89	SSW	15 mph	0.01 in
4:00 PM	47 °F	0.90	SW	17 mph	0.01 in
5:00 PM	48 °F	0.93	SW	16 mph	N/A

10-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	39 °F	0.76	WSW	15 mph	N/A
9:00 AM	37 °F	0.76	WSW	13 mph	N/A
10:00 AM	36 °F	0.73	WSW	14 mph	N/A
11:00 AM	35 °F	0.76	WSW	16 mph	N/A
12:00 PM	34 °F	0.79	WSW	13 mph	N/A
1:00 PM	33 °F	0.75	WSW	16 mph	N/A
2:00 PM	32 °F	0.82	SW	15 mph	N/A
3:00 PM	32 °F	0.75	WSW	16 mph	N/A
4:00 PM	31 °F	0.72	WSW	16 mph	N/A
5:00 PM	32 °F	0.74	SW	12 mph	N/A

11-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	22 °F	0.75	WSW	6 mph	N/A
9:00 AM	23 °F	0.81	WSW	12 mph	N/A
10:00 AM	22 °F	0.92	WSW	13 mph	N/A
11:00 AM	23 °F	0.92	W	12 mph	N/A
12:00 PM	25 °F	0.81	W	13 mph	N/A
1:00 PM	24 °F	0.77	W	18 mph	N/A
2:00 PM	24 °F	0.65	W	19 mph	N/A
3:00 PM	23 °F	0.74	W	21 mph	N/A
4:00 PM	23 °F	0.63	W	18 mph	N/A
5:00 PM	22 °F	0.68	WSW	17 mph	N/A

12-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	22 °F	0.87	S	3 mph	N/A
9:00 AM	21 °F	0.84	S	3 mph	N/A
10:00 AM	20 °F	0.81	S	8 mph	N/A
11:00 AM	25 °F	0.71	S	6 mph	N/A
12:00 PM	28 °F	0.68	S	15 mph	N/A
1:00 PM	29 °F	0.68	S	15 mph	N/A
2:00 PM	29 °F	0.68	SW	18 mph	N/A
3:00 PM	30 °F	0.69	SW	8 mph	N/A
4:00 PM	32 °F	0.69	S	7 mph	N/A
5:00 PM	32 °F	0.761	SW	6 mph	N/A

13-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	32 °F	0.56	S	13 mph	N/A
9:00 AM	33 °F	0.56	S	14 mph	N/A
10:00 AM	35 °F	0.54	S	12 mph	N/A
11:00 AM	37 °F	0.52	S	15 mph	N/A
12:00 PM	39 °F	0.49	S	12 mph	N/A
1:00 PM	40 °F	0.49	S	10 mph	N/A
2:00 PM	41 °F	0.49	S	9 mph	N/A
3:00 PM	41 °F	0.49	SSE	5 mph	N/A
4:00 PM	41 °F	0.51	SSE	6 mph	N/A
5:00 PM	10 °F	0.58	SSE	5 mph	N/A

16-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	26 °F	0.78	SW	6 mph	N/A
9:00 AM	27 °F	0.78	SW	5 mph	N/A
10:00 AM	29 °F	0.72	SW	5 mph	N/A
11:00 AM	31 °F	0.64	SW	5 mph	N/A
12:00 PM	33 °F	0.59	SW	3 mph	N/A
1:00 PM	33 °F	0.59	SSW	3 mph	N/A
2:00 PM	34 °F	0.61	SSW	3 mph	N/A
3:00 PM	35 °F	0.59	SSW	3 mph	N/A
4:00 PM	33 °F	0.66	WSW	5 mph	N/A
5:00 PM	30 °F	0.72	WSW	6 mph	N/A

17-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	28 °F	0.96	NW	7 mph	N/A
9:00 AM	29 °F	0.92	NW	3 mph	N/A
10:00 AM	29 °F	0.92	WNW	3 mph	N/A
11:00 AM	29 °F	0.90	WNW	3 mph	N/A
12:00 PM	30 °F	0.89	WNW	5 mph	N/A
1:00 PM	30 °F	0.88	WNW	5 mph	N/A
2:00 PM	30 °F	0.82	NW	9 mph	N/A
3:00 PM	29 °F	0.81	NW	12 mph	N/A
4:00 PM	29 °F	0.81	NW	13 mph	N/A
5:00 PM	29 °F	0.85	NW	12 mph	N/A

18-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	23 °F	0.74	WNW	17 mph	N/A
9:00 AM	23 °F	0.74	WNW	14 mph	N/A
10:00 AM	23 °F	0.68	WNW	16 mph	N/A
11:00 AM	23 °F	0.72	NW	12 mph	N/A
12:00 PM	23 °F	0.72	NW	13 mph	N/A
1:00 PM	21 °F	0.74	NW	18 mph	N/A
2:00 PM	20 °F	0.65	N	19 mph	N/A
3:00 PM	19 °F	0.60	N	21 mph	N/A
4:00 PM	18 °F	0.63	N	18 mph	N/A
5:00 PM	16 °F	0.68	NW	17 mph	N/A

19-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	10 °F	0.87	W	3 mph	N/A
9:00 AM	12 °F	0.85	W	3 mph	N/A
10:00 AM	13 °F	0.84	W	3 mph	N/A
11:00 AM	15 °F	0.83	W	6 mph	N/A
12:00 PM	16 °F	0.83	W	8 mph	N/A
1:00 PM	16 °F	0.81	W	9 mph	N/A
2:00 PM	18 °F	0.81	W	9 mph	N/A
3:00 PM	19 °F	0.78	W	12 mph	N/A
4:00 PM	19 °F	0.78	WNW	7 mph	N/A
5:00 PM	20 °F	0.78	WNW	5 mph	N/A

20-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	16 °F	0.92	E	3 mph	N/A
9:00 AM	16 °F	0.92	E	6 mph	N/A
10:00 AM	20 °F	0.85	ENE	8 mph	N/A
11:00 AM	21 °F	0.81	ENE	9 mph	N/A
12:00 PM	22 °F	0.75	ENE	8 mph	N/A
1:00 PM	22 °F	0.72	NE	6 mph	N/A
2:00 PM	23 °F	0.68	NE	7 mph	N/A
3:00 PM	23 °F	0.68	ENE	7 mph	N/A
4:00 PM	22 °F	0.68	ENE	7 mph	N/A
5:00 PM	19 °F	0.71	NE	8 mph	N/A

21-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	17 °F	0.81	SW	3 mph	N/A
9:00 AM	19 °F	0.81	SW	7 mph	N/A
10:00 AM	23 °F	0.81	WSW	8 mph	N/A
11:00 AM	26 °F	0.79	WSW	10 mph	N/A
12:00 PM	32 °F	0.75	WSW	13 mph	N/A

23-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	39 °F	0.79	WSW	13 mph	N/A
9:00 AM	41 °F	0.76	SW	16 mph	N/A
10:00 AM	43 °F	0.76	SW	16 mph	N/A
11:00 AM	44 °F	0.73	SW	17 mph	N/A
12:00 PM	45 °F	0.71	SW	15 mph	N/A
1:00 PM	47 °F	0.68	SW	12 mph	N/A
2:00 PM	47 °F	0.66	SW	13 mph	N/A
3:00 PM	45 °F	0.71	WSW	13 mph	N/A
4:00 PM	43 °F	0.76	SW	10 mph	N/A

30-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	41 °F	0.93	SW	14 mph	N/A
9:00 AM	42 °F	0.96	SW	9 mph	N/A
10:00 AM	49 °F	0.90	SW	10 mph	N/A
11:00 AM	49 °F	0.80	SSW	13 mph	N/A
12:00 PM	50 °F	0.71	SSW	17 mph	N/A
1:00 PM	47 °F	0.66	WSW	20 mph	N/A
2:00 PM	44 °F	0.73	WSW	21 mph	N/A
3:00 PM	41 °F	0.73	WSW	15 mph	N/A
4:00 PM	42 °F	0.65	WSW	13 mph	N/A
5:00 PM	40 °F	0.70	WSW	13 mph	N/A

31-Dec					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	36 °F	0.76	S	7 mph	N/A
9:00 AM	35 °F	0.82	S	13 mph	N/A
10:00 AM	33 °F	0.89	S	15 mph	N/A
11:00 AM	33 °F	0.92	SW	16 mph	N/A
12:00 PM	32 °F	0.92	SW	18 mph	N/A
1:00 PM	32 °F	0.88	SW	20 mph	N/A
2:00 PM	32 °F	0.85	SW	21 mph	N/A
3:00 PM	31 °F	0.79	SW	18 mph	N/A
4:00 PM	31 °F	0.79	SSW	18 mph	N/A
5:00 PM	31 °F	0.79	SSW	17 mph	N/A

02-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	36 °F	0.70	WSW	15 mph	N/A
9:00 AM	37 °F	0.67	WSW	12 mph	N/A
10:00 AM	40 °F	0.60	WSW	17 mph	N/A
11:00 AM	42 °F	0.55	WSW	20 mph	N/A
12:00 PM	44 °F	0.51	WSW	21 mph	N/A
1:00 PM	44 °F	0.51	WSW	23 mph	N/A
2:00 PM	43 °F	0.53	W	15 mph	N/A
3:00 PM	44 °F	0.51	W	18 mph	N/A
4:00 PM	43 °F	0.56	WSW	15 mph	N/A
5:00 PM	43 °F	0.58	WSW	14 mph	N/A

03-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	43 °F	0.86	SW	9 mph	N/A
9:00 AM	43 °F	0.87	SW	8 mph	N/A
10:00 AM	44 °F	0.89	WSW	9 mph	N/A
11:00 AM	44 °F	0.85	WSW	12 mph	N/A
12:00 PM	44 °F	0.83	WSW	14 mph	N/A
1:00 PM	45 °F	0.84	WSW	11 mph	N/A
2:00 PM	45 °F	0.83	WSW	10 mph	N/A
3:00 PM	44 °F	0.81	WSW	13 mph	N/A
4:00 PM	43 °F	0.81	WSW	15 mph	N/A

06-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	34 °F	0.82	W	15 mph	N/A
9:00 AM	34 °F	0.79	W	17 mph	N/A
10:00 AM	34 °F	0.73	W	18 mph	N/A
11:00 AM	34 °F	0.67	W	18 mph	N/A
12:00 PM	34 °F	0.64	WNW	20 mph	N/A
1:00 PM	34 °F	0.64	WNW	21 mph	N/A
2:00 PM	35 °F	0.64	WNW	19 mph	N/A
3:00 PM	35 °F	0.70	WNW	21 mph	N/A
4:00 PM	34 °F	0.70	WNW	17 mph	N/A
5:00 PM	34 °F	0.75	WNW	14 mph	N/A

07-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	26 °F	0.84	S	5 mph	N/A
9:00 AM	27 °F	0.89	S	6 mph	N/A
10:00 AM	32 °F	0.82	S	8 mph	N/A
11:00 AM	33 °F	0.82	S	8 mph	N/A
12:00 PM	35 °F	0.76	SW	9 mph	N/A
1:00 PM	35 °F	0.76	SW	12 mph	N/A
2:00 PM	36 °F	0.70	SSW	13 mph	N/A
3:00 PM	36 °F	0.70	SSW	13 mph	N/A
4:00 PM	36 °F	0.70	SW	10 mph	N/A
5:00 PM	35 °F	0.73	SSW	9 mph	N/A

08-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	27 °F	0.72	NW	15 mph	N/A
9:00 AM	27 °F	0.69	NW	12 mph	N/A
10:00 AM	27 °F	0.63	NW	17 mph	N/A
11:00 AM	26 °F	0.66	N	20 mph	N/A
12:00 PM	26 °F	0.69	WNW	21 mph	N/A
1:00 PM	26 °F	0.58	WNW	23 mph	N/A
2:00 PM	24 °F	0.65	WNW	15 mph	N/A
3:00 PM	24 °F	0.69	NW	18 mph	N/A
4:00 PM	23 °F	0.74	NW	15 mph	N/A
5:00 PM	25 °F	0.78	NW	14 mph	N/A

09-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	18 °F	0.71	SE	5 mph	N/A
9:00 AM	20 °F	0.74	SE	6 mph	N/A
10:00 AM	21 °F	0.65	SE	14 mph	N/A
11:00 AM	21 °F	0.63	SE	13 mph	N/A
12:00 PM	24 °F	0.57	ESE	14 mph	N/A
1:00 PM	25 °F	0.53	ESE	9 mph	N/A
2:00 PM	26 °F	0.51	ESE	12 mph	N/A
3:00 PM	28 °F	0.47	ESE	10 mph	N/A
4:00 PM	29 °F	0.47	ESE	6 mph	N/A
5:00 PM	29 °F	0.56	SE	8 mph	N/A

10-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	42 °F	0.79	SW	9 mph	N/A
9:00 AM	42 °F	0.79	SSW	12 mph	N/A
10:00 AM	43 °F	0.82	SSW	10 mph	N/A
11:00 AM	44 °F	0.85	SSW	12 mph	N/A
12:00 PM	44 °F	0.87	SSW	7 mph	N/A
1:00 PM	44 °F	0.90	SSW	7 mph	N/A

13-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	29 °F	0.92	CALM	0 mph	N/A
9:00 AM	30 °F	0.92	CALM	0 mph	N/A
10:00 AM	31 °F	0.92	CALM	0 mph	N/A
11:00 AM	32 °F	0.88	CALM	0 mph	N/A
12:00 PM	33 °F	0.92	CALM	0 mph	N/A
1:00 PM	34 °F	0.92	W	8 mph	N/A
2:00 PM	37 °F	0.89	W	10 mph	N/A
3:00 PM	37 °F	0.89	WSW	10 mph	N/A
4:00 PM	37 °F	0.89	WSW	8 mph	N/A
5:00 PM	36 °F	0.89	WSW	9 mph	N/A

14-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	31 °F	0.96	E	9 mph	N/A
9:00 AM	33 °F	0.92	E	8 mph	N/A
10:00 AM	36 °F	0.89	ESE	9 mph	N/A
11:00 AM	39 °F	0.79	ESE	10 mph	N/A
12:00 PM	41 °F	0.73	ESE	7 mph	N/A
1:00 PM	43 °F	0.76	SE	3 mph	N/A
2:00 PM	44 °F	0.71	CALM	0 mph	N/A
3:00 PM	45 °F	0.68	CALM	0 mph	N/A
4:00 PM	41 °F	0.82	SE	5 mph	N/A
5:00 PM	42 °F	0.76	SE	10 mph	N/A

15-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	35 °F	0.78	WSW	3 mph	N/A
9:00 AM	36 °F	0.76	WSW	5 mph	N/A
10:00 AM	37 °F	0.76	WSW	7 mph	N/A
11:00 AM	38 °F	0.73	SSW	8 mph	N/A
12:00 PM	38 °F	0.70	WSW	8 mph	N/A
1:00 PM	39 °F	0.65	WSW	8 mph	N/A
2:00 PM	39 °F	0.67	WSW	7 mph	N/A
3:00 PM	38 °F	0.68	SW	10 mph	N/A
4:00 PM	39 °F	0.65	CALM	0 mph	N/A
5:00 PM	38 °F	0.70	SW	7 mph	N/A

16-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	33 °F	0.92	NW	11 mph	N/A
9:00 AM	33 °F	0.85	WNW	10 mph	N/A
10:00 AM	33 °F	0.78	WNW	15 mph	N/A
11:00 AM	32 °F	0.82	WNW	18 mph	N/A
12:00 PM	32 °F	0.79	WNW	20 mph	N/A
1:00 PM	33 °F	0.72	WNW	18 mph	N/A
2:00 PM	33 °F	0.72	WNW	15 mph	N/A
3:00 PM	31 °F	0.79	WNW	18 mph	N/A
4:00 PM	30 °F	0.75	NNW	20 mph	N/A
5:00 PM	29 °F	0.67	NNW	20 mph	N/A

17-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	13 °F	0.74	N	12 mph	N/A
9:00 AM	13 °F	0.77	N	16 mph	N/A
10:00 AM	14 °F	0.74	NW	10 mph	N/A
11:00 AM	13 °F	0.74	NW	7 mph	N/A
12:00 PM	15 °F	0.70	NW	3 mph	N/A
1:00 PM	16 °F	0.70	NW	5 mph	N/A
2:00PM	17 °F	0.65	NNW	3 mph	N/A
3:00PM	17 °F	0.62	NNW	5 mph	N/A

20-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	12 °F	0.84	WNW	6 mph	N/A
9:00 AM	13 °F	0.77	WNW	8 mph	N/A
10:00 AM	16 °F	0.59	WNW	12 mph	N/A
11:00 AM	16 °F	0.65	NW	10 mph	N/A
12:00 PM	17 °F	0.59	NW	7 mph	N/A
1:00 PM	18 °F	0.65	NW	7 mph	N/A
2:00 PM	18 °F	0.65	NW	5 mph	N/A
3:00 PM	19 °F	0.57	WNW	3 mph	N/A
4:00 PM	18 °F	0.65	WNW	9 mph	N/A
5:00 PM	17 °F	0.59	WNW	9 mph	N/A

21-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	23 °F	0.81	W	7 mph	N/A
9:00 AM	23 °F	0.81	W	8 mph	N/A
10:00 AM	24 °F	0.81	W	15 mph	N/A
11:00 AM	25 °F	0.75	W	15 mph	N/A
12:00 PM	26 °F	0.71	W	16 mph	N/A
1:00 PM	26 °F	0.69	W	14 mph	N/A
2:00 PM	25 °F	0.75	WSW	15 mph	N/A
3:00 PM	25 °F	0.69	WSW	12 mph	N/A
4:00 PM	25 °F	0.69	WSW	14 mph	N/A
5:00 PM	24 °F	0.69	WSW	15 mph	N/A

22-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	25 °F	0.85	SW	8 mph	N/A
9:00 AM	26 °F	0.81	SW	12 mph	N/A
10:00 AM	27 °F	0.81	SW	13 mph	N/A
11:00 AM	27 °F	0.78	SW	14 mph	N/A
12:00 PM	28 °F	0.78	SW	14 mph	N/A
1:00 PM	28 °F	0.72	SW	14 mph	N/A
2:00 PM	29 °F	0.69	WSW	17 mph	N/A
3:00 PM	30 °F	0.66	WSW	9 mph	N/A
4:00 PM	30 °F	0.66	WSW	9 mph	N/A
5:00 PM	29 °F	0.69	SW	7 mph	N/A

23-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	21 °F	0.68	ENE	5 mph	N/A
9:00 AM	24 °F	0.62	CALM	0 mph	N/A
10:00 AM	29 °F	0.61	CALM	0 mph	N/A
11:00 AM	32 °F	0.59	CALM	0 mph	N/A
12:00 PM	35 °F	0.54	CALM	0 mph	N/A
1:00 PM	38 °F	0.47	CALM	0 mph	N/A
2:00 PM	38 °F	0.48	E	3 mph	N/A
3:00 PM	37 °F	0.52	E	6 mph	N/A
4:00 PM	37 °F	0.50	E	3 mph	N/A
5:00 PM	36 °F	0.52	E	5 mph	N/A

24-Jan					
Time	**Temperature**	**Humidity**	**Wind Direction**	**Wind Speed**	**Precipitation**
8:00 AM	31 °F	0.69	E	9 mph	N/A
9:00 AM	33 °F	0.66	E	10 mph	N/A
10:00 AM	35 °F	0.61	E	13 mph	N/A
11:00 AM	38 °F	0.55	E	6 mph	N/A
12:00 PM	40 °F	0.55	E	8 mph	N/A
1:00 PM	42 °F	0.49	CALM	0 mph	N/A
2:00PM	43 °F	0.53	E	5 mph	N/A
3:00PM	46 °F	0.47	ENE	6 mph	N/A
4:00PM	41 °F	0.60	ENE	8 mph	N/A
5:00PM	40 °F	0.63	ENE	7 mph	N/A

Tonawanda Coke CAMP Monitoring Report
Air Monitoring Summary

16-Sep-19	Upwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
9/16/2019 10:30	0.001	0
9/16/2019 10:45	0.178	0.001
9/16/2019 11:00	0.236	0.001
9/16/2019 11:15	0.214	0.001
9/16/2019 11:30	0.2	0.001
9/16/2019 11:45	0.211	0.002
9/16/2019 12:00	0.205	0.002
9/16/2019 12:15	0.222	0.001
9/16/2019 12:30	0.234	0
9/16/2019 12:45	0.225	0.001
9/16/2019 13:00	0.203	0.001
9/16/2019 13:15	0.198	0
9/16/2019 13:30	0.202	0
9/16/2019 13:45	0.214	0
9/16/2019 14:00	0.2	0
9/16/2019 14:15	0.172	0
9/16/2019 14:30	0.151	-0.001
9/16/2019 14:45	0.162	-0.003
9/16/2019 15:00	0.187	0.003
9/16/2019 15:15	0.179	0.001
9/16/2019 15:30	0.168	0.002
9/16/2019 15:45	0.186	0.002
9/16/2019 16:00	0.179	0.002
9/16/2019 16:15	0.193	0.003
9/16/2019 16:30	0.181	0.004
9/16/2019 16:45	0.176	0.005
9/16/2019 17:00	0.152	0.005
9/16/2019 17:15	0.134	0.004
9/16/2019 17:30	0.002	0.001

17-Sep-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
9/17/2019 8:00	0.051	0.011		
9/17/2019 8:15	0.073	0.008		
9/17/2019 8:30	0.107	-0.001		
9/17/2019 8:45	0.094	0.007		
9/17/2019 9:00	0.13	0		
9/17/2019 9:15	0.116	0.007		
9/17/2019 9:30	0.098	0.008		
9/17/2019 9:45	0.081	0.008		
9/17/2019 10:00	0.095	0.009		
9/17/2019 10:15	0.112	0.009		
9/17/2019 10:30	0.124	0.008		
9/17/2019 10:45	0.121	0.009		
9/17/2019 11:00	0.124	0.01		
9/17/2019 11:15	0.111	0.003		
9/17/2019 11:30	0.12	0.008		
9/17/2019 11:45	0.129	0.005		
9/17/2019 12:00	0.124	0.01		
9/17/2019 12:15	0.126	-0.005		
9/17/2019 12:30	0.117	0.009		
9/17/2019 12:45	0.1	0.001		
9/17/2019 13:00	0.087	0.093		
9/17/2019 13:15	0.097	0.01		
9/17/2019 13:30	0.094	0.007		
9/17/2019 13:45	0.09	0.01		
9/17/2019 14:00	0.089	-0.004		
9/17/2019 14:15	0.07	-0.005		
9/17/2019 14:30	0.06	0.011		
9/17/2019 14:45	0.055	0.004		
9/17/2019 15:00	0.045	-0.01	0.45	0.021
9/17/2019 15:15	0.036	0.001	0.439	0.005
9/17/2019 15:30	0.021	0.001	0.481	0.003
9/17/2019 15:45	0.005	0.001	0.473	0.003
9/17/2019 16:00	0	0.001	0.476	0.002
9/17/2019 16:15	0.012	-0.001	0.461	0.001
9/17/2019 16:30	0.014	-0.001	0.436	0.003
9/17/2019 16:45	0.003	0.001	0.422	0.001
9/17/2019 17:00	0	0.001	0.406	0
9/17/2019 17:15	0.002	0.003	0.391	0.001
9/17/2019 17:30	0.002	0.001	0.371	0.013

18-Sep-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
9/18/2019 8:00	0.095	0.021	0.068	0.016
9/18/2019 8:15	0.073	0.024	0.09	0.018
9/18/2019 8:30	0.103	0.03	0.124	0.021
9/18/2019 8:45	0.199	0.03	0.124	0.016
9/18/2019 9:00	0.167	0.017	0.123	0.011
9/18/2019 9:15	0.229	0.019	0.112	0.012
9/18/2019 9:30	0.426	0.017	0.119	0.01
9/18/2019 9:45	0.359	0.012	0.108	0.008
9/18/2019 10:00	0.401	0.011	0.135	0.008
9/18/2019 10:15	0.445	0.021	0.164	0.012
9/18/2019 10:30	0.454	0.018	0.188	0.007
9/18/2019 10:45	0.437	0.017	0.191	0.009
9/18/2019 11:00	0.436	0.017	0.196	0.007
9/18/2019 11:15	0.428	0.014	0.192	0.006
9/18/2019 11:30	0.414	0.013	0.185	0.004
9/18/2019 11:45	0.425	0.015	0.189	0.006
9/18/2019 12:00	0.409	0.014	0.183	0.006
9/18/2019 12:15	0.413	0.015	0.172	0.005
9/18/2019 12:30	0.402	0.013	0.164	0.004
9/18/2019 12:45	0.372	0.014	0.152	0.004
9/18/2019 13:00	0.36	0.014	0.137	0.004
9/18/2019 13:15	0.362	0.012	0.14	0.004
9/18/2019 13:30	0.357	0.013	0.127	0.005
9/18/2019 13:45	0.366	0.013	0.12	0.006
9/18/2019 14:00	0.365	0.014	0.108	0.005
9/18/2019 14:15	0.369	0.013	0.093	0.006
9/18/2019 14:30	0.348	0.013	0.059	0.007
9/18/2019 14:45	0.365	0.013	0.069	0.007
9/18/2019 15:00	0.382	0.014	0.081	0.008
9/18/2019 15:15	0.348	0.017	0.041	0.007
9/18/2019 15:30	0.344	0.014	0.028	0.007
9/18/2019 15:45	0.327	0.014	0.008	0.007
9/18/2019 16:00	0.323	0.013	0.001	0.008
9/18/2019 16:15	0.307	0.013	0	0.007
9/18/2019 16:30	0.306	0.013	0	0.006
9/18/2019 16:45	0.274	0.014	0.001	0.008
9/18/2019 17:00	0.26	0.014	0	0.007
9/18/2019 17:15	0.252	0.013	0	0.008
9/18/2019 17:30	0.254	0.013	0	0.007

19-Sep-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
9/19/2019 8:00	0.026	0.03	0.127	0.048
9/19/2019 8:15	0.037	0.062	0.101	0.089
9/19/2019 8:30	0.018	0.018	0.136	0.041
9/19/2019 8:45	0.023	0.01	0.117	0.022
9/19/2019 9:00	0.049	0.008	0.093	0.015
9/19/2019 9:15	0.108	0.008	0.119	0.012
9/19/2019 9:30	0.138	0.008	0.128	0.01
9/19/2019 9:45	0.168	0.008	0.144	0.011
9/19/2019 10:00	0.183	0.007	0.15	0.011
9/19/2019 10:15	0.208	0.008	0.136	0.011
9/19/2019 10:30	0.236	0.009	0.095	0.012
9/19/2019 10:45	0.319	0.007	0.069	0.012
9/19/2019 11:00	0.409	0.009	0.051	0.012
9/19/2019 11:15	0.392	0.01	0.052	0.012
9/19/2019 11:30	0.552	0.009	0.051	0.012
9/19/2019 11:45	0.577	0.008	0.045	0.012
9/19/2019 12:00	0.658	0.008	0.031	0.012
9/19/2019 12:15	0.657	0.009	0.03	0.012
9/19/2019 12:30	0.704	0.007	0.038	0.012
9/19/2019 12:45	0.76	0.008	0.042	0.011
9/19/2019 13:00	0.71	0.009	0.046	0.011
9/19/2019 13:15	0.761	0.005	0.049	0.01
9/19/2019 13:30	0.819	0.005	0.077	0.01
9/19/2019 13:45	0.797	0.005	0.11	0.009
9/19/2019 14:00	0.744	0.006	0.134	0.01
9/19/2019 14:15	0.733	0.005	0.126	0.009
9/19/2019 14:30	0.736	0.005	0.118	0.01
9/19/2019 14:45	0.722	0.004	0.111	0.011
9/19/2019 15:00	0.687	0.003	0.107	0.01
9/19/2019 15:15	0.652	0.003	0.102	0.012
9/19/2019 15:30	0.648	0.003	0.096	0.011
9/19/2019 15:45	0.621	0.003	0.082	0.011
9/19/2019 16:00	0.593	0.004	0.081	0.011
9/19/2019 16:15	0.54	0.004	0.054	0.01
9/19/2019 16:30	0.488	0.004	0.01	0.01
9/19/2019 16:45	0.45	0.004	0.002	0.011
9/19/2019 17:00	0.465	0.004	0	0.01
9/19/2019 17:15	0.431	0.004	0.003	0.01
9/19/2019 17:30	0.315	0.002	0	0.01

20-Sep-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
9/20/2019 8:00	0.005	0.012	0.013	0.014
9/20/2019 8:15	0.004	0.01	0.132	0.014
9/20/2019 8:30	0.027	0.034	0.176	0.014
9/20/2019 8:45	0.054	0.021	0.154	0.014
9/20/2019 9:00	0.062	0.037	0.156	0.016
9/20/2019 9:15	0.066	0.048	0.151	0.019
9/20/2019 9:30	0.095	0.051	0.135	0.018
9/20/2019 9:45	0.183	0	0.147	0.018
9/20/2019 10:00	0.182	0.003	0.156	0.017
9/20/2019 10:15	0.22	0	0.157	0.019
9/20/2019 10:30	0.249	0	0.16	0.018
9/20/2019 10:45	0.284	0.003	0.154	0.016
9/20/2019 11:00	0.318	0.001	0.143	0.017
9/20/2019 11:15	0.323	0.002	0.144	0.015
9/20/2019 11:30	0.337	0.001	0.146	0.014
9/20/2019 11:45	0.344	0.002	0.143	0.014
9/20/2019 12:00	0.348	0.001	0.149	0.015
9/20/2019 12:15	0.352	0.002	0.141	0.014
9/20/2019 12:30	0.376	0.003	0.137	0.015
9/20/2019 12:45	0.389	0.005	0.135	0.015
9/20/2019 13:00	0.367	0.004	0.137	0.015
9/20/2019 13:15	0.383	0.004	0.136	0.015
9/20/2019 13:30	0.399	0.004	0.124	0.014
9/20/2019 13:45	0.389	0.004	0.123	0.015
9/20/2019 14:00	0.383	0.008	0.118	0.015
9/20/2019 14:15	0.366	0.01	0.113	0.015
9/20/2019 14:30	0.359	0.003	0.115	0.015
9/20/2019 14:45	0.35	0.003	0.108	0.015
9/20/2019 15:00	0.34	0.003	0.115	0..014
9/20/2019 15:15	0.343	0.003	0.108	0.015
9/20/2019 15:30	0.344	0.004	0.109	0.015

23-Sep-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
9/23/2019 8:00	0.168	0.014	0.382	0.015
9/23/2019 8:15	0	0.015	0.271	0.02
9/23/2019 8:30	0	0.015	0.211	0.018
9/23/2019 8:45	0.018	0.014	0.209	0.017
9/23/2019 9:00	0.017	0.015	0.223	0.016
9/23/2019 9:15	0.045	0.0014	0.235	0.016
9/23/2019 9:30	0.064	0.013	0.222	0.015
9/23/2019 9:45	0.073	0.015	0.218	0.016
9/23/2019 10:00	0.058	0.013	0.235	0.016
9/23/2019 10:15	0.056	0.014	0.219	0.015
9/23/2019 10:30	0.055	0.015	0.22	0.015
9/23/2019 10:45	0.061	0.014	0.239	0.014
9/23/2019 11:00	0.055	0.012	0.236	0.014
9/23/2019 11:15	0.046	0.012	0.234	0.015
9/23/2019 11:30	0.046	0.012	0.219	0.015
9/23/2019 11:45	0.047	0.011	0.228	0.014
9/23/2019 12:00	0.068	0.011	0.243	0.015
9/23/2019 12:15	0.055	0.011	0.23	0.014
9/23/2019 12:30	0.038	0.011	0.214	0.013
9/23/2019 12:45	0.033	0.013	0.199	0.014
9/23/2019 13:00	0.036	0.013	0.181	0.015
9/23/2019 13:15	0.027	0.011	0.155	0.013
9/23/2019 13:30	0.03	0.008	0.165	0.011
9/23/2019 13:45	0.038	0.011	0.154	0.02
9/23/2019 14:00	0.041	0.01	0.166	0.013
9/23/2019 14:15	0.036	0.009	0.15	0.012
9/23/2019 14:30	0.037	0.01	0.129	0.012
9/23/2019 14:45	0.037	0.011	0.133	0.013
9/23/2019 15:00	0.052	0.01	0.154	0.012
9/23/2019 15:15	0.053	0.006	0.162	0.007
9/23/2019 15:30	0.066	0.005	0.183	0.006
9/23/2019 15:45	0.051	0.002	0.164	0005
9/23/2019 16:00	0.063	0.003	0.145	0.005
9/23/2019 16:15	0.076	0.004	0.163	0.005
9/23/2019 16:30	0.075	0.002	0.168	0.006
9/23/2019 16:45	0.067	0.002	0.165	0.006
9/23/2019 17:00	0.092	0.002	0.148	0.006
9/23/2019 17:15	0.091	0.002	0.14	0.006
9/23/2019 17:30	0.085	0.002	0.137	0.005

24-Sep-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
9/24/2019 8:00	0.166	0.008	0.324	0.005
9/24/2019 8:15	0.194	0.008	0.059	0.007
9/24/2019 8:30	0.222	0.009	0.088	0.007
9/24/2019 8:45	0.232	0.009	0.083	0.007
9/24/2019 9:00	0.257	0.009	0.086	0.006
9/24/2019 9:15	0.297	0.01	0.11	0.007
9/24/2019 9:30	0.331	0.009	0.102	0.009
9/24/2019 9:45	0.343	0.009	0.095	0.009
9/24/2019 10:00	0.339	0.009	0.08	0.008
9/24/2019 10:15	0.329	0.01	0.105	0.009
9/24/2019 10:30	0.307	0.01	0.115	0.008
9/24/2019 10:45	0.295	0.009	0.002	0.006
9/24/2019 11:00	0.284	0.009	0.117	0.006
9/24/2019 11:15	0.27	0.008	0.114	0.005
9/24/2019 11:30	0.259	0.009	0.115	0.005
9/24/2019 11:45	0.209	0.01	0.082	0.006
9/24/2019 12:00	0.176	0.01	0.046	0.007
9/24/2019 12:15	0.16	0.01	0.029	0.006
9/24/2019 12:30	0.157	0.009	0.032	0.006
9/24/2019 12:45	0.129	0.01	0.014	0.006
9/24/2019 13:00	0.108	0.011	0.003	0.008
9/24/2019 13:15	0.089	0.011	0	0.008
9/24/2019 13:30	0.069	0.011	0	0.007
9/24/2019 13:45	0.025	0.01	0.001	0.007
9/24/2019 14:00	0.006	0.01	0.002	0.005
9/24/2019 14:15	0.008	0.01	0.003	0.007
9/24/2019 14:30	0.013	0.009	0.003	0.006
9/24/2019 14:45	0.039	0.01	0.002	0.006
9/24/2019 15:00	0	0.01	0	0.007
9/24/2019 15:15	0.012	0.011	0.01	0.008
9/24/2019 15:30	0.01	0.01	0.002	0.006
9/24/2019 15:45	0	0.01	0	0.006
9/24/2019 16:00	0.003	0.01	0	0.006
9/24/2019 16:15	0.002	0.01	0.004	0.007
9/24/2019 16:30	0.001	0.011	0.004	0.008
9/24/2019 16:45	0.001	0.01	0.002	0.007
9/24/2019 17:00	0.001	0.01	0.001	0.007
9/24/2019 17:15	0	0.01	0	0.007
9/24/2019 17:30	0	0.01	0	0.007

25-Sep-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
9/25/2019 8:00	0.061	0.008	0.152	0.012
9/25/2019 8:15	0.02	0.008	0.043	0.012
9/25/2019 8:30	0.03	0.007	0	0.012
9/25/2019 8:45	0.029	0.008	0.003	0.011
9/25/2019 9:00	0.041	0.008	0.023	0.012
9/25/2019 9:15	0.042	0.007	0.046	0.011
9/25/2019 9:30	0.02	0.007	0.051	0.013
9/25/2019 9:45	0.014	0.008	0.045	0.011
9/25/2019 10:00	0.021	0.008	0.108	0.011
9/25/2019 10:15	0.02	0.006	0.167	0.011
9/25/2019 10:30	0.01	0.006	0.167	0.011
9/25/2019 10:45	0.004	0.007	0.174	0.01
9/25/2019 11:00	0.001	0.007	0.175	0.012
9/25/2019 11:15	0.003	0.005	0.179	0.011
9/25/2019 11:30	0.002	0.004	0.156	0.01
9/25/2019 11:45	0	0.003	0.145	0.012
9/25/2019 12:00	0	0.006	0.111	0.011
9/25/2019 12:15	0.010	0.001	0.075	0.011
9/25/2019 12:30	0.02	0.007	0.068	0.011
9/25/2019 12:45	0.004	0.004	0.048	0.015
9/25/2019 13:00	0.009	0.008	0.035	0.012
9/25/2019 13:15	0.01	0.004	0.068	0.011
9/25/2019 13:30	0.014	0.002	0.109	0.012
9/25/2019 13:45	0.017	0.005	0.113	0.01
9/25/2019 14:00	0.004	0.005	0.112	0.01
9/25/2019 14:15	0.003	0.005	0.081	0.01
9/25/2019 14:30	0.003	0.005	0.083	0.011
9/25/2019 14:45	0	0.007	0.088	0.011
9/25/2019 15:00	0	0.007	0.085	0.011
9/25/2019 15:15	0.002	0.004	0.066	0.011
9/25/2019 15:30	0.01	0.004	0.048	0.01
9/25/2019 15:45	0.01	0.004	0.033	0.011
9/25/2019 16:00	0.018	0.003	0.006	0.01
9/25/2019 16:15	0.012	0.005	0.01	0.011
9/25/2019 16:30	0.002	0.005	0	0.011
9/25/2019 16:45	0.004	0.001	0.001	0.011
9/25/2019 17:00	0.003	0.001	0.001	0.012
9/25/2019 17:15	0.003	0.001	0	0.011
9/25/2019 17:30	0.003	0.001	0	0.011

26-Sep-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
9/26/2019 8:00	N/A	N/A	N/A	N/A
9/26/2019 8:15	N/A	N/A	N/A	N/A
9/26/2019 8:30	N/A	N/A	N/A	N/A
9/26/2019 8:45	N/A	N/A	N/A	N/A
9/26/2019 9:00	N/A	N/A	N/A	N/A
9/26/2019 9:15	N/A	N/A	N/A	N/A
9/26/2019 9:30	0.083	0.01	0	0.011
9/26/2019 9:45	0.084	0.011	0	0.012
9/26/2019 10:00	0.095	0.01	0.002	0.012
9/26/2019 10:15	0.1	0.008	0.004	0.011
9/26/2019 10:30	0.105	0.008	0.006	0.012
9/26/2019 10:45	0.104	0.01	0	0.012
9/26/2019 11:00	0.106	0.008	0.006	0.012
9/26/2019 11:15	0.101	0.006	0.021	0.009
9/26/2019 11:30	0.119	0.004	0.056	0.008
9/26/2019 11:45	0.122	0.004	0.083	0.008
9/26/2019 12:00	0.118	0.006	0.105	0.008
9/26/2019 12:15	0.134	0.005	0.113	0.008
9/26/2019 12:30	0.141	0.005	0.114	0.009
9/26/2019 12:45	0.146	0.003	0.116	0.009
9/26/2019 13:00	0.132	0.002	0.169	0.009
9/26/2019 13:15	0.127	0.002	0.151	0.008
9/26/2019 13:30	0.1	0.003	0.156	0.007
9/26/2019 13:45	0.082	0.003	0.151	0.007
9/26/2019 14:00	0.063	0.003	0.162	0.009
9/26/2019 14:15	0.048	0.002	0.192	0.008
9/26/2019 14:30	0.055	0.003	0.205	0.008
9/26/2019 14:45	0.017	0.004	0.174	0.008
9/26/2019 15:00	0.011	0.004	0.125	0.008
9/26/2019 15:15	0.008	0.004	0.129	0.008
9/26/2019 15:30	0	0.005	0.082	0.007
9/26/2019 15:45	0.007	0.004	0.118	0.008
9/26/2019 16:00	0.01	0.004	0.135	0.007
9/26/2019 16:15	0.003	0.004	0.126	0.006
9/26/2019 16:30	0.001	0.004	0.114	0.007
9/26/2019 16:45	0	0.003	0.105	0.007
9/26/2019 17:00	0.001	0.003	0.01	0.004
9/26/2019 17:15	N/A	N/A	N/A	N/A
9/26/2019 17:30	N/A	N/A	N/A	N/A

27-Sep-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
9/27/2019 8:00	0.002	0.008	0.008	0.011
9/27/2019 8:15	0.001	0.007	0.163	0.011
9/27/2019 8:30	0.003	0.012	0.154	0.01
9/27/2019 8:45	0.001	0.011	0.169	0.009
9/27/2019 9:00	0.003	0.009	0.153	0.007
9/27/2019 9:15	0.002	0.01	0.156	0.009
9/27/2019 9:30	0.001	0.008	0.153	0.006
9/27/2019 9:45	0.001	0.007	0.148	0.007
9/27/2019 10:00	0.001	0.007	0.134	0.006
9/27/2019 10:15	0	0.008	0.142	0.005
9/27/2019 10:30	0.003	0.008	0.142	0.005
9/27/2019 10:45	0.01	0.007	0.139	0.006
9/27/2019 11:00	0.001	0.008	0.143	0.006
9/27/2019 11:15	0.009	0.007	0.131	0.006
9/27/2019 11:30	0.002	0.008	0.127	0.005
9/27/2019 11:45	0.002	0.007	0.121	0.004
9/27/2019 12:00	0.006	0.008	0.112	0.004

30-Sep-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
9/30/2019 8:00	0	0.01	0.069	0.008
9/30/2019 8:15	0	0.013	0.077	0.009
9/30/2019 8:30	0	0.013	0.079	0.01
9/30/2019 8:45	0	0.015	0.09	0.014
9/30/2019 9:00	0	0.013	0.072	0.011
9/30/2019 9:15	0	0.011	0.084	0.011
9/30/2019 9:30	0	0.016	0.088	0.012
9/30/2019 9:45	0	0.015	0.073	0.011
9/30/2019 10:00	0	0.012	0.063	0.01
9/30/2019 10:15	0	0.012	0.073	0.011
9/30/2019 10:30	0	0.011	0.063	0.009
9/30/2019 10:45	0	0.012	0.059	0.013
9/30/2019 11:00	0	0.011	0.077	0.01
9/30/2019 11:15	0	0.01	0.078	0.009
9/30/2019 11:30	0	0.013	0.076	0.011
9/30/2019 11:45	0	0.012	0.088	0.012
9/30/2019 12:00	0.023	0.012	0.092	0.009
9/30/2019 12:15	0.019	0.012	0.074	0.009
9/30/2019 12:30	0.024	0.011	0.075	0.01
9/30/2019 12:45	0	0.012	0.057	0.008
9/30/2019 13:00	0	0.013	0.049	0.008
9/30/2019 13:15	0	0.012	0.046	0.008
9/30/2019 13:30	0	0.012	0.038	0.007
9/30/2019 13:45	0	0.012	0.039	0.009
9/30/2019 14:00	0	0.012	0.04	0.008
9/30/2019 14:15	0	0.012	0.043	0.01
9/30/2019 14:30	0	0.013	0.034	0.009
9/30/2019 14:45	0	0.013	0.024	0.01
9/30/2019 15:00	0	0.013	0.023	0.01
9/30/2019 15:15	0	0.013	0.02	0.009
9/30/2019 15:30	0	0.013	0.011	0.009
9/30/2019 15:45	0	0.013	0.023	0.008
9/30/2019 16:00	0	0.013	0.031	0.007
9/30/2019 16:15	0	0.014	0.031	0.008
9/30/2019 16:30	0	0.016	0.023	0.01
9/30/2019 16:45	0	0.016	0.02	0.01
9/30/2019 17:00	0	0.018	0.008	0.012
9/30/2019 17:15	0	0.021	0.002	0.015
9/30/2019 17:30	0	0.023	0	0.017

01-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/01/2019 8:00	0	0.044	0	0.035
10/01/2019 8:15	0	0.046	0	0.032
10/01/2019 8:30	0	0.042	0.012	0.032
10/01/2019 8:45	0	0.04	0.012	0.029
10/01/2019 9:00	0	0.039	0.103	0.029
10/01/2019 9:15	0.039	0.038	0.117	0.028
10/01/2019 9:30	0.09	0.037	0.129	0.027
10/01/2019 9:45	0.113	0.037	0.121	0.027
10/01/2019 10:00	0.145	0.036	0.115	0.027
10/01/2019 10:15	0.128	0.036	0.115	0.025
10/01/2019 10:30	0.149	0.036	0.13	0.024
10/01/2019 10:45	0.149	0.037	0.139	0.024
10/01/2019 11:00	0.173	0.036	0.136	0.025
10/01/2019 11:15	0.154	0.037	0.126	0.025
10/01/2019 11:30	0.13	0.037	0.111	0.025
10/01/2019 11:45	0.113	0.036	0.117	0.025
10/01/2019 12:00	0.132	0.038	0.112	0.025
10/01/2019 12:15	0.117	0.039	0.109	0.023
10/01/2019 12:30	0.096	0.039	0.091	0.023
10/01/2019 12:45	0.062	0.04	0.083	0.024
10/01/2019 13:00	0.041	0.039	0.076	0.025
10/01/2019 13:15	0.048	0.039	0.077	0.024
10/01/2019 13:30	0.02	0.038	0.062	0.026
10/01/2019 13:45	0.021	0.039	0.038	0.026
10/01/2019 14:00	0.019	0.039	0.031	0.025
10/01/2019 14:15	0	0.037	0.023	0.024
10/01/2019 14:30	0	0.037	0.018	0.022
10/01/2019 14:45	0.005	0.035	0.014	0.02
10/01/2019 15:00	0	0.034	0.009	0.019
10/01/2019 15:15	0	0.034	0	0.019
10/01/2019 15:30	0	0.031	0	0.018
10/01/2019 15:45	0	0.03	0	0.02
10/01/2019 16:00	0	0.03	0	0.022
10/01/2019 16:15	0	0.032	0	0.022
10/01/2019 16:30	0	0.036	0	0.027
10/01/2019 16:45	0	0.036	0	0.027
10/01/2019 17:00	0	0.037	0	0.028
10/01/2019 17:15	0	0.036	0	0.028
10/01/2019 17:30	0	0.036	0	0.028

02-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/02/2019 8:00	0.123	0.02	0.045	0.016
10/02/2019 8:15	0.122	0.027	0.045	0.022
10/02/2019 8:30	0.122	0.023	0.066	0.02
10/02/2019 8:45	0.139	0.016	0.083	0.02
10/02/2019 9:00	0.13	0.018	0.086	0.019
10/02/2019 9:15	0.132	0.016	0.099	0.023
10/02/2019 9:30	0.127	0.014	0.109	0.015
10/02/2019 9:45	0.122	0.013	0.124	0.016
10/02/2019 10:00	0.106	0.012	0.131	0.014
10/02/2019 10:15	0.115	0.011	0.145	0.016
10/02/2019 10:30	0.108	0.01	0.157	0.012
10/02/2019 10:45	0.105	0.012	0.142	0.013
10/02/2019 11:00	0.106	0.012	0.148	0.014
10/02/2019 11:15	0.113	0.014	0.153	0.014
10/02/2019 11:30	0.097	0.009	0.151	0.012
10/02/2019 11:45	0.106	0.006	0.153	0.01
10/02/2019 12:00	0.112	0.004	0.171	0.006
10/02/2019 12:15	0.103	0.004	0.18	0.005
10/02/2019 12:30	0.104	0.005	0.176	0.005
10/02/2019 12:45	0.099	0.004	0.179	0.005
10/02/2019 13:00	0.103	0.002	0.195	0.003
10/02/2019 13:15	0.109	0.002	0.22	0.002
10/02/2019 13:30	0.123	0.002	0.237	0.002
10/02/2019 13:45	0.111	0.001	0.245	0.002
10/02/2019 14:00	0.112	0.001	0.241	0.002
10/02/2019 14:15	0.119	0.002	0.259	0.003
10/02/2019 14:30	0.115	0.001	0.271	0.003
10/02/2019 14:45	0.115	0.002	0.271	0.002
10/02/2019 15:00	0.115	0.002	0.271	0.002
10/02/2019 15:15	0.119	0.002	0.269	0.002
10/02/2019 15:30	0.122	0.003	0.282	0.003
10/02/2019 15:45	0.13	0.003	0.275	0.003
10/02/2019 16:00	0.12	0.004	0.275	0.003
10/02/2019 16:15	0.141	0.004	0.278	0.003
10/02/2019 16:30	0.139	0.003	0.29	0.003
10/02/2019 16:45	0.13	0.002	0.273	0.002
10/02/2019 17:00	0.126	0.002	0.281	0.002
10/02/2019 17:15	0.127	0.002	0.274	0.002
10/02/2019 17:30	0.137	0.002	0.282	0.002

03-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/03/2019 8:00	0	0.024	0	0.005
10/03/2019 8:15	0	0.006	0	0.006
10/03/2019 8:30	0	0.007	0	0.006
10/03/2019 8:45	0	0.007	0	0.007
10/03/2019 9:00	0	0.007	0	0.006
10/03/2019 9:15	0	0.009	0	0.007
10/03/2019 9:30	0	0.008	0	0.007
10/03/2019 9:45	0	0.007	0	0.006
10/03/2019 10:00	0	0.007	0	0.007
10/03/2019 10:15	0	0.007	0	0.006
10/03/2019 10:30	0	0.007	0	0.007
10/03/2019 10:45	0	0.006	0	0.006
10/03/2019 11:00	0	0.007	0	0.006
10/03/2019 11:15	0	0.006	0	0.006
10/03/2019 11:30	0	0.006	0	0.006
10/03/2019 11:45	0	0.006	0	0.005
10/03/2019 12:00	0	0.005	0	0.005
10/03/2019 12:15	0	0.005	0	0.005
10/03/2019 12:30	0.002	0.005	0	0.005
10/03/2019 12:45	0.002	0.005	0	0.005
10/03/2019 13:00	0.001	0.005	0	0.004
10/03/2019 13:15	0	0.004	0	0.004
10/03/2019 13:30	0.003	0.003	0	0.004
10/03/2019 13:45	0	0.004	0	0.004
10/03/2019 14:00	0.007	0.003	0	0.003
10/03/2019 14:15	0	0.002	0	0.003
10/03/2019 14:30	0	0.004	0	0.004
10/03/2019 14:45	0	0.003	0	0.004
10/03/2019 15:00	0	0.003	0	0.006
10/03/2019 15:15	0	0.003	0	0.004
10/03/2019 15:30	0	0.003	0	0.004
10/03/2019 15:45	0	0.004	0	0.004
10/03/2019 16:00	0	0.004	0	0.005
10/03/2019 16:15	0	0.004	0	0.005
10/03/2019 16:30	0	0.004	0	0.005
10/03/2019 16:45	0	0.003	0	0.005
10/03/2019 17:00	0	0.003	0	0.004
10/03/2019 17:15	0	0.003	0	0.005
10/03/2019 17:30	0	0.003	0	0.004

04-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/04/2019 8:00	0.02	0.004	0.017	0.012
10/04/2019 8:15	0.021	0.004	0.067	0.009
10/04/2019 8:30	0.021	0.004	0	0.008
10/04/2019 8:45	0.023	0.004	0.054	0.008
10/04/2019 9:00	0.018	0.004	0.042	0.007
10/04/2019 9:15	0.023	0.004	0.071	0.008
10/04/2019 9:30	0.02	0.004	0.065	0.005
10/04/2019 9:45	0.023	0.004	0.017	0.006
10/04/2019 10:00	0.026	0.004	0.037	0.005
10/04/2019 10:15	0.013	0.004	0.037	0.033
10/04/2019 10:30	0.027	0.004	0.051	0.011
10/04/2019 10:45	0.016	0.004	0.013	0.012
10/04/2019 11:00	0.01	0.007	0.061	0.008
10/04/2019 11:15	0.01	0.006	0.069	0.003
10/04/2019 11:30	0.014	0.008	0.097	0.004
10/04/2019 11:45	0.023	0.007	0.091	0.011
10/04/2019 12:00	0.019	0.007	0.085	0.007

07-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/07/2019 8:00	0.026	0.009	0	0.009
10/07/2019 8:15	0.003	0.01	0	0.008
10/07/2019 8:30	0.00	0.012	0	0.008
10/07/2019 8:45	0.025	0.01	0	0.006
10/07/2019 9:00	0.007	0.01	0	0.008
10/07/2019 9:15	0.003	0.009	0	0.007
10/07/2019 9:30	0.017	0.009	0	0.006
10/07/2019 9:45	0.021	0.011	0	0.006
10/07/2019 10:00	0.03	0.012	0	0.005
10/07/2019 10:15	0.022	0.011	0	0.005
10/07/2019 10:30	0.011	0.009	0	0.005
10/07/2019 10:45	0.016	0.01	0	0.005
10/07/2019 11:00	0.005	0.008	0	0.005
10/07/2019 11:15	0.013	0.008	0	0.005
10/07/2019 11:30	0.013	0.009	0.001	0.005
10/07/2019 11:45	0.01	0.01	0.01	0.006
10/07/2019 12:00	0.017	0.01	0.025	0.006
10/07/2019 12:15	0.006	0.009	0.024	0.006
10/07/2019 12:30	0.004	0.01	0.021	0.006
10/07/2019 12:45	0.001	0.011	0.014	0.007
10/07/2019 13:00	0.002	0.012	0.022	0.007
10/07/2019 13:15	0.003	0.011	0.03	0.007
10/07/2019 13:30	0.001	0.01	0.046	0.007
10/07/2019 13:45	0.002	0.011	0.045	0.007
10/07/2019 14:00	0.007	0.011	0.076	0.007
10/07/2019 14:15	0.008	0.011	0.105	0.007
10/07/2019 14:30	0.004	0.012	0.128	0.007
10/07/2019 14:45	0.003	0.012	0.112	0.007
10/07/2019 15:00	0.001	0.012	0.076	0.007
10/07/2019 15:15	0.002	0.012	0.106	0.007
10/07/2019 15:30	0.004	0.011	0.112	0.006
10/07/2019 15:45	0.004	0.01	0.115	0.007
10/07/2019 16:00	0.002	0.01	0.09	0.007
10/07/2019 16:15	0.007	0.011	0.116	0.005
10/07/2019 16:30	0.003	0.009	0.1	0.006
10/07/2019 16:45	0.003	0.009	0.072	0.005
10/07/2019 17:00	0.012	0.008	0.07	0.005
10/07/2019 17:15	0.004	0.009	0.061	0.006
10/07/2019 17:30	0.009	0.008	0.091	0.006

08-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/08/2019 8:00	0.002	0.032	0	0.021
10/08/2019 8:15	0	0.025	0	0.026
10/08/2019 8:30	0	0.025	0	0.027
10/08/2019 8:45	0.001	0.025	0	0.024
10/08/2019 9:00	0.002	0.023	0	0.025
10/08/2019 9:15	0	0.018	0	0.02
10/08/2019 9:30	0	0.017	0	0.016
10/08/2019 9:45	0	0.013	0	0.011
10/08/2019 10:00	0	0.011	0	0.008
10/08/2019 10:15	0	0.008	0	0.009
10/08/2019 10:30	0	0.017	0	0.009
10/08/2019 10:45	0	0.017	0	0.011
10/08/2019 11:00	0	0.012	0.049	0.007
10/08/2019 11:15	0	0.008	0.057	0.006
10/08/2019 11:30	0	0.009	0.111	0.005
10/08/2019 11:45	0	0.009	0.119	0.006
10/08/2019 12:00	0	0.01	0.113	0.005
10/08/2019 12:15	0	0.008	0.123	0.005
10/08/2019 12:30	0	0.009	0.108	0.004
10/08/2019 12:45	0	0.008	0.073	0.006
10/08/2019 13:00	0	0.015	0.063	0.008
10/08/2019 13:15	0	0.011	0.048	0.005
10/08/2019 13:30	0	0.009	0.025	0.005
10/08/2019 13:45	0	0.01	0.005	0.01
10/08/2019 14:00	0	0.009	0.001	0.006
10/08/2019 14:15	0	0.009	0.009	0.007
10/08/2019 14:30	0	0.009	0.001	0.007
10/08/2019 14:45	0	0.008	0	0.005
10/08/2019 15:00	0	0.008	0	0.008
10/08/2019 15:15	0	0.008	0	0.005
10/08/2019 15:30	0	0.008	0	0.006
10/08/2019 15:45	0	0.008	0	0.006
10/08/2019 16:00	0	0.008	0	0.005
10/08/2019 16:15	0	0.008	0	0.007
10/08/2019 16:30	0	0.008	0	0.004
10/08/2019 16:45	0	0.015	0	0.005
10/08/2019 17:00	0	0.008	0	0.005
10/08/2019 17:15	0	0.008	0	0.005
10/08/2019 17:30	0	0.01	0	0.005

09-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/09/2019 8:00	0	0.046	0.019	0.055
10/09/2019 8:15	0	0.025	0.005	0.031
10/09/2019 8:30	0	0.016	0.013	0.026
10/09/2019 8:45	0	0.017	0.032	0.016
10/09/2019 9:00	0	0.017	0.014	0.016
10/09/2019 9:15	0	0.014	0.032	0.017
10/09/2019 9:30	0	0.016	0.061	0.015
10/09/2019 9:45	0	0.015	0.022	0.015
10/09/2019 10:00	0	0.013	0.019	0.018
10/09/2019 10:15	0	0.013	0.009	0.012
10/09/2019 10:30	0	0.012	0	0.013
10/09/2019 10:45	0.02	0.011	0	0.012
10/09/2019 11:00	0.014	0.012	0	0.01
10/09/2019 11:15	0003	0.01	0	0.01
10/09/2019 11:30	0.002	0.009	0	0.011
10/09/2019 11:45	0	0.007	0	0.008
10/09/2019 12:00	0	0.006	0	0.009
10/09/2019 12:15	0	0.007	0	0.009
10/09/2019 12:30	0	0.008	0	0.01
10/09/2019 12:45	0	0.005	0	0.007
10/09/2019 13:00	0	0.005	0	0.009
10/09/2019 13:15	0	0.004	0	0.008
10/09/2019 13:30	0	0.006	0	0.008
10/09/2019 13:45	0	0.005	0	0.009
10/09/2019 14:00	0	0.005	0	0.007
10/09/2019 14:15	0	0.006	0	0.008
10/09/2019 14:30	0	0.005	0	0.007
10/09/2019 14:45	0	0.005	0	0.007
10/09/2019 15:00	0	0.006	0	0.007
10/09/2019 15:15	0	0.004	0	0.007
10/09/2019 15:30	0	0.005	0	0.007
10/09/2019 15:45	0	0.005	0	0.009
10/09/2019 16:00	0	0.005	0	0.007
10/09/2019 16:15	0	0.006	0	0.008
10/09/2019 16:30	0	0.005	0	0.007
10/09/2019 16:45	0	0.007	0	0.007
10/09/2019 17:00	0	0.008	0	0.012
10/09/2019 17:15	0	0.006	0	0.008
10/09/2019 17:30	0	0.006	0	0.007

10-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/10/2019 8:00	0.046	0.017	0	0.018
10/10/2019 8:15	0.047	0.016	0	0.017
10/10/2019 8:30	0.032	0.017	0	0.017
10/10/2019 8:45	0.052	0.015	0	0.017
10/10/2019 9:00	0.048	0.015	0	0.016
10/10/2019 9:15	0.036	0.014	0	0.017
10/10/2019 9:30	0.036	0.02	0	0.02
10/10/2019 9:45	0.015	0.019	0	0.015
10/10/2019 10:00	0.026	0.021	0	0.019
10/10/2019 10:15	0.005	0.023	0	0.021
10/10/2019 10:30	0.017	0.026	0	0.012
10/10/2019 10:45	0	0.014	0	0.012
10/10/2019 11:00	0	0.013	0	0.01
10/10/2019 11:15	0	0.013	0	0.014
10/10/2019 11:30	0	0.013	0	0.012
10/10/2019 11:45	0	0.01	0	0.006
10/10/2019 12:00	0	0.011	0	0.007
10/10/2019 12:15	0	0.01	0	0.007
10/10/2019 12:30	0	0.01	0	0.007
10/10/2019 12:45	0	0.011	0	0.006
10/10/2019 13:00	0	0.011	0	0.005
10/10/2019 13:15	0	0.011	0	0.005
10/10/2019 13:30	0	0.0180	0	0.004
10/10/2019 13:45	0	0.012	0	0.004
10/10/2019 14:00	0	0.01	0	0.002
10/10/2019 14:15	0	0.01	0	0.003
10/10/2019 14:30	0	0.009	0	0.007
10/10/2019 14:45	0	0.009	0	0.003
10/10/2019 15:00	0	0.01	0	0.004
10/10/2019 15:15	0	0.009	0	0.006
10/10/2019 15:30	0	0.009	0	0.006
10/10/2019 15:45	0	0.008	0	0.006
10/10/2019 16:00	0	0.016	0	0.006
10/10/2019 16:15	0	0.013	0	0.005
10/10/2019 16:30	0	0.014	0	0.005
10/10/2019 16:45	0	0.011	0	0.006
10/10/2019 17:00	0	0.009	0	0.007
10/10/2019 17:15	0	0.006	0	0.007
10/10/2019 17:30	0	0.004	0	0.007

11-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/11/2019 8:00	0	0.013	0	0.017
10/11/2019 8:15	0	0.012	0	0.021
10/11/2019 8:30	0	0.012	0	0.017
10/11/2019 8:45	0	0.012	0	0.017
10/11/2019 9:00	0	0.012	0	0.014
10/11/2019 9:15	0	0.012	0	0.015
10/11/2019 9:30	0	0.011	0	0.013
10/11/2019 9:45	0	0.011	0	0.012
10/11/2019 10:00	0	0.011	0	0.011
10/11/2019 10:15	0	0.012	0	0.013
10/11/2019 10:30	0	0.025	0	0.013
10/11/2019 10:45	0	0.01	0	0.008
10/11/2019 11:00	0	0.009	0	0.007
10/11/2019 11:15	0	0.012	0	0.01
10/11/2019 11:30	0	0.009	0	0.006
10/11/2019 11:45	0	0.007	0	0.006
10/11/2019 12:00	0	0.006	0	0.007

14-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/14/2019 8:00	0	0.004	0	0.003
10/14/2019 8:15	0	0.006	0	0.004
10/14/2019 8:30	0	0.006	0	0.006
10/14/2019 8:45	0	0.005	0	0.005
10/14/2019 9:00	0	0.005	0	0.004
10/14/2019 9:15	0	0.005	0	0.005
10/14/2019 9:30	0	0.005	0	0.004
10/14/2019 9:45	0	0.005	0	0.004
10/14/2019 10:00	0	0.005	0	0.004
10/14/2019 10:15	0	0.005	0	0.004
10/14/2019 10:30	0	0.004	0	0.004
10/14/2019 10:45	0	0.004	0	0.005
10/14/2019 11:00	0	0.004	0	0.005
10/14/2019 11:15	0	0.003	0	0.005
10/14/2019 11:30	0	0.003	0	0.005
10/14/2019 11:45	0	0.003	0	0.005
10/14/2019 12:00	0	0.003	0	0.004
10/14/2019 12:15	0	0.004	0	0.006
10/14/2019 12:30	0	0.004	0	0.006
10/14/2019 12:45	0	0.004	0	0.006
10/14/2019 13:00	0	0.003	0	0.007
10/14/2019 13:15	0	0.003	0	0.005
10/14/2019 13:30	0	0.003	0	0.006
10/14/2019 13:45	0	0.003	0	0.007
10/14/2019 14:00	0	0.004	0	0.006
10/14/2019 14:15	0	0.004	0	0.006
10/14/2019 14:30	0	0.004	0	0.006
10/14/2019 14:45	0	0.004	0	0.006
10/14/2019 15:00	0	0.005	0	0.006
10/14/2019 15:15	0	0.004	0	0.006
10/14/2019 15:30	0	0.004	0	0.006
10/14/2019 15:45	0	0.004	0	0.006
10/14/2019 16:00	0	0.004	0	0.006
10/14/2019 16:15	0	0.005	0	0.006
10/14/2019 16:30	0	0.004	0	0.006
10/14/2019 16:45	0	0.004	0	0.006
10/14/2019 17:00	0	0.004	0	0.006
10/14/2019 17:15	0	0.004	0	0.006
10/14/2019 17:30	0	0.004	0	0.006

15-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/15/2019 8:00	0	0.007	0	0.04
10/15/2019 8:15	0	0.006	0	0.043
10/15/2019 8:30	0	0.006	0	0.034
10/15/2019 8:45	0	0.008	0	0.03
10/15/2019 9:00	0	0.01	0	0.02
10/15/2019 9:15	0	0.011	0	0.018
10/15/2019 9:30	0	0.008	0	0.044
10/15/2019 9:45	0	0.008	0	0.016
10/15/2019 10:00	0	0.007	0	0.015
10/15/2019 10:15	0	0.007	0	0.008
10/15/2019 10:30	0	0.006	0	0.006
10/15/2019 10:45	0	0.007	0	0.009
10/15/2019 11:00	0	0.006	0	0.005
10/15/2019 11:15	0	0.005	0	0.013
10/15/2019 11:30	0	0.005	0	0.038
10/15/2019 11:45	0	0.005	0	0.011
10/15/2019 12:00	0	0.005	0	0.006
10/15/2019 12:15	0	0.006	0	0.006
10/15/2019 12:30	0	0.006	0	0.009
10/15/2019 12:45	0	0.005	0	0.01
10/15/2019 13:00	0	0.007	0	0.007
10/15/2019 13:15	0	0.007	0	0.007
10/15/2019 13:30	0	0.005	0	0.009
10/15/2019 13:45	0	0.004	0	0.009
10/15/2019 14:00	0	0.005	0	0.014
10/15/2019 14:15	0	0.005	0	0.007
10/15/2019 14:30	0	0.005	0	0.01
10/15/2019 14:45	0	0.004	0	0.007
10/15/2019 15:00	0	0.002	0	0.006
10/15/2019 15:15	0	0.002	0	0.009
10/15/2019 15:30	0	0.004	0	0.006
10/15/2019 15:45	0	0.003	0	0.006
10/15/2019 16:00	0	0.002	0	0.006
10/15/2019 16:15	0	0.002	0	0.305
10/15/2019 16:30	0	0.003	0	0.008
10/15/2019 16:45	0	0.003	0	0.007
10/15/2019 17:00	0	0.003	0	0.008
10/15/2019 17:15	0	0.002	0	0.009
10/15/2019 17:30	0	0.003	0	0.007

16-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/16/2019 8:00	0	0.003	0	0.013
10/16/2019 8:15	0	0.002	0	0.014
10/16/2019 8:30	0	0.003	0	0.013
10/16/2019 8:45	0	0.002	0	0.013
10/16/2019 9:00	0	0.002	0	0.013
10/16/2019 9:15	0	0.002	0	0.013
10/16/2019 9:30	0	0.002	0	0.013
10/16/2019 9:45	0	0.002	0	0.009
10/16/2019 10:00	0	0.002	0	0.008
10/16/2019 10:15	0	0.002	0	0.009
10/16/2019 10:30	0	0.002	0	0.008
10/16/2019 10:45	0	0.002	0	0.009
10/16/2019 11:00	0	0.002	0	0.008
10/16/2019 11:15	0	0.002	0	0.007
10/16/2019 11:30	0	0.002	0	0.007
10/16/2019 11:45	0	0.002	0	0.008
10/16/2019 12:00	0	0.002	0	0.013
10/16/2019 12:15	0	0.002	0	0.007
10/16/2019 12:30	0	0.002	0	0.008
10/16/2019 12:45	0	0.002	0	0.007
10/16/2019 13:00	0	0.002	0	0.006
10/16/2019 13:15	0	0.002	0	0.006
10/16/2019 13:30	0	0.002	0	0.005
10/16/2019 13:45	0	0.002	0	0.007
10/16/2019 14:00	0	0.002	0	0.005
10/16/2019 14:15	0	0.002	0	0.005
10/16/2019 14:30	0	0.002	0	0.004
10/16/2019 14:45	0	0.002	0	0.004
10/16/2019 15:00	0	0.002	0	0.004
10/16/2019 15:15	0	0.002	0	0.004
10/16/2019 15:30	0	0.002	0	0.005
10/16/2019 15:45	0	0.002	0	0.006
10/16/2019 16:00	0	0.002	0	0.005
10/16/2019 16:15	N/A	N/A	N/A	N/A
10/16/2019 16:30	N/A	N/A	N/A	N/A
10/16/2019 16:45	N/A	N/A	N/A	N/A
10/16/2019 17:00	N/A	N/A	N/A	N/A
10/16/2019 17:15	N/A	N/A	N/A	N/A
10/16/2019 17:30	N/A	N/A	N/A	N/A

17-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/17/2019 8:00	0	0	0	0.001
10/17/2019 8:15	0	0	0	0.001
10/17/2019 8:30	0	0.001	0	0.001
10/17/2019 8:45	0	0.001	0	0.002
10/17/2019 9:00	0	0.001	0	0.002
10/17/2019 9:15	0	0.001	0	0.002
10/17/2019 9:30	0	0.002	0	0.002
10/17/2019 9:45	0	0.004	0	0.002
10/17/2019 10:00	0	0.004	0	0.003
10/17/2019 10:15	0	0.004	0	0.004
10/17/2019 10:30	0	0.004	0	0.003
10/17/2019 10:45	0	0.004	0	0.003
10/17/2019 11:00	0	0.003	0	0.003
10/17/2019 11:15	0	0.003	0	0.003
10/17/2019 11:30	0	0.004	0	0.003
10/17/2019 11:45	0	0.002	0	0.003
10/17/2019 12:00	0	0.002	0	0.003
10/17/2019 12:15	0	0.002	0	0.002
10/17/2019 12:30	0	0.002	0	0.002
10/17/2019 12:45	0	0.001	0	0.002
10/17/2019 13:00	0	0.001	0	0.001
10/17/2019 13:15	0	0.001	0	0.001
10/17/2019 13:30	0	0.001	0	0.002
10/17/2019 13:45	0	0.001	0	0.002
10/17/2019 14:00	0	0.001	0	0.002
10/17/2019 14:15	0	0.001	0	0.002
10/17/2019 14:30	0	0.001	0	0.003
10/17/2019 14:45	0	0.001	0	0.003
10/17/2019 15:00	0	0.001	0	0.003
10/17/2019 15:15	0	0.002	0	0.004
10/17/2019 15:30	0	0.003	0	0.005
10/17/2019 15:45	0	0.004	0	0.005
10/17/2019 16:00	0	0.004	0	0.005
10/17/2019 16:15	0	0.004	0	0.006
10/17/2019 16:30	0	0.004	0	0.004
10/17/2019 16:45	0	0.003	0	0.003
10/17/2019 17:00	0	0.003	0	0.004
10/17/2019 17:15	0	0.003	0	0.004
10/17/2019 17:30	N/A	N/A	N/A	N/A

18-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/18/2019 8:00	0	0.002	0.058	0.005
10/18/2019 8:15	0	0.002	0.058	0.005
10/18/2019 8:30	0	0.002	0.062	0.006
10/18/2019 8:45	0	0.002	0.079	0.008
10/18/2019 9:00	0	0.002	0.055	0.01
10/18/2019 9:15	0	0.003	0.052	0.009
10/18/2019 9:30	0	0.003	0.075	0.007
10/18/2019 9:45	0	0.003	0.066	0.008
10/18/2019 10:00	0	0.003	0.047	0.01
10/18/2019 10:15	0	0.005	0.052	0.009
10/18/2019 10:30	0	0.004	0.072	0.01
10/18/2019 10:45	0	0.004	0.058	0.01
10/18/2019 11:00	0	0.004	0.048	0.01
10/18/2019 11:15	0	0.004	0.069	0.01
10/18/2019 11:30	0	0.005	0.042	0.011
10/18/2019 11:45	0	0.005	0.041	0.01
10/18/2019 12:00	0.015	0.005	0.035	0.01

21-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/21/2019 8:00	0.002	0.007	0	0.001
10/21/2019 8:15	0.003	0.006	0	0
10/21/2019 8:30	0.003	0.007	0	0.001
10/21/2019 8:45	0.003	0.007	0	0.002
10/21/2019 9:00	0.003	0.007	0	0.005
10/21/2019 9:15	0.003	0.007	0	0.005
10/21/2019 9:30	0.003	0.007	0	0
10/21/2019 9:45	0.003	0.007	0	0
10/21/2019 10:00	0.002	0.007	0	0.006
10/21/2019 10:15	0.002	0.007	0	0.01
10/21/2019 10:30	0.002	0.007	0	0.005
10/21/2019 10:45	0.002	0.007	0	0.014
10/21/2019 11:00	0.001	0.007	0	0.016
10/21/2019 11:15	0.001	0.006	0	0.015
10/21/2019 11:30	0.001	0.006	0	0.021
10/21/2019 11:45	0.001	0.006	0	0.022
10/21/2019 12:00	0.001	0.006	0	0.022
10/21/2019 12:15	0.001	0.006	0	0.022
10/21/2019 12:30	0.001	0.006	0	0.024
10/21/2019 12:45	0.001	0.006	0	0.025
10/21/2019 13:00	0.001	0.006	0	0.025
10/21/2019 13:15	0.001	0.006	0	0.026
10/21/2019 13:30	0.001	0.006	0	0.025
10/21/2019 13:45	0	0.006	0	0.024
10/21/2019 14:00	0	0.006	0	0.023
10/21/2019 14:15	0	0.005	0	0.023
10/21/2019 14:30	0	0.005	0	0.026
10/21/2019 14:45	0	0.005	0	0.027
10/21/2019 15:00	0	0.005	0	0.028
10/21/2019 15:15	0	0.005	0	0.025
10/21/2019 15:30	0	0.005	0	0.026
10/21/2019 15:45	0	0.005	0	0.024
10/21/2019 16:00	0	0.005	0	0.025
10/21/2019 16:15	0	0.005	0	0.027
10/21/2019 16:30	0	0.005	0	0.025
10/21/2019 16:45	0	0.005	0	0.026
10/21/2019 17:00	0	0.005	0	0.026
10/21/2019 17:15	0	0.005	0	0.027
10/21/2019 17:30	0	0.005	0	0.027

22-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/22/2019 8:00	0.019	0.004	0	0.017
10/22/2019 8:15	0.018	0.004	0	0.016
10/22/2019 8:30	0.022	0.004	0	0.016
10/22/2019 8:45	0.023	0.003	0	0.016
10/22/2019 9:00	0.023	0.003	0	0.015
10/22/2019 9:15	0.023	0.003	0	0.015
10/22/2019 9:30	0.023	0.003	0	0.015
10/22/2019 9:45	0.021	0.003	0	0.015
10/22/2019 10:00	0.021	0.003	0	0.015
10/22/2019 10:15	0.021	0.003	0	0.015
10/22/2019 10:30	0.021	0.003	0	0.014
10/22/2019 10:45	0.021	0.003	0	0.014
10/22/2019 11:00	0.021	0.003	0	0.014
10/22/2019 11:15	0.021	0.002	0	0.013
10/22/2019 11:30	0.021	0.002	0	0.013
10/22/2019 11:45	0.022	0.002	0	0.013
10/22/2019 12:00	0.022	0.002	0	0.012
10/22/2019 12:15	0.022	0.002	0	0.012
10/22/2019 12:30	0.022	0.002	0	0.011
10/22/2019 12:45	0.023	0.002	0	0.011
10/22/2019 13:00	0.023	0.002	0	0.01
10/22/2019 13:15	0.023	0.002	0	0.01
10/22/2019 13:30	0.023	0.002	0	0.01
10/22/2019 13:45	0.023	0.001	0	0.01
10/22/2019 14:00	0.023	0.001	0	0.01
10/22/2019 14:15	0.023	0.001	0	0.01
10/22/2019 14:30	0.023	0.001	0	0.01
10/22/2019 14:45	0.023	0.001	0	0.01
10/22/2019 15:00	0.024	0.001	0	0.01
10/22/2019 15:15	0.024	0.001	0	0.008
10/22/2019 15:30	0.024	0.001	0	0.008
10/22/2019 15:45	0.024	0.001	0	0.008
10/22/2019 16:00	0.024	0.001	0	0.008
10/22/2019 16:15	0.024	0.001	0	0.008
10/22/2019 16:30	0.025	0.001	0	0.008
10/22/2019 16:45	0.025	0.001	0	0.008
10/22/2019 17:00	0.025	0.001	0	0.008
10/22/2019 17:15	0.025	0.001	0	0.007
10/22/2019 17:30	0.025	0.001	0	0.007

23-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/23/2019 8:00	0	0.002	0	0.011
10/23/2019 8:15	0	0.002	0	0.011
10/23/2019 8:30	0	0.002	0	0.011
10/23/2019 8:45	0	0.002	0	0.01
10/23/2019 9:00	0	0.002	0	0.01
10/23/2019 9:15	0	0.003	0	0.01
10/23/2019 9:30	0	0.003	0	0.01
10/23/2019 9:45	0	0.003	0	0.01
10/23/2019 10:00	0	0.003	0	0.01
10/23/2019 10:15	0	0.003	0	0.01
10/23/2019 10:30	0	0.003	0	0.01
10/23/2019 10:45	0	0.003	0	0.01
10/23/2019 11:00	0	0.003	0	0.01
10/23/2019 11:15	0	0.003	0	0.01
10/23/2019 11:30	0	0.003	0	0.01
10/23/2019 11:45	0	0.003	0	0.01
10/23/2019 12:00	0	0.003	0	0.01
10/23/2019 12:15	0	0.003	0	0.01
10/23/2019 12:30	0	0.003	0	0.01
10/23/2019 12:45	0	0.003	0	0.01
10/23/2019 13:00	0	0.003	0	0.01
10/23/2019 13:15	0	0.003	0	0.01
10/23/2019 13:30	0	0.003	0	0.01
10/23/2019 13:45	0	0.003	0	0.01
10/23/2019 14:00	0	0.003	0	0.01
10/23/2019 14:15	0	0.003	0	0.01
10/23/2019 14:30	0	0.003	0	0.01
10/23/2019 14:45	0	0.003	0	0.01
10/23/2019 15:00	0	0.003	0	0.01
10/23/2019 15:15	0	0.003	0	0.009
10/23/2019 15:30	0	0.003	0	0.009
10/23/2019 15:45	0	0.003	0	0.009
10/23/2019 16:00	0	0.003	0	0.009
10/23/2019 16:15	0	0.003	0	0.009
10/23/2019 16:30	0	0.003	0	0.009
10/23/2019 16:45	0	0.003	0	0.009
10/23/2019 17:00	0	0.003	0	0.009
10/23/2019 17:15	0	0.003	0	0.009
10/23/2019 17:30	0	0.003	0	0.009

24-Oct-19	Upwind 1		Downwind 1	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/24/2019 8:00	0.006	0.002	0	0.006
10/24/2019 8:15	0.006	0.002	0	0.005
10/24/2019 8:30	0.003	0.002	0	0.004
10/24/2019 8:45	0.001	0.002	0	0.005
10/24/2019 9:00	0.001	0.002	0	0.005
10/24/2019 9:15	0	0.002	0	0.006
10/24/2019 9:30	0	0.002	0	0.006
10/24/2019 9:45	0	0.002	0	0.007
10/24/2019 10:00	0	0.002	0	0.007
10/24/2019 10:15	0	0.002	0	0.007
10/24/2019 10:30	0	0.002	0	0.007
10/24/2019 10:45	0	0.002	0	0.007
10/24/2019 11:00	0	0.002	0	0.007
10/24/2019 11:15	0	0.002	0	0.007
10/24/2019 11:30	0	0.002	0	0.007
10/24/2019 11:45	0	0.002	0	0.007
10/24/2019 12:00	0	0.002	0	0.007
10/24/2019 12:15	0	0.002	0	0.008
10/24/2019 12:30	0	0.002	0	0.008

24-Oct-19	Upwind 2		Downwind 2	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/24/2019 13:00	0	0.003	0	0.01
10/24/2019 13:15	0	0.003	0	0.01
10/24/2019 13:30	0	0.003	0	0.01
10/24/2019 13:45	0	0.003	0	0.01
10/24/2019 14:00	0	0.003	0	0.01
10/24/2019 14:15	0	0.003	0	0.01
10/24/2019 14:30	0	0.004	0	0.01
10/24/2019 14:45	0	0.004	0	0.01
10/24/2019 15:00	0	0.004	0	0.01
10/24/2019 15:15	0	0.004	0	0.01
10/24/2019 15:30	0	0.004	0	0.01
10/24/2019 15:45	0	0.004	0	0.01
10/24/2019 16:00	0	0.004	0	0.01
10/24/2019 16:15	0	0.005	0	0.01
10/24/2019 16:30	0	0.005	0	0.01
10/24/2019 16:45	0	0.005	0	0.01
10/24/2019 17:00	0	0.005	0	0.01
10/24/2019 17:15	0	0.005	0	0.01

25-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/25/2019 8:00	0	0.002	0.1	0.013
10/25/2019 8:15	0	0.002	0.08	0.014
10/25/2019 8:30	0	0.002	0.08	0.015
10/25/2019 8:45	0	0.002	0.07	0.015
10/25/2019 9:00	0	0.002	0.07	0.015
10/25/2019 9:15	0	0.003	0.07	0.016
10/25/2019 9:30	0	0.003	0.07	0.016
10/25/2019 9:45	0	0.002	0.07	0.018
10/25/2019 10:00	0	0.002	0.07	0.017
10/25/2019 10:15	0	0.002	0.07	0.017
10/25/2019 10:30	0	0.002	0.07	0.016
10/25/2019 10:45	0	0.002	0.07	0.016
10/25/2019 11:00	0	0.002	0.07	0.016
10/25/2019 11:15	0	0.002	0.06	0.016
10/25/2019 11:30	0	0.002	0.06	0.015
10/25/2019 11:45	0	0.002	0.06	0.015
10/25/2019 12:00	0	0.002	0.06	0.015
10/25/2019 12:15	0	0.002	0.06	0.015
10/25/2019 12:30	0	0.003	0.05	0.014
10/25/2019 12:45	0	0.002	0.05	0.014
10/25/2019 13:00	0	0.002	0.05	0.014
10/25/2019 13:15	0	0.002	0.05	0.014
10/25/2019 13:30	0	0.002	0.05	0.013
10/25/2019 13:45	0	0.002	0.05	0.013
10/25/2019 14:00	0	0.002	0.04	0.013
10/25/2019 14:15	0	0.002	0.04	0.013
10/25/2019 14:30	0	0.002	0.04	0.012
10/25/2019 14:45	0	0.001	0.04	0.012
10/25/2019 15:00	0	0.001	0.04	0.012
10/25/2019 15:15	0	0.001	0.04	0.012
10/25/2019 15:30	0	0.001	0.04	0.012
10/25/2019 15:45	0	0.001	0.03	0.012

28-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/28/2019 8:00	0.094	0.006	0.002	0.014
10/28/2019 8:15	0.081	0.005	0	0.015
10/28/2019 8:30	0.079	0.005	0	0.015
10/28/2019 8:45	0.078	0.006	0	0.015
10/28/2019 9:00	0.075	0.006	0	0.014
10/28/2019 9:15	0.071	0.006	0	0.014
10/28/2019 9:30	0.066	0.006	0	0.014
10/28/2019 9:45	0.062	0.006	0	0.013
10/28/2019 10:00	0.058	0.006	0.001	0.013
10/28/2019 10:15	0.055	0.006	0.001	0.013
10/28/2019 10:30	0.051	0.006	0	0.013
10/28/2019 10:45	0.048	0.006	0.004	0.013
10/28/2019 11:00	0.045	0.006	0.007	0.013
10/28/2019 11:15	0.043	0.006	0.012	0.013
10/28/2019 11:30	0.041	0.006	0.018	0.013
10/28/2019 11:45	0.038	0.006	0.02	0.013
10/28/2019 12:00	0.036	0.006	0.03	0.013
10/28/2019 12:15	0.034	0.006	0.03	0.013
10/28/2019 12:30	0.032	0.006	0.044	0.013
10/28/2019 12:45	0.031	0.006	0.04	0.013
10/28/2019 13:00	0.029	0.006	0.047	0.013
10/28/2019 13:15	0.027	0.006	0.048	0.013
10/28/2019 13:30	0.026	0.006	0.048	0.013
10/28/2019 13:45	0.025	0.006	0.049	0.013
10/28/2019 14:00	0.024	0.006	0.049	0.013
10/28/2019 14:15	0.023	0.006	0.048	0.013
10/28/2019 14:30	0.022	0.006	0.046	0.013
10/28/2019 14:45	0.021	0.006	0.045	0.013
10/28/2019 15:00	0.02	0.006	0.043	0.013
10/28/2019 15:15	0.02	0.006	0.041	0.013
10/28/2019 15:30	0.019	0.005	0.040	0.013
10/28/2019 15:45	0.018	0.005	0.039	0.013
10/28/2019 16:00	0.018	0.005	0.038	0.013
10/28/2019 16:15	0.017	0.005	0.038	0.013
10/28/2019 16:30	0.017	0.005	0.037	0.013
10/28/2019 16:45	0.016	0.005	0.036	0.012
10/28/2019 17:00	0.016	0.005	0.036	0.012
10/28/2019 17:15	0.015	0.005	0.035	0.012
10/28/2019 17:30	N/A	N/A	N/A	N/A

29-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/29/2019 8:00	0	0.004	0.08	0.011
10/29/2019 8:15	0	0.004	0.05	0.012
10/29/2019 8:30	0	0.003	0.05	0.011
10/29/2019 8:45	0	0.004	0.043	0.011
10/29/2019 9:00	0	0.004	0.04	0.011
10/29/2019 9:15	0	0.005	0.04	0.011
10/29/2019 9:30	0	0.005	0.037	0.011
10/29/2019 9:45	0	0.005	0.035	0.01
10/29/2019 10:00	0	0.005	0.032	0.01
10/29/2019 10:15	0	0.005	0.031	0.01
10/29/2019 10:30	0	0.005	0.028	0.01
10/29/2019 10:45	0	0.005	0.026	0.01
10/29/2019 11:00	0	0.005	0.024	0.01
10/29/2019 11:15	0	0.005	0.022	0.01
10/29/2019 11:30	0	0.005	0.02	0.01
10/29/2019 11:45	0	0.005	0.02	0.01
10/29/2019 12:00	0	0.005	0.018	0.01
10/29/2019 12:15	0	0.005	0.017	0.01
10/29/2019 12:30	0	0.005	0.016	0.01
10/29/2019 12:45	0	0.005	0.015	0.01
10/29/2019 13:00	0	0.005	0.014	0.01
10/29/2019 13:15	0	0.005	0.013	0.009
10/29/2019 13:30	0	0.005	0.012	0.009
10/29/2019 13:45	0	0.005	0.011	0.01
10/29/2019 14:00	0	0.005	0.011	0.01
10/29/2019 14:15	0	0.005	0.01	0.01
10/29/2019 14:30	0	0.005	0.01	0.01
10/29/2019 14:45	0	0.005	0.009	0.01
10/29/2019 15:00	0	0.005	0.009	0.011
10/29/2019 15:15	0	0.005	0.009	0.011
10/29/2019 15:30	0	0.005	0.009	0.011
10/29/2019 15:45	0	0.006	0.009	0.012
10/29/2019 16:00	0	0.006	0.008	0.012
10/29/2019 16:15	0	0.006	0.008	0.013
10/29/2019 16:30	0	0.006	0.008	0.013
10/29/2019 16:45	0	0.006	0.008	0.014
10/29/2019 17:00	0	0.006	0.007	0.014
10/29/2019 17:15	0	0.006	0.007	0.014
10/29/2019 17:30	0	0.006	0.007	0.014

30-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/30/2019 8:00	0	0.001	0	0.008
10/30/2019 8:15	0	0.001	0	0.008
10/30/2019 8:30	0	0.001	0	0.008
10/30/2019 8:45	0	0.001	0	0.01
10/30/2019 9:00	0	0.001	0	0.01
10/30/2019 9:15	0	0.001	0	0.009
10/30/2019 9:30	0	0.001	0	0.009
10/30/2019 9:45	0	0.001	0	0.009
10/30/2019 10:00	0	0.001	0	0.009
10/30/2019 10:15	0	0.001	0	0.009
10/30/2019 10:30	0	0.001	0	0.009
10/30/2019 10:45	0	0.001	0	0.009
10/30/2019 11:00	0	0.001	0	0.009
10/30/2019 11:15	0	0.001	0	0.01
10/30/2019 11:30	0	0.001	0	0.01
10/30/2019 11:45	0	0.001	0	0.01
10/30/2019 12:00	0	0.002	0	0.01
10/30/2019 12:15	0	0.002	0	0.01
10/30/2019 12:30	0	0.002	0	0.011
10/30/2019 12:45	0	0.002	0	0.011
10/30/2019 13:00	0	0.002	0	0.011
10/30/2019 13:15	0	0.002	0	0.011
10/30/2019 13:30	0	0.002	0	0.011
10/30/2019 13:45	0	0.002	0	0.011
10/30/2019 14:00	0	0.002	0	0.011
10/30/2019 14:15	0	0.002	0	0.011
10/30/2019 14:30	0	0.002	0	0.011
10/30/2019 14:45	0	0.002	0	0.011
10/30/2019 15:00	0	0.002	0	0.012
10/30/2019 15:15	0	0.003	0	0.012
10/30/2019 15:30	0	0.003	0	0.012
10/30/2019 15:45	0	0.003	0	0.012
10/30/2019 16:00	0	0.003	0	0.012
10/30/2019 16:15	0	0.003	0	0.013
10/30/2019 16:30	N/A	N/A	N/A	N/A
10/30/2019 16:45	N/A	N/A	N/A	N/A
10/30/2019 17:00	N/A	N/A	N/A	N/A
10/30/2019 17:15	N/A	N/A	N/A	N/A
10/30/2019 17:30	N/A	N/A	N/A	N/A

31-Oct-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
10/31/2019 8:00	0.025	0.003	0	0.034
10/31/2019 8:15	0.018	0.001	0	0.033
10/31/2019 8:30	0.016	0.001	0	0.032
10/31/2019 8:45	0.014	0.001	0	0.033
10/31/2019 9:00	0.013	0.001	0	0.033
10/31/2019 9:15	0.011	0.001	0	0.033
10/31/2019 9:30	0.01	0.001	0	0.032
10/31/2019 9:45	0.008	0.001	0	0.031
10/31/2019 10:00	0.007	0.001	0	0.03
10/31/2019 10:15	0.006	0.001	0	0.03
10/31/2019 10:30	0.006	0.001	0	0.03
10/31/2019 10:45	0.006	0.001	0	0.031
10/31/2019 11:00	0.005	0.001	0	0.031
10/31/2019 11:15	0.005	0.001	0	0.032
10/31/2019 11:30	0.005	0.001	0	0.033
10/31/2019 11:45	0.004	0.001	0	0.033
10/31/2019 12:00	0.004	0.001	0	0.033
10/31/2019 12:15	0.004	0.001	0	0.035
10/31/2019 12:30	0.004	0.001	0	0.035
10/31/2019 12:45	0.003	0.001	0	0.035
10/31/2019 13:00	0.003	0.001	0	0.035
10/31/2019 13:15	0.003	0.001	0	0.035
10/31/2019 13:30	0.003	0.001	0	0.034
10/31/2019 13:45	0.003	0.001	0	0.034
10/31/2019 14:00	0.003	0	0	0.033
10/31/2019 14:15	0.003	0	0	0.032
10/31/2019 14:30	0.003	0	0	0.032
10/31/2019 14:45	0.002	0	0	0.031
10/31/2019 15:00	0.002	0	0	0.031
10/31/2019 15:15	0.002	0	0	0.03
10/31/2019 15:30	0.002	0	0	0.028
10/31/2019 15:45	0.002	0	0	0.027
10/31/2019 16:00	0.002	0	0	0.027
10/31/2019 16:15	0.002	0	0	0.026
10/31/2019 16:30	0.002	0	0	0.026
10/31/2019 16:45	N/A	N/A	N/A	N/A
10/31/2019 17:00	N/A	N/A	N/A	N/A
10/31/2019 17:15	N/A	N/A	N/A	N/A
10/31/2019 17:30	N/A	N/A	N/A	N/A

01-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/01/2019 8:00	0	0.002	0.038	0.003
11/01/2019 8:15	0	0.002	0.06	0.002
11/01/2019 8:30	0	0.002	0.062	0.002
11/01/2019 8:45	0	0.002	0.063	0.002
11/01/2019 9:00	0	0.003	0.064	0.002
11/01/2019 9:15	0	0.003	0.064	0.002
11/01/2019 9:30	0	0.003	0.065	0.002
11/01/2019 9:45	0	0.003	0.065	0.002
11/01/2019 10:00	0	0.003	0.065	0.002
11/01/2019 10:15	0	0.004	0.066	0.002
11/01/2019 10:30	0	0.004	0.066	0.003
11/01/2019 10:45	0	0.004	0.066	0.003
11/01/2019 11:00	0	0.004	0.065	0.003
11/01/2019 11:15	N/A	N/A	N/A	N/A
11/01/2019 11:30	N/A	N/A	N/A	N/A
11/01/2019 11:45	N/A	N/A	N/A	N/A
11/01/2019 12:00	N/A	N/A	N/A	N/A

04-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/04/2019 8:00	0	0.006	0.042	0.01
11/04/2019 8:15	0	0.005	0.039	0.009
11/04/2019 8:30	0	0.004	0.045	0.009
11/04/2019 8:45	0	0.004	0.053	0.009
11/04/2019 9:00	0	0.004	0.06	0.009
11/04/2019 9:15	0	0.004	0.068	0.009
11/04/2019 9:30	0	0.005	0.076	0.008
11/04/2019 9:45	0	0.005	0.084	0.008
11/04/2019 10:00	0	0.005	0.092	0.008
11/04/2019 10:15	0	0.005	0.098	0.008
11/04/2019 10:30	0	0.005	0.104	0.007
11/04/2019 10:45	0	0.005	0.110	0.007
11/04/2019 11:00	0	0.005	0.116	0.007
11/04/2019 11:15	0	0.005	0.120	0.007
11/04/2019 11:30	0	0.005	0.123	0.007
11/04/2019 11:45	0	0.005	0.125	0.007
11/04/2019 12:00	0	0.005	0.127	0.007
11/04/2019 12:15	0	0.005	0.128	0.007
11/04/2019 12:30	0	0.005	0.128	0.007
11/04/2019 12:45	0	0.004	0.127	0.006
11/04/2019 13:00	0	0.004	0.126	0.006
11/04/2019 13:15	0	0.004	0.125	0.006
11/04/2019 13:30	0	0.004	0.124	0.006
11/04/2019 13:45	0	0.004	0.123	0.006
11/04/2019 14:00	0	0.004	0.121	0.006
11/04/2019 14:15	0	0.004	0.12	0.006
11/04/2019 14:30	0	0.004	0.12	0.006
11/04/2019 14:45	0	0.004	0.118	0.006
11/04/2019 15:00	0	0.004	0.117	0.006
11/04/2019 15:15	0	0.004	0.116	0.006
11/04/2019 15:30	0	0.004	0.116	0.006
11/04/2019 15:45	0	0.004	0.115	0.006
11/04/2019 16:00	0	0.003	0.113	0.006
11/04/2019 16:15	0	0.003	0.113	0.006
11/04/2019 16:30	0	0.003	0.112	0.006
11/04/2019 16:45	0	0.003	0.111	0.006
11/04/2019 17:00	0	0.003	0.11	0.006
11/04/2019 17:15	0	0.003	0.11	0.006
11/04/2019 17:30	0	0.003	0.11	0.006

05-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/05/2019 8:00	0.024	0.003	0.017	0.018
11/05/2019 8:15	0.036	0.002	0.029	0.018
11/05/2019 8:30	0.035	0.003	0.039	0.018
11/05/2019 8:45	0.035	0.003	0.048	0.018
11/05/2019 9:00	0.034	0.003	0.056	0.019
11/05/2019 9:15	0.033	0.003	0.069	0.018
11/05/2019 9:30	0.033	0.004	0.081	0.017
11/05/2019 9:45	0.032	0.004	0.092	0.016
11/05/2019 10:00	0.032	0.004	0.104	0.015
11/05/2019 10:15	0.032	0.004	0.113	0.014
11/05/2019 10:30	0.031	0.004	0.112	0.014
11/05/2019 10:45	0.031	0.004	0.130	0.013
11/05/2019 11:00	0.031	0.004	0.138	0.013
11/05/2019 11:15	0.031	0.004	0.146	0.012
11/05/2019 11:30	0.031	0.004	0.153	0.011
11/05/2019 11:45	0.033	0.004	0.159	0.011
11/05/2019 12:00	0.034	0.004	0.165	0.011
11/05/2019 12:15	0.034	0.004	0.170	0.011
11/05/2019 12:30	0.034	0.004	0.175	0.010
11/05/2019 12:45	0.035	0.004	0.180	0.01
11/05/2019 13:00	0.035	0.004	0.184	0.01
11/05/2019 13:15	0.035	0.004	0.188	0.01
11/05/2019 13:30	0.035	0.004	0.192	0.01
11/05/2019 13:45	0.035	0.004	0.195	0.009
11/05/2019 14:00	0.035	0.004	0.198	0.009
11/05/2019 14:15	0.034	0.004	0.201	0.009
11/05/2019 14:30	0.033	0.004	0.203	0.009
11/05/2019 14:45	0.033	0.004	0.205	0.009
11/05/2019 15:00	0.031	0.004	0.208	0.009
11/05/2019 15:15	0.030	0.004	0.209	0.009
11/05/2019 15:30	0.030	0.004	0.210	0.009
11/05/2019 15:45	0.028	0.004	0.210	0.009
11/05/2019 16:00	0.027	0.004	0.210	0.009
11/05/2019 16:15	0.027	0.004	0.210	0.009
11/05/2019 16:30	0.026	0.004	0.210	0.009
11/05/2019 16:45	0.026	0.004	0.210	0.009
11/05/2019 17:00	0.026	0.004	0.209	0.009
11/05/2019 17:15	N/A	N/A	N/A	N/A
11/05/2019 17:30	N/A	N/A	N/A	N/A

06-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/06/2019 8:00	0	0.006	0	0.013
11/06/2019 8:15	0	0.006	0	0.01
11/06/2019 8:30	0	0.005	0	0.009
11/06/2019 8:45	0	0.004	0	0.008
11/06/2019 9:00	0	0.004	0	0.008
11/06/2019 9:15	0	0.004	0	0.007
11/06/2019 9:30	0	0.004	0	0.007
11/06/2019 9:45	0	0.004	0	0.007
11/06/2019 10:00	0	0.004	0	0.007
11/06/2019 10:15	0	0.004	0	0.006
11/06/2019 10:30	0	0.004	0	0.006
11/06/2019 10:45	0	0.004	0	0.007
11/06/2019 11:00	0	0.004	0	0.007
11/06/2019 11:15	0	0.004	0	0.007
11/06/2019 11:30	0	0.004	0	0.007
11/06/2019 11:45	0	0.004	0	0.007
11/06/2019 12:00	0	0.004	0	0.007
11/06/2019 12:15	0	0.004	0	0.007
11/06/2019 12:30	0	0.004	0	0.007
11/06/2019 12:45	0	0.004	0	0.008
11/06/2019 13:00	0	0.004	0	0.008
11/06/2019 13:15	0	0.004	0	0.009
11/06/2019 13:30	0	0.004	0	0.009
11/06/2019 13:45	0	0.005	0	0.009
11/06/2019 14:00	0	0.005	0	0.009
11/06/2019 14:15	0	0.005	0	0.009
11/06/2019 14:30	0	0.005	0	0.009
11/06/2019 14:45	0	0.005	0	0.009
11/06/2019 15:00	0	0.005	0	0.009
11/06/2019 15:15	0	0.005	0	0.009
11/06/2019 15:30	0	0.005	0	0.009
11/06/2019 15:45	0	0.005	0	0.009
11/06/2019 16:00	0	0.005	0	0.009
11/06/2019 16:15	0	0.005	0	0.009
11/06/2019 16:30	0	0.005	0	0.009
11/06/2019 16:45	0	0.005	0	0.009
11/06/2019 17:00	N/A	N/A	N/A	N/A
11/06/2019 17:15	N/A	N/A	N/A	N/A
11/06/2019 17:30	N/A	N/A	N/A	N/A

07-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/07/2019 8:00	0	0.004	0	0.001
11/07/2019 8:15	0	0.003	0	0.001
11/07/2019 8:30	0.004	0.003	0	0.001
11/07/2019 8:45	0.007	0.003	0	0.001
11/07/2019 9:00	0.01	0.003	0	0.001
11/07/2019 9:15	0.01	0.003	0	0.001
11/07/2019 9:30	0.014	0.003	0	0.001
11/07/2019 9:45	0.015	0.003	0	0.001
11/07/2019 10:00	0.017	0.003	0	0.001
11/07/2019 10:15	0.019	0.003	0	0.002
11/07/2019 10:30	0.02	0.003	0	0.002
11/07/2019 10:45	0.02	0.003	0	0.002
11/07/2019 11:00	0.023	0.003	0	0.002
11/07/2019 11:15	0.025	0.003	0	0.002
11/07/2019 11:30	0.027	0.003	0	0.002
11/07/2019 11:45	0.029	0.003	0	0.002
11/07/2019 12:00	0.031	0.003	0	0.002
11/07/2019 12:15	0.034	0.003	0	0.002
11/07/2019 12:30	0.035	0.003	0	0.002
11/07/2019 12:45	0.037	0.003	0	0.002
11/07/2019 13:00	0.038	0.003	0	0.002
11/07/2019 13:15	0.04	0.003	0	0.002
11/07/2019 13:30	0.04	0.003	0	0.002
11/07/2019 13:45	0.042	0.003	0	0.002
11/07/2019 14:00	0.043	0.003	0	0.002
11/07/2019 14:15	0.045	0.003	0	0.002
11/07/2019 14:30	0.046	0.003	0	0.002
11/07/2019 14:45	0.047	0.003	0	0.002
11/07/2019 15:00	0.049	0.003	0	0.002
11/07/2019 15:15	0.05	0.004	0	0.002
11/07/2019 15:30	0.052	0.004	0	0.002
11/07/2019 15:45	0.053	0.004	0	0.002
11/07/2019 16:00	0.055	0.004	0	0.002
11/07/2019 16:15	0.056	0.004	0	0.002
11/07/2019 16:30	0.057	0.004	0	0.002
11/07/2019 16:45	0.058	0.004	0	0.003
11/07/2019 17:00	0.059	0.004	0	0.003
11/07/2019 17:15	N/A	N/A	N/A	N/A
11/07/2019 17:30	N/A	N/A	N/A	N/A

08-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/08/2019 8:00	0.083	0.001	0.087	0.001
11/08/2019 8:15	0.01	0.001	0.103	0
11/08/2019 8:30	0.084	0.002	0.115	0
11/08/2019 8:45	0.083	0.002	0.124	0
11/08/2019 9:00	0.092	0.002	0.132	0
11/08/2019 9:15	0.09	0.002	0.138	0
11/08/2019 9:30	0.086	0.002	0.143	0.001
11/08/2019 9:45	0.084	0.002	0.147	0.001
11/08/2019 10:00	0.081	0.002	0.151	0.001
11/08/2019 10:15	0.079	0.002	0.154	0.001
11/08/2019 10:30	0.078	0.002	0.156	0.001
11/08/2019 10:45	0.076	0.002	0.159	0.001
11/08/2019 11:00	0.075	0.002	0.161	0.001
11/08/2019 11:15	0.074	0.002	0.162	0.001
11/08/2019 11:30	0.073	0.002	0.163	0.001
11/08/2019 11:45	0.073	0.002	0.164	0.001
11/08/2019 12:00	0.072	0.002	0.165	0.001
11/08/2019 12:15	0.072	0.002	0.165	0.001
11/08/2019 12:30	0.072	0.002	0.166	0.001
11/08/2019 12:45	0.073	0.002	0.166	0.001
11/08/2019 13:00	0.073	0.001	0.166	0.001
11/08/2019 13:15	0.074	0.001	0.166	0.001
11/08/2019 13:30	0.076	0.001	0.167	0.001
11/08/2019 13:45	0.077	0.001	0.167	0.001
11/08/2019 14:00	0.078	0.001	0.167	0.001
11/08/2019 14:15	0.08	0.001	0.167	0.001
11/08/2019 14:30	0.081	0.001	0.167	0.001
11/08/2019 14:45	0.082	0.001	0.167	0.001
11/08/2019 15:00	0.084	0.001	0.167	0.001
11/08/2019 15:15	0.085	0.001	0.167	0.001
11/08/2019 15:30	0.085	0.001	0.167	0.001

11-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/11/2019 8:00	0	0	0	0.022
11/11/2019 8:15	0	0	0	0.014
11/11/2019 8:30	0	0	0	0.012
11/11/2019 8:45	0.001	0	0	0.011
11/11/2019 9:00	0.012	0	0	0.011
11/11/2019 9:15	0.035	0	0	0.011
11/11/2019 9:30	0.055	0	0	0.01
11/11/2019 9:45	0.071	0	0	0.01
11/11/2019 10:00	0.085	0	0	0.01
11/11/2019 10:15	0.089	0	0	0.01
11/11/2019 10:30	0.092	0	0	0.01
11/11/2019 10:45	0.088	0	0	0.01
11/11/2019 11:00	0.082	0	0	0.01
11/11/2019 11:15	0.079	0	0	0.01
11/11/2019 11:30	0.076	0	0	0.01
11/11/2019 11:45	0.075	0	0	0.01
11/11/2019 12:00	0.073	0	0	0.01
11/11/2019 12:15	0.072	0	0	0.01
11/11/2019 12:30	0.07	0	0	0.01
11/11/2019 12:45	0.069	0	0.001	0.01
11/11/2019 13:00	0.066	0	0.002	0.01
11/11/2019 13:15	0.064	0	0.002	0.01
11/11/2019 13:30	0.065	0	0.004	0.01
11/11/2019 13:45	0.063	0	0.005	0.01
11/11/2019 14:00	0.062	0	0.007	0.009
11/11/2019 14:15	0.06	0	0.008	0.009
11/11/2019 14:30	0.059	0	0.009	0.009
11/11/2019 14:45	0.057	0	0.009	0.009
11/11/2019 15:00	0.055	0	0.01	0.009
11/11/2019 15:15	0.053	0	0.011	0.009
11/11/2019 15:30	0.052	0	0.013	0.009
11/11/2019 15:45	0.05	0	0.014	0.009
11/11/2019 16:00	0.049	0	0.015	0.009
11/11/2019 16:15	0.048	0	0.016	0.009
11/11/2019 16:30	0.047	0	0.017	0.009
11/11/2019 16:45	0.046	0	0.018	0.009
11/11/2019 17:00	0.045	0	0.019	0.009

12-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/12/2019 8:00	0	0	0.115	0.01
11/12/2019 8:15	0	0	0.112	0.009
11/12/2019 8:30	0	0	0.116	0.009
11/12/2019 8:45	0	0	0.128	0.008
11/12/2019 9:00	0	0	0.138	0.008
11/12/2019 9:15	0.002	0	0.146	0.008
11/12/2019 9:30	0.006	0	0.153	0.008
11/12/2019 9:45	0.01	0	0.159	0.008
11/12/2019 10:00	0.015	0	0.164	0.008
11/12/2019 10:15	0.019	0	0.168	0.008
11/12/2019 10:30	0.022	0	0.171	0.008
11/12/2019 10:45	0.025	0	0.174	0.007
11/12/2019 11:00	0.028	0	0.177	0.007
11/12/2019 11:15	0.03	0	0.18	0.007
11/12/2019 11:30	0.032	0	0.181	0.007
11/12/2019 11:45	0.034	0	0.182	0.007
11/12/2019 12:00	0.037	0	0.183	0.007
11/12/2019 12:15	0.039	0	0.184	0.007
11/12/2019 12:30	0.04	0	0.185	0.007
11/12/2019 12:45	0.042	0	0.186	0.007
11/12/2019 13:00	0.043	0	0.186	0.007
11/12/2019 13:15	0.044	0	0.186	0.007
11/12/2019 13:30	0.045	0	0.186	0.007
11/12/2019 13:45	0.047	0	0.186	0.007
11/12/2019 14:00	0.048	0	0.187	0.007
11/12/2019 14:15	0.049	0	0.187	0.006
11/12/2019 14:30	0.05	0	0.187	0.006
11/12/2019 14:45	0.051	0	0.187	0.006
11/12/2019 15:00	0.053	0	0.187	0.006
11/12/2019 15:15	0.054	0	0.187	0.006
11/12/2019 15:30	0.055	0	0.187	0.006
11/12/2019 15:45	0.056	0	0.186	0.006
11/12/2019 16:00	0.056	0	0.186	0.006
11/12/2019 16:15	0.057	0	0.186	0.006
11/12/2019 16:30	0.058	0	0.185	0.006
11/12/2019 16:45	0.058	0	0.185	0.006
11/12/2019 17:00	0.059	0	0.185	0.006

13-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/13/2019 8:00	0.059	0.008	0.102	0.015
11/13/2019 8:15	0.084	0.01	0.130	0.016
11/13/2019 8:30	0.106	0.01	0.155	0.017
11/13/2019 8:45	0.120	0.009	0.175	0.016
11/13/2019 9:00	0.134	0.008	0.190	0.016
11/13/2019 9:15	0.148	0.008	0.204	0.015
11/13/2019 9:30	0.159	0.008	0.214	0.014
11/13/2019 9:45	0.167	0.007	0.223	0.014
11/13/2019 10:00	0.172	0.007	0.229	0.013
11/13/2019 10:15	0.176	0.007	0.236	0.012
11/13/2019 10:30	0.180	0.006	0.242	0.012
11/13/2019 10:45	0.183	0.006	0.248	0.012
11/13/2019 11:00	0.185	0.006	0.253	0.012
11/13/2019 11:15	0.187	0.006	0.258	0.012
11/13/2019 11:30	0.189	0.007	0.262	0.011
11/13/2019 11:45	0.19	0.007	0.266	0.012
11/13/2019 12:00	0.192	0.007	0.268	0.012
11/13/2019 12:15	0.193	0.007	0.270	0.012
11/13/2019 12:30	0.193	0.007	0.272	0.012
11/13/2019 12:45	0.194	0.007	0.273	0.012
11/13/2019 13:00	0.194	0.007	0.274	0.012
11/13/2019 13:15	0.194	0.007	0.275	0.011
11/13/2019 13:30	0.195	0.007	0.276	0.011
11/13/2019 13:45	0.195	0.007	0.277	0.011
11/13/2019 14:00	0.195	0.007	0.278	0.011
11/13/2019 14:15	0.195	0.007	0.279	0.01
11/13/2019 14:30	0.195	0.007	0.280	0.01
11/13/2019 14:45	0.195	0.007	0.280	0.01
11/13/2019 15:00	0.194	0.007	0.281	0.009
11/13/2019 15:15	0.194	0.007	0.282	0.009
11/13/2019 15:30	0.194	0.006	0.283	0.009
11/13/2019 15:45	0.195	0.006	0.283	0.009
11/13/2019 16:00	0.195	0.006	0.284	0.009
11/13/2019 16:15	0.196	0.006	0.285	0.009
11/13/2019 16:30	0.197	0.006	0.286	0.009
11/13/2019 16:45	0.199	0.006	0.287	0.009
11/13/2019 17:00	0.2	0.006	0.289	0.009

14-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/14/2019 8:00	0	0.003	0	0.011
11/14/2019 8:15	0	0.003	0	0.011
11/14/2019 8:30	0	0.003	0	0.012
11/14/2019 8:45	0	0.003	0	0.012
11/14/2019 9:00	0	0.003	0	0.012
11/14/2019 9:15	0	0.004	0	0.013
11/14/2019 9:30	0	0.004	0	0.013
11/14/2019 9:45	0	0.004	0	0.013
11/14/2019 10:00	0	0.004	0	0.014
11/14/2019 10:15	0	0.004	0	0.015
11/14/2019 10:30	0	0.004	0	0.016
11/14/2019 10:45	0	0.005	0	0.017
11/14/2019 11:00	0	0.005	0	0.018
11/14/2019 11:15	0	0.005	0	0.019
11/14/2019 11:30	0	0.005	0	0.02
11/14/2019 11:45	0	0.005	0	0.021
11/14/2019 12:00	0	0.006	0	0.022
11/14/2019 12:15	0	0.006	0	0.023
11/14/2019 12:30	0	0.006	0	0.024
11/14/2019 12:45	0	0.006	0	0.025
11/14/2019 13:00	0	0.006	0	0.026
11/14/2019 13:15	0	0.006	0	0.027
11/14/2019 13:30	0	0.007	0	0.028
11/14/2019 13:45	0	0.007	0	0.028
11/14/2019 14:00	0	0.007	0	0.029
11/14/2019 14:15	0	0.007	0.001	0.03
11/14/2019 14:30	0	0.007	0.001	0.031
11/14/2019 14:45	0	0.007	0.001	0.031
11/14/2019 15:00	0	0.007	0.001	0.032
11/14/2019 15:15	0	0.008	0.001	0.033
11/14/2019 15:30	0	0.008	0.001	0.033
11/14/2019 15:45	0	0.008	0.001	0.034
11/14/2019 16:00	0	0.008	0.001	0.034
11/14/2019 16:15	0	0.008	0.001	0.035
11/14/2019 16:30	0	0.008	0.001	0.035
11/14/2019 16:45	0	0.008	0	0.036
11/14/2019 17:00	0	0.008	0	0.036

15-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/15/2019 8:00	0.001	0.015	0.001	0.052
11/15/2019 8:15	0.003	0.014	0.006	0.053
11/15/2019 8:30	0.006	0.013	0.013	0.051
11/15/2019 8:45	0.009	0.012	0.022	0.05
11/15/2019 9:00	0.011	0.012	0.029	0.049
11/15/2019 9:15	0.013	0.012	0.036	0.048
11/15/2019 9:30	0.014	0.012	0.041	0.047
11/15/2019 9:45	0.015	0.012	0.046	0.047
11/15/2019 10:00	0.016	0.012	0.05	0.046
11/15/2019 10:15	0.017	0.012	0.054	0.046
11/15/2019 10:30	0.018	0.012	0.057	0.046
11/15/2019 10:45	0.019	0.011	0.059	0.045
11/15/2019 11:00	0.02	0.011	0.061	0.045
11/15/2019 11:15	0.02	0.011	0.062	0.044
11/15/2019 11:30	0.021	0.011	0.064	0.044
11/15/2019 11:45	0.021	0.011	0.066	0.044
11/15/2019 12:00	0.021	0.012	0.067	0.045

18-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/18/2019 8:00	0.044	0.004	0	0.022
11/18/2019 8:15	0.044	0.005	0.001	0.02
11/18/2019 8:30	0.043	0.006	0.003	0.02
11/18/2019 8:45	0.043	0.003	0.006	0.021
11/18/2019 9:00	0.043	0.003	0.008	0.022
11/18/2019 9:15	0.043	0.002	0.008	0.023
11/18/2019 9:30	0.044	0.003	0.007	0.024
11/18/2019 9:45	0.045	0.005	0.009	0.024
11/18/2019 10:00	0.044	0.004	0.011	0.025
11/18/2019 10:15	0.044	0.004	0.014	0.025
11/18/2019 10:30	0.045	0.007	0.018	0.025
11/18/2019 10:45	0.045	0.005	0.022	0.026
11/18/2019 11:00	0.045	0.004	0.027	0.026
11/18/2019 11:15	0.046	0.004	0.032	0.026
11/18/2019 11:30	0.047	0.005	0.037	0.026
11/18/2019 11:45	0.047	0.004	0.041	0.026
11/18/2019 12:00	0.046	0.005	0.046	0.025
11/18/2019 12:15	0.046	0.007	0.05	0.025
11/18/2019 12:30	0.045	0.005	0.054	0.025
11/18/2019 12:45	0.045	0.004	0.058	0.025
11/18/2019 13:00	0.044	0.005	0.061	0.025
11/18/2019 13:15	0.044	0.007	0.064	0.025
11/18/2019 13:30	0.043	0.008	0.066	0.025
11/18/2019 13:45	0.042	0.008	0.068	0.025
11/18/2019 14:00	0.042	0.008	0.07	0.025
11/18/2019 14:15	0.042	0.007	0.072	0.025
11/18/2019 14:30	0.041	0.008	0.074	0.024
11/18/2019 14:45	0.041	0.008	0.076	0.024
11/18/2019 15:00	0.04	0.008	0.078	0.024
11/18/2019 15:15	0.04	0.01	0.079	0.024
11/18/2019 15:30	0.039	0.006	0.08	0.024
11/18/2019 15:45	0.039	0.006	0.081	0.024
11/18/2019 16:00	0.038	0.005	0.082	0.023
11/18/2019 16:15	0.038	0.007	0.083	0.023
11/18/2019 16:30	0.037	0.007	0.084	0.023
11/18/2019 16:45	0.037	0.007	0.084	0.023
11/18/2019 17:00	0.037	0.007	0.084	0.023

19-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/19/2019 8:00	0.025	0.004	0	0.031
11/19/2019 8:15	0.034	0.003	0.018	0.034
11/19/2019 8:30	0.036	0.003	0.03	0.034
11/19/2019 8:45	0.037	0.003	0.032	0.034
11/19/2019 9:00	0.038	0.003	0.036	0.034
11/19/2019 9:15	0.039	0.003	0.038	0.034
11/19/2019 9:30	0.041	0.005	0.045	0.035
11/19/2019 9:45	0.042	0.005	0.052	0.036
11/19/2019 10:00	0.042	0.006	0.058	0.037
11/19/2019 10:15	0.043	0.006	0.063	0.038
11/19/2019 10:30	0.044	0.006	0.067	0.039
11/19/2019 10:45	0.045	0.006	0.071	0.039
11/19/2019 11:00	0.045	0.007	0.075	0.04
11/19/2019 11:15	0.046	0.007	0.079	0.04
11/19/2019 11:30	0.046	0.007	0.083	0.04
11/19/2019 11:45	0.046	0.007	0.087	0.04
11/19/2019 12:00	0.047	0.007	0.09	0.04
11/19/2019 12:15	0.047	0.007	0.093	0.04
11/19/2019 12:30	0.046	0.006	0.096	0.04
11/19/2019 12:45	0.046	0.006	0.098	0.04
11/19/2019 13:00	0.046	0.006	0.1	0.039
11/19/2019 13:15	0.045	0.006	0.101	0.038
11/19/2019 13:30	0.044	0.006	0.101	0.038
11/19/2019 13:45	0.043	0.006	0.102	0.037
11/19/2019 14:00	0.041	0.006	0.103	0.037
11/19/2019 14:15	0.04	0.005	0.104	0.037
11/19/2019 14:30	0.039	0.005	0.104	0.036
11/19/2019 14:45	0.039	0.005	0.106	0.036
11/19/2019 15:00	0.038	0.005	0.106	0.036
11/19/2019 15:15	0.038	0.005	0.109	0.036
11/19/2019 15:30	0.037	0.005	0.111	0.036
11/19/2019 15:45	0.037	0.005	0.113	0.036
11/19/2019 16:00	0.037	0.005	0.114	0.036
11/19/2019 16:15	0.037	0.004	0.116	0.035
11/19/2019 16:30	0.037	0.004	0.117	0.035
11/19/2019 16:45	0.037	0.004	0.118	0.035
11/19/2019 17:00	0.037	0.004	0.119	0.035

20-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/20/2019 8:00	0	0.009	0	0.05
11/20/2019 8:15	0	0.009	0	0.054
11/20/2019 8:30	0	0.009	0	0.056
11/20/2019 8:45	0	0.009	0	0.058
11/20/2019 9:00	0	0.01	0	0.058
11/20/2019 9:15	0	0.01	0	0.061
11/20/2019 9:30	0	0.012	0	0.064
11/20/2019 9:45	0	0.013	0	0.068
11/20/2019 10:00	0	0.014	0	0.071
11/20/2019 10:15	0	0.014	0	0.073
11/20/2019 10:30	0	0.015	0	0.074
11/20/2019 10:45	0	0.015	0	0.076
11/20/2019 11:00	0	0.015	0	0.078
11/20/2019 11:15	0	0.016	0	0.079
11/20/2019 11:30	0	0.016	0	0.081
11/20/2019 11:45	0	0.016	0	0.083
11/20/2019 12:00	0	0.017	0	0.084
11/20/2019 12:15	0	0.017	0.001	0.086
11/20/2019 12:30	0	0.017	0.001	0.087
11/20/2019 12:45	0	0.017	0.001	0.088
11/20/2019 13:00	0	0.017	0.002	0.089
11/20/2019 13:15	0	0.018	0.002	0.09
11/20/2019 13:30	0	0.018	0.003	0.091
11/20/2019 13:45	0	0.018	0.003	0.091
11/20/2019 14:00	0	0.018	0.004	0.092
11/20/2019 14:15	0	0.018	0.004	0.092
11/20/2019 14:30	0	0.019	0.005	0.092
11/20/2019 14:45	0	0.019	0.006	0.092
11/20/2019 15:00	0	0.019	0.006	0.092
11/20/2019 15:15	0	0.019	0.007	0.091
11/20/2019 15:30	0	0.019	0.008	0.091
11/20/2019 15:45	0	0.019	0.008	0.09
11/20/2019 16:00	0	0.018	0.009	0.089
11/20/2019 16:15	0	0.018	0.009	0.088
11/20/2019 16:30	0	0.018	0.009	0.087
11/20/2019 16:45	0	0.018	0.009	0.086
11/20/2019 17:00	0	0.018	0.008	0.085

21-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/21/2019 8:00	0.031	0.008	0	0.027
11/21/2019 8:15	0.031	0.008	0.008	0.029
11/21/2019 8:30	0.031	0.008	0.016	0.028
11/21/2019 8:45	0.032	0.008	0.019	0.029
11/21/2019 9:00	0.032	0.008	0.023	0.029
11/21/2019 9:15	0.032	0.008	0.028	0.029
11/21/2019 9:30	0.033	0.008	0.033	0.029
11/21/2019 9:45	0.034	0.008	0.04	0.03
11/21/2019 10:00	0.033	0.008	0.046	0.03
11/21/2019 10:15	0.033	0.008	0.051	0.031
11/21/2019 10:30	0.032	0.008	0.055	0.031
11/21/2019 10:45	0.032	0.008	0.058	0.031
11/21/2019 11:00	0.031	0.008	0.06	0.031
11/21/2019 11:15	0.03	0.008	0.063	0.031
11/21/2019 11:30	0.03	0.008	0.064	0.031
11/21/2019 11:45	0.029	0.008	0.066	0.032
11/21/2019 12:00	0.029	0.008	0.067	0.032
11/21/2019 12:15	0.028	0.008	0.068	0.032
11/21/2019 12:30	0.028	0.008	0.069	0.033
11/21/2019 12:45	0.028	0.008	0.069	0.033
11/21/2019 13:00	0.027	0.008	0.07	0.034
11/21/2019 13:15	0.027	0.008	0.07	0.034
11/21/2019 13:30	0.027	0.008	0.07	0.035
11/21/2019 13:45	0.027	0.008	0.07	0.035
11/21/2019 14:00	0.026	0.008	0.07	0.035
11/21/2019 14:15	0.026	0.009	0.07	0.036
11/21/2019 14:30	0.026	0.009	0.07	0.036
11/21/2019 14:45	0.026	0.009	0.069	0.036
11/21/2019 15:00	0.026	0.009	0.069	0.036
11/21/2019 15:15	0.026	0.009	0.068	0.036
11/21/2019 15:30	0.025	0.009	0.068	0.036
11/21/2019 15:45	0.025	0.009	0.068	0.036
11/21/2019 16:00	0.025	0.008	0.068	0.036
11/21/2019 16:15	0.025	0.008	0.068	0.036
11/21/2019 16:30	0.025	0.008	0.068	0.035
11/21/2019 16:45	0.025	0.008	0.068	0.035
11/21/2019 17:00	0.024	0.008	0.068	0.034
11/21/2019 17:15	0.024	0.008	0.068	0.034
11/21/2019 17:30	0.024	0.008	0.068	0.034

22-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/22/2019 8:00	0	0	0	0
11/22/2019 8:15	0	0	0	0
11/22/2019 8:30	0	0	0	0
11/22/2019 8:45	0	0	0	0
11/22/2019 9:00	0	0	0	0
11/22/2019 9:15	0	0	0	0
11/22/2019 9:30	0	0	0	0
11/22/2019 9:45	0	0	0	0
11/22/2019 10:00	0	0	0	0
11/22/2019 10:15	0	0	0	0
11/22/2019 10:30	0	0	0	0
11/22/2019 10:45	0	0	0	0
11/22/2019 11:00	0	0.001	0	0
11/22/2019 11:15	0	0.001	0	0
11/22/2019 11:30	0	0.001	0	0
11/22/2019 11:45	0	0.001	0	0
11/22/2019 12:00	0	0.001	0	0
11/22/2019 12:15	0	0.001	0	0
11/22/2019 12:30	0	0.001	0	0
11/22/2019 12:45	0	0.001	0	0
11/22/2019 13:00	0	0.001	0	0
11/22/2019 13:15	0	0.001	0	0
11/22/2019 13:30	0	0.001	0	0
11/22/2019 13:45	0	0.001	0	0
11/22/2019 14:00	0	0.001	0	0
11/22/2019 14:15	0	0.001	0	0
11/22/2019 14:30	0	0.001	0	0
11/22/2019 14:45	0	0.001	0	0
11/22/2019 15:00	0	0.001	0	0
11/22/2019 15:15	0	0.001	0	0
11/22/2019 15:30	0	0.001	0	0
11/22/2019 15:45	0	0.001	0	0
11/22/2019 16:00	0	0.001	0	0
11/22/2019 16:15	0	0.001	0	0
11/22/2019 16:30	0	0.001	0	0
11/22/2019 16:45	0	0.001	0	0
11/22/2019 17:00	0	0.001	0	0

23-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/23/2019 8:00	0	0.003	0.068	0.01
11/23/2019 8:15	0	0.003	0.073	0.011
11/23/2019 8:30	0	0.003	0.08	0.011
11/23/2019 8:45	0	0.003	0.082	0.01
11/23/2019 9:00	0	0.003	0.082	0.01
11/23/2019 9:15	0	0.003	0.085	0.01
11/23/2019 9:30	0	0.003	0.086	0.01
11/23/2019 9:45	0	0.003	0.098	0.01
11/23/2019 10:00	0	0.003	0.1	0.01
11/23/2019 10:15	0	0.003	0.101	0.01
11/23/2019 10:30	0	0.003	0.101	0.01
11/23/2019 10:45	0	0.003	0.101	0.011
11/23/2019 11:00	0	0.003	0.1	0.011
11/23/2019 11:15	0	0.003	0.1	0.011
11/23/2019 11:30	0	0.003	0.1	0.011
11/23/2019 11:45	0	0.003	0.1	0.011
11/23/2019 12:00	0	0.003	0.1	0.011

25-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/25/2019 8:00	0	0.013	0	0.053
11/25/2019 8:15	0	0.012	0.003	0.052
11/25/2019 8:30	0	0.012	0.008	0.051
11/25/2019 8:45	0	0.012	0.011	0.05
11/25/2019 9:00	0	0.012	0.013	0.05
11/25/2019 9:15	0	0.012	0.017	0.049
11/25/2019 9:30	0	0.012	0.021	0.045
11/25/2019 9:45	0	0.012	0.023	0.045
11/25/2019 10:00	0	0.012	0.025	0.047
11/25/2019 10:15	0	0.012	0.028	0.046
11/25/2019 10:30	0	0.012	0.033	0.046
11/25/2019 10:45	0	0.012	0.039	0.046
11/25/2019 11:00	0	0.012	0.043	0.046
11/25/2019 11:15	0.001	0.012	0.046	0.046
11/25/2019 11:30	0.002	0.012	0.051	0.046
11/25/2019 11:45	0.003	0.012	0.056	0.047
11/25/2019 12:00	0.003	0.012	0.06	0.047
11/25/2019 12:15	0.005	0.012	0.063	0.046
11/25/2019 12:30	0.006	0.012	0.067	0.046
11/25/2019 12:45	0.009	0.012	0.072	0.046
11/25/2019 13:00	0.011	0.012	0.076	0.046
11/25/2019 13:15	0.013	0.012	0.08	0.046
11/25/2019 13:30	0.015	0.012	0.083	0.045
11/25/2019 13:45	0.016	0.012	0.087	0.043
11/25/2019 14:00	0.018	0.011	0.09	0.041
11/25/2019 14:15	0.019	0.011	0.092	0.04
11/25/2019 14:30	0.021	0.011	0.094	0.039
11/25/2019 14:45	0.022	0.011	0.097	0.037
11/25/2019 15:00	0.023	0.011	0.099	0.036
11/25/2019 15:15	0.023	0.011	0.102	0.035
11/25/2019 15:30	0.024	0.011	0.104	0.034
11/25/2019 15:45	0.025	0.011	0.107	0.033
11/25/2019 16:00	0.026	0.011	0.109	0.032
11/25/2019 16:15	0.026	0.011	0.111	0.031
11/25/2019 16:30	0.027	0.011	0.113	0.031
11/25/2019 16:45	0.027	0.011	0.115	0.03
11/25/2019 17:00	0.027	0.011	0.116	0.029

26-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/26/2019 8:00	0	0.005	0.003	0.014
11/26/2019 8:15	0	0.004	0.007	0.014
11/26/2019 8:30	0	0.004	0.011	0.014
11/26/2019 8:45	0	0.004	0.013	0.015
11/26/2019 9:00	0	0.004	0.019	0.016
11/26/2019 9:15	0	0.004	0.024	0.016
11/26/2019 9:30	0	0.004	0.029	0.017
11/26/2019 9:45	0	0.005	0.036	0.016
11/26/2019 10:00	0	0.005	0.044	0.017
11/26/2019 10:15	0	0.005	0.05	0.017
11/26/2019 10:30	0	0.006	0.056	0.018
11/26/2019 10:45	0	0.006	0.063	0.019
11/26/2019 11:00	0	0.006	0.07	0.019
11/26/2019 11:15	0	0.006	0.075	0.02
11/26/2019 11:30	0	0.007	0.078	0.021
11/26/2019 11:45	0	0.007	0.081	0.022
11/26/2019 12:00	0	0.007	0.083	0.023
11/26/2019 12:15	0	0.007	0.084	0.024
11/26/2019 12:30	0	0.007	0.086	0.024
11/26/2019 12:45	0	0.008	0.087	0.025
11/26/2019 13:00	0	0.008	0.089	0.025
11/26/2019 13:15	0	0.008	0.09	0.026
11/26/2019 13:30	0	0.008	0.092	0.027
11/26/2019 13:45	0	0.009	0.094	0.027
11/26/2019 14:00	0	0.009	0.095	0.028
11/26/2019 14:15	0	0.009	0.096	0.029
11/26/2019 14:30	0	0.009	0.098	0.029
11/26/2019 14:45	0	0.01	0.1	0.03
11/26/2019 15:00	0	0.01	0.102	0.031
11/26/2019 15:15	0	0.01	0.103	0.032
11/26/2019 15:30	0	0.011	0.104	0.033
11/26/2019 15:45	0	0.011	0.105	0.034
11/26/2019 16:00	0	0.011	0.106	0.035
11/26/2019 16:15	0	0.012	0.107	0.036
11/26/2019 16:30	0	0.012	0.108	0.037
11/26/2019 16:45	0	0.012	0.108	0.037
11/26/2019 17:00	0	0.012	0.108	0.037

27-Nov-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
11/27/2019 8:00	0	0.008	0	0.023
11/27/2019 8:15	0	0.008	0	0.03
11/27/2019 8:30	0	0.007	0	0.029
11/27/2019 8:45	0	0.007	0	0.029
11/27/2019 9:00	0	0.006	0	0.03
11/27/2019 9:15	0	0.005	0	0.029
11/27/2019 9:30	0	0.006	0	0.028
11/27/2019 9:45	0	0.006	0	0.028
11/27/2019 10:00	0	0.005	0	0.027
11/27/2019 10:15	0	0.005	0	0.026
11/27/2019 10:30	0	0.005	0	0.025
11/27/2019 10:45	0	0.005	0	0.023
11/27/2019 11:00	0	0.004	0	0.023
11/27/2019 11:15	0	0.004	0	0.022
11/27/2019 11:30	0	0.004	0	0.021
11/27/2019 11:45	0	0.004	0	0.019
11/27/2019 12:00	0	0.004	0	0.019

02-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/02/2019 8:00	0.122	0.002	0.066	0.017
12/02/2019 8:15	0.124	0.002	0.066	0.013
12/02/2019 8:30	0.131	0.002	0.071	0.013
12/02/2019 8:45	0.140	0.002	0.076	0.013
12/02/2019 9:00	0.148	0.002	0.079	0.013
12/02/2019 9:15	0.154	0.002	0.085	0.013
12/02/2019 9:30	0.159	0.002	0.091	0.013
12/02/2019 9:45	0.161	0.002	0.098	0.012
12/02/2019 10:00	0.163	0.002	0.105	0.012
12/02/2019 10:15	0.164	0.002	0.111	0.012
12/02/2019 10:30	0.166	0.001	0.115	0.012
12/02/2019 10:45	0.167	0.001	0.119	0.012
12/02/2019 11:00	0.169	0.001	0.123	0.012
12/02/2019 11:15	0.170	0.001	0.127	0.012
12/02/2019 11:30	0.172	0.001	0.130	0.012
12/02/2019 11:45	0.173	0.001	0.133	0.012
12/02/2019 12:00	0.174	0.001	0.135	0.012
12/02/2019 12:15	0.176	0.001	0.137	0.011
12/02/2019 12:30	0.178	0.001	0.140	0.011
12/02/2019 12:45	0.181	0.001	0.142	0.011
12/02/2019 13:00	0.183	0.001	0.144	0.011
12/02/2019 13:15	0.185	0.001	0.147	0.011
12/02/2019 13:30	0.187	0.001	0.150	0.011
12/02/2019 13:45	0.189	0.001	0.152	0.011
12/02/2019 14:00	0.190	0.001	0.154	0.011
12/02/2019 14:15	0.191	0.001	0.155	0.011
12/02/2019 14:30	0.192	0.001	0.157	0.01
12/02/2019 14:45	0.193	0.001	0.159	0.01
12/02/2019 15:00	0.194	0.001	0.162	0.01
12/02/2019 15:15	0.194	0.001	0.163	0.01
12/02/2019 15:30	0.194	0.001	0.165	0.01
12/02/2019 15:45	0.194	0.001	0.167	0.01
12/02/2019 16:00	0.194	0.001	0.169	0.01
12/02/2019 16:15	0.194	0.001	0.171	0.01
12/02/2019 16:30	0.194	0.001	0.173	0.01
12/02/2019 16:45	0.194	0.001	0.175	0.01
12/02/2019 17:00	0.194	0.001	0.176	0.01

03-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/03/2019 8:00	0	0.008	0	0.026
12/03/2019 8:15	0	0.009	0	0.029
12/03/2019 8:30	0	0.009	0	0.032
12/03/2019 8:45	0	0.009	0.004	0.033
12/03/2019 9:00	0	0.01	0.009	0.034
12/03/2019 9:15	0.002	0.01	0.012	0.034
12/03/2019 9:30	0.004	0.009	0.015	0.034
12/03/2019 9:45	0.006	0.009	0.018	0.032
12/03/2019 10:00	0.007	0.009	0.021	0.03
12/03/2019 10:15	0.008	0.009	0.024	0.029
12/03/2019 10:30	0.009	0.009	0.026	0.027
12/03/2019 10:45	0.01	0.008	0.029	0.025
12/03/2019 11:00	0.01	0.008	0.031	0.024
12/03/2019 11:15	0.01	0.008	0.033	0.023
12/03/2019 11:30	0.011	0.008	0.035	0.021
12/03/2019 11:45	0.011	0.008	0.036	0.021
12/03/2019 12:00	0.011	0.008	0.037	0.02
12/03/2019 12:15	0.01	0.008	0.037	0.019
12/03/2019 12:30	0.009	0.007	0.037	0.018
12/03/2019 12:45	0.009	0.007	0.037	0.018
12/03/2019 13:00	0.008	0.007	0.037	0.017
12/03/2019 13:15	0.008	0.007	0.038	0.017
12/03/2019 13:30	0.008	0.007	0.038	0.016
12/03/2019 13:45	0.007	0.007	0.038	0.016
12/03/2019 14:00	0.007	0.007	0.039	0.016
12/03/2019 14:15	0.007	0.007	0.039	0016
12/03/2019 14:30	0.006	0.007	0.039	0.016
12/03/2019 14:45	0.006	0.007	0.039	0.015
12/03/2019 15:00	0.006	0.007	0.039	0.015
12/03/2019 15:15	0.006	0.007	0.039	0.015
12/03/2019 15:30	0.005	0.007	0.039	0.015
12/03/2019 15:45	0.005	0.007	0.039	0.015
12/03/2019 16:00	0.005	0.007	0.039	0.015
12/03/2019 16:15	0.005	0.007	0.039	0.016
12/03/2019 16:30	0.005	0.006	0.039	0.016
12/03/2019 16:45	0.005	0.006	0.039	0.016
12/03/2019 17:00	0.005	0.006	0.039	0.016

04-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/04/2019 8:00	0	0.007	0.068	0.026
12/04/2019 8:15	0	0.007	0.065	0.026
12/04/2019 8:30	0	0.007	0.069	0.033
12/04/2019 8:45	0	0.007	0.076	0.032
12/04/2019 9:00	0	0.007	0.087	0.033
12/04/2019 9:15	0	0.007	0.098	0.033
12/04/2019 9:30	0	0.007	0.109	0.034
12/04/2019 9:45	0	0.007	0.118	0.035
12/04/2019 10:00	0.001	0.007	0.126	0.036
12/04/2019 10:15	0.002	0.007	0.133	0.037
12/04/2019 10:30	0.003	0.007	0.139	0.037
12/04/2019 10:45	0.004	0.008	0.145	0.038
12/04/2019 11:00	0.005	0.008	0.149	0.039
12/04/2019 11:15	0.007	0.007	0.153	0.039
12/04/2019 11:30	0.008	0.007	0.155	0.039
12/04/2019 11:45	0.009	0.007	0.155	0.04
12/04/2019 12:00	0.01	0.007	0.156	0.04
12/04/2019 12:15	0.011	0.007	0.158	0.041
12/04/2019 12:30	0.012	0.007	0.159	0.042
12/04/2019 12:45	0.013	0.007	0.160	0.042
12/04/2019 13:00	0.014	0.007	0.162	0.043
12/04/2019 13:15	0.015	0.007	0.163	0.043
12/04/2019 13:30	0.016	0.007	0.165	0.043
12/04/2019 13:45	0.017	0.006	0.167	0.043
12/04/2019 14:00	0.018	0.006	0.169	0.043
12/04/2019 14:15	0.019	0.006	0.170	0.043
12/04/2019 14:30	0.019	0.006	0.172	0.043
12/04/2019 14:45	0.02	0.006	0.174	0.043
12/04/2019 15:00	0.021	0.006	0.176	0.043
12/04/2019 15:15	0.022	0.006	0.177	0.043
12/04/2019 15:30	0.022	0.006	0.179	0.042
12/04/2019 15:45	0.023	0.006	0.180	0.042
12/04/2019 16:00	0.023	0.006	0.181	0.042
12/04/2019 16:15	0.024	0.006	0.182	0.041
12/04/2019 16:30	0.025	0.006	0.182	0.041
12/04/2019 16:45	0.025	0.006	0.183	0.041
12/04/2019 17:00	0.026	0.006	0.183	0.041

05-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/05/2019 8:00	0	0	0	0.006
12/05/2019 8:15	0	0	0	0.006
12/05/2019 8:30	0	0	0	0.006
12/05/2019 8:45	0	0	0	0.006
12/05/2019 9:00	0	0	0	0.006
12/05/2019 9:15	0	0	0	0.006
12/05/2019 9:30	0	0	0.002	0.006
12/05/2019 9:45	0	0	0.007	0.006
12/05/2019 10:00	0	0	0.01	0.006
12/05/2019 10:15	0	0	0.013	0.006
12/05/2019 10:30	0	0	0.013	0.006
12/05/2019 10:45	0	0	0.013	0.006
12/05/2019 11:00	0	0.001	0.014	0.006
12/05/2019 11:15	0	0.001	0.015	0.006
12/05/2019 11:30	0	0.001	0.016	0.006
12/05/2019 11:45	0	0	0.017	0.006
12/05/2019 12:00	0	0	0.017	0.006
12/05/2019 12:15	0	0	0.017	0.006
12/05/2019 12:30	0	0	0.017	0.006
12/05/2019 12:45	0	0	0.019	0.006
12/05/2019 13:00	0	0	0.021	0.006
12/05/2019 13:15	0	0	0.023	0.006
12/05/2019 13:30	0	0	0.026	0.006
12/05/2019 13:45	0	0	0.028	0.006
12/05/2019 14:00	0	0	0.029	0.006
12/05/2019 14:15	0	0.001	0.031	0.006
12/05/2019 14:30	0	0.001	0.032	0.006
12/05/2019 14:45	0	0.001	0.034	0.006
12/05/2019 15:00	0	0.001	0.035	0.006
12/05/2019 15:15	0	0.001	0.035	0.006
12/05/2019 15:30	0	0	0.036	0.006
12/05/2019 15:45	0	0	0.036	0.006
12/05/2019 16:00	0	0	0.036	0.006
12/05/2019 16:15	0	0	0.037	0.006
12/05/2019 16:30	0	0	0.038	0.007
12/05/2019 16:45	0	0	0.039	0.007
12/05/2019 17:00	0	0	0.04	0.007

06-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/06/2019 8:00	0	0.007	0	0.019
12/06/2019 8:15	0	0.005	0	0.02
12/06/2019 8:30	0	0.005	0	0.02
12/06/2019 8:45	0	0.005	0	0.021
12/06/2019 9:00	0	0.004	0	0.021
12/06/2019 9:15	0	0.004	0	0.021
12/06/2019 9:30	0	0.004	0	0.021
12/06/2019 9:45	0	0.004	0	0.021
12/06/2019 10:00	0	0.004	0	0.022
12/06/2019 10:15	0	0.004	0	0.022
12/06/2019 10:30	0	0.004	0	0.024
12/06/2019 10:45	0	0.004	0	0.025
12/06/2019 11:00	0	0.004	0	0.026
12/06/2019 11:15	0	0.004	0	0.027
12/06/2019 11:30	0	0.004	0	0.027
12/06/2019 11:45	0	0.003	0	0.027
12/06/2019 12:00	0	0.003	0	0.026
12/06/2019 12:15	0	0.003	0	0.025
12/06/2019 12:30	0	0.003	0	0.024
12/06/2019 12:45	0	0.003	0	0.023
12/06/2019 13:00	0	0.002	0	0.022
12/06/2019 13:15	0	0.002	0	0.022
12/06/2019 13:30	0	0.002	0	0.022
12/06/2019 13:45	0	0.002	0	0.021
12/06/2019 14:00	0	0.002	0	0.021
12/06/2019 14:15	0	0.002	0	0.021
12/06/2019 14:30	0	0.002	0	0.021
12/06/2019 14:45	0	0.002	0	0.021
12/06/2019 15:00	0	0.002	0	0.02
12/06/2019 15:15	0	0.002	0	0.02
12/06/2019 15:30	0	0.002	0	0.02
12/06/2019 15:45	0	0.002	0	0.02
12/06/2019 16:00	0	0.002	0	0.02
12/06/2019 16:15	0	0.002	0	0.019
12/06/2019 16:30	0	0.002	0	0.019
12/06/2019 16:45	0	0.002	0	0.019
12/06/2019 17:00	0	0.002	0	0.019

07-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/07/2019 8:00	0	0	0	0.003
12/07/2019 8:15	0.013	0	0	0.003
12/07/2019 8:30	0.022	0	0	0.003
12/07/2019 8:45	0.031	0	0	0.003
12/07/2019 9:00	0.037	0	0	0.003
12/07/2019 9:15	0.042	0	0	0.004
12/07/2019 9:30	0.047	0	0	0.004
12/07/2019 9:45	0.052	0	0	0.004
12/07/2019 10:00	0.056	0	0.001	0.004
12/07/2019 10:15	0.059	0	0.001	0.004
12/07/2019 10:30	0.061	0	0.002	0.004
12/07/2019 10:45	0.064	0	0.002	0.004
12/07/2019 11:00	0.066	0	0.003	0.004
12/07/2019 11:15	0.069	0	0.004	0.004
12/07/2019 11:30	0.071	0	0.004	0.004
12/07/2019 11:45	0.073	0	0.005	0.004
12/07/2019 12:00	0.075	0	0.006	0.004
12/07/2019 12:15	0.076	0	0.006	0.005
12/07/2019 12:30	0.077	0	0.006	0.005
12/07/2019 12:45	0.077	0	0.006	0.005
12/07/2019 13:00	0.077	0	0.005	0.005

09-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/09/2019 8:00	0.011	0.005	0.087	0.011
12/09/2019 8:15	0.015	0.005	0.099	0.01
12/09/2019 8:30	0.019	0.005	0.11	0.01
12/09/2019 8:45	0.024	0.005	0.115	0.01
12/09/2019 9:00	0.027	0.005	0.127	0.01
12/09/2019 9:15	0.029	0.005	0.133	0.01
12/09/2019 9:30	0.031	0.005	0.135	0.01
12/09/2019 9:45	0.033	0.005	0.136	0.01
12/09/2019 10:00	0.034	0.005	0.135	0.01
12/09/2019 10:15	0.035	0.005	0.132	0.011
12/09/2019 10:30	0.035	0.005	0.130	0.011
12/09/2019 10:45	0.036	0.005	0.128	0.011
12/09/2019 11:00	0.037	0.005	0.125	0.011
12/09/2019 11:15	0.038	0.005	0.122	0.011
12/09/2019 11:30	0.039	0.005	0.120	0.011
12/09/2019 11:45	0.039	0.005	0.118	0.011
12/09/2019 12:00	0.04	0.004	0.116	0.012
12/09/2019 12:15	0.041	0.004	0.114	0.011
12/09/2019 12:30	0.042	0.004	0.113	0.011
12/09/2019 12:45	0.043	0.004	0.112	0.011
12/09/2019 13:00	0.043	0.004	0.111	0.011
12/09/2019 13:15	0.044	0.004	0.111	0.011
12/09/2019 13:30	0.045	0.004	0.111	0.011
12/09/2019 13:45	0.046	0.004	0.112	0.011
12/09/2019 14:00	0.047	0.004	0.112	0.011
12/09/2019 14:15	0.048	0.004	0.112	0.011
12/09/2019 14:30	0.048	0.004	0.112	0.01
12/09/2019 14:45	0.049	0.004	0.112	0.01
12/09/2019 15:00	0.049	0.004	0.113	0.01
12/09/2019 15:15	0.050	0.004	0.113	0.01
12/09/2019 15:30	0.051	0.003	0.113	0.01
12/09/2019 15:45	0.052	0.003	0.113	0.01
12/09/2019 16:00	0.053	0.003	0.112	0.009
12/09/2019 16:15	0.053	0.003	0.112	0.009
12/09/2019 16:30	0.054	0.003	0.112	0.009
12/09/2019 16:45	0.055	0.003	0.111	0.008
12/09/2019 17:00	0.056	0.003	0.111	0.008

10-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/10/2019 8:00	0	0.004	0.168	0.009
12/10/2019 8:15	0	0.003	0.165	0.009
12/10/2019 8:30	0	0.003	0.164	0.008
12/10/2019 8:45	0	0.003	0.165	0.008
12/10/2019 9:00	0	0.003	0.169	0.009
12/10/2019 9:15	0	0.002	0.169	0.008
12/10/2019 9:30	0	0.002	0.175	0.008
12/10/2019 9:45	0	0.002	0.178	0.007
12/10/2019 10:00	0	0.002	0.17	0.007
12/10/2019 10:15	0	0.002	0.172	0.006
12/10/2019 10:30	0	0.001	0.176	0.006
12/10/2019 10:45	0	0.001	0.173	0.006
12/10/2019 11:00	0	0.001	0.172	0.005
12/10/2019 11:15	0	0.001	0.173	0.005
12/10/2019 11:30	0	0.001	0.174	0.005
12/10/2019 11:45	0	0.001	0.174	0.005
12/10/2019 12:00	0	0.001	0.175	0.004
12/10/2019 12:15	0	0.001	0.176	0.004
12/10/2019 12:30	0	0.001	0.177	0.004
12/10/2019 12:45	0	0.001	0.176	0.004
12/10/2019 13:00	0	0.001	0.175	0.004
12/10/2019 13:15	0	0.001	0.176	0.004
12/10/2019 13:30	0	0.001	0.176	0.004
12/10/2019 13:45	0	0.001	0.175	0.004
12/10/2019 14:00	0	0.001	0.175	0.004
12/10/2019 14:15	0	0	0.173	0.004
12/10/2019 14:30	0	0	0.171	0.004
12/10/2019 14:45	0	0	0.171	0.004
12/10/2019 15:00	0	0	0.172	0.003
12/10/2019 15:15	0	0	0.174	0.003
12/10/2019 15:30	0	0	0.175	0.003
12/10/2019 15:45	0	0	0.176	0.003
12/10/2019 16:00	0	0	0.177	0.003
12/10/2019 16:15	0	0	0.177	0.003
12/10/2019 16:30	0	0	0.177	0.003
12/10/2019 16:45	0	0	0.177	0.003
12/10/2019 17:00	0	0	0.177	0.003

11-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/11/2019 8:00	0	0.004	0.015	0.014
12/11/2019 8:15	0	0.002	0.022	0.014
12/11/2019 8:30	0	0.002	0.028	0.013
12/11/2019 8:45	0	0.001	0.033	0.013
12/11/2019 9:00	0	0.001	0.036	0.012
12/11/2019 9:15	0	0.001	0.039	0.013
12/11/2019 9:30	0	0	0.042	0.013
12/11/2019 9:45	0	0	0.045	0.012
12/11/2019 10:00	0	0.001	0.047	0.012
12/11/2019 10:15	0	0.001	0.049	0.012
12/11/2019 10:30	0	0.001	0.05	0.012
12/11/2019 10:45	0	0.001	0.052	0.012
12/11/2019 11:00	0	0.001	0.053	0.012
12/11/2019 11:15	0	0.001	0.054	0.011
12/11/2019 11:30	0	0.001	0.055	0.011
12/11/2019 11:45	0	0.001	0.056	0.011
12/11/2019 12:00	0	0.001	0.057	0.011
12/11/2019 12:15	0	0.001	0.058	0.011
12/11/2019 12:30	0	0.001	0.059	0.012
12/11/2019 12:45	0	0.001	0.06	0.012
12/11/2019 13:00	0	0.001	0.061	0.012
12/11/2019 13:15	0	0.002	0.062	0.013
12/11/2019 13:30	0	0.002	0.062	0.013
12/11/2019 13:45	0	0.002	0.063	0.014
12/11/2019 14:00	0	0.002	0.063	0.014
12/11/2019 14:15	0	0.002	0.063	0.014
12/11/2019 14:30	0	0.002	0.063	0.014
12/11/2019 14:45	0	0.003	0.063	0.015
12/11/2019 15:00	0	0.003	0.063	0.015
12/11/2019 15:15	0	0.003	0.063	0.015
12/11/2019 15:30	0	0.003	0.063	0.016
12/11/2019 15:45	0	0.003	0.063	0.016
12/11/2019 16:00	0	0.003	0.063	0.016
12/11/2019 16:15	0	0.003	0.063	0.016
12/11/2019 16:30	0	0.003	0.063	0.016
12/11/2019 16:45	0	0.003	0.063	0.016
12/11/2019 17:00	0	0.003	0.063	0.017

12-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/12/2019 8:00	0	0.005	0	0.022
12/12/2019 8:15	0	0.006	0	0.023
12/12/2019 8:30	0	0.005	0	0.023
12/12/2019 8:45	0.005	0.005	0	0.022
12/12/2019 9:00	0.01	0.006	0	0.026
12/12/2019 9:15	0.015	0.006	0	0.027
12/12/2019 9:30	0.021	0.006	0	0.026
12/12/2019 9:45	0.027	0.006	0	0.027
12/12/2019 10:00	0.033	0.007	0	0.027
12/12/2019 10:15	0.037	0.007	0	0.026
12/12/2019 10:30	0.041	0.006	0	0.026
12/12/2019 10:45	0.044	0.007	0	0.026
12/12/2019 11:00	0.046	0.007	0	0.027
12/12/2019 11:15	0.048	0.007	0	0.027
12/12/2019 11:30	0.049	0.007	0	0.028
12/12/2019 11:45	0.049	0.007	0	0.028
12/12/2019 12:00	0.05	0.007	0	0.028
12/12/2019 12:15	0.05	0.007	0	0.028
12/12/2019 12:30	0.05	0.007	0	0.028
12/12/2019 12:45	0.049	0.007	0	0.027
12/12/2019 13:00	0.049	0.007	0	0.027
12/12/2019 13:15	0.049	0.007	0	0.027
12/12/2019 13:30	0.049	0.007	0	0.026
12/12/2019 13:45	0.049	0.007	0	0.026
12/12/2019 14:00	0.049	0.007	0	0.025
12/12/2019 14:15	0.049	0.007	0	0.025
12/12/2019 14:30	0.049	0.007	0	0.025
12/12/2019 14:45	0.049	0.006	0	0.025
12/12/2019 15:00	0.048	0.006	0	0.024
12/12/2019 15:15	0.049	0.006	0	0.024
12/12/2019 15:30	0.049	0.006	0	0.024
12/12/2019 15:45	0.049	0.006	0	0.024
12/12/2019 16:00	0.049	0.006	0	0.023
12/12/2019 16:15	0.048	0.006	0	0.023
12/12/2019 16:30	0.048	0.006	0	0.023
12/12/2019 16:45	0.048	0.006	0	0.022
12/12/2019 17:00	0.048	0.006	0	0.022

13-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/13/2019 8:00	0	0.004	0	0.023
12/13/2019 8:15	0	0.004	0.008	0.023
12/13/2019 8:30	0	0.004	0.016	0.017
12/13/2019 8:45	0	0.004	0.019	0.021
12/13/2019 9:00	0	0.004	0.023	0.019
12/13/2019 9:15	0	0.004	0.028	0.019
12/13/2019 9:30	0	0.004	0.033	0.018
12/13/2019 9:45	0	0.004	0.04	0.018
12/13/2019 10:00	0	0.004	0.046	0.018
12/13/2019 10:15	0	0.004	0.051	0.017
12/13/2019 10:30	0	0.003	0.055	0.017
12/13/2019 10:45	0	0.003	0.058	0.017
12/13/2019 11:00	0	0.003	0.06	0.017
12/13/2019 11:15	0	0.003	0.063	0.017
12/13/2019 11:30	0	0.003	0.064	0.016
12/13/2019 11:45	0	0.003	0.066	0.016
12/13/2019 12:00	0	0.003	0.067	0.016
12/13/2019 12:15	0	0.003	0.068	0.016
12/13/2019 12:30	0	0.003	0.069	0.016
12/13/2019 12:45	0	0.003	0.069	0.016
12/13/2019 13:00	0	0.003	0.07	0.015
12/13/2019 13:15	0	0.003	0.07	0.015
12/13/2019 13:30	0	0.003	0.07	0.015
12/13/2019 13:45	0	0.003	0.07	0.015
12/13/2019 14:00	0	0.003	0.07	0.015
12/13/2019 14:15	0	0.003	0.07	0.015
12/13/2019 14:30	0	0.003	0.07	0.015
12/13/2019 14:45	0	0.003	0.069	0.015
12/13/2019 15:00	0	0.003	0.069	0.015
12/13/2019 15:15	0	0.003	0.068	0.015
12/13/2019 15:30	0	0.002	0.068	0.015
12/13/2019 15:45	0	0.002	0.068	0.015
12/13/2019 16:00	0	0.002	0.068	0.014
12/13/2019 16:15	0	0.002	0.068	0.014
12/13/2019 16:30	0	0.002	0.068	0.014
12/13/2019 16:45	0	0.002	0.068	0.014
12/13/2019 17:00	0	0.002	0.068	0.014

16-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/16/2019 8:00	0	0.004	0	0.016
12/16/2019 8:15	0	0.004	0	0.015
12/16/2019 8:30	0	0.004	0.002	0.016
12/16/2019 8:45	0	0.004	0.005	0.017
12/16/2019 9:00	0	0.005	0.008	0.017
12/16/2019 9:15	0	0.005	0.016	0.018
12/16/2019 9:30	0	0.005	0.02	0.019
12/16/2019 9:45	0	0.005	0.021	0.019
12/16/2019 10:00	0	0.005	0.021	0.018
12/16/2019 10:15	0	0.005	0.021	0.018
12/16/2019 10:30	0	0.005	0.022	0.018
12/16/2019 10:45	0	0.005	0.022	0.017
12/16/2019 11:00	0	0.005	0.022	0.017
12/16/2019 11:15	0	0.005	0.022	0.017
12/16/2019 11:30	0	0.005	0.022	0.017
12/16/2019 11:45	0	0.005	0.022	0.017
12/16/2019 12:00	0	0.005	0.021	0.018
12/16/2019 12:15	0	0.005	0.021	0.018
12/16/2019 12:30	0	0.005	0.021	0.019
12/16/2019 12:45	0	0.005	0.021	0.019
12/16/2019 13:00	0	0.006	0.021	0.02
12/16/2019 13:15	0	0.006	0.021	0.02
12/16/2019 13:30	0	0.006	0.02	0.02
12/16/2019 13:45	0	0.006	0.02	0.021
12/16/2019 14:00	0	0.006	0.019	0.021
12/16/2019 14:15	0	0.006	0.019	0.021
12/16/2019 14:30	0	0.006	0.018	0.022
12/16/2019 14:45	0	0.006	0.018	0.022
12/16/2019 15:00	0	0.006	0.017	0.022
12/16/2019 15:15	0	0.006	0.017	0.022
12/16/2019 15:30	0	0.006	0.016	0.022
12/16/2019 15:45	0	0.006	0.016	0.022
12/16/2019 16:00	0	0.007	0.015	0.023
12/16/2019 16:15	0	0.007	0.014	0.024
12/16/2019 16:30	0	0.007	0.014	0.024
12/16/2019 16:45	0	0.007	0.014	0.024
12/16/2019 17:00	0	0.007	0.014	0.025

17-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/17/2019 8:00	0	0.005	0	0.024
12/17/2019 8:15	0	0.004	0	0.023
12/17/2019 8:30	0	0.004	0	0.022
12/17/2019 8:45	0	0.004	0	0.021
12/17/2019 9:00	0	0.004	0	0.02
12/17/2019 9:15	0	0.003	0	0.02
12/17/2019 9:30	0	0.003	0	0.02
12/17/2019 9:45	0	0.003	0	0.02
12/17/2019 10:00	0	0.003	0	0.02
12/17/2019 10:15	0	0.003	0	0.02
12/17/2019 10:30	0	0.003	0	0.019
12/17/2019 10:45	0	0.003	0	0.019
12/17/2019 11:00	0	0.003	0	0.018
12/17/2019 11:15	0	0.003	0	0.018
12/17/2019 11:30	0	0.003	0	0.018
12/17/2019 11:45	0	0.003	0	0.017
12/17/2019 12:00	0	0.003	0	0.017
12/17/2019 12:15	0	0.003	0	0.017
12/17/2019 12:30	0	0.002	0	0.016
12/17/2019 12:45	0	0.002	0	0.016
12/17/2019 13:00	0	0.002	0	0.016
12/17/2019 13:15	0	0.002	0	0.016
12/17/2019 13:30	0	0.002	0	0.016
12/17/2019 13:45	0	0.002	0	0.016
12/17/2019 14:00	0	0.002	0	0.016
12/17/2019 14:15	0	0.002	0	0.016
12/17/2019 14:30	0	0.002	0	0.015
12/17/2019 14:45	0	0.002	0	0.015
12/17/2019 15:00	0	0.002	0	0.015
12/17/2019 15:15	0	0.002	0	0.015
12/17/2019 15:30	0	0.002	0	0.015
12/17/2019 15:45	0	0.002	0	0.015
12/17/2019 16:00	0	0.003	0	0.016
12/17/2019 16:15	0	0.003	0	0.017
12/17/2019 16:30	0	0.003	0	0.017
12/17/2019 16:45	0	0.003	0	0.018
12/17/2019 17:00	0	0.003	0	0.019

18-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/18/2019 8:00	0	0.003	0	0.011
12/18/2019 8:15	0	0.003	0	0.01
12/18/2019 8:30	0	0.003	0	0.009
12/18/2019 8:45	0	0.002	0	0.008
12/18/2019 9:00	0.001	0.002	0	0.008
12/18/2019 9:15	0.005	0.002	0	0.008
12/18/2019 9:30	0.01	0.002	0	0.008
12/18/2019 9:45	0.014	0.002	0	0.008
12/18/2019 10:00	0.019	0.002	0	0.008
12/18/2019 10:15	0.023	0.002	0	0.008
12/18/2019 10:30	0.027	0.002	0	0.008
12/18/2019 10:45	0.029	0.002	0	0.007
12/18/2019 11:00	0.031	0.002	0	0.007
12/18/2019 11:15	0.033	0.002	0	0.007
12/18/2019 11:30	0.035	0.002	0	0.007
12/18/2019 11:45	0.035	0.002	0	0.007
12/18/2019 12:00	0.035	0.002	0	0.007
12/18/2019 12:15	0.036	0.002	0	0.007
12/18/2019 12:30	0.037	0.002	0	0.007
12/18/2019 12:45	0.038	0.002	0	0.007
12/18/2019 13:00	0.038	0.002	0	0.007
12/18/2019 13:15	0.039	0.002	0	0.007
12/18/2019 13:30	0.04	0.002	0	0.006
12/18/2019 13:45	0.04	0.002	0	0.006
12/18/2019 14:00	0.041	0.002	0	0.006
12/18/2019 14:15	0.042	0.002	0	0.006
12/18/2019 14:30	0.043	0.002	0	0.006
12/18/2019 14:45	0.044	0.001	0	0.006
12/18/2019 15:00	0.045	0.001	0	0.006
12/18/2019 15:15	0.046	0.001	0	0.006
12/18/2019 15:30	0.047	0.001	0	0.006
12/18/2019 15:45	0.049	0.001	0	0.006
12/18/2019 16:00	0.05	0.001	0	0.006
12/18/2019 16:15	0.051	0.001	0	0.006
12/18/2019 16:30	0.052	0.001	0	0.006
12/18/2019 16:45	0.053	0.001	0	0.006
12/18/2019 17:00	0.053	0.001	0	0.006

19-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/19/2019 8:00	0.004	0.003	0.066	0.014
12/19/2019 8:15	0	0.003	0.072	0.011
12/19/2019 8:30	0	0.002	0.077	0.011
12/19/2019 8:45	0	0.002	0.082	0.012
12/19/2019 9:00	0	0.002	0.086	0.012
12/19/2019 9:15	0.007	0.002	0.089	0.012
12/19/2019 9:30	0.014	0.002	0.092	0.012
12/19/2019 9:45	0.028	0.002	0.095	0.012
12/19/2019 10:00	0.026	0.002	0.098	0.011
12/19/2019 10:15	0.025	0.002	0.1	0.011
12/19/2019 10:30	0.025	0.002	0.102	0.011
12/19/2019 10:45	0.025	0.002	0.103	0.01
12/19/2019 11:00	0.03	0.002	0.105	0.01
12/19/2019 11:15	0.038	0.002	0.106	0.01
12/19/2019 11:30	0.043	0.002	0.107	0.01
12/19/2019 11:45	0.047	0.002	0.108	0.01
12/19/2019 12:00	0.05	0.002	0.109	0.01
12/19/2019 12:15	0.053	0.002	0.110	0.01
12/19/2019 12:30	0.054	0.002	0.111	0.009
12/19/2019 12:45	0.056	0.002	0.111	0.009
12/19/2019 13:00	0.057	0.002	0.112	0.009
12/19/2019 13:15	0.059	0.002	0.113	0.009
12/19/2019 13:30	0.06	0.002	0.113	0.009
12/19/2019 13:45	0.061	0.001	0.114	0.009
12/19/2019 14:00	0.062	0.001	0.114	0.009
12/19/2019 14:15	0.062	0.001	0.115	0.009
12/19/2019 14:30	0.062	0.001	0.115	0.009
12/19/2019 14:45	0.063	0.001	0.115	0.009
12/19/2019 15:00	0.063	0.002	0.116	0.009
12/19/2019 15:15	0.063	0.002	0.116	0.009
12/19/2019 15:30	0.064	0.002	0.116	0.009
12/19/2019 15:45	0.065	0.002	0.117	0.01
12/19/2019 16:00	0.065	0.002	0.117	0.01
12/19/2019 16:15	0.066	0.002	0.117	0.01
12/19/2019 16:30	0.066	0.002	0.117	0.01
12/19/2019 16:45	0.066	0.002	0.118	0.01
12/19/2019 17:00	0.066	0.002	0.119	0.011

20-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/20/2019 8:00	0	0.01	0	0.04
12/20/2019 8:15	0.01	0.009	0	0.04
12/20/2019 8:30	0.007	0.009	0	0.046
12/20/2019 8:45	0.004	0.009	0	0.046
12/20/2019 9:00	0.004	0.01	0	0.044
12/20/2019 9:15	0.01	0.01	0	0.042
12/20/2019 9:30	0.013	0.009	0	0.04
12/20/2019 9:45	0.014	0.009	0	0.037
12/20/2019 10:00	0.015	0.008	0	0.035
12/20/2019 10:15	0.016	0.008	0	0.033
12/20/2019 10:30	0.017	0.007	0	0.032
12/20/2019 10:45	0.018	0.007	0	0.03
12/20/2019 11:00	0.019	0.007	0	0.029
12/20/2019 11:15	0.02	0.006	0	0.028
12/20/2019 11:30	0.022	0.006	0	0.027
12/20/2019 11:45	0.023	0.006	0	0.026
12/20/2019 12:00	0.023	0.005	0	0.025
12/20/2019 12:15	0.023	0.005	0	0.024
12/20/2019 12:30	0.024	0.005	0	0.023
12/20/2019 12:45	0.024	0.005	0	0.023
12/20/2019 13:00	0.025	0.005	0	0.022
12/20/2019 13:15	0.025	0.005	0	0.022
12/20/2019 13:30	0.025	0.004	0	0.021
12/20/2019 13:45	0.025	0.004	0	0.021
12/20/2019 14:00	0.025	0.004	0	0.021
12/20/2019 14:15	0.025	0.004	0	0.021
12/20/2019 14:30	0.025	0.004	0	0.02
12/20/2019 14:45	0.025	0.004	0	0.02
12/20/2019 15:00	0.024	0.004	0	0.02
12/20/2019 15:15	0.024	0.004	0	0.019
12/20/2019 15:30	0.023	0.004	0	0.019
12/20/2019 15:45	0.023	0.003	0	0.019
12/20/2019 16:00	0.023	0.003	0	0.019
12/20/2019 16:15	0.023	0.003	0	0.018
12/20/2019 16:30	0.023	0.003	0	0.018
12/20/2019 16:45	0.023	0.003	0	0.018
12/20/2019 17:00	0.023	0.002	0	0.017

21-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/21/2019 8:00	0	0.006	0	0.024
12/21/2019 8:15	0	0.006	0	0.024
12/21/2019 8:30	0	0.006	0	0.025
12/21/2019 8:45	0	0.006	0	0.0236
12/21/2019 9:00	0	0.006	0	0.026
12/21/2019 9:15	0	0.006	0	0.027
12/21/2019 9:30	0	0.006	0	0.028
12/21/2019 9:45	0	0.006	0	0.028
12/21/2019 10:00	0	0.006	0	0.028
12/21/2019 10:15	0	0.007	0	0.029
12/21/2019 10:30	0	0.007	0	0.03
12/21/2019 10:45	0	0.007	0	0.03
12/21/2019 11:00	0	0.007	0	0.03
12/21/2019 11:15	0	0.007	0	0.031
12/21/2019 11:30	0	0.007	0	0.031

23-Dec-19	Upwind	Downwind

Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/23/2019 8:00	0.122	0.008	0.068	0.022
12/23/2019 8:15	0.118	0.008	0.065	0.023
12/23/2019 8:30	0.119	0.008	0.069	0.023
12/23/2019 8:45	0.122	0.008	0.076	0.023
12/23/2019 9:00	0.125	0.007	0.087	0.023
12/23/2019 9:15	0.128	0.007	0.089	0.023
12/23/2019 9:30	0.131	0.007	0.108	0.022
12/23/2019 9:45	0.134	0.007	0.118	0.021
12/23/2019 10:00	0.136	0.007	0.126	0.021
12/23/2019 10:15	0.138	0.006	0.133	0.02
12/23/2019 10:30	0.140	0.006	0.139	0.02
12/23/2019 10:45	0.142	0.006	0.145	0.02
12/23/2019 11:00	0.144	0.006	0.149	0.02
12/23/2019 11:15	0.145	0.006	0.153	0.019
12/23/2019 11:30	0.146	0.006	0.155	0.019
12/23/2019 11:45	0.146	0.006	0.155	0.02
12/23/2019 12:00	0.147	0.006	0.156	0.02
12/23/2019 12:15	0.148	0.006	0.158	0.02
12/23/2019 12:30	0.148	0.007	0.159	0.02
12/23/2019 12:45	0.148	0.007	0.160	0.02
12/23/2019 13:00	0.149	0.007	0.162	0.02
12/23/2019 13:15	0.149	0.007	0.163	0.02
12/23/2019 13:30	0.149	0.007	0.165	0.02
12/23/2019 13:45	0.149	0.007	0.167	0.021
12/23/2019 14:00	0.149	0.007	0.169	0.021
12/23/2019 14:15	0.149	0.007	0.170	0.021
12/23/2019 14:30	0.149	0.007	0.172	0.021
12/23/2019 14:45	0.149	0.007	0.174	0.021
12/23/2019 15:00	0.149	0.007	0.176	0.021
12/23/2019 15:15	0.149	0.007	0.177	0.022
12/23/2019 15:30	0.149	0.007	0.179	0.022
12/23/2019 15:45	0.149	0.007	0.180	0.022
12/23/2019 16:00	0.149	0.007	0.181	0.023
12/23/2019 16:15	0.149	0.007	0.182	0.023

30-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/30/2019 8:00	0.018	0	0.093	0.009
12/30/2019 8:15	0.018	0	0.102	0.009
12/30/2019 8:30	0.02	0	0.107	0.01
12/30/2019 8:45	0.02	0	0.112	0.01
12/30/2019 9:00	0.02	0	0.115	0.011
12/30/2019 9:15	0.017	0	0.118	0.011
12/30/2019 9:30	0.018	0	0.120	0.012
12/30/2019 9:45	0.018	0	0.121	0.011
12/30/2019 10:00	0.024	0	0.122	0.009
12/30/2019 10:15	0.033	0	0.124	0.009
12/30/2019 10:30	0.042	0	0.125	0.008
12/30/2019 10:45	0.05	0	0.127	0.008
12/30/2019 11:00	0.057	0	0.129	0.007
12/30/2019 11:15	0.063	0	0.131	0.007
12/30/2019 11:30	0.069	0	0.133	0.006
12/30/2019 11:45	0.047	0	0.135	0.006
12/30/2019 12:00	0.079	0	0.137	0.006
12/30/2019 12:15	0.084	0	0.139	0.006
12/30/2019 12:30	0.09	0	0.141	0.005
12/30/2019 12:45	0.095	0	0.142	0.005
12/30/2019 13:00	0.100	0	0.143	0.005
12/30/2019 13:15	0.104	0	0.143	0.005
12/30/2019 13:30	0.107	0	0.143	0.005
12/30/2019 13:45	0.110	0	0.144	0.005
12/30/2019 14:00	0.113	0	0.144	0.005
12/30/2019 14:15	0.115	0	0.143	0.005
12/30/2019 14:30	0.119	0	0.143	0.005
12/30/2019 14:45	0.121	0	0.143	0.005
12/30/2019 15:00	0.124	0	0.143	0.005
12/30/2019 15:15	0.126	0	0.143	0.005
12/30/2019 15:30	0.129	0	0.143	0.005
12/30/2019 15:45	0.131	0	0.143	0.005
12/30/2019 16:00	0.133	0	0.144	0.005
12/30/2019 16:15	0.135	0	0.144	0.004
12/30/2019 16:30	0.137	0	0.144	0.004
12/30/2019 16:45	0.140	0	0.144	0.004
12/30/2019 17:00	0.142	0	0.144	0.004

31-Dec-19	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
12/31/2019 8:00	0.061	0	0	0.002
12/31/2019 8:15	0.065	0	0	0.001
12/31/2019 8:30	0.072	0	0.002	0.001
12/31/2019 8:45	0.08	0	0.007	0.001
12/31/2019 9:00	0.086	0	0.012	0.001
12/31/2019 9:15	0.092	0	0.016	0.001
12/31/2019 9:30	0.097	0	0.019	0.002
12/31/2019 9:45	0.1	0	0.021	0.002
12/31/2019 10:00	0.101	0	0.022	0.002
12/31/2019 10:15	0.101	0	0.023	0.002
12/31/2019 10:30	0.101	0	0.024	0.002
12/31/2019 10:45	0.101	0	0.024	0.002
12/31/2019 11:00	0.102	0	0.025	0.002
12/31/2019 11:15	0.102	0	0.025	0.003
12/31/2019 11:30	0.104	0	0.025	0.003
12/31/2019 11:45	0.104	0	0.025	0.003
12/31/2019 12:00	0.107	0	0.026	0.002
12/31/2019 12:15	0.108	0	0.026	0.002
12/31/2019 12:30	0.110	0	0.026	0.002
12/31/2019 12:45	0.112	0	0.026	0.002
12/31/2019 13:00	0.114	0	0.026	0.002
12/31/2019 13:15	0.117	0	0.027	0.002
12/31/2019 13:30	0.119	0	0.027	0.002
12/31/2019 13:45	0.122	0	0.027	0.001
12/31/2019 14:00	0.124	0	0.027	0.001
12/31/2019 14:15	0.126	0	0.028	0.001
12/31/2019 14:30	0.128	0	0.028	0.001
12/31/2019 14:45	0.130	0	0.028	0.001
12/31/2019 15:00	0.131	0	0.028	0.001

02-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/02/2020 8:00	0.078	0	0.097	0.01
01/02/2020 8:15	0.084	0	0.103	0.008
01/02/2020 8:30	0.089	0	0.128	0.012
01/02/2020 8:45	0.088	0.001	0.144	0.011
01/02/2020 9:00	0.088	0.001	0.151	0.010
01/02/2020 9:15	0.09	0.001	0.156	0.01
01/02/2020 9:30	0.094	0.001	0.163	0.01
01/02/2020 9:45	0.097	0.001	0.169	0.01
01/02/2020 10:00	0.1	0.001	0.176	0.01
01/02/2020 10:15	0.103	0.001	0.181	0.01
01/02/2020 10:30	0.105	0.001	0.187	0.009
01/02/2020 10:45	0.108	0.001	0.192	0.009
01/02/2020 11:00	0.110	0	0.196	0.009
01/02/2020 11:15	0.111	0	0.2	0.009
01/02/2020 11:30	0.114	0	0.204	0.009
01/02/2020 11:45	0.114	0	0.207	0.008
01/02/2020 12:00	0.114	0	0.210	0.008
01/02/2020 12:15	0.115	0	0.212	0.008
01/02/2020 12:30	0.115	0	0.214	0.008
01/02/2020 12:45	0.116	0	0.215	0.008
01/02/2020 13:00	0.116	0	0.216	0.008
01/02/2020 13:15	0.116	0	0.217	0.008
01/02/2020 13:30	0.116	0	0.218	0.008
01/02/2020 13:45	0.116	0	0.218	0.007
01/02/2020 14:00	0.116	0	0.219	0.007
01/02/2020 14:15	0.116	0	0.219	0.007
01/02/2020 14:30	0.116	0	0.219	0.007
01/02/2020 14:45	0.116	0	0.220	0.007
01/02/2020 15:00	0.116	0	0.220	0.007
01/02/2020 15:15	0.116	0	0.221	0.007
01/02/2020 15:30	0.116	0	0.221	0.007
01/02/2020 15:45	0.116	0	0.221	0.007
01/02/2020 16:00	0.116	0	0.221	0.007
01/02/2020 16:15	0.116	0	0.222	0.007
01/02/2020 16:30	0.116	0	0.222	0.007
01/02/2020 16:45	0.116	0	0.222	0.007
01/02/2020 17:00	0.116	0	0.223	0.007

03-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/03/2020 8:00	0.081	0.003	0	0.016
01/03/2020 8:15	0.033	0.003	0	0.015
01/03/2020 8:30	0.015	0.003	0	0.015
01/03/2020 8:45	0.011	0.003	0	0.016
01/03/2020 9:00	0.01	0.003	0	0.016
01/03/2020 9:15	0.01	0.003	0	0.017
01/03/2020 9:30	0.01	0.003	0	0.017
01/03/2020 9:45	0.01	0.003	0	0.018
01/03/2020 10:00	0.009	0.003	0	0.019
01/03/2020 10:15	0.01	0.003	0	0.019
01/03/2020 10:30	0.011	0.003	0	0.019
01/03/2020 10:45	0.013	0.003	0	0.02
01/03/2020 11:00	0.015	0.003	0	0.02
01/03/2020 11:15	0.017	0.003	0	0.021
01/03/2020 11:30	0.019	0.003	0	0.021
01/03/2020 11:45	0.021	0.003	0	0.022
01/03/2020 12:00	0.023	0.003	0	0.022
01/03/2020 12:15	0.025	0.003	0	0.023
01/03/2020 12:30	0.027	0.004	0	0.023
01/03/2020 12:45	0.029	0.004	0	0.023
01/03/2020 13:00	0.03	0.004	0	0.024
01/03/2020 13:15	0.032	0.004	0	0.024
01/03/2020 13:30	0.034	0.004	0	0.025
01/03/2020 13:45	0.035	0.004	0	0.025
01/03/2020 14:00	0.037	0.004	0	0.026
01/03/2020 14:15	0.038	0.004	0	0.026
01/03/2020 14:30	0.04	0.004	0	0.027
01/03/2020 14:45	0.041	0.005	0	0.027
01/03/2020 15:00	0.042	0.005	0	0.028
01/03/2020 15:15	0.044	0.005	0	0.028
01/03/2020 15:30	0.044	0.005	0	0.028
01/03/2020 15:45	0.045	0.005	0	0.029
01/03/2020 16:00	0.045	0.005	0	0.029

06-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/06/2020 8:00	0.1	0.001	0.108	0.008
01/06/2020 8:15	0.106	0.001	0.114	0.008
01/06/2020 8:30	0.112	0.001	0.117	0.009
01/06/2020 8:45	0.117	0.001	0.122	0.009
01/06/2020 9:00	0.121	0.001	0.129	0.009
01/06/2020 9:15	0.125	0.001	0.138	0.009
01/06/2020 9:30	0.128	0.001	0.146	0.009
01/06/2020 9:45	0.131	0.001	0.153	0.009
01/06/2020 10:00	0.133	0.001	0.16	0.008
01/06/2020 10:15	0.134	0.001	0.166	0.008
01/06/2020 10:30	0.136	0.001	0.172	0.008
01/06/2020 10:45	0.137	0	0.178	0.008
01/06/2020 11:00	0.138	0	0.183	0.008
01/06/2020 11:15	0.139	0	0.187	0.008
01/06/2020 11:30	0.14	0	0.192	0.008
01/06/2020 11:45	0.14	0	0.196	0.008
01/06/2020 12:00	0.14	0	0.2	0.007
01/06/2020 12:15	0.141	0	0.204	0.007
01/06/2020 12:30	0.141	0	0.207	0.007
01/06/2020 12:45	0.141	0	0.21	0.008
01/06/2020 13:00	0.141	0	0.214	0.008
01/06/2020 13:15	0.141	0	0.217	0.008
01/06/2020 13:30	0.141	0	0.22	0.008
01/06/2020 13:45	0.142	0	0.222	0.008
01/06/2020 14:00	0.141	0.001	0.224	0.008
01/06/2020 14:15	0.141	0.001	0.225	0.008
01/06/2020 14:30	0.14	0.001	0.227	0.008
01/06/2020 14:45	0.14	0.001	0.229	0.008
01/06/2020 15:00	0.14	0.001	0.23	0.008
01/06/2020 15:15	0.139	0.001	0.231	0.009
01/06/2020 15:30	0.139	0.001	0.233	0.009
01/06/2020 15:45	0.139	0.001	0.234	0.009
01/06/2020 16:00	0.139	0.001	0.235	0.009
01/06/2020 16:15	0.139	0.001	0.236	0.009
01/06/2020 16:30	0.139	0.001	0.237	0.009
01/06/2020 16:45	0.139	0.001	0.238	0.009
01/06/2020 17:00	0.139	0.001	0.238	0.009

07-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/07/2020 8:00	0	0.002	0	0.018
01/07/2020 8:15	0	0.002	0	0.015
01/07/2020 8:30	0	0.002	0.002	0.016
01/07/2020 8:45	0	0.006	0.005	0.017
01/07/2020 9:00	0	0.005	0.008	0.017
01/07/2020 9:15	0	0.004	0.016	0.018
01/07/2020 9:30	0	0.004	0.02	0.019
01/07/2020 9:45	0	0.003	0.021	0.019
01/07/2020 10:00	0	0.003	0.021	0.018
01/07/2020 10:15	0	0.003	0.021	0.018
01/07/2020 10:30	0	0.003	0.022	0.018
01/07/2020 10:45	0	0.003	0.022	0.018
01/07/2020 11:00	0	0.003	0.022	0.017
01/07/2020 11:15	0	0.003	0.022	0.017
01/07/2020 11:30	0	0.003	0.022	0.017
01/07/2020 11:45	0	0.003	0.021	0.017
01/07/2020 12:00	0	0.003	0.021	0.018
01/07/2020 12:15	0	0.003	0.021	0.018
01/07/2020 12:30	0	0.003	0.021	0.019
01/07/2020 12:45	0	0.003	0.021	0.019
01/07/2020 13:00	0	0.003	0.021	0.02
01/07/2020 13:15	0	0.003	0.021	0.02
01/07/2020 13:30	0	0.003	0.021	0.02
01/07/2020 13:45	0	0.003	0.02	0.021
01/07/2020 14:00	0	0.003	0.019	0.021
01/07/2020 14:15	0	0.002	0.019	0.021
01/07/2020 14:30	0	0.002	0.019	0.022
01/07/2020 14:45	0	0.002	0.018	0.022
01/07/2020 15:00	0	0.002	0.017	0.022
01/07/2020 15:15	0	0.002	0.017	0.022
01/07/2020 15:30	0	0.002	0.016	0.022
01/07/2020 15:45	0	0.002	0.016	0.022
01/07/2020 16:00	0	0.002	0.015	0.023
01/07/2020 16:15	0	0.002	0.015	0.023
01/07/2020 16:30	0	0.002	0.014	0.024
01/07/2020 16:45	0	0.002	0.014	0.024
01/07/2020 17:00	0	0.002	0.014	0.025

08-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/08/2020 8:00	0	0.005	0	0.006
01/08/2020 8:15	0	0.003	0	0.006
01/08/2020 8:30	0	0.002	0	0.006
01/08/2020 8:45	0	0.002	0	0.006
01/08/2020 9:00	0	0.002	0	0.006
01/08/2020 9:15	0	0.002	0	0.006
01/08/2020 9:30	0	0.001	0	0.006
01/08/2020 9:45	0	0.001	0	0.006
01/08/2020 10:00	0	0.001	0	0.006
01/08/2020 10:15	0	0.001	0	0.006
01/08/2020 10:30	0	0.001	0	0.006
01/08/2020 10:45	0	0.001	0	0.006
01/08/2020 11:00	0	0.001	0	0.006
01/08/2020 11:15	0	0.001	0	0.006
01/08/2020 11:30	0	0.001	0	0.006
01/08/2020 11:45	0	0.001	0	0.006
01/08/2020 12:00	0	0.001	0	0.006
01/08/2020 12:15	0	0.001	0	0.006
01/08/2020 12:30	0	0.001	0	0.006
01/08/2020 12:45	0	0.001	0	0.006
01/08/2020 13:00	0	0.001	0	0.006
01/08/2020 13:15	0	0.001	0	0.006
01/08/2020 13:30	0	0.001	0	0.005
01/08/2020 13:45	0	0.001	0	0.005
01/08/2020 14:00	0	0.001	0	0.005
01/08/2020 14:15	0	0.001	0	0.005
01/08/2020 14:30	0	0.001	0	0.005
01/08/2020 14:45	0	0.001	0	0.005
01/08/2020 15:00	0	0.001	0	0.005
01/08/2020 15:15	0	0.001	0	0.005
01/08/2020 15:30	0	0.001	0	0.005
01/08/2020 15:45	0	0.001	0	0.005
01/08/2020 16:00	0	0.001	0	0.005
01/08/2020 16:15	0	0.001	0	0.005
01/08/2020 16:30	0	0.001	0	0.005
01/08/2020 16:45	0	0.001	0	0.005
01/08/2020 17:00	0	0	0	0.005

09-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/09/2020 8:00	0	0.012	0	0.015
01/09/2020 8:15	0	0.004	0	0.015
01/09/2020 8:30	0	0.004	0	0.014
01/09/2020 8:45	0	0.004	0	0.013
01/09/2020 9:00	0	0.004	0	0.014
01/09/2020 9:15	0.002	0.004	0	0.014
01/09/2020 9:30	0.004	0.004	0	0.014
01/09/2020 9:45	0.007	0.004	0	0.014
01/09/2020 10:00	0.012	0.005	0	0.014
01/09/2020 10:15	0.016	0.005	0	0.015
01/09/2020 10:30	0.019	0.005	0	0.015
01/09/2020 10:45	0.021	0.005	0	0.014
01/09/2020 11:00	0.025	0.005	0	0.015
01/09/2020 11:15	0.028	0.005	0	0.015
01/09/2020 11:30	0.031	0.005	0.001	0.014
01/09/2020 11:45	0.032	0.005	0.001	0.015
01/09/2020 12:00	0.035	0.005	0.002	0.015
01/09/2020 12:15	0.037	0.005	0.003	0.014
01/09/2020 12:30	0.038	0.005	0.004	0.014
01/09/2020 12:45	0.039	0.005	0.005	0.014
01/09/2020 13:00	0.04	0.005	0.005	0.014
01/09/2020 13:15	0.04	0.005	0.005	0.015
01/09/2020 13:30	0.041	0.005	0.006	0.015
01/09/2020 13:45	0.041	0.005	0.006	0.015
01/09/2020 14:00	0.042	0.005	0.006	0.015
01/09/2020 14:15	0.042	0.005	0.006	0.015
01/09/2020 14:30	0.042	0.005	0.006	0.015
01/09/2020 14:45	0.043	0.005	0.007	0.015
01/09/2020 15:00	0.044	0.005	0.007	0.015
01/09/2020 15:15	0.045	0.005	0.007	0.015
01/09/2020 15:30	0.045	0.005	0.008	0.015
01/09/2020 15:45	0.046	0.004	0.008	0.014
01/09/2020 16:00	0.047	0.004	0.008	0.015
01/09/2020 16:15	0.047	0.004	0.009	0.015
01/09/2020 16:30	0.047	0.004	0.009	0.015
01/09/2020 16:45	0.047	0.004	0.009	0.015
01/09/2020 17:00	0.047	0.004	0.009	0.015

10-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/10/2020 8:00	0	0.002	0	0.006
01/10/2020 8:15	0	0.001	0	0.006
01/10/2020 8:30	0	0	0	0.005
01/10/2020 8:45	0	0	0	0.005
01/10/2020 9:00	0	0	0	0.005
01/10/2020 9:15	0	0	0	0.006
01/10/2020 9:30	0	0	0	0.006
01/10/2020 9:45	0	0	0	0.006
01/10/2020 10:00	0	0	0	0.006
01/10/2020 10:15	0	0	0	0.006
01/10/2020 10:30	0	0	0	0.006
01/10/2020 10:45	0	0	0	0.006
01/10/2020 11:00	0	0	0	0.006
01/10/2020 11:15	0	0	0	0.006
01/10/2020 11:30	0	0	0	0.007
01/10/2020 11:45	0	0	0	0.007
01/10/2020 12:00	0	0	0	0.007
01/10/2020 12:15	0	0.001	0	0.007
01/10/2020 12:30	0	0.001	0	0.007
01/10/2020 12:45	0	0.001	0	0.008
01/10/2020 13:00	0	0.001	0	0.008

13-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/13/2020 8:00	0.128	0.014	0.021	0.039
01/13/2020 8:15	0.126	0.012	0.014	0.039
01/13/2020 8:30	0.133	0.012	0.017	0.041
01/13/2020 8:45	0.133	0.01	0.02	0.042
01/13/2020 9:00	0.133	0.01	0.023	0.044
01/13/2020 9:15	0.133	0.01	0.027	0.045
01/13/2020 9:30	0.136	0.01	0.03	0.046
01/13/2020 9:45	0.156	0.011	0.034	0.046
01/13/2020 10:00	0.177	0.011	0.037	0.046
01/13/2020 10:15	0.185	0.011	0.041	0.046
01/13/2020 10:30	0.187	0.011	0.043	0.046
01/13/2020 10:45	0.189	0.011	0.047	0.046
01/13/2020 11:00	0.191	0.011	0.05	0.046
01/13/2020 11:15	0.192	0.011	0.052	0.046
01/13/2020 11:30	0.193	0.011	0.054	0.046
01/13/2020 11:45	0.194	0.011	0.057	0.046
01/13/2020 12:00	0.195	0.011	0.059	0.045
01/13/2020 12:15	0.195	0.011	0.061	0.045
01/13/2020 12:30	0.196	0.01	0.063	0.044
01/13/2020 12:45	0.196	0.01	0.064	0.044
01/13/2020 13:00	0.196	0.01	0.065	0.043
01/13/2020 13:15	0.196	0.01	0.066	0.042
01/13/2020 13:30	0.196	0.01	0.067	0.042
01/13/2020 13:45	0.196	0.01	0.068	0.041
01/13/2020 14:00	0.196	0.01	0.069	0.041
01/13/2020 14:15	0.196	0.01	0.07	0.04
01/13/2020 14:30	0.196	0.01	0.07	0.039
01/13/2020 14:45	0.196	0.009	0.071	0.039
01/13/2020 15:00	0.196	0.009	0.071	0.038
01/13/2020 15:15	0.196	0.009	0.072	0.037
01/13/2020 15:30	0.196	0.009	0.072	0.037
01/13/2020 15:45	0.196	0.009	0.073	0.037
01/13/2020 16:00	0.196	0.009	0.073	0.036
01/13/2020 16:15	0.196	0.009	0.074	0.036
01/13/2020 16:30	0.196	0.009	0.075	0.035
01/13/2020 16:45	0.196	0.009	0.075	0.035
01/13/2020 17:00	0.196	0.009	0.076	0.035

14-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/14/2020 8:00	0	0.008	0.02	0.05
01/14/2020 8:15	0	0.007	0.036	0.049
01/14/2020 8:30	0	0.007	0.046	0.05
01/14/2020 8:45	0	0.007	0.058	0.05
01/14/2020 9:00	0	0.007	0.066	0.051
01/14/2020 9:15	0	0.008	0.072	0.051
01/14/2020 9:30	0	0.008	0.079	0.05
01/14/2020 9:45	0	0.008	0.088	0.05
01/14/2020 10:00	0	0.008	0.097	0.05
01/14/2020 10:15	0	0.008	0.106	0.049
01/14/2020 10:30	0	0.008	0.113	0.047
01/14/2020 10:45	0	0.008	0.118	0.046
01/14/2020 11:00	0	0.008	0.124	0.045
01/14/2020 11:15	0	0.008	0.129	0.044
01/14/2020 11:30	0	0.008	0.134	0.043
01/14/2020 11:45	0	0.008	0.138	0.042
01/14/2020 12:00	0	0.008	0.14	0.041
01/14/2020 12:15	0	0.008	0.141	0.041
01/14/2020 12:30	0	0.007	0.142	0.04
01/14/2020 12:45	0	0.007	0.143	0.039
01/14/2020 13:00	0	0.007	0.145	0.038
01/14/2020 13:15	0	0.007	0.147	0.037
01/14/2020 13:30	0	0.007	0.148	0.036
01/14/2020 13:45	0	0.007	0.149	0.035
01/14/2020 14:00	0	0.007	0.151	0.034
01/14/2020 14:15	0	0.006	0.151	0.033
01/14/2020 14:30	0	0.006	0.152	0.033
01/14/2020 14:45	0	0.006	0.153	0.032
01/14/2020 15:00	0	0.006	0.153	0.031
01/14/2020 15:15	0	0.006	0.153	0.03
01/14/2020 15:30	0	0.006	0.153	0.029
01/14/2020 15:45	0	0.005	0.153	0.029
01/14/2020 16:00	0	0.005	0.153	0.028
01/14/2020 16:15	0	0.005	0.153	0.028
01/14/2020 16:30	0	0.005	0.153	0.028
01/14/2020 16:45	0	0.005	0.152	0.027
01/14/2020 17:00	0	0.005	0.152	0.027

15-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/15/2020 8:00	0	0.006	0	0.02
01/15/2020 8:15	0	0.006	0	0.02
01/15/2020 8:30	0	0.006	0	0.021
01/15/2020 8:45	0	0.006	0	0.021
01/15/2020 9:00	0	0.006	0	0.021
01/15/2020 9:15	0	0.006	0	0.021
01/15/2020 9:30	0	0.006	0	0.021
01/15/2020 9:45	0	0.006	0	0.022
01/15/2020 10:00	0	0.006	0	0.022
01/15/2020 10:15	0	0.006	0	0.022
01/15/2020 10:30	0	0.006	0	0.022
01/15/2020 10:45	0	0.006	0	0.021
01/15/2020 11:00	0	0.006	0	0.021
01/15/2020 11:15	0	0.006	0	0.021
01/15/2020 11:30	0	0.006	0	0.02
01/15/2020 11:45	0	0.006	0	0.02
01/15/2020 12:00	0	0.006	0	0.02
01/15/2020 12:15	0	0.006	0	0.02
01/15/2020 12:30	0	0.006	0	0.02
01/15/2020 12:45	0	0.006	0	0.02
01/15/2020 13:00	0	0.006	0	0.02
01/15/2020 13:15	0	0.006	0	0.02
01/15/2020 13:30	0	0.006	0	0.02
01/15/2020 13:45	0	0.006	0	0.021
01/15/2020 14:00	0	0.006	0	0.021
01/15/2020 14:15	0	0.006	0	0.021
01/15/2020 14:30	0	0.006	0	0.021
01/15/2020 14:45	0	0.006	0	0.021
01/15/2020 15:00	0	0.006	0	0.022
01/15/2020 15:15	0	0.007	0	0.022
01/15/2020 15:30	0	0.007	0	0.022
01/15/2020 15:45	0	0.007	0	0.022
01/15/2020 16:00	0	0.007	0	0.022
01/15/2020 16:15	0	0.007	0	0.023
01/15/2020 16:30	0	0.007	0	0.023
01/15/2020 16:45	0	0.007	0	0.023
01/15/2020 17:00	0	0.007	0	0.024

16-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/16/2020 8:00	0	0.006	0	0.02
01/16/2020 8:15	0	0.006	0	0.023
01/16/2020 8:30	0.001	0.004	0	0.022
01/16/2020 8:45	0.005	0.003	0	0.018
01/16/2020 9:00	0.008	0.003	0	0.016
01/16/2020 9:15	0.012	0.003	0	0.015
01/16/2020 9:30	0.016	0.003	0	0.014
01/16/2020 9:45	0.021	0.002	0	0.013
01/16/2020 10:00	0.027	0.002	0	0.011
01/16/2020 10:15	0.032	0.002	0	0.011
01/16/2020 10:30	0.038	0.002	0	0.011
01/16/2020 10:45	0.044	0.002	0	0.01
01/16/2020 11:00	0.048	0.002	0	0.01
01/16/2020 11:15	0.053	0.002	0	0.01
01/16/2020 11:30	0.056	0.002	0	0.009
01/16/2020 11:45	0.06	0.002	0	0.009
01/16/2020 12:00	0.063	0.002	0	0.009
01/16/2020 12:15	0.067	0.002	0	0.008
01/16/2020 12:30	0.07	0.002	0	0.008
01/16/2020 12:45	0.072	0.002	0	0.008
01/16/2020 13:00	0.075	0.002	0	0.008
01/16/2020 13:15	0.077	0.002	0	0.007
01/16/2020 13:30	0.079	0.002	0	0.007
01/16/2020 13:45	0.08	0.002	0	0.007
01/16/2020 14:00	0.082	0.002	0	0.007
01/16/2020 14:15	0.083	0.002	0	0.007
01/16/2020 14:30	0.085	0.002	0	0.007
01/16/2020 14:45	0.085	0.002	0	0.007
01/16/2020 15:00	0.086	0.002	0	0.007
01/16/2020 15:15	0.086	0.002	0	0.007
01/16/2020 15:30	0.086	0.002	0	0.006
01/16/2020 15:45	0.087	0.002	0	0.006
01/16/2020 16:00	0.088	0.002	0	0.006
01/16/2020 16:15	0.088	0.002	0	0.006
01/16/2020 16:30	0.089	0.002	0	0.006
01/16/2020 16:45	0.089	0.002	0	0.006
01/16/2020 17:00	0.089	0.002	0	0.006

17-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/17/2020 8:00	0.122	0.008	0	0.004
01/17/2020 8:15	0.118	0.008	0	0.004
01/17/2020 8:30	0.119	0.008	0.004	0.003
01/17/2020 8:45	0.122	0.008	0.009	0.003
01/17/2020 9:00	0.125	0.008	0.016	0.003
01/17/2020 9:15	0.128	0.007	0.021	0.003
01/17/2020 9:30	0.131	0.007	0.026	0.003
01/17/2020 9:45	0.134	0.007	0.03	0.003
01/17/2020 10:00	0.136	0.007	0.033	0.003
01/17/2020 10:15	0.138	0.007	0.026	0.004
01/17/2020 10:30	0.140	0.007	0.039	0.004
01/17/2020 10:45	0.142	0.007	0.042	0.004
01/17/2020 11:00	0.144	0.007	0.043	0.004
01/17/2020 11:15	0.145	0.007	0.045	0.004
01/17/2020 11:30	0.146	0.007	0.046	0.004
01/17/2020 11:45	0.146	0.007	0.047	0.004
01/17/2020 12:00	0.147	0.006	0.048	0.004
01/17/2020 12:15	0.148	0.006	0.048	0.004
01/17/2020 12:30	0.148	0.006	0.048	0.004
01/17/2020 12:45	0.149	0.006	0.048	0.004
01/17/2020 13:00	0.149	0.006	0.049	0.003
01/17/2020 13:15	0.149	0.006	0.05	0.003
01/17/2020 13:30	0.149	0.006	0.05	0.003
01/17/2020 13:45	0.149	0.006	0.049	0.003
01/17/2020 14:00	0.149	0.006	0.049	0.003
01/17/2020 14:15	0.149	0.007	0.05	0.003
01/17/2020 14:30	0.149	0.007	0.05	0.003
01/17/2020 14:45	0.149	0.007	0.049	0.003
01/17/2020 15:00	0.149	0.007	0.048	0.003

20-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/20/2020 8:00	0	0	0.064	0.007
01/20/2020 8:15	0	0	0.066	0.007
01/20/2020 8:30	0	0	0.074	0.008
01/20/2020 8:45	0	0	0.082	0.009
01/20/2020 9:00	0	0	0.091	0.009
01/20/2020 9:15	0	0	0.097	0.009
01/20/2020 9:30	0	0	0.104	0.008
01/20/2020 9:45	0	0	0.109	0.008
01/20/2020 10:00	0	0	0.114	0.008
01/20/2020 10:15	0	0	0.117	0.008
01/20/2020 10:30	0	0	0.120	0.007
01/20/2020 10:45	0	0	0.123	0.007
01/20/2020 11:00	0	0	0.125	0.007
01/20/2020 11:15	0	0	0.128	0.007
01/20/2020 11:30	0	0	0.130	0.007
01/20/2020 11:45	0	0	0.132	0.007
01/20/2020 12:00	0	0	0.133	0.007
01/20/2020 12:15	0	0	0.135	0.006
01/20/2020 12:30	0	0	0.136	0.006
01/20/2020 12:45	0	0	0.138	0.006
01/20/2020 13:00	0	0	0.138	0.006
01/20/2020 13:15	0	0	0.139	0.006
01/20/2020 13:30	0	0	0.14	0.006
01/20/2020 13:45	0	0	0.14	0.006
01/20/2020 14:00	0	0	0.141	0.006
01/20/2020 14:15	0	0	0.142	0.006
01/20/2020 14:30	0	0	0.143	0.006
01/20/2020 14:45	0	0	0.143	0.006
01/20/2020 15:00	0	0	0.144	0.006
01/20/2020 15:15	0	0	0.144	0.006
01/20/2020 15:30	0	0	0.144	0.006
01/20/2020 15:45	0	0	0.144	0.006
01/20/2020 16:00	0	0	0.144	0.006
01/20/2020 16:15	0	0	0.144	0.006
01/20/2020 16:30	0	0	0.144	0.006
01/20/2020 16:45	0	0	0.144	0.006
01/20/2020 17:00	0	0	0.144	0.006

21-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/21/2020 8:00	0	0.005	0	0.034
01/21/2020 8:15	0	0.004	0	0.033
01/21/2020 8:30	0	0.004	0	0.032
01/21/2020 8:45	0	0.004	0	0.032
01/21/2020 9:00	0	0.005	0	0.032
01/21/2020 9:15	0	0.005	0	0.033
01/21/2020 9:30	0	0.005	0	0.032
01/21/2020 9:45	0	0.005	0	0.031
01/21/2020 10:00	0	0.006	0	0.03
01/21/2020 10:15	0	0.006	0	0.03
01/21/2020 10:30	0	0.006	0	0.03
01/21/2020 10:45	0	0.007	0	0.031
01/21/2020 11:00	0	0.007	0.002	0.031
01/21/2020 11:15	0	0.007	0.007	0.032
01/21/2020 11:30	0	0.007	0.014	0.032
01/21/2020 11:45	0	0.007	0.021	0.033
01/21/2020 12:00	0	0.008	0.026	0.033
01/21/2020 12:15	0	0.008	0.031	0.034
01/21/2020 12:30	0	0.008	0.035	0.034
01/21/2020 12:45	0	0.008	0.037	0.035
01/21/2020 13:00	0	0.009	0.039	0.035
01/21/2020 13:15	0	0.009	0.039	0.035
01/21/2020 13:30	0	0.009	0.038	0.034
01/21/2020 13:45	0	0.009	0.037	0.034
01/21/2020 14:00	0	0.01	0.035	0.033
01/21/2020 14:15	0	0.01	0.034	0.033
01/21/2020 14:30	0	0.01	0.033	0.032
01/21/2020 14:45	0	0.011	0.031	0.031
01/21/2020 15:00	0	0.011	0.03	0.03
01/21/2020 15:15	0	0.011	0.029	0.029
01/21/2020 15:30	0	0.012	0.028	0.029
01/21/2020 15:45	0	0.012	0.027	0.028
01/21/2020 16:00	0	0.012	0.027	0.027
01/21/2020 16:15	0	0.012	0.026	0.026
01/21/2020 16:30	0	0.012	0.025	0.026

22-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/22/2020 8:00	0.001	0	0	0.001
01/22/2020 8:15	0.001	0	0	0.001
01/22/2020 8:30	0.001	0	0	0.001
01/22/2020 8:45	0.001	0	0	0.001
01/22/2020 9:00	0.001	0	0	0
01/22/2020 9:15	0.001	0	0	0
01/22/2020 9:30	0.001	0	0	0
01/22/2020 9:45	0.001	0	0	0
01/22/2020 10:00	0.001	0.001	0	0
01/22/2020 10:15	0.001	0.002	0	0
01/22/2020 10:30	0.001	0.003	0	0
01/22/2020 10:45	0.001	0.003	0	0
01/22/2020 11:00	0.001	0.003	0	0
01/22/2020 11:15	0.002	0.003	0	0
01/22/2020 11:30	0.002	0.002	0	0
01/22/2020 11:45	0.001	0.002	0	0
01/22/2020 12:00	0.001	0.002	0	0
01/22/2020 12:15	0.001	0.002	0	0
01/22/2020 12:30	0.001	0.002	0	0
01/22/2020 12:45	0.001	0.002	0	0
01/22/2020 13:00	0.001	0.002	0	0
01/22/2020 13:15	0.001	0.002	0	0
01/22/2020 13:30	0.001	0.002	0	0
01/22/2020 13:45	0.001	0.002	0	0
01/22/2020 14:00	0.001	0.002	0	0
01/22/2020 14:15	0.001	0.002	0	0
01/22/2020 14:30	0.001	0.002	0	0
01/22/2020 14:45	0.001	0.002	0	0
01/22/2020 15:00	0.001	0.001	0	0
01/22/2020 15:15	0.001	0.001	0	0
01/22/2020 15:30	0.001	0.001	0	0
01/22/2020 15:45	0.001	0.001	0	0
01/22/2020 16:00	0.001	0.001	0	0
01/22/2020 16:15	0.001	0.001	0	0
01/22/2020 16:30	0.001	0.001	0	0
01/22/2020 16:45	0.001	0.001	0	0
01/22/2020 17:00	0.001	0.001	0	0

23-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/23/2020 8:00	0	0.006	0	0.023
01/23/2020 8:15	0	0.005	0	0.024
01/23/2020 8:30	0	0.005	0	0.03
01/23/2020 8:45	0	0.005	0	0.029
01/23/2020 9:00	0	0.004	0	0.027
01/23/2020 9:15	0	0.004	0	0.024
01/23/2020 9:30	0	0.004	0	0.022
01/23/2020 9:45	0	0.003	0	0.021
01/23/2020 10:00	0	0.003	0	0.02
01/23/2020 10:15	0	0.003	0	0.019
01/23/2020 10:30	0	0.004	0	0.019
01/23/2020 10:45	0	0.004	0	0.019
01/23/2020 11:00	0	0.003	0	0.019
01/23/2020 11:15	0	0.003	0	0.019
01/23/2020 11:30	0	0.003	0	0.018
01/23/2020 11:45	0	0.003	0	0.018
01/23/2020 12:00	0	0.003	0	0.018
01/23/2020 12:15	0	0.003	0	0.018
01/23/2020 12:30	0	0.003	0	0.017
01/23/2020 12:45	0	0.003	0	0.017
01/23/2020 13:00	0	0.003	0	0.017
01/23/2020 13:15	0	0.003	0	0.017
01/23/2020 13:30	0	0.003	0	0.017
01/23/2020 13:45	0	0.003	0	0.017
01/23/2020 14:00	0	0.003	0	0.017
01/23/2020 14:15	0	0.003	0	0.017
01/23/2020 14:30	0	0.003	0	0.017
01/23/2020 14:45	0	0.003	0	0.017
01/23/2020 15:00	0	0.003	0	0.018
01/23/2020 15:15	0	0.003	0	0.018
01/23/2020 15:30	0	0.003	0	0.018
01/23/2020 15:45	0	0.004	0	0.018
01/23/2020 16:00	0	0.004	0	0.018
01/23/2020 16:15	0	0.004	0	0.019
01/23/2020 16:30	0	0.004	0	0.019
01/23/2020 16:45	0	0.004	0	0.019
01/23/2020 17:00	0	0.004	0	0.019

24-Jan-20	Upwind		Downwind	
Time	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)	15 Minute Avg. VOC (PPM)	15 Minute Avg. Dust (mg/m^3)
01/24/2020 8:00	0.012	0	0	0.036
01/24/2020 8:15	0.011	0	0	0.036
01/24/2020 8:30	0.011	0	0	0.036
01/24/2020 8:45	0.011	0	0	0.036
01/24/2020 9:00	0.01	0	0	0.035
01/24/2020 9:15	0.01	0	0	0.034
01/24/2020 9:30	0.009	0	0	0.034
01/24/2020 9:45	0.009	0	0	0.033
01/24/2020 10:00	0.009	0	0	0.032
01/24/2020 10:15	0.009	0	0	0.031
01/24/2020 10:30	0.009	0	0	0.031
01/24/2020 10:45	0.008	0	0	0.03
01/24/2020 11:00	0.008	0	0	0.03
01/24/2020 11:15	0.008	0	0	0.03
01/24/2020 11:30	0.008	0	0.001	0.03
01/24/2020 11:45	0.008	0	0.001	0.03
01/24/2020 12:00	0.008	0	0.002	0.03
01/24/2020 12:15	0.008	0	0.003	0.03
01/24/2020 12:30	0.008	0	0.004	0.03
01/24/2020 12:45	0.008	0	0.005	0.029
01/24/2020 13:00	0.007	0	0.005	0.03
01/24/2020 13:15	0.008	0	0.005	0.03
01/24/2020 13:30	0.008	0	0.006	0.03
01/24/2020 13:45	0.008	0	0.006	0.03
01/24/2020 14:00	0.008	0	0.006	0.029
01/24/2020 14:15	0.007	0	0.006	0.029
01/24/2020 14:30	0.007	0	0.006	0.029
01/24/2020 14:45	0.007	0	0.007	0.028
01/24/2020 15:00	0.007	0	0.007	0.028
01/24/2020 15:15	0.007	0	0.008	0.028
01/24/2020 15:30	0.007	0	0.008	0.028
01/24/2020 15:45	0.007	0	0.008	0.028
01/24/2020 16:00	0.007	0	0.008	0.028
01/24/2020 16:15	0.007	0	0.009	0.028
01/24/2020 16:30	0.007	0	0.009	0.028
01/24/2020 16:45	0.007	0	0.009	0.028
01/24/2020 17:00	0.006	0	0.009	0.028

APPENDIX D SOIL PILE ANALYTICAL DATA

Honeywell

PARSONS

Soil Pile TCLP Analytical Results

Honeywell - Tonawanda Coke Site 108 Stockpile Data Waste Characterization Data			Location ID: Sample ID: Lab Sample Id Depth: Source: SDG: Matrix: Sampled: Validated:	SP1-01 SP1-01 JC96286-1 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 15:00	SP1-02 SP1-02 JC96286-2 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 15:20	SP1-03 SP1-03 JC96286-3 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 15:40	SP1-04 SP1-04 JC96286-4 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 16:10	SP1-05 SP1-05 JC96286-5 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 16:25	SP1-05 SP1-05 DUP JC96286-9 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 17:20	SP1-06 SP1-06 JC96286-6 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 16:55	SP2-01 SP2-01 JC96286-7 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 17:10	SP2-02 SP2-02 JC96286-8 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 17:20
CAS NO.	COMPOUND	TCLP Criteria	UNITS:										
	TCLP VOLATILES												
71-43-2	BENZENE	0.5	mg/L	0.0025 U	0.0043	0.0025 U	0.0033	0.0036	0.0064	0.0056	0.0025 U	0.0025 U	
78-93-3	2-BUTANONE (MEK)	200	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
56-23-5	CARBON TETRACHLORIDE	0.5	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
108-90-7	CHLOROBENZENE	100	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
67-66-3	CHLOROFORM	6	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
75-35-4	1,1-DICHLOROETHENE	0.7	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
107-06-2	1,2-DICHLOROETHANE	0.5	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
127-18-4	TETRACHLOROETHENE	0.7	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
79-01-6	TRICHLOROETHENE	0.5	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
75-01-4	VINYL CHLORIDE	0.2	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
	TCLP SEMIVOLATILES												
95-48-7	2-METHYLPHENOL	200	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	
1319-77-3MP	3&4-METHYLPHENOL	200	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	
87-86-5	PENTACHLOROPHENOL	100	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
95-95-4	2,4,5-TRICHLOROPHENOL	400	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
88-06-2	2,4,6-TRICHLOROPHENOL	2	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
106-46-7	1,4-DICHLOROBENZENE	7.5	mg/L	0.02 U	0.02 U	0.02 U	0.005 U	0.005 U	0.02 U	0.02 U	0.005 U	0.005 U	
121-14-2	2,4-DINITROTOLUENE	0.13	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	
118-74-1	HEXACHLOROBENZENE	0.13	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	
87-68-3	HEXACHLOROBUTADIENE	0.5	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
67-72-1	HEXACHLOROETHANE	3	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
98-95-3	NITROBENZENE	2	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	
110-86-1	PYRIDINE	5	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	
	TCLP PESTICIDES												
58-89-9	gamma-BHC (Lindane)	0.4	mg/L	0.000067 U	0.000067 U	0.0001	0.000067 U	0.0003	0.000067 U	0.000067 U	0.000067 U	0.000067 U	
12789-03-6	CHLORDANE	0.03	mg/L	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	
72-20-8	ENDRIN	0.02	mg/L	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	
76-44-8	HEPTACHLOR	0.008	mg/L	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	
1024-57-3	HEPTACHLOR EPOXIDE	0.008	mg/L	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	0.000067 U	
72-43-5	METHOXYCHLOR	10	mg/L	0.00013 U	0.00013 U	0.00013 U	0.00013 U	0.00013 U	0.00013 U	0.00013 U	0.00013 U	0.00013 U	
8001-35-2	TOXAPHENE	0.5	mg/L	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U	
	TCLP HERBICIDES												
94-75-7	2,4-D	10	mg/L	0.0042 U	0.0042 U	0.0042 U	0.0042 U	0.0042 U	0.0042 U	0.0042 U	0.0042 U	0.0042 U	
93-72-1	2,4,5-TP (Silvex)	1	mg/L	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	
	TCLP METALS												
7440-38-2	ARSENIC	5	mg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
7440-39-3	BARIUM	0.5	mg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
7440-43-9	CADMIUM	1	mg/L	0.02 U	0.02 U	0.02	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	
7440-47-3	CHROMIUM	5	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
7439-92-1	LEAD	5	mg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
7439-97-6	MERCURY	0.2	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	
7782-49-2	SELENIUM	1	mg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
7440-22-4	SILVER	5	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
	WASTE CHARACTERISTICS												
CORROS	CORROSIVITY		SU	7.53	7.28	7.32	7.43	7.48	7.44	7.48	7.72	7.55	
REAC-CN	CYANIDE REACTIVITY		mg/kg	13 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	
REAC-S	SULFIDE REACTIVITY		mg/kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	
IGNITB	IGNITABILITY		Deg F	>200	>200	>200	>200	>200	>200	>200	>200	>200	

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Honeywell International Inc.

PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

451872.05711

SGS Job Number: JC96286

Sampling Date: 10/03/19

Report to:

Parsons Engineering Science

Heather.Fettig@parsons.com

ATTN: Heather Fettig

Total number of pages in report: 154

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Laura Degenhardt
General Manager

Client Service contact: Kristin Degraw 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4 5

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Sample Summary

Honeywell International Inc.

Job No: JC96286

PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY
Project No: 451872.05711

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies: Organics ND = Not detected above the MDL							
JC96286-1	10/03/19	15:00	TW	10/05/19	SO	Soil	SP1-01
JC96286-1A	10/03/19	15:00	TW	10/05/19	SO	Soil	SP1-01
JC96286-2	10/03/19	15:20	TW	10/05/19	SO	Soil	SP1-02
JC96286-2A	10/03/19	15:20	TW	10/05/19	SO	Soil	SP1-02
JC96286-3	10/03/19	15:40	TW	10/05/19	SO	Soil	SP1-03
JC96286-3A	10/03/19	15:40	TW	10/05/19	SO	Soil	SP1-03
JC96286-4	10/03/19	16:10	TW	10/05/19	SO	Soil	SP1-04
JC96286-4A	10/03/19	16:10	TW	10/05/19	SO	Soil	SP1-04
JC96286-5	10/03/19	16:25	TW	10/05/19	SO	Soil	SP1-05
JC96286-5A	10/03/19	16:25	TW	10/05/19	SO	Soil	SP1-05
JC96286-6	10/03/19	16:55	TW	10/05/19	SO	Soil	SP1-06
JC96286-6A	10/03/19	16:55	TW	10/05/19	SO	Soil	SP1-06

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Honeywell International Inc.

Job No: JC96286

PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY
Project No: 451872.05711

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC96286-7	10/03/19	17:10	TW	10/05/19	SO	Soil	SP2-01
JC96286-7A	10/03/19	17:10	TW	10/05/19	SO	Soil	SP2-01
JC96286-8	10/03/19	17:20	TW	10/05/19	SO	Soil	SP2-02
JC96286-8A	10/03/19	17:20	TW	10/05/19	SO	Soil	SP2-02
JC96286-9	10/03/19	17:20	TW	10/05/19	SO	Soil	SP1-05 DUP
JC96286-9A	10/03/19	17:20	TW	10/05/19	SO	Soil	SP1-05 DUP
JC96286-10	10/03/19	17:20	TW	10/05/19	AQ	Trip Blank Soil	TB-01

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Honeywell International Inc. **Job No** JC96286

Site: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road **Report Date** 10/18/2019 5:56:44 P

On 10/05/2019, 9 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 12.8 C. (Samples rec'd outside of temp criteria without ice.) Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC96286 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: LEACHATE **Batch ID:** V2V2563

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC96223-1MS, JC96223-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: LEACHATE **Batch ID:** V3D6396

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC96286-1LS, JC96286-1MS, JC96286-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: SO **Batch ID:** VY8135

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96138-5MS, JC96138-12DUP were used as the QC samples indicated.
- RPD(s) for Duplicate for Methylene chloride are outside control limits for sample JC96138-12DUP. High RPD due to low concentration of hit
- JC96286-5: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory out of hold time.
- JC96286-5 for Cyclohexane: Associated CCV outside of control limits high, sample was ND.
- JC96286-3 for Cyclohexane: Associated CCV outside of control limits high, sample was ND.
- JC96286-9 for Cyclohexane: Associated CCV outside of control limits high, sample was ND.
- JC96286-1 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96286-1 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96286-1 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC96286-6 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC96286-4 for Cyclohexane: Associated CCV outside of control limits high, sample was ND.
- JC96286-7 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC96286-2 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96286-1 for Cyclohexane: Associated CCV outside of control limits high, sample was ND.
- JC96286-7 for Cyclohexane: Associated CCV outside of control limits high, sample was ND.
- JC96286-7 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96286-4 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96286-6 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

MS Volatiles By Method SW846 8260C

Matrix: SO **Batch ID:** VY8135

- JC96286-3 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96286-6 for Cyclohexane: Associated CCV outside of control limits high, sample was ND.
- JC96286-3 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96286-9 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96286-4 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96286-2 for Cyclohexane: Associated CCV outside of control limits high, sample was ND.
- JC96286-6 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96286-3 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC96286-9 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96286-4 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC96286-7 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96286-2 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96286-9 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC96286-2 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.

Matrix: SO **Batch ID:** VY8136

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96356-1MS, JC96356-3DUP were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 1,1,2-Trichloroethane, cis-1,3-Dichloropropene, Methyl Acetate are outside control limits. Outside control limits due to matrix interference.

MS Semi-volatiles By Method SW846 8270D

Matrix: LEACHATE **Batch ID:** OP23173

- All samples were extracted within the recommended method holding time.
- Sample(s) JC96195-12LS, JC96195-12MS, JC96195-12MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC96286-1 for 2-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-1 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC96286-2 for 3&4-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-2 for 2-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-4 for 2-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-1 for 3&4-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-7A for 2-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-3 for 2-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-9A for 3&4-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-3 for 3&4-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-4 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC96286-5 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC96286-7A for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC96286-2 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC96286-6A for 2-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-9A for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC96286-8A for 3&4-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-8A for 2-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-8A for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC96286-7A for 3&4-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-4 for 3&4-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-9A for 2-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-5 for 2-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-5 for 3&4-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-3 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC96286-6A for 3&4-Methylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96286-6A for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.

Matrix: SO **Batch ID:** OP23169

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96233-2MS, JC96233-2MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Hexachlorocyclopentadiene, Naphthalene are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Hexachlorocyclopentadiene, Naphthalene are outside control limits. Outside control limits due to matrix interference.
- JC96286-4: Dilution required due to viscosity of the extract matrix.
- JC96286-7: Dilution required due to viscosity of the extract matrix.
- JC96286-3: Dilution required due to viscosity of the extract matrix.
- JC96286-1: Dilution required due to viscosity of the extract matrix.

MS Semi-volatiles By Method SW846 8270D

Matrix: SO **Batch ID:** OP23169

- JC96286-5: Dilution required due to viscosity of the extract matrix.
- JC96286-6: Dilution required due to viscosity of the extract matrix.
- JC96286-8: Dilution required due to viscosity of the extract matrix.
- JC96286-2: Dilution required due to viscosity of the extract matrix.
- JC96286-6 for Atrazine: Associated CCV outside of control limits high, sample was ND.
- JC96286-4 for Atrazine: Associated CCV outside of control limits high, sample was ND.
- JC96286-6 for 2-Nitroaniline: Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.
- JC96286-7 for Atrazine: Associated CCV outside of control limits high, sample was ND.
- JC96286-7 for 2-Nitroaniline: Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.
- JC96286-8 for Atrazine: Associated CCV outside of control limits high, sample was ND.
- JC96286-8 for 2-Nitroaniline: Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.
- JC96286-4 for 2-Nitroaniline: Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.
- JC96286-3 for 2-Nitroaniline: Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.
- JC96286-1 for Atrazine: Associated CCV outside of control limits high, sample was ND.
- JC96286-2 for 2-Nitroaniline: Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.
- JC96286-2 for Atrazine: Associated CCV outside of control limits high, sample was ND.
- JC96286-1 for 2-Nitroaniline: Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.
- JC96286-3 for Atrazine: Associated CCV outside of control limits high, sample was ND.
- JC96286-5 for Atrazine: Associated CCV outside of control limits high, sample was ND.
- JC96286-5 for 2-Nitroaniline: Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.

Matrix: SO **Batch ID:** OP23196

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96034-3MSD, JC96034-3MS, JC96034-3MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Hexachlorocyclopentadiene are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Hexachlorocyclopentadiene are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for MSD for 1,4-Dioxane, Hexachlorocyclopentadiene, Hexachloroethane are outside control limits for sample OP23196-MSD. Outside control limits due to matrix interference.
- JC96286-9: Dilution required due to viscosity of the extract matrix.
- OP23196-MS: Dilution required due to viscosity of the extract matrix.
- JC96286-9 for Hexachlorocyclopentadiene: Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.

GC/LC Semi-volatiles By Method SW846 8081B

Matrix: LEACHATE **Batch ID:** OP23177

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC94224-13TLS, JC94224-13TMS, JC94224-13TMSD, OP23177-MSMSD were used as the QC samples indicated.
- JC96286-3 for gamma-BHC (Lindane): More than 40 % RPD for detected concentrations between the two GC columns.
- JC96286-5 for gamma-BHC (Lindane): More than 40 % RPD for detected concentrations between the two GC columns.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP23188

- All samples were extracted within the recommended method holding time.
- Sample(s) JC96040-5MS, JC96040-5MSD, OP23188-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC96286-2: Dilution required due to viscosity of the extract matrix.
- JC96286-4: Dilution required due to viscosity of the extract matrix.
- JC96286-6: Dilution required due to viscosity of the extract matrix.
- JC96286-7: Dilution required due to viscosity of the extract matrix.
- JC96286-8: Dilution required due to viscosity of the extract matrix.
- JC96286-1: Dilution required due to viscosity of the extract matrix.
- JC96286-9: Dilution required due to viscosity of the extract matrix.
- JC96286-3: Dilution required due to viscosity of the extract matrix.
- JC96286-5: Dilution required due to viscosity of the extract matrix.
- JC96286-1 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC96286-7 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC96286-3 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC96286-4 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC96286-5 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC96286-6 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC96286-8 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC96286-9 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC96286-2 for Decachlorobiphenyl: Outside control limits due to matrix interference.

GC/LC Semi-volatiles By Method SW846 8151A

Matrix: LEACHATE **Batch ID:** OP23176

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96195-12LS, JC96195-12MS, JC96195-12MSD were used as the QC samples indicated.

Metals Analysis By Method SW846 6010D

Matrix: LEACHATE **Batch ID:** MP17719

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96195-12MS, JC96195-12MSD, JC96195-12SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Cadmium, Chromium, Selenium are outside control limits for sample MP17719-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Samples(s) JC96286-1, JC96286-2, JC96286-3, JC96286-4, JC96286-5, JC96286-6A, JC96286-7A, JC96286-8A, JC96286-9A: New York does not offer 3010A certification for antimony and silver. The laboratory is certified for method 3010A (Acid Digestion for Total Metals) for all other metals and is certified for the associated analytical methods of 6010C (ICP Analysis) and 6020A (ICP-MS Analysis). New York does certify for method 3005A (Acid Digestion for Total Recoverable or Dissolved Metals) for antimony and silver and the laboratory holds that certification, but that provides total recoverable rather than total metals results.

Matrix: SO **Batch ID:** MP17721

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96286-1AMS, JC96286-1AMSD, JC96286-1APS, JC96286-1ASDL were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Aluminum, Antimony, Potassium are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Duplicate Recovery(s) for Aluminum, Antimony, Potassium are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for Iron, Sulfur are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Serial Dilution for Selenium, Silver, Thallium, Antimony are outside control limits for sample MP17721-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- JC96286-8 for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC96286-7 for Selenium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-3A for Thallium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-3A for Selenium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-3A for Copper: Elevated detection limit due to dilution required for high interfering element.
- JC96286-2A for Manganese: Elevated detection limit due to dilution required for high interfering element.
- JC96286-8 for Thallium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-5A for Copper: Elevated detection limit due to dilution required for high interfering element.
- JC96286-3A for Manganese: Elevated detection limit due to dilution required for high interfering element.
- JC96286-5A for Selenium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-5A for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC96286-2A for Copper: Elevated detection limit due to dilution required for high interfering element.
- JC96286-5A for Manganese: Elevated detection limit due to dilution required for high interfering element.
- JC96286-2A for Selenium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-2A for Thallium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-5A for Thallium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-2A for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC96286-1A for Selenium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-7 for Copper: Elevated detection limit due to dilution required for high interfering element.
- JC96286-1A for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC96286-1A for Thallium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-6 for Copper: Elevated detection limit due to dilution required for high interfering element.

Metals Analysis By Method SW846 6010D

Matrix: SO **Batch ID:** MP17721

- JC96286-6 for Selenium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-3A for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC96286-6 for Thallium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-7 for Manganese: Elevated detection limit due to dilution required for high interfering element.
- JC96286-7 for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC96286-8 for Copper: Elevated detection limit due to dilution required for high interfering element.
- JC96286-8 for Manganese: Elevated detection limit due to dilution required for high interfering element.
- JC96286-6 for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC96286-6 for Manganese: Elevated detection limit due to dilution required for high interfering element.
- JC96286-8 for Selenium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-1A for Manganese: Elevated detection limit due to dilution required for high interfering element.
- JC96286-7 for Thallium: Elevated detection limit due to dilution required for high interfering element.
- JC96286-1A for Copper: Elevated detection limit due to dilution required for high interfering element.
- MP17721-SD1 for Cobalt, Sodium: Serial dilution indicates possible matrix interference.

Metals Analysis By Method SW846 7470A

Matrix: LEACHATE **Batch ID:** MP17757

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96195-12MS, JC96195-12MSD were used as the QC samples for metals.

Metals Analysis By Method SW846 7471B

Matrix: SO **Batch ID:** MP17750

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96197-1MS, JC96197-1MSD were used as the QC samples for metals.

Matrix: SO **Batch ID:** MP17821

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC95346-12RMS, JC95346-12RMSD were used as the QC samples for metals.

General Chemistry By Method ASTM D240-92

Matrix: SO **Batch ID:** GP24323

- Sample(s) JC96364-1DUP were used as the QC samples for Heat Content, BTU.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** GN868

- Sample(s) JC96146-8DUP were used as the QC samples for Solids, Percent.

Matrix: SO **Batch ID:** GN872

- Sample(s) JC95766-1DUP were used as the QC samples for Solids, Percent.

General Chemistry By Method SW846 1010A/ASTM D93

Matrix:	SO	Batch ID:	GN1017

- Sample(s) JC96286-2DUP were used as the QC samples for Ignitability (Flashpoint).

General Chemistry By Method SW846 9012B/LACHAT

Matrix:	SO	Batch ID:	GP24209

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96233-1DUP, JC96233-1MS were used as the QC samples for Cyanide.

General Chemistry By Method SW846 9045D

Matrix:	SO	Batch ID:	GN1013

- Sample(s) JC96286-2DUP were used as the QC samples for Corrosivity as pH.

General Chemistry By Method SW846 CHAP7/9012 B

Matrix:	SO	Batch ID:	GP24205

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96286-1DUP were used as the QC samples for Cyanide Reactivity.

General Chemistry By Method SW846 CHAP7/9034

Matrix:	SO	Batch ID:	GP24206

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96286-1DUP, JC96286-1MS were used as the QC samples for Sulfide Reactivity.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC96286
Account: Honeywell International Inc.
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY
Collected: 10/03/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC96286-1	**SP1-01**					
Acenaphthene [a]		4030	200	71	ug/kg	SW846 8270D
Acenaphthylene [a]		14800	200	100	ug/kg	SW846 8270D
Anthracene		28700	2000	1300	ug/kg	SW846 8270D
Benzo(a)anthracene		50100	2000	580	ug/kg	SW846 8270D
Benzo(a)pyrene		51400	2000	930	ug/kg	SW846 8270D
Benzo(b)fluoranthene		63800	2000	900	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		32600	2000	1000	ug/kg	SW846 8270D
Benzo(k)fluoranthene		17900	2000	960	ug/kg	SW846 8270D
1,1'-Biphenyl [a]		756	410	28	ug/kg	SW846 8270D
Carbazole [a]		3660	410	30	ug/kg	SW846 8270D
Chrysene		44300	2000	640	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene [a]		8780	200	90	ug/kg	SW846 8270D
Dibenzofuran [a]		4000	410	83	ug/kg	SW846 8270D
Fluoranthene		103000	2000	910	ug/kg	SW846 8270D
Fluorene [a]		8640	200	94	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		36300	2000	960	ug/kg	SW846 8270D
2-Methylnaphthalene [a]		3210	200	46	ug/kg	SW846 8270D
Naphthalene [a]		16100	200	58	ug/kg	SW846 8270D
N-Nitrosodiphenylamine [a]		75.1 J	1000	75	ug/kg	SW846 8270D
Phenanthrene		65200	2000	690	ug/kg	SW846 8270D
Pyrene		92400	2000	650	ug/kg	SW846 8270D
Total TIC, Semi-Volatile		157900 J			ug/kg	
Aroclor 1248 [a]		1660	390	350	ug/kg	SW846 8082A
Aroclor 1254 [a]		1060	390	210	ug/kg	SW846 8082A
Corrosivity as pH		7.53 NC			su	SW846 9045D
Cyanide		3.9	0.27		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU		2890	100		BTU/lb	ASTM D240-92
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93
JC96286-1A	**SP1-01**					
Aluminum		9670	61		mg/kg	SW846 6010D
Arsenic		13.3	2.4		mg/kg	SW846 6010D
Barium		89.2	24		mg/kg	SW846 6010D
Beryllium		0.81	0.24		mg/kg	SW846 6010D
Cadmium		2.6	0.61		mg/kg	SW846 6010D
Calcium		11400	610		mg/kg	SW846 6010D
Chromium		38.8	1.2		mg/kg	SW846 6010D
Cobalt		7.7	6.1		mg/kg	SW846 6010D
Copper [b]		113	6.1		mg/kg	SW846 6010D
Iron		27100	120		mg/kg	SW846 6010D
Lead		158	2.4		mg/kg	SW846 6010D
Magnesium		3550	610		mg/kg	SW846 6010D

Summary of Hits

Job Number: JC96286
Account: Honeywell International Inc.
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY
Collected: 10/03/19

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Manganese [b]	497	3.6		mg/kg	SW846 6010D
Mercury	2.0	0.20		mg/kg	SW846 7471B
Nickel	30.4	4.8		mg/kg	SW846 6010D
Potassium	1490	1200		mg/kg	SW846 6010D
Sulfur	1920	12		mg/kg	SW846 6010D
Vanadium	21.4	6.1		mg/kg	SW846 6010D
Zinc	445	6.1		mg/kg	SW846 6010D
JC96286-2 SP1-02					
Acenaphthene [a]	4450	200	71	ug/kg	SW846 8270D
Acenaphthylene [a]	11600	200	100	ug/kg	SW846 8270D
Anthracene [a]	10100	200	130	ug/kg	SW846 8270D
Benzo(a)anthracene	33800	2000	580	ug/kg	SW846 8270D
Benzo(a)pyrene	36600	2000	930	ug/kg	SW846 8270D
Benzo(b)fluoranthene	43700	2000	900	ug/kg	SW846 8270D
Benzo(g,h,i)perylene [a]	19300	200	100	ug/kg	SW846 8270D
Benzo(k)fluoranthene	15600	2000	960	ug/kg	SW846 8270D
1,1'-Biphenyl [a]	350 J	410	28	ug/kg	SW846 8270D
Carbazole [a]	1290	410	30	ug/kg	SW846 8270D
Chrysene	28500	2000	640	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene [a]	5360	200	90	ug/kg	SW846 8270D
Dibenzofuran [a]	2220	410	83	ug/kg	SW846 8270D
Fluoranthene	66600	2000	910	ug/kg	SW846 8270D
Fluorene [a]	5340	200	94	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	22500	2000	960	ug/kg	SW846 8270D
2-Methylnaphthalene [a]	1290	200	46	ug/kg	SW846 8270D
Naphthalene [a]	4280	200	58	ug/kg	SW846 8270D
Phenanthrene	35400	2000	690	ug/kg	SW846 8270D
Pyrene	61300	2000	650	ug/kg	SW846 8270D
Total TIC, Semi-Volatile	118900 J			ug/kg	
Aroclor 1248 [a]	1160	420	370	ug/kg	SW846 8082A
Corrosivity as pH	7.28 NC			su	SW846 9045D
Cyanide	11.1	0.30		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU	2940	100		BTU/lb	ASTM D240-92
Ignitability (Flashpoint)	> 200			Deg. F	SW846 1010A/ASTM D93
Benzene	0.0043	0.0025	0.0021	mg/l	SW846 8260C
JC96286-2A SP1-02					
Aluminum	10600	65		mg/kg	SW846 6010D
Arsenic	13.3	2.6		mg/kg	SW846 6010D
Barium	103	26		mg/kg	SW846 6010D
Beryllium	0.90	0.26		mg/kg	SW846 6010D
Cadmium	2.6	0.65		mg/kg	SW846 6010D

Summary of Hits

Job Number: JC96286
Account: Honeywell International Inc.
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY
Collected: 10/03/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Calcium		11600	650		mg/kg	SW846 6010D
Chromium		48.5	1.3		mg/kg	SW846 6010D
Cobalt		8.1	6.5		mg/kg	SW846 6010D
Copper [b]		144	6.5		mg/kg	SW846 6010D
Iron		28500	130		mg/kg	SW846 6010D
Lead		172	2.6		mg/kg	SW846 6010D
Magnesium		3410	650		mg/kg	SW846 6010D
Manganese [b]		518	3.9		mg/kg	SW846 6010D
Mercury		2.6	0.21		mg/kg	SW846 7471B
Nickel		34.4	5.2		mg/kg	SW846 6010D
Potassium		1550	1300		mg/kg	SW846 6010D
Vanadium		25.2	6.5		mg/kg	SW846 6010D
Zinc		441	6.5		mg/kg	SW846 6010D
JC96286-3	**SP1-03**					
Total TIC, Volatile		8.7 J			ug/kg	
Acenaphthene		29400	2000	670	ug/kg	SW846 8270D
Acenaphthylene		61500	2000	990	ug/kg	SW846 8270D
Anthracene		102000	2000	1200	ug/kg	SW846 8270D
Benzo(a)anthracene		141000	2000	550	ug/kg	SW846 8270D
Benzo(a)pyrene		122000	2000	890	ug/kg	SW846 8270D
Benzo(b)fluoranthene		139000	2000	860	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		70000	2000	980	ug/kg	SW846 8270D
Benzo(k)fluoranthene		52300	2000	910	ug/kg	SW846 8270D
1,1'-Biphenyl [a]		8810	390	27	ug/kg	SW846 8270D
Carbazole		37300	3900	280	ug/kg	SW846 8270D
Chrysene		127000	2000	620	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		19700	2000	860	ug/kg	SW846 8270D
Dibenzofuran		59200	3900	790	ug/kg	SW846 8270D
Fluoranthene		477000	9800	4400	ug/kg	SW846 8270D
Fluorene		106000	2000	900	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		78500	2000	920	ug/kg	SW846 8270D
2-Methylnaphthalene		46800	2000	440	ug/kg	SW846 8270D
Naphthalene		189000	2000	550	ug/kg	SW846 8270D
Phenanthrene		574000	9800	3300	ug/kg	SW846 8270D
Pyrene		409000	9800	3100	ug/kg	SW846 8270D
Total TIC, Semi-Volatile		315800 J			ug/kg	
Corrosivity as pH		7.32 NC			su	SW846 9045D
Cyanide		1.5	0.31		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU		3440	100		BTU/lb	ASTM D240-92
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93
gamma-BHC (Lindane) [c]		0.00010	0.000067	0.000040	mg/l	SW846 8081B
Cadmium		0.020	0.020		mg/l	SW846 6010D

Summary of Hits

Job Number: JC96286
Account: Honeywell International Inc.
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY
Collected: 10/03/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC96286-3A	**SP1-03**					
Aluminum		11700	63		mg/kg	SW846 6010D
Arsenic		14.8	2.5		mg/kg	SW846 6010D
Barium		99.5	25		mg/kg	SW846 6010D
Beryllium		0.94	0.25		mg/kg	SW846 6010D
Cadmium		2.9	0.63		mg/kg	SW846 6010D
Calcium		16400	630		mg/kg	SW846 6010D
Chromium		55.7	1.3		mg/kg	SW846 6010D
Cobalt		7.8	6.3		mg/kg	SW846 6010D
Copper [b]		184	6.3		mg/kg	SW846 6010D
Iron		35000	130		mg/kg	SW846 6010D
Lead		159	2.5		mg/kg	SW846 6010D
Magnesium		4580	630		mg/kg	SW846 6010D
Manganese [b]		583	3.8		mg/kg	SW846 6010D
Mercury		1.6	0.20		mg/kg	SW846 7471B
Nickel		36.2	5.1		mg/kg	SW846 6010D
Potassium		1470	1300		mg/kg	SW846 6010D
Sulfur		1630	13		mg/kg	SW846 6010D
Vanadium		23.8	6.3		mg/kg	SW846 6010D
Zinc		438	6.3		mg/kg	SW846 6010D
JC96286-4	**SP1-04**					
Acenaphthene [a]		11000	210	72	ug/kg	SW846 8270D
Acenaphthylene		60400	10000	5300	ug/kg	SW846 8270D
Anthracene		52100	10000	6400	ug/kg	SW846 8270D
Benzo(a)anthracene		119000	10000	2900	ug/kg	SW846 8270D
Benzo(a)pyrene		126000	10000	4700	ug/kg	SW846 8270D
Benzo(b)fluoranthene		148000	10000	4600	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		72600	10000	5200	ug/kg	SW846 8270D
Benzo(k)fluoranthene		45200	10000	4900	ug/kg	SW846 8270D
1,1'-Biphenyl [a]		1350	420	29	ug/kg	SW846 8270D
Carbazole [a]		4210	420	30	ug/kg	SW846 8270D
Chrysene		104000	10000	3300	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene [a]		19200	210	92	ug/kg	SW846 8270D
Dibenzofuran [a]		7810	420	85	ug/kg	SW846 8270D
Fluoranthene		225000	10000	4600	ug/kg	SW846 8270D
Fluorene [a]		16200	210	96	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		82700	10000	4900	ug/kg	SW846 8270D
2-Methylnaphthalene [a]		4770	210	47	ug/kg	SW846 8270D
Naphthalene [a]		20800	210	59	ug/kg	SW846 8270D
Phenanthrene		133000	10000	3500	ug/kg	SW846 8270D
Pyrene		194000	10000	3300	ug/kg	SW846 8270D
Total TIC, Semi-Volatile		298500 J			ug/kg	

Summary of Hits

Job Number: JC96286
Account: Honeywell International Inc.
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY
Collected: 10/03/19

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Aroclor 1248 [a]	2820	410	360	ug/kg	SW846 8082A
Corrosivity as pH	7.43 NC			su	SW846 9045D
Cyanide	8.6	0.34		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU	3630	100		BTU/lb	ASTM D240-92
Ignitability (Flashpoint)	> 200			Deg. F	SW846 1010A/ASTM D93
Benzene	0.0033	0.0025	0.0021	mg/l	SW846 8260C
JC96286-4A SP1-04					
Aluminum	9230	67		mg/kg	SW846 6010D
Antimony	17.5	2.7		mg/kg	SW846 6010D
Arsenic	12.9	2.7		mg/kg	SW846 6010D
Barium	93.9	27		mg/kg	SW846 6010D
Beryllium	0.81	0.27		mg/kg	SW846 6010D
Cadmium	3.2	0.67		mg/kg	SW846 6010D
Calcium	22500	670		mg/kg	SW846 6010D
Chromium	45.8	1.3		mg/kg	SW846 6010D
Cobalt	8.1	6.7		mg/kg	SW846 6010D
Copper	93.1	3.4		mg/kg	SW846 6010D
Iron	26200	67		mg/kg	SW846 6010D
Lead	190	2.7		mg/kg	SW846 6010D
Magnesium	5440	670		mg/kg	SW846 6010D
Manganese	579	2.0		mg/kg	SW846 6010D
Mercury	3.4	0.41		mg/kg	SW846 7471B
Nickel	32.7	5.4		mg/kg	SW846 6010D
Potassium	1540	1300		mg/kg	SW846 6010D
Silver	2.2	0.67		mg/kg	SW846 6010D
Sulfur	2610	13		mg/kg	SW846 6010D
Vanadium	27.0	6.7		mg/kg	SW846 6010D
Zinc	410	6.7		mg/kg	SW846 6010D
JC96286-5 SP1-05					
Benzene [d]	0.54 J	0.56	0.51	ug/kg	SW846 8260C
Total TIC, Volatile	241.3 J			ug/kg	
Acenaphthene [a]	11900	210	72	ug/kg	SW846 8270D
Acenaphthylene	80400	10000	5300	ug/kg	SW846 8270D
Anthracene	76500	10000	6400	ug/kg	SW846 8270D
Benzo(a)anthracene	165000	10000	3000	ug/kg	SW846 8270D
Benzo(a)pyrene	165000	10000	4800	ug/kg	SW846 8270D
Benzo(b)fluoranthene	196000	10000	4600	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	97200	10000	5200	ug/kg	SW846 8270D
Benzo(k)fluoranthene	77800	10000	4900	ug/kg	SW846 8270D
1,1'-Biphenyl [a]	1500	420	29	ug/kg	SW846 8270D
Carbazole [a]	4450	420	30	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC96286
Account: Honeywell International Inc.
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY
Collected: 10/03/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Chrysene		150000	10000	3300	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		23600	10000	4600	ug/kg	SW846 8270D
Dibenzofuran [a]		8710	420	85	ug/kg	SW846 8270D
Fluoranthene		362000	10000	4700	ug/kg	SW846 8270D
Fluorene [a]		18700	210	96	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		104000	10000	4900	ug/kg	SW846 8270D
2-Methylnaphthalene [a]		4230	210	47	ug/kg	SW846 8270D
Naphthalene [a]		18000	210	59	ug/kg	SW846 8270D
Phenanthrene		174000	10000	3500	ug/kg	SW846 8270D
Pyrene		297000	10000	3400	ug/kg	SW846 8270D
Total TIC, Semi-Volatile		339900 J			ug/kg	
Corrosivity as pH		7.48 NC			su	SW846 9045D
Cyanide		7.5	0.28		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU		4750	100		BTU/lb	ASTM D240-92
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93
Benzene		0.0036	0.0025	0.0021	mg/l	SW846 8260C
gamma-BHC (Lindane) [c]		0.00030	0.000067	0.000040	mg/l	SW846 8081B
JC96286-5A	**SP1-05**					
Aluminum		11500	62		mg/kg	SW846 6010D
Arsenic		13.4	2.5		mg/kg	SW846 6010D
Barium		94.0	25		mg/kg	SW846 6010D
Beryllium		0.80	0.25		mg/kg	SW846 6010D
Cadmium		2.9	0.62		mg/kg	SW846 6010D
Calcium		14000	620		mg/kg	SW846 6010D
Chromium		57.4	1.2		mg/kg	SW846 6010D
Cobalt		8.1	6.2		mg/kg	SW846 6010D
Copper [b]		111	6.2		mg/kg	SW846 6010D
Iron		32300	120		mg/kg	SW846 6010D
Lead		157	2.5		mg/kg	SW846 6010D
Magnesium		4430	620		mg/kg	SW846 6010D
Manganese [b]		525	3.7		mg/kg	SW846 6010D
Mercury		4.4	0.43		mg/kg	SW846 7471B
Nickel		32.9	4.9		mg/kg	SW846 6010D
Potassium		1690	1200		mg/kg	SW846 6010D
Silver [b]		2.8	1.2		mg/kg	SW846 6010D
Sulfur		2440	12		mg/kg	SW846 6010D
Vanadium		31.0	6.2		mg/kg	SW846 6010D
Zinc		546	6.2		mg/kg	SW846 6010D
JC96286-6	**SP1-06**					
Acenaphthene [a]		11500	210	72	ug/kg	SW846 8270D
Acenaphthylene		73100	10000	5300	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC96286
Account: Honeywell International Inc.
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY
Collected: 10/03/19

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Anthracene	64900	10000	6400	ug/kg	SW846 8270D
Benzo(a)anthracene	142000	10000	2900	ug/kg	SW846 8270D
Benzo(a)pyrene	150000	10000	4700	ug/kg	SW846 8270D
Benzo(b)fluoranthene	181000	10000	4600	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	87500	10000	5200	ug/kg	SW846 8270D
Benzo(k)fluoranthene	62000	10000	4900	ug/kg	SW846 8270D
1,1'-Biphenyl [a]	1300	420	29	ug/kg	SW846 8270D
Carbazole [a]	4480	420	30	ug/kg	SW846 8270D
Chrysene	129000	10000	3300	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	27300	10000	4600	ug/kg	SW846 8270D
Dibenzofuran [a]	7050	420	85	ug/kg	SW846 8270D
Fluoranthene	293000	10000	4600	ug/kg	SW846 8270D
Fluorene [a]	15300	210	96	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	99500	10000	4900	ug/kg	SW846 8270D
2-Methylnaphthalene [a]	4250	210	47	ug/kg	SW846 8270D
Naphthalene [a]	19400	210	59	ug/kg	SW846 8270D
Phenanthrene	127000	10000	3500	ug/kg	SW846 8270D
Pyrene	268000	10000	3300	ug/kg	SW846 8270D
Total TIC, Semi-Volatile	296800 J			ug/kg	
Aluminum	11500	66		mg/kg	SW846 6010D
Antimony	3.7	2.6		mg/kg	SW846 6010D
Arsenic	12.3	2.6		mg/kg	SW846 6010D
Barium	111	26		mg/kg	SW846 6010D
Beryllium	0.83	0.26		mg/kg	SW846 6010D
Cadmium	3.0	0.66		mg/kg	SW846 6010D
Calcium	16100	660		mg/kg	SW846 6010D
Chromium	54.4	1.3		mg/kg	SW846 6010D
Cobalt	8.1	6.6		mg/kg	SW846 6010D
Copper [b]	369	6.6		mg/kg	SW846 6010D
Iron	28900	130		mg/kg	SW846 6010D
Lead	238	2.6		mg/kg	SW846 6010D
Magnesium	5010	660		mg/kg	SW846 6010D
Manganese [b]	652	4.0		mg/kg	SW846 6010D
Mercury	3.7	0.41		mg/kg	SW846 7471B
Nickel	36.2	5.3		mg/kg	SW846 6010D
Potassium	1720	1300		mg/kg	SW846 6010D
Silver [b]	1.5	1.3		mg/kg	SW846 6010D
Sulfur	2600	13		mg/kg	SW846 6010D
Vanadium	31.5	6.6		mg/kg	SW846 6010D
Zinc	460	6.6		mg/kg	SW846 6010D
Cyanide	5.3	0.35		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU	2410	100		BTU/lb	ASTM D240-92

Summary of Hits

Job Number: JC96286
Account: Honeywell International Inc.
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY
Collected: 10/03/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC96286-6A	**SP1-06**					
Corrosivity as pH		7.48 NC			su	SW846 9045D
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93
Benzene		0.0056	0.0025	0.0021	mg/l	SW846 8260C
JC96286-7	**SP2-01**					
Acenaphthene [a]		4290	200	68	ug/kg	SW846 8270D
Acenaphthylene [a]		16000	200	100	ug/kg	SW846 8270D
Anthracene [a]		18400	200	120	ug/kg	SW846 8270D
Benzo(a)anthracene		55600	2000	560	ug/kg	SW846 8270D
Benzo(a)pyrene		56600	2000	900	ug/kg	SW846 8270D
Benzo(b)fluoranthene		65300	2000	880	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		32600	2000	990	ug/kg	SW846 8270D
Benzo(k)fluoranthene		26600	2000	930	ug/kg	SW846 8270D
1,1'-Biphenyl [a]		426	400	27	ug/kg	SW846 8270D
Carbazole [a]		2820	400	29	ug/kg	SW846 8270D
Chrysene		46100	2000	620	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene [a]		7920	200	88	ug/kg	SW846 8270D
Dibenzofuran [a]		3580	400	81	ug/kg	SW846 8270D
Fluoranthene		112000	2000	880	ug/kg	SW846 8270D
Fluorene [a]		7880	200	91	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		36200	2000	930	ug/kg	SW846 8270D
2-Methylnaphthalene [a]		1620	200	45	ug/kg	SW846 8270D
Naphthalene [a]		6210	200	56	ug/kg	SW846 8270D
Phenanthrene		61100	2000	670	ug/kg	SW846 8270D
Pyrene		85000	2000	630	ug/kg	SW846 8270D
Total TIC, Semi-Volatile		91900 J			ug/kg	
Aluminum		11800	65		mg/kg	SW846 6010D
Arsenic		11.6	2.6		mg/kg	SW846 6010D
Barium		120	26		mg/kg	SW846 6010D
Beryllium		0.89	0.26		mg/kg	SW846 6010D
Cadmium		3.3	0.65		mg/kg	SW846 6010D
Calcium		19300	650		mg/kg	SW846 6010D
Chromium		78.6	1.3		mg/kg	SW846 6010D
Cobalt		8.0	6.5		mg/kg	SW846 6010D
Copper [b]		82.9	6.5		mg/kg	SW846 6010D
Iron		34400	130		mg/kg	SW846 6010D
Lead		161	2.6		mg/kg	SW846 6010D
Magnesium		4760	650		mg/kg	SW846 6010D
Manganese [b]		936	3.9		mg/kg	SW846 6010D
Mercury		1.2	0.080		mg/kg	SW846 7471B
Nickel		35.0	5.2		mg/kg	SW846 6010D
Potassium		1790	1300		mg/kg	SW846 6010D

Summary of Hits

Job Number: JC96286
Account: Honeywell International Inc.
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY
Collected: 10/03/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Silver [b]		1.3	1.3		mg/kg	SW846 6010D
Sulfur		1050	13		mg/kg	SW846 6010D
Vanadium		23.2	6.5		mg/kg	SW846 6010D
Zinc		468	6.5		mg/kg	SW846 6010D
Cyanide		1.9	0.31		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU		1870	100		BTU/lb	ASTM D240-92
JC96286-7A	**SP2-01**					
Corrosivity as pH		7.72 NC			su	SW846 9045D
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93
JC96286-8	**SP2-02**					
Benzene		0.93	0.38	0.34	ug/kg	SW846 8260C
Toluene		0.42 J	0.75	0.39	ug/kg	SW846 8260C
m,p-Xylene		0.72 J	0.75	0.67	ug/kg	SW846 8260C
Xylene (total)		0.72 J	0.75	0.44	ug/kg	SW846 8260C
Total TIC, Volatile		172.9 J			ug/kg	
Acenaphthene [a]		6760	210	73	ug/kg	SW846 8270D
Acenaphthylene		48600	4200	2100	ug/kg	SW846 8270D
Acetophenone [a]		76.7 J	1100	45	ug/kg	SW846 8270D
Anthracene		45800	4200	2600	ug/kg	SW846 8270D
Benzo(a)anthracene		110000	4200	1200	ug/kg	SW846 8270D
Benzo(a)pyrene		115000	4200	1900	ug/kg	SW846 8270D
Benzo(b)fluoranthene		132000	4200	1900	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		67000	4200	2100	ug/kg	SW846 8270D
Benzo(k)fluoranthene		50700	4200	2000	ug/kg	SW846 8270D
1,1'-Biphenyl [a]		1040	420	29	ug/kg	SW846 8270D
Carbazole [a]		2670	420	31	ug/kg	SW846 8270D
Chrysene		96000	4200	1300	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene [a]		15800	210	93	ug/kg	SW846 8270D
Dibenzofuran [a]		5250	420	86	ug/kg	SW846 8270D
Fluoranthene		208000	4200	1900	ug/kg	SW846 8270D
Fluorene [a]		11400	210	97	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		74600	4200	2000	ug/kg	SW846 8270D
2-Methylnaphthalene [a]		3180	210	48	ug/kg	SW846 8270D
Naphthalene [a]		12100	210	59	ug/kg	SW846 8270D
Phenanthrene		115000	4200	1400	ug/kg	SW846 8270D
Pyrene		180000	4200	1300	ug/kg	SW846 8270D
Total TIC, Semi-Volatile		233400 J			ug/kg	
Aluminum		11900	66		mg/kg	SW846 6010D
Arsenic		13.1	2.6		mg/kg	SW846 6010D
Barium		107	26		mg/kg	SW846 6010D
Beryllium		1.0	0.26		mg/kg	SW846 6010D

Summary of Hits

Job Number: JC96286
Account: Honeywell International Inc.
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY
Collected: 10/03/19

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Cadmium	2.4	0.66		mg/kg	SW846 6010D
Calcium	19100	660		mg/kg	SW846 6010D
Chromium	54.4	1.3		mg/kg	SW846 6010D
Cobalt	8.8	6.6		mg/kg	SW846 6010D
Copper [b]	139	6.6		mg/kg	SW846 6010D
Iron	29500	130		mg/kg	SW846 6010D
Lead	178	2.6		mg/kg	SW846 6010D
Magnesium	5260	660		mg/kg	SW846 6010D
Manganese [b]	818	4.0		mg/kg	SW846 6010D
Mercury	2.9	0.38		mg/kg	SW846 7471B
Nickel	43.3	5.3		mg/kg	SW846 6010D
Potassium	1990	1300		mg/kg	SW846 6010D
Silver [b]	1.4	1.3		mg/kg	SW846 6010D
Sulfur	2960	13		mg/kg	SW846 6010D
Vanadium	31.3	6.6		mg/kg	SW846 6010D
Zinc	415	6.6		mg/kg	SW846 6010D
Cyanide	7.8	0.29		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU	4110	100		BTU/lb	ASTM D240-92
JC96286-8A SP2-02					
Corrosivity as pH	7.55 NC			su	SW846 9045D
Ignitability (Flashpoint)	> 200			Deg. F	SW846 1010A/ASTM D93
JC96286-9 SP1-05 DUP					
Benzene	0.36	0.34	0.31	ug/kg	SW846 8260C
Total TIC, Volatile	34.6 J			ug/kg	
Acenaphthene	24700	1000	350	ug/kg	SW846 8270D
Acenaphthylene	77900	1000	520	ug/kg	SW846 8270D
Acetophenone [a]	138 J	1000	44	ug/kg	SW846 8270D
Anthracene	76400	10000	6300	ug/kg	SW846 8270D
Benzo(a)anthracene	180000	10000	2900	ug/kg	SW846 8270D
Benzo(a)pyrene	191000	10000	4700	ug/kg	SW846 8270D
Benzo(b)fluoranthene	200000	10000	4500	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	116000	10000	5100	ug/kg	SW846 8270D
Benzo(k)fluoranthene	73800	10000	4800	ug/kg	SW846 8270D
1,1'-Biphenyl [a]	3990	410	28	ug/kg	SW846 8270D
Carbazole [a]	10300	410	30	ug/kg	SW846 8270D
Chrysene	158000	10000	3200	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene [a]	6290	210	91	ug/kg	SW846 8270D
Dibenzofuran	28400	2100	420	ug/kg	SW846 8270D
Fluoranthene	473000	10000	4600	ug/kg	SW846 8270D
Fluorene	52900	1000	470	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	127000	10000	4800	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC96286
Account: Honeywell International Inc.
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY
Collected: 10/03/19

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
2-Methylnaphthalene [a]	17900	210	46	ug/kg	SW846 8270D
Naphthalene	72400	1000	290	ug/kg	SW846 8270D
Phenanthrene	243000	10000	3500	ug/kg	SW846 8270D
Pyrene	382000	10000	3300	ug/kg	SW846 8270D
Total TIC, Semi-Volatile	83700 J			ug/kg	
Aluminum	10100	66		mg/kg	SW846 6010D
Arsenic	12.5	2.6		mg/kg	SW846 6010D
Barium	90.0	26		mg/kg	SW846 6010D
Beryllium	0.85	0.26		mg/kg	SW846 6010D
Cadmium	2.4	0.66		mg/kg	SW846 6010D
Calcium	14700	660		mg/kg	SW846 6010D
Chromium	37.6	1.3		mg/kg	SW846 6010D
Cobalt	8.2	6.6		mg/kg	SW846 6010D
Copper	90.2	3.3		mg/kg	SW846 6010D
Iron	25800	66		mg/kg	SW846 6010D
Lead	156	2.6		mg/kg	SW846 6010D
Magnesium	4570	660		mg/kg	SW846 6010D
Manganese	543	2.0		mg/kg	SW846 6010D
Mercury	3.6	0.42		mg/kg	SW846 7471B
Nickel	32.0	5.3		mg/kg	SW846 6010D
Potassium	1570	1300		mg/kg	SW846 6010D
Silver	2.0	0.66		mg/kg	SW846 6010D
Sulfur	3270	13		mg/kg	SW846 6010D
Vanadium	32.1	6.6		mg/kg	SW846 6010D
Zinc	435	6.6		mg/kg	SW846 6010D
Cyanide	6.1	0.26		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU	3990	100		BTU/lb	ASTM D240-92
JC96286-9A SP1-05 DUP					
Corrosivity as pH	7.44 NC			su	SW846 9045D
Ignitability (Flashpoint)	> 200			Deg. F	SW846 1010A/ASTM D93
Benzene	0.0064	0.0025	0.0021	mg/l	SW846 8260C

(a) Dilution required due to viscosity of the extract matrix.
(b) Elevated detection limit due to dilution required for high interfering element.
(c) More than 40 % RPD for detected concentrations between the two GC columns.
(d) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory out of hold time.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: SP1-01
Lab Sample ID: JC96286-1 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8260C **Percent Solids:** 80.9
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y187108.D	1	10/08/19 17:32	PS	n/a	n/a	VY8135
Run #2							

	Initial Weight
Run #1	9.6 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	6.4	2.6	ug/kg	
71-43-2	Benzene	ND	0.32	0.29	ug/kg	
74-97-5	Bromochloromethane	ND	3.2	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	1.3	0.29	ug/kg	
75-25-2	Bromoform	ND	3.2	0.37	ug/kg	
74-83-9	Bromomethane	ND	3.2	0.64	ug/kg	
78-93-3	2-Butanone (MEK)	ND	6.4	2.4	ug/kg	
75-15-0	Carbon disulfide	ND	1.3	0.60	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.3	0.40	ug/kg	
108-90-7	Chlorobenzene	ND	1.3	0.30	ug/kg	
75-00-3	Chloroethane	ND	3.2	0.38	ug/kg	
67-66-3	Chloroform	ND	1.3	0.31	ug/kg	
74-87-3	Chloromethane	ND	3.2	1.3	ug/kg	
110-82-7	Cyclohexane [a]	ND	1.3	0.42	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.3	0.54	ug/kg	
124-48-1	Dibromochloromethane	ND	1.3	0.36	ug/kg	
106-93-4	1,2-Dibromoethane	ND	0.64	0.27	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.64	0.35	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.64	0.32	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.64	0.32	ug/kg	
75-71-8	Dichlorodifluoromethane [a]	ND	3.2	0.47	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.64	0.32	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.64	0.30	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.64	0.42	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.64	0.54	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.64	0.39	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.3	0.30	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.3	0.31	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.3	0.29	ug/kg	
100-41-4	Ethylbenzene	ND	0.64	0.36	ug/kg	
76-13-1	Freon 113	ND	3.2	0.65	ug/kg	
591-78-6	2-Hexanone	ND	3.2	1.4	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-01
Lab Sample ID: JC96286-1 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8260C **Percent Solids:** 80.9
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.3	0.45	ug/kg	
79-20-9	Methyl Acetate	ND	3.2	0.89	ug/kg	
108-87-2	Methylcyclohexane	ND	1.3	0.56	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.64	0.30	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	3.2	1.5	ug/kg	
75-09-2	Methylene chloride	ND	3.2	0.64	ug/kg	
100-42-5	Styrene	ND	1.3	0.37	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.3	0.39	ug/kg	
127-18-4	Tetrachloroethene	ND	1.3	0.37	ug/kg	
108-88-3	Toluene	ND	0.64	0.34	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	3.2	1.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3.2	0.99	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.3	0.31	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.3	0.36	ug/kg	
79-01-6	Trichloroethene	ND	0.64	0.49	ug/kg	
75-69-4	Trichlorofluoromethane [a]	ND	3.2	0.44	ug/kg	
75-01-4	Vinyl chloride [a]	ND	1.3	0.31	ug/kg	
	m,p-Xylene	ND	0.64	0.58	ug/kg	
95-47-6	o-Xylene	ND	0.64	0.38	ug/kg	
1330-20-7	Xylene (total)	ND	0.64	0.38	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	121%		75-127%
17060-07-0	1,2-Dichloroethane-D4	114%		75-130%
2037-26-5	Toluene-D8	113%		80-120%
460-00-4	4-Bromofluorobenzene	113%		79-127%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-01
Lab Sample ID: JC96286-1 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8260C SW846 1311 **Percent Solids:** 80.9
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149652.D	5	10/09/19 18:58	EH	10/05/19 19:00	GP24160	V3D6396
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		64-135%
2037-26-5	Toluene-D8	104%		76-117%
460-00-4	4-Bromofluorobenzene	93%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-01
Lab Sample ID: JC96286-1 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 80.9
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5P63815.D	5	10/10/19 12:20	HSS	10/08/19 09:15	OP23169	E5P2993
Run #2	5P63823.D	50	10/10/19 15:35	HSS	10/08/19 09:15	OP23169	E5P2993

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2	30.2 g	1.0 ml

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	4030	200	71	ug/kg	
208-96-8	Acenaphthylene	14800	200	100	ug/kg	
98-86-2	Acetophenone	ND	1000	44	ug/kg	
120-12-7	Anthracene	28700 [b]	2000	1300	ug/kg	
1912-24-9	Atrazine [c]	ND	410	88	ug/kg	
56-55-3	Benzo(a)anthracene	50100 [b]	2000	580	ug/kg	
50-32-8	Benzo(a)pyrene	51400 [b]	2000	930	ug/kg	
205-99-2	Benzo(b)fluoranthene	63800 [b]	2000	900	ug/kg	
191-24-2	Benzo(g,h,i)perylene	32600 [b]	2000	1000	ug/kg	
207-08-9	Benzo(k)fluoranthene	17900 [b]	2000	960	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	410	79	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	410	50	ug/kg	
92-52-4	1,1'-Biphenyl	756	410	28	ug/kg	
100-52-7	Benzaldehyde	ND	1000	51	ug/kg	
91-58-7	2-Chloronaphthalene	ND	410	49	ug/kg	
106-47-8	4-Chloroaniline	ND	1000	74	ug/kg	
86-74-8	Carbazole	3660	410	30	ug/kg	
105-60-2	Caprolactam	ND	410	81	ug/kg	
218-01-9	Chrysene	44300 [b]	2000	640	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	410	44	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	410	88	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	410	73	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	410	66	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	200	63	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	200	100	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	410	170	ug/kg	
123-91-1	1,4-Dioxane	ND	200	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	8780	200	90	ug/kg	
132-64-9	Dibenzofuran	4000	410	83	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	410	33	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	410	51	ug/kg	
84-66-2	Diethyl phthalate	ND	410	44	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-01
Lab Sample ID: JC96286-1 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 80.9
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
131-11-3	Dimethyl phthalate	ND	410	36	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	410	48	ug/kg	
206-44-0	Fluoranthene	103000 [b]	2000	910	ug/kg	
86-73-7	Fluorene	8640	200	94	ug/kg	
118-74-1	Hexachlorobenzene	ND	410	52	ug/kg	
87-68-3	Hexachlorobutadiene [c]	ND	200	82	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2000	81	ug/kg	
67-72-1	Hexachloroethane [c]	ND	1000	100	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	36300 [b]	2000	960	ug/kg	
78-59-1	Isophorone	ND	410	44	ug/kg	
91-57-6	2-Methylnaphthalene	3210	200	46	ug/kg	
88-74-4	2-Nitroaniline [d]	ND	1000	48	ug/kg	
99-09-2	3-Nitroaniline	ND	1000	51	ug/kg	
100-01-6	4-Nitroaniline	ND	1000	53	ug/kg	
91-20-3	Naphthalene	16100	200	58	ug/kg	
98-95-3	Nitrobenzene	ND	410	79	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	410	59	ug/kg	
86-30-6	N-Nitrosodiphenylamine	75.1	1000	75	ug/kg	J
85-01-8	Phenanthrene	65200 [b]	2000	690	ug/kg	
129-00-0	Pyrene	92400 [b]	2000	650	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1000	52	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	49%	49%	26-134%
321-60-8	2-Fluorobiphenyl	60%	60%	39-124%
1718-51-0	Terphenyl-d14	52%	67%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	unknown	13.23	9400	ug/kg	J
	unknown PAH substance	13.58	14000	ug/kg	J
	unknown	13.63	10000	ug/kg	J
	Dinaphtho[-d]furan	13.71	9000	ug/kg	J
	unknown PAH substance	13.81	26000	ug/kg	J
	unknown	14.17	11000	ug/kg	J
	unknown	14.20	6500	ug/kg	J
	unknown	14.49	11000	ug/kg	J
	unknown	14.63	6400	ug/kg	J
	unknown PAH substance	14.90	6800	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-01		
Lab Sample ID:	JC96286-1	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	80.9
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	unknown	15.04	6900	ug/kg	J
	unknown PAH substance	15.13	10000	ug/kg	J
	unknown PAH substance	15.42	6900	ug/kg	J
	unknown PAH substance	15.46	11000	ug/kg	J
	unknown PAH substance	15.82	13000	ug/kg	J
	Total TIC, Semi-Volatile		157900	ug/kg	J

(a) Dilution required due to viscosity of the extract matrix.
(b) Result is from Run# 2
(c) Associated CCV outside of control limits high, sample was ND.
(d) Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-01		
Lab Sample ID:	JC96286-1	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	80.9
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P132193.D	1	10/09/19 15:26	AR	10/06/19 17:00	OP23173	EP5994
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol [a]	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol [a]	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	39%		14-88%
4165-62-2	Phenol-d5	28%		10-110%
118-79-6	2,4,6-Tribromophenol	87%		39-149%
4165-60-0	Nitrobenzene-d5	69%		32-128%
321-60-8	2-Fluorobiphenyl	59%		35-119%
1718-51-0	Terphenyl-d14	69%		10-126%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-01		
Lab Sample ID:	JC96286-1	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8151A SW846 3510C	**Percent Solids:**	80.9
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA142905.D	1	10/10/19 16:49	VDT	10/08/19 07:00	OP23176	GOA4941
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	55%		13-169%
19719-28-9	2,4-DCAA	64%		13-169%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-01
Lab Sample ID: JC96286-1 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8081B SW846 3510C **Percent Solids:** 80.9
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G68411.D	1	10/10/19 13:29	AB	10/10/19 06:30	OP23177	G6G2166
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	74%		30-137%
877-09-8	Tetrachloro-m-xylene	66%		30-137%
2051-24-3	Decachlorobiphenyl	72%		10-137%
2051-24-3	Decachlorobiphenyl	73%		10-137%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-01		
Lab Sample ID:	JC96286-1	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8082A SW846 3546	**Percent Solids:**	80.9
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G185131.D	10	10/08/19 21:43	TR	10/07/19 17:20	OP23188	G2G4791
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	390	180	ug/kg	
11104-28-2	Aroclor 1221	ND	390	240	ug/kg	
11141-16-5	Aroclor 1232	ND	390	250	ug/kg	
53469-21-9	Aroclor 1242	ND	390	160	ug/kg	
12672-29-6	Aroclor 1248	1660	390	350	ug/kg	
11097-69-1	Aroclor 1254	1060	390	210	ug/kg	
11096-82-5	Aroclor 1260	ND	390	170	ug/kg	
11100-14-4	Aroclor 1268	ND	390	170	ug/kg	
37324-23-5	Aroclor 1262	ND	390	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		31-146%
877-09-8	Tetrachloro-m-xylene	35%		31-146%
2051-24-3	Decachlorobiphenyl	1520% [b]		17-164%
2051-24-3	Decachlorobiphenyl	1377% [b]		17-164%

(a) Dilution required due to viscosity of the extract matrix.
(b) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-01
Lab Sample ID: JC96286-1
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 80.9

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Barium	< 1.0	D005	100	1.0	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Cadmium	< 0.020	D006	1.0	0.020	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Lead	< 0.50	D008	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	10/07/19	10/07/19	LL	SW846 7470A [1]	SW846 7470A [4]
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Silver	< 0.050	D011	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA47575
(2) Instrument QC Batch: MA47591
(3) Prep QC Batch: MP17719
(4) Prep QC Batch: MP17757

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID: SP1-01
Lab Sample ID: JC96286-1 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Percent Solids: 80.9
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.53 NC		su	1	10/10/19 11:34	RI	SW846 9045D
Cyanide	3.9	0.27	mg/kg	1	10/09/19 11:05	KI	SW846 9012B/LACHAT
Cyanide Reactivity	< 13	13	mg/kg	1	10/09/19 09:58	KI	SW846 CHAP7/9012 B
Heat Content, BTU	2890	100	BTU/lb	1	10/13/19	JOO	ASTM D240-92
Ignitability (Flashpoint)	> 200		Deg. F	1	10/10/19 12:00	RI	SW846 1010A/ASTM D93
Solids, Percent	80.9		%	1	10/07/19 17:00	BG	SM2540 G 18TH ED MOD
Sulfide Reactivity	< 130	130	mg/kg	1	10/09/19 13:04	CD	SW846 CHAP7/9034

RL = Reporting Limit

Report of Analysis

Client Sample ID: SP1-01
Lab Sample ID: JC96286-1A
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 80.9

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	9670	61	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Antimony	< 2.4	2.4	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Arsenic	13.3	2.4	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Barium	89.2	24	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Beryllium	0.81	0.24	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Cadmium	2.6	0.61	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Calcium	11400	610	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Chromium	38.8	1.2	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Cobalt	7.7	6.1	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Copper [a]	113	6.1	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [2]	SW846 3050B [4]
Iron	27100	120	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [2]	SW846 3050B [4]
Lead	158	2.4	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Magnesium	3550	610	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Manganese [a]	497	3.6	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [2]	SW846 3050B [4]
Mercury	2.0	0.20	mg/kg	5	10/11/19	10/11/19	CH	SW846 7471B [3]	SW846 7471B [5]
Nickel	30.4	4.8	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Potassium	1490	1200	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Selenium [a]	< 4.8	4.8	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [2]	SW846 3050B [4]
Silver [a]	< 1.2	1.2	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [2]	SW846 3050B [4]
Sodium	< 1200	1200	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Sulfur	1920	12	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Thallium [a]	< 2.4	2.4	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [2]	SW846 3050B [4]
Vanadium	21.4	6.1	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Zinc	445	6.1	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]

(1) Instrument QC Batch: MA47580
(2) Instrument QC Batch: MA47590
(3) Instrument QC Batch: MA47611
(4) Prep QC Batch: MP17721
(5) Prep QC Batch: MP17821

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID: SP1-02
Lab Sample ID: JC96286-2 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8260C **Percent Solids:** 76.6
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y187109.D	1	10/08/19 18:00	PS	n/a	n/a	VY8135
Run #2							

	Initial Weight
Run #1	11.1 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.9	2.4	ug/kg	
71-43-2	Benzene	ND	0.29	0.27	ug/kg	
74-97-5	Bromochloromethane	ND	2.9	0.33	ug/kg	
75-27-4	Bromodichloromethane	ND	1.2	0.26	ug/kg	
75-25-2	Bromoform	ND	2.9	0.34	ug/kg	
74-83-9	Bromomethane	ND	2.9	0.59	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.9	2.2	ug/kg	
75-15-0	Carbon disulfide	ND	1.2	0.55	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.2	0.36	ug/kg	
108-90-7	Chlorobenzene	ND	1.2	0.27	ug/kg	
75-00-3	Chloroethane	ND	2.9	0.35	ug/kg	
67-66-3	Chloroform	ND	1.2	0.29	ug/kg	
74-87-3	Chloromethane	ND	2.9	1.2	ug/kg	
110-82-7	Cyclohexane [a]	ND	1.2	0.39	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.2	0.49	ug/kg	
124-48-1	Dibromochloromethane	ND	1.2	0.33	ug/kg	
106-93-4	1,2-Dibromoethane	ND	0.59	0.25	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.59	0.32	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.59	0.29	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.59	0.29	ug/kg	
75-71-8	Dichlorodifluoromethane [a]	ND	2.9	0.43	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.59	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.59	0.28	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.59	0.39	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.59	0.49	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.59	0.36	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.2	0.28	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.2	0.28	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.2	0.27	ug/kg	
100-41-4	Ethylbenzene	ND	0.59	0.32	ug/kg	
76-13-1	Freon 113	ND	2.9	0.59	ug/kg	
591-78-6	2-Hexanone	ND	2.9	1.2	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-02		
Lab Sample ID:	JC96286-2	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C	**Percent Solids:**	76.6
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.2	0.41	ug/kg	
79-20-9	Methyl Acetate	ND	2.9	0.82	ug/kg	
108-87-2	Methylcyclohexane	ND	1.2	0.51	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.59	0.28	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	2.9	1.3	ug/kg	
75-09-2	Methylene chloride	ND	2.9	0.58	ug/kg	
100-42-5	Styrene	ND	1.2	0.34	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.2	0.35	ug/kg	
127-18-4	Tetrachloroethene	ND	1.2	0.34	ug/kg	
108-88-3	Toluene	ND	0.59	0.31	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	2.9	1.1	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	2.9	0.90	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.2	0.28	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.2	0.33	ug/kg	
79-01-6	Trichloroethene	ND	0.59	0.45	ug/kg	
75-69-4	Trichlorofluoromethane [a]	ND	2.9	0.40	ug/kg	
75-01-4	Vinyl chloride [a]	ND	1.2	0.28	ug/kg	
	m,p-Xylene	ND	0.59	0.53	ug/kg	
95-47-6	o-Xylene	ND	0.59	0.34	ug/kg	
1330-20-7	Xylene (total)	ND	0.59	0.34	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		75-127%
17060-07-0	1,2-Dichloroethane-D4	114%		75-130%
2037-26-5	Toluene-D8	111%		80-120%
460-00-4	4-Bromofluorobenzene	119%		79-127%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-02		
Lab Sample ID:	JC96286-2	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C SW846 1311	**Percent Solids:**	76.6
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149656.D	5	10/09/19 20:39	EH	10/05/19 19:00	GP24160	V3D6396
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	0.0043	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	105%		64-135%
2037-26-5	Toluene-D8	99%		76-117%
460-00-4	4-Bromofluorobenzene	93%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-02
Lab Sample ID: JC96286-2 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 76.6
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5P63816.D	5	10/10/19 12:44	HSS	10/08/19 09:15	OP23169	E5P2993
Run #2	5P63824.D	50	10/10/19 16:00	HSS	10/08/19 09:15	OP23169	E5P2993

	Initial Weight	Final Volume
Run #1	31.9 g	1.0 ml
Run #2	31.9 g	1.0 ml

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	4450	200	71	ug/kg	
208-96-8	Acenaphthylene	11600	200	100	ug/kg	
98-86-2	Acetophenone	ND	1000	44	ug/kg	
120-12-7	Anthracene	10100	200	130	ug/kg	
1912-24-9	Atrazine [b]	ND	410	88	ug/kg	
56-55-3	Benzo(a)anthracene	33800 [c]	2000	580	ug/kg	
50-32-8	Benzo(a)pyrene	36600 [c]	2000	930	ug/kg	
205-99-2	Benzo(b)fluoranthene	43700 [c]	2000	900	ug/kg	
191-24-2	Benzo(g,h,i)perylene	19300	200	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	15600 [c]	2000	960	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	410	79	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	410	50	ug/kg	
92-52-4	1,1'-Biphenyl	350	410	28	ug/kg	J
100-52-7	Benzaldehyde	ND	1000	51	ug/kg	
91-58-7	2-Chloronaphthalene	ND	410	49	ug/kg	
106-47-8	4-Chloroaniline	ND	1000	74	ug/kg	
86-74-8	Carbazole	1290	410	30	ug/kg	
105-60-2	Caprolactam	ND	410	81	ug/kg	
218-01-9	Chrysene	28500 [c]	2000	640	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	410	44	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	410	88	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	410	73	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	410	66	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	200	63	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	200	100	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	410	170	ug/kg	
123-91-1	1,4-Dioxane	ND	200	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	5360	200	90	ug/kg	
132-64-9	Dibenzofuran	2220	410	83	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	410	33	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	410	51	ug/kg	
84-66-2	Diethyl phthalate	ND	410	44	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-02
Lab Sample ID: JC96286-2 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 76.6
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
131-11-3	Dimethyl phthalate	ND	410	36	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	410	48	ug/kg	
206-44-0	Fluoranthene	66600 [c]	2000	910	ug/kg	
86-73-7	Fluorene	5340	200	94	ug/kg	
118-74-1	Hexachlorobenzene	ND	410	52	ug/kg	
87-68-3	Hexachlorobutadiene [b]	ND	200	82	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2000	81	ug/kg	
67-72-1	Hexachloroethane [b]	ND	1000	100	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	22500 [c]	2000	960	ug/kg	
78-59-1	Isophorone	ND	410	44	ug/kg	
91-57-6	2-Methylnaphthalene	1290	200	46	ug/kg	
88-74-4	2-Nitroaniline [d]	ND	1000	48	ug/kg	
99-09-2	3-Nitroaniline	ND	1000	51	ug/kg	
100-01-6	4-Nitroaniline	ND	1000	53	ug/kg	
91-20-3	Naphthalene	4280	200	58	ug/kg	
98-95-3	Nitrobenzene	ND	410	79	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	410	59	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1000	75	ug/kg	
85-01-8	Phenanthrene	35400 [c]	2000	690	ug/kg	
129-00-0	Pyrene	61300 [c]	2000	650	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1000	52	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%	64%	26-134%
321-60-8	2-Fluorobiphenyl	76%	88%	39-124%
1718-51-0	Terphenyl-d14	66%	89%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Phenanthrene methyl	9.13	4400	ug/kg	J
203-64-5	4H-Cyclopenta[def]phenanthrene	9.22	11000	ug/kg	JN
	unknown	10.07	10000	ug/kg	J
	unknown	13.22	6800	ug/kg	J
	unknown	13.26	4800	ug/kg	J
	unknown	13.33	4800	ug/kg	J
	unknown PAH substance	13.57	11000	ug/kg	J
	unknown	13.62	7400	ug/kg	J
	unknown	13.70	7200	ug/kg	J
	unknown PAH substance	13.80	17000	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-02		
Lab Sample ID:	JC96286-2	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	76.6
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	unknown	14.16	6900	ug/kg	J
	unknown	14.49	7800	ug/kg	J
	unknown PAH substance	15.12	6000	ug/kg	J
	unknown PAH substance	15.44	5900	ug/kg	J
	unknown PAH substance	15.80	7900	ug/kg	J
	Total TIC, Semi-Volatile		118900	ug/kg	J

(a) Dilution required due to viscosity of the extract matrix.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Result is from Run# 2
(d) Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-02		
Lab Sample ID:	JC96286-2	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	76.6
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P132194.D	1	10/09/19 15:53	AR	10/06/19 17:00	OP23173	EP5994
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol [a]	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol [a]	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		14-88%
4165-62-2	Phenol-d5	25%		10-110%
118-79-6	2,4,6-Tribromophenol	72%		39-149%
4165-60-0	Nitrobenzene-d5	70%		32-128%
321-60-8	2-Fluorobiphenyl	63%		35-119%
1718-51-0	Terphenyl-d14	62%		10-126%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-02		
Lab Sample ID:	JC96286-2	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8151A SW846 3510C	**Percent Solids:**	76.6
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA142906.D	1	10/10/19 17:18	VDT	10/08/19 07:00	OP23176	GOA4941
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	58%		13-169%
19719-28-9	2,4-DCAA	55%		13-169%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-02		
Lab Sample ID:	JC96286-2	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	76.6
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G68412.D	1	10/10/19 13:46	AB	10/10/19 06:30	OP23177	G6G2166
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		30-137%
877-09-8	Tetrachloro-m-xylene	93%		30-137%
2051-24-3	Decachlorobiphenyl	88%		10-137%
2051-24-3	Decachlorobiphenyl	92%		10-137%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-02		
Lab Sample ID:	JC96286-2	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8082A SW846 3546	**Percent Solids:**	76.6
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G185132.D	10	10/08/19 21:59	TR	10/07/19 17:20	OP23188	G2G4791
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	420	190	ug/kg	
11104-28-2	Aroclor 1221	ND	420	260	ug/kg	
11141-16-5	Aroclor 1232	ND	420	270	ug/kg	
53469-21-9	Aroclor 1242	ND	420	170	ug/kg	
12672-29-6	Aroclor 1248	1160	420	370	ug/kg	
11097-69-1	Aroclor 1254	ND	420	220	ug/kg	
11096-82-5	Aroclor 1260	ND	420	180	ug/kg	
11100-14-4	Aroclor 1268	ND	420	180	ug/kg	
37324-23-5	Aroclor 1262	ND	420	270	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	111%		31-146%
877-09-8	Tetrachloro-m-xylene	44%		31-146%
2051-24-3	Decachlorobiphenyl	2142% [b]		17-164%
2051-24-3	Decachlorobiphenyl	1559% [b]		17-164%

(a) Dilution required due to viscosity of the extract matrix.
(b) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-02
Lab Sample ID: JC96286-2
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 76.6

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Barium	< 1.0	D005	100	1.0	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Cadmium	< 0.020	D006	1.0	0.020	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Lead	< 0.50	D008	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	10/07/19	10/07/19	LL	SW846 7470A [1]	SW846 7470A [4]
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Silver	< 0.050	D011	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA47575
(2) Instrument QC Batch: MA47591
(3) Prep QC Batch: MP17719
(4) Prep QC Batch: MP17757

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID: SP1-02
Lab Sample ID: JC96286-2
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 76.6

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.28 NC		su	1	10/10/19 11:10	RI	SW846 9045D
Cyanide	11.1	0.30	mg/kg	1	10/09/19 11:06	KI	SW846 9012B/LACHAT
Cyanide Reactivity	< 13	13	mg/kg	1	10/09/19 10:00	KI	SW846 CHAP7/9012 B
Heat Content, BTU	2940	100	BTU/lb	1	10/13/19	JOO	ASTM D240-92
Ignitability (Flashpoint)	> 200		Deg. F	1	10/10/19 12:00	RI	SW846 1010A/ASTM D93
Solids, Percent	76.6		%	1	10/07/19 17:00	BG	SM2540 G 18TH ED MOD
Sulfide Reactivity	< 130	130	mg/kg	1	10/09/19 13:04	CD	SW846 CHAP7/9034

RL = Reporting Limit

Report of Analysis

Client Sample ID: SP1-02
Lab Sample ID: JC96286-2A
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 76.6

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	10600	65	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Antimony	< 2.6	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Arsenic	13.3	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Barium	103	26	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Beryllium	0.90	0.26	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Cadmium	2.6	0.65	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Calcium	11600	650	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Chromium	48.5	1.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Cobalt	8.1	6.5	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Copper [a]	144	6.5	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Iron	28500	130	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Lead	172	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Magnesium	3410	650	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Manganese [a]	518	3.9	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Mercury	2.6	0.21	mg/kg	5	10/11/19	10/11/19	CH	SW846 7471B [2]	SW846 7471B [5]
Nickel	34.4	5.2	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Potassium	1550	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Selenium [a]	< 5.2	5.2	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Silver [a]	< 1.3	1.3	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Sodium	< 1300	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Thallium [a]	< 2.6	2.6	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Vanadium	25.2	6.5	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Zinc	441	6.5	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]

(1) Instrument QC Batch: MA47580
(2) Instrument QC Batch: MA47611
(3) Instrument QC Batch: MA47612
(4) Prep QC Batch: MP17721
(5) Prep QC Batch: MP17821

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID: SP1-03
Lab Sample ID: JC96286-3 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8260C **Percent Solids:** 80.5
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y187110.D	1	10/08/19 18:29	PS	n/a	n/a	VY8135
Run #2							

	Initial Weight
Run #1	11.1 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.6	2.2	ug/kg	
71-43-2	Benzene	ND	0.28	0.25	ug/kg	
74-97-5	Bromochloromethane	ND	2.8	0.31	ug/kg	
75-27-4	Bromodichloromethane	ND	1.1	0.25	ug/kg	
75-25-2	Bromoform	ND	2.8	0.32	ug/kg	
74-83-9	Bromomethane	ND	2.8	0.56	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.6	2.1	ug/kg	
75-15-0	Carbon disulfide	ND	1.1	0.52	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.1	0.35	ug/kg	
108-90-7	Chlorobenzene	ND	1.1	0.26	ug/kg	
75-00-3	Chloroethane	ND	2.8	0.33	ug/kg	
67-66-3	Chloroform	ND	1.1	0.27	ug/kg	
74-87-3	Chloromethane	ND	2.8	1.1	ug/kg	
110-82-7	Cyclohexane [a]	ND	1.1	0.37	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.1	0.47	ug/kg	
124-48-1	Dibromochloromethane	ND	1.1	0.31	ug/kg	
106-93-4	1,2-Dibromoethane	ND	0.56	0.24	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.56	0.31	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.56	0.28	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.56	0.28	ug/kg	
75-71-8	Dichlorodifluoromethane [a]	ND	2.8	0.41	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.56	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.56	0.26	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.56	0.37	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.56	0.47	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.56	0.34	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.1	0.26	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.1	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.1	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	0.56	0.31	ug/kg	
76-13-1	Freon 113	ND	2.8	0.57	ug/kg	
591-78-6	2-Hexanone	ND	2.8	1.2	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-03
Lab Sample ID: JC96286-3 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8260C **Percent Solids:** 80.5
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.1	0.39	ug/kg	
79-20-9	Methyl Acetate	ND	2.8	0.78	ug/kg	
108-87-2	Methylcyclohexane	ND	1.1	0.49	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.56	0.26	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	2.8	1.3	ug/kg	
75-09-2	Methylene chloride	ND	2.8	0.56	ug/kg	
100-42-5	Styrene	ND	1.1	0.32	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.1	0.34	ug/kg	
127-18-4	Tetrachloroethene	ND	1.1	0.32	ug/kg	
108-88-3	Toluene	ND	0.56	0.29	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	2.8	1.1	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	2.8	0.86	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.1	0.27	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.1	0.31	ug/kg	
79-01-6	Trichloroethene	ND	0.56	0.43	ug/kg	
75-69-4	Trichlorofluoromethane [a]	ND	2.8	0.38	ug/kg	
75-01-4	Vinyl chloride [a]	ND	1.1	0.27	ug/kg	
	m,p-Xylene	ND	0.56	0.50	ug/kg	
95-47-6	o-Xylene	ND	0.56	0.33	ug/kg	
1330-20-7	Xylene (total)	ND	0.56	0.33	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	119%		75-127%
17060-07-0	1,2-Dichloroethane-D4	114%		75-130%
2037-26-5	Toluene-D8	110%		80-120%
460-00-4	4-Bromofluorobenzene	110%		79-127%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
91-20-3	Naphthalene	18.58	8.7	ug/kg	JN
	Total TIC, Volatile		8.7	ug/kg	J

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-03		
Lab Sample ID:	JC96286-3	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C SW846 1311	**Percent Solids:**	80.5
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149657.D	5	10/09/19 21:04	EH	10/05/19 19:00	GP24160	V3D6396
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		64-135%
2037-26-5	Toluene-D8	107%		76-117%
460-00-4	4-Bromofluorobenzene	87%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-03
Lab Sample ID: JC96286-3 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 80.5
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5P63817.D	5	10/10/19 13:08	HSS	10/08/19 09:15	OP23169	E5P2993
Run #2	5P63825.D	50	10/10/19 16:24	HSS	10/08/19 09:15	OP23169	E5P2993
Run #3	3E108522.D	250	10/11/19 16:20	AR	10/08/19 09:15	OP23169	E3E4879

	Initial Weight	Final Volume
Run #1	31.8 g	1.0 ml
Run #2	31.8 g	1.0 ml
Run #3	31.8 g	1.0 ml

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	29400 [b]	2000	670	ug/kg	
208-96-8	Acenaphthylene	61500 [b]	2000	990	ug/kg	
98-86-2	Acetophenone	ND	980	42	ug/kg	
120-12-7	Anthracene	102000 [b]	2000	1200	ug/kg	
1912-24-9	Atrazine [c]	ND	390	84	ug/kg	
56-55-3	Benzo(a)anthracene	141000 [b]	2000	550	ug/kg	
50-32-8	Benzo(a)pyrene	122000 [b]	2000	890	ug/kg	
205-99-2	Benzo(b)fluoranthene	139000 [b]	2000	860	ug/kg	
191-24-2	Benzo(g,h,i)perylene	70000 [b]	2000	980	ug/kg	
207-08-9	Benzo(k)fluoranthene	52300 [b]	2000	910	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	390	75	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	390	48	ug/kg	
92-52-4	1,1'-Biphenyl	8810	390	27	ug/kg	
100-52-7	Benzaldehyde	ND	980	48	ug/kg	
91-58-7	2-Chloronaphthalene	ND	390	46	ug/kg	
106-47-8	4-Chloroaniline	ND	980	70	ug/kg	
86-74-8	Carbazole	37300 [b]	3900	280	ug/kg	
105-60-2	Caprolactam	ND	390	77	ug/kg	
218-01-9	Chrysene	127000 [b]	2000	620	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	390	42	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	390	84	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	390	70	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	390	63	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	200	61	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	200	98	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	390	160	ug/kg	
123-91-1	1,4-Dioxane	ND	200	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	19700 [b]	2000	860	ug/kg	
132-64-9	Dibenzofuran	59200 [b]	3900	790	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	390	32	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-03
Lab Sample ID: JC96286-3 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 80.5
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
117-84-0	Di-n-octyl phthalate	ND	390	49	ug/kg	
84-66-2	Diethyl phthalate	ND	390	42	ug/kg	
131-11-3	Dimethyl phthalate	ND	390	35	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	390	46	ug/kg	
206-44-0	Fluoranthene	477000 [d]	9800	4400	ug/kg	
86-73-7	Fluorene	106000 [b]	2000	900	ug/kg	
118-74-1	Hexachlorobenzene	ND	390	49	ug/kg	
87-68-3	Hexachlorobutadiene [c]	ND	200	79	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2000	78	ug/kg	
67-72-1	Hexachloroethane [c]	ND	980	97	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	78500 [b]	2000	920	ug/kg	
78-59-1	Isophorone	ND	390	42	ug/kg	
91-57-6	2-Methylnaphthalene	46800 [b]	2000	440	ug/kg	
88-74-4	2-Nitroaniline [e]	ND	980	46	ug/kg	
99-09-2	3-Nitroaniline	ND	980	49	ug/kg	
100-01-6	4-Nitroaniline	ND	980	51	ug/kg	
91-20-3	Naphthalene	189000 [b]	2000	550	ug/kg	
98-95-3	Nitrobenzene	ND	390	75	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	390	56	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	980	71	ug/kg	
85-01-8	Phenanthrene	574000 [d]	9800	3300	ug/kg	
129-00-0	Pyrene	409000 [d]	9800	3100	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	980	50	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
4165-60-0	Nitrobenzene-d5	42%	39%	50%	26-134%
321-60-8	2-Fluorobiphenyl	49%	64%	51%	39-124%
1718-51-0	Terphenyl-d14	40%	79%	66%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Dibenzofuran, methyl-	7.80	9800	ug/kg	J
	unknown	13.17	10000	ug/kg	J
	unknown	13.27	21000	ug/kg	J
	unknown PAH substance	13.66	44000	ug/kg	J
	Dinaphtho[-d]furan	13.75	13000	ug/kg	J
	unknown PAH substance	13.86	58000	ug/kg	J
	unknown	14.22	22000	ug/kg	J
	unknown	14.25	11000	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-03		
Lab Sample ID:	JC96286-3	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	80.5
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	unknown	14.55	19000	ug/kg	J
	unknown	14.67	12000	ug/kg	J
	unknown PAH substance	14.94	11000	ug/kg	J
	unknown PAH substance	15.17	23000	ug/kg	J
	unknown PAH substance	15.47	13000	ug/kg	J
	unknown PAH substance	15.53	21000	ug/kg	J
	unknown PAH substance	15.91	28000	ug/kg	J
	Total TIC, Semi-Volatile		315800	ug/kg	J

(a) Dilution required due to viscosity of the extract matrix.
(b) Result is from Run# 2
(c) Associated CCV outside of control limits high, sample was ND.
(d) Result is from Run# 3
(e) Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-03		
Lab Sample ID:	JC96286-3	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	80.5
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P132195.D	1	10/09/19 16:19	AR	10/06/19 17:00	OP23173	EP5994
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol [a]	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol [a]	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	31%		14-88%
4165-62-2	Phenol-d5	21%		10-110%
118-79-6	2,4,6-Tribromophenol	69%		39-149%
4165-60-0	Nitrobenzene-d5	66%		32-128%
321-60-8	2-Fluorobiphenyl	55%		35-119%
1718-51-0	Terphenyl-d14	61%		10-126%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-03		
Lab Sample ID:	JC96286-3	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8151A SW846 3510C	**Percent Solids:**	80.5
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA142907.D	1	10/10/19 17:46	VDT	10/08/19 07:00	OP23176	GOA4941
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	52%		13-169%
19719-28-9	2,4-DCAA	51%		13-169%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-03
Lab Sample ID: JC96286-3 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8081B SW846 3510C **Percent Solids:** 80.5
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G68413.D	1	10/10/19 14:04	AB	10/10/19 06:30	OP23177	G6G2166
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane) [a]	0.00010	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	82%		30-137%
877-09-8	Tetrachloro-m-xylene	63%		30-137%
2051-24-3	Decachlorobiphenyl	83%		10-137%
2051-24-3	Decachlorobiphenyl	83%		10-137%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-03		
Lab Sample ID:	JC96286-3	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8082A SW846 3546	**Percent Solids:**	80.5
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G185133.D	10	10/08/19 22:16	TR	10/07/19 17:20	OP23188	G2G4791
Run #2							

	Initial Weight	Final Volume
Run #1	16.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	370	170	ug/kg	
11104-28-2	Aroclor 1221	ND	370	230	ug/kg	
11141-16-5	Aroclor 1232	ND	370	240	ug/kg	
53469-21-9	Aroclor 1242	ND	370	150	ug/kg	
12672-29-6	Aroclor 1248	ND	370	330	ug/kg	
11097-69-1	Aroclor 1254	ND	370	200	ug/kg	
11096-82-5	Aroclor 1260	ND	370	160	ug/kg	
11100-14-4	Aroclor 1268	ND	370	160	ug/kg	
37324-23-5	Aroclor 1262	ND	370	240	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	132%		31-146%
877-09-8	Tetrachloro-m-xylene	47%		31-146%
2051-24-3	Decachlorobiphenyl	2656% [b]		17-164%
2051-24-3	Decachlorobiphenyl	1926% [b]		17-164%

(a) Dilution required due to viscosity of the extract matrix.
(b) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-03
Lab Sample ID: JC96286-3
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 80.5

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Barium	< 1.0	D005	100	1.0	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Cadmium	0.020	D006	1.0	0.020	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Lead	< 0.50	D008	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	10/07/19	10/07/19	LL	SW846 7470A [1]	SW846 7470A [4]
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Silver	< 0.050	D011	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA47575
(2) Instrument QC Batch: MA47591
(3) Prep QC Batch: MP17719
(4) Prep QC Batch: MP17757

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID: SP1-03
Lab Sample ID: JC96286-3 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Percent Solids: 80.5
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.32 NC		su	1	10/10/19 11:35	RI	SW846 9045D
Cyanide	1.5	0.31	mg/kg	1	10/09/19 11:08	KI	SW846 9012B/LACHAT
Cyanide Reactivity	< 13	13	mg/kg	1	10/09/19 10:01	KI	SW846 CHAP7/9012 B
Heat Content, BTU	3440	100	BTU/lb	1	10/13/19	JOO	ASTM D240-92
Ignitability (Flashpoint)	> 200		Deg. F	1	10/10/19 12:00	RI	SW846 1010A/ASTM D93
Solids, Percent	80.5		%	1	10/07/19 17:00	BG	SM2540 G 18TH ED MOD
Sulfide Reactivity	< 130	130	mg/kg	1	10/09/19 13:04	CD	SW846 CHAP7/9034

RL = Reporting Limit

Report of Analysis

Client Sample ID: SP1-03
Lab Sample ID: JC96286-3A
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 80.5

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	11700	63	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Antimony	< 2.5	2.5	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Arsenic	14.8	2.5	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Barium	99.5	25	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Beryllium	0.94	0.25	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Cadmium	2.9	0.63	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Calcium	16400	630	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Chromium	55.7	1.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Cobalt	7.8	6.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Copper [a]	184	6.3	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Iron	35000	130	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Lead	159	2.5	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Magnesium	4580	630	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Manganese [a]	583	3.8	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Mercury	1.6	0.20	mg/kg	5	10/11/19	10/11/19	CH	SW846 7471B [2]	SW846 7471B [5]
Nickel	36.2	5.1	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Potassium	1470	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Selenium [a]	< 5.1	5.1	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Silver [a]	< 1.3	1.3	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Sodium	< 1300	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Sulfur	1630	13	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Thallium [a]	< 2.5	2.5	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Vanadium	23.8	6.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Zinc	438	6.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]

(1) Instrument QC Batch: MA47580
(2) Instrument QC Batch: MA47611
(3) Instrument QC Batch: MA47612
(4) Prep QC Batch: MP17721
(5) Prep QC Batch: MP17821

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID: SP1-04
Lab Sample ID: JC96286-4 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8260C **Percent Solids:** 77.5
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y187111.D	1	10/08/19 18:57	PS	n/a	n/a	VY8135
Run #2							

	Initial Weight
Run #1	9.0 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	7.2	2.9	ug/kg	
71-43-2	Benzene	ND	0.36	0.33	ug/kg	
74-97-5	Bromochloromethane	ND	3.6	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	1.4	0.32	ug/kg	
75-25-2	Bromoform	ND	3.6	0.41	ug/kg	
74-83-9	Bromomethane	ND	3.6	0.71	ug/kg	
78-93-3	2-Butanone (MEK)	ND	7.2	2.7	ug/kg	
75-15-0	Carbon disulfide	ND	1.4	0.67	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.4	0.44	ug/kg	
108-90-7	Chlorobenzene	ND	1.4	0.33	ug/kg	
75-00-3	Chloroethane	ND	3.6	0.42	ug/kg	
67-66-3	Chloroform	ND	1.4	0.35	ug/kg	
74-87-3	Chloromethane	ND	3.6	1.4	ug/kg	
110-82-7	Cyclohexane [a]	ND	1.4	0.47	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.4	0.60	ug/kg	
124-48-1	Dibromochloromethane	ND	1.4	0.40	ug/kg	
106-93-4	1,2-Dibromoethane	ND	0.72	0.30	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.72	0.39	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.72	0.36	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.72	0.35	ug/kg	
75-71-8	Dichlorodifluoromethane [a]	ND	3.6	0.52	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.72	0.35	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.72	0.34	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.72	0.47	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.72	0.60	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.72	0.44	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.4	0.34	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.4	0.34	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.4	0.33	ug/kg	
100-41-4	Ethylbenzene	ND	0.72	0.40	ug/kg	
76-13-1	Freon 113	ND	3.6	0.72	ug/kg	
591-78-6	2-Hexanone	ND	3.6	1.5	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-04		
Lab Sample ID:	JC96286-4	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C	**Percent Solids:**	77.5
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.4	0.50	ug/kg	
79-20-9	Methyl Acetate	ND	3.6	1.0	ug/kg	
108-87-2	Methylcyclohexane	ND	1.4	0.63	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.72	0.34	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	3.6	1.6	ug/kg	
75-09-2	Methylene chloride	ND	3.6	0.71	ug/kg	
100-42-5	Styrene	ND	1.4	0.41	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.4	0.43	ug/kg	
127-18-4	Tetrachloroethene	ND	1.4	0.42	ug/kg	
108-88-3	Toluene	ND	0.72	0.38	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	3.6	1.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3.6	1.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.4	0.35	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.4	0.40	ug/kg	
79-01-6	Trichloroethene	ND	0.72	0.55	ug/kg	
75-69-4	Trichlorofluoromethane [a]	ND	3.6	0.49	ug/kg	
75-01-4	Vinyl chloride [a]	ND	1.4	0.34	ug/kg	
	m,p-Xylene	ND	0.72	0.64	ug/kg	
95-47-6	o-Xylene	ND	0.72	0.42	ug/kg	
1330-20-7	Xylene (total)	ND	0.72	0.42	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	120%		75-127%
17060-07-0	1,2-Dichloroethane-D4	118%		75-130%
2037-26-5	Toluene-D8	109%		80-120%
460-00-4	4-Bromofluorobenzene	113%		79-127%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-04		
Lab Sample ID:	JC96286-4	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C SW846 1311	**Percent Solids:**	77.5
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149658.D	5	10/09/19 21:29	EH	10/05/19 19:00	GP24160	V3D6396
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	0.0033	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		64-135%
2037-26-5	Toluene-D8	103%		76-117%
460-00-4	4-Bromofluorobenzene	93%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-04		
Lab Sample ID:	JC96286-4	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	77.5
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5P63818.D	5	10/10/19 13:33	HSS	10/08/19 09:15	OP23169	E5P2993
Run #2	5P63826.D	250	10/10/19 16:48	HSS	10/08/19 09:15	OP23169	E5P2993

	Initial Weight	Final Volume
Run #1	31.0 g	1.0 ml
Run #2	31.0 g	1.0 ml

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	11000	210	72	ug/kg	
208-96-8	Acenaphthylene	60400 [b]	10000	5300	ug/kg	
98-86-2	Acetophenone	ND	1000	45	ug/kg	
120-12-7	Anthracene	52100 [b]	10000	6400	ug/kg	
1912-24-9	Atrazine [c]	ND	420	89	ug/kg	
56-55-3	Benzo(a)anthracene	119000 [b]	10000	2900	ug/kg	
50-32-8	Benzo(a)pyrene	126000 [b]	10000	4700	ug/kg	
205-99-2	Benzo(b)fluoranthene	148000 [b]	10000	4600	ug/kg	
191-24-2	Benzo(g,h,i)perylene	72600 [b]	10000	5200	ug/kg	
207-08-9	Benzo(k)fluoranthene	45200 [b]	10000	4900	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	420	80	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	420	51	ug/kg	
92-52-4	1,1'-Biphenyl	1350	420	29	ug/kg	
100-52-7	Benzaldehyde	ND	1000	52	ug/kg	
91-58-7	2-Chloronaphthalene	ND	420	50	ug/kg	
106-47-8	4-Chloroaniline	ND	1000	75	ug/kg	
86-74-8	Carbazole	4210	420	30	ug/kg	
105-60-2	Caprolactam	ND	420	82	ug/kg	
218-01-9	Chrysene	104000 [b]	10000	3300	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	420	45	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	420	90	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	420	75	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	420	67	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	210	65	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	210	100	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	420	170	ug/kg	
123-91-1	1,4-Dioxane	ND	210	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	19200	210	92	ug/kg	
132-64-9	Dibenzofuran	7810	420	85	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	420	34	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	420	52	ug/kg	
84-66-2	Diethyl phthalate	ND	420	44	ug/kg	

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-04
Lab Sample ID: JC96286-4 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 77.5
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
131-11-3	Dimethyl phthalate	ND	420	37	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	420	49	ug/kg	
206-44-0	Fluoranthene	225000 [b]	10000	4600	ug/kg	
86-73-7	Fluorene	16200	210	96	ug/kg	
118-74-1	Hexachlorobenzene	ND	420	53	ug/kg	
87-68-3	Hexachlorobutadiene [c]	ND	210	84	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2100	83	ug/kg	
67-72-1	Hexachloroethane [c]	ND	1000	100	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	82700 [b]	10000	4900	ug/kg	
78-59-1	Isophorone	ND	420	45	ug/kg	
91-57-6	2-Methylnaphthalene	4770	210	47	ug/kg	
88-74-4	2-Nitroaniline [d]	ND	1000	49	ug/kg	
99-09-2	3-Nitroaniline	ND	1000	52	ug/kg	
100-01-6	4-Nitroaniline	ND	1000	54	ug/kg	
91-20-3	Naphthalene	20800	210	59	ug/kg	
98-95-3	Nitrobenzene	ND	420	80	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	420	60	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1000	76	ug/kg	
85-01-8	Phenanthrene	133000 [b]	10000	3500	ug/kg	
129-00-0	Pyrene	194000 [b]	10000	3300	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1000	53	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	50%	53%	26-134%
321-60-8	2-Fluorobiphenyl	57%	63%	39-124%
1718-51-0	Terphenyl-d14	48%	75%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	unknown	13.28	11000	ug/kg	J
	unknown	13.35	9100	ug/kg	J
	unknown PAH substance	13.65	43000	ug/kg	J
	Dinaphtho[-d]furan	13.75	13000	ug/kg	J
	unknown PAH substance	13.86	59000	ug/kg	J
	unknown	14.22	20000	ug/kg	J
	unknown	14.25	10000	ug/kg	J
	unknown	14.55	18000	ug/kg	J
	unknown	14.67	10000	ug/kg	J
	unknown PAH substance	14.94	9900	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-04		
Lab Sample ID:	JC96286-4	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	77.5
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	unknown	15.01	8500	ug/kg	J
	unknown PAH substance	15.17	23000	ug/kg	J
	unknown PAH substance	15.47	12000	ug/kg	J
	unknown PAH substance	15.52	22000	ug/kg	J
	unknown PAH substance	15.90	30000	ug/kg	J
	Total TIC, Semi-Volatile		298500	ug/kg	J

(a) Dilution required due to viscosity of the extract matrix.
(b) Result is from Run# 2
(c) Associated CCV outside of control limits high, sample was ND.
(d) Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-04		
Lab Sample ID:	JC96286-4	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	77.5
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P132196.D	1	10/09/19 16:46	AR	10/06/19 17:00	OP23173	EP5994
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol [a]	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol [a]	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	33%		14-88%
4165-62-2	Phenol-d5	24%		10-110%
118-79-6	2,4,6-Tribromophenol	72%		39-149%
4165-60-0	Nitrobenzene-d5	68%		32-128%
321-60-8	2-Fluorobiphenyl	59%		35-119%
1718-51-0	Terphenyl-d14	61%		10-126%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-04		
Lab Sample ID:	JC96286-4	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8151A SW846 3510C	**Percent Solids:**	77.5
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA142908.D	1	10/10/19 18:15	VDT	10/08/19 07:00	OP23176	GOA4941
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	51%		13-169%
19719-28-9	2,4-DCAA	47%		13-169%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-04		
Lab Sample ID:	JC96286-4	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	77.5
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G68414.D	1	10/10/19 14:22	AB	10/10/19 06:30	OP23177	G6G2166
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		30-137%
877-09-8	Tetrachloro-m-xylene	79%		30-137%
2051-24-3	Decachlorobiphenyl	81%		10-137%
2051-24-3	Decachlorobiphenyl	81%		10-137%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-04		
Lab Sample ID:	JC96286-4	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8082A SW846 3546	**Percent Solids:**	77.5
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G185138.D	10	10/09/19 00:01	TR	10/07/19 17:20	OP23188	G2G4791
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	410	190	ug/kg	
11104-28-2	Aroclor 1221	ND	410	250	ug/kg	
11141-16-5	Aroclor 1232	ND	410	260	ug/kg	
53469-21-9	Aroclor 1242	ND	410	170	ug/kg	
12672-29-6	Aroclor 1248	2820	410	360	ug/kg	
11097-69-1	Aroclor 1254	ND	410	220	ug/kg	
11096-82-5	Aroclor 1260	ND	410	170	ug/kg	
11100-14-4	Aroclor 1268	ND	410	170	ug/kg	
37324-23-5	Aroclor 1262	ND	410	270	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		31-146%
877-09-8	Tetrachloro-m-xylene	48%		31-146%
2051-24-3	Decachlorobiphenyl	3853% [b]		17-164%
2051-24-3	Decachlorobiphenyl	2228% [b]		17-164%

(a) Dilution required due to viscosity of the extract matrix.
(b) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-04
Lab Sample ID: JC96286-4
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 77.5

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Barium	< 1.0	D005	100	1.0	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Cadmium	< 0.020	D006	1.0	0.020	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Lead	< 0.50	D008	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	10/07/19	10/07/19	LL	SW846 7470A [1]	SW846 7470A [4]
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Silver	< 0.050	D011	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA47575
(2) Instrument QC Batch: MA47591
(3) Prep QC Batch: MP17719
(4) Prep QC Batch: MP17757

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID: SP1-04
Lab Sample ID: JC96286-4
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 77.5

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.43 NC		su	1	10/10/19 11:38	RI	SW846 9045D
Cyanide	8.6	0.34	mg/kg	1	10/09/19 11:09	KI	SW846 9012B/LACHAT
Cyanide Reactivity	< 13	13	mg/kg	1	10/09/19 10:03	KI	SW846 CHAP7/9012 B
Heat Content, BTU	3630	100	BTU/lb	1	10/13/19	JOO	ASTM D240-92
Ignitability (Flashpoint)	> 200		Deg. F	1	10/10/19 12:00	RI	SW846 1010A/ASTM D93
Solids, Percent	77.5		%	1	10/07/19 17:00	BG	SM2540 G 18TH ED MOD
Sulfide Reactivity	< 130	130	mg/kg	1	10/09/19 13:04	CD	SW846 CHAP7/9034

RL = Reporting Limit

Report of Analysis

Client Sample ID: SP1-04
Lab Sample ID: JC96286-4A
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 77.5

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	9230	67	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Antimony	17.5	2.7	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Arsenic	12.9	2.7	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Barium	93.9	27	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Beryllium	0.81	0.27	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Cadmium	3.2	0.67	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Calcium	22500	670	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Chromium	45.8	1.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Cobalt	8.1	6.7	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Copper	93.1	3.4	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Iron	26200	67	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Lead	190	2.7	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Magnesium	5440	670	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Manganese	579	2.0	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Mercury	3.4	0.41	mg/kg	10	10/11/19	10/11/19	CH	SW846 7471B [2]	SW846 7471B [4]
Nickel	32.7	5.4	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Potassium	1540	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Selenium	< 2.7	2.7	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Silver	2.2	0.67	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Sodium	< 1300	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Sulfur	2610	13	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Thallium	< 1.3	1.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Vanadium	27.0	6.7	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]
Zinc	410	6.7	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA47580
(2) Instrument QC Batch: MA47611
(3) Prep QC Batch: MP17721
(4) Prep QC Batch: MP17821

RL = Reporting Limit

Report of Analysis

Client Sample ID: SP1-05
Lab Sample ID: JC96286-5 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8260C **Percent Solids:** 77.9
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Y187116.D	1	10/08/19 21:19	PS	n/a	n/a	VY8135
Run #2							

	Initial Weight
Run #1	5.7 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	4.5	ug/kg	
71-43-2	Benzene	0.54	0.56	0.51	ug/kg	J
74-97-5	Bromochloromethane	ND	5.6	0.63	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.50	ug/kg	
75-25-2	Bromoform	ND	5.6	0.65	ug/kg	
74-83-9	Bromomethane	ND	5.6	1.1	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	4.2	ug/kg	
75-15-0	Carbon disulfide	ND	2.3	1.0	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.70	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.52	ug/kg	
75-00-3	Chloroethane	ND	5.6	0.67	ug/kg	
67-66-3	Chloroform	ND	2.3	0.55	ug/kg	
74-87-3	Chloromethane	ND	5.6	2.2	ug/kg	
110-82-7	Cyclohexane [b]	ND	2.3	0.74	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.3	0.94	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.63	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.1	0.47	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.1	0.61	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.1	0.56	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.1	0.56	ug/kg	
75-71-8	Dichlorodifluoromethane [b]	ND	5.6	0.82	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.1	0.56	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.1	0.53	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.1	0.74	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.1	0.95	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.1	0.69	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.53	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.53	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.51	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.62	ug/kg	
76-13-1	Freon 113	ND	5.6	1.1	ug/kg	
591-78-6	2-Hexanone	ND	5.6	2.4	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-05		
Lab Sample ID:	JC96286-5	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C	**Percent Solids:**	77.9
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.3	0.78	ug/kg	
79-20-9	Methyl Acetate	ND	5.6	1.6	ug/kg	
108-87-2	Methylcyclohexane	ND	2.3	0.99	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.53	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.6	2.6	ug/kg	
75-09-2	Methylene chloride	ND	5.6	1.1	ug/kg	
100-42-5	Styrene	ND	2.3	0.65	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.67	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.65	ug/kg	
108-88-3	Toluene	ND	1.1	0.59	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.6	2.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.6	1.7	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.54	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.62	ug/kg	
79-01-6	Trichloroethene	ND	1.1	0.86	ug/kg	
75-69-4	Trichlorofluoromethane [b]	ND	5.6	0.77	ug/kg	
75-01-4	Vinyl chloride [b]	ND	2.3	0.54	ug/kg	
	m,p-Xylene	ND	1.1	1.0	ug/kg	
95-47-6	o-Xylene	ND	1.1	0.66	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.66	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	120%		75-127%
17060-07-0	1,2-Dichloroethane-D4	111%		75-130%
2037-26-5	Toluene-D8	106%		80-120%
460-00-4	4-Bromofluorobenzene	106%		79-127%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
496-11-7	Indane	16.53	26	ug/kg	JN
95-13-6	Indene	16.76	6.3	ug/kg	JN
91-20-3	Naphthalene	18.58	140	ug/kg	JN
91-57-6	Naphthalene, 2-methyl-	19.82	38	ug/kg	JN
	Naphthalene, methyl- isomer	20.03	31	ug/kg	J
	Total TIC, Volatile		241.3	ug/kg	J

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory out of hold time.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-05
Lab Sample ID: JC96286-5 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8260C SW846 1311 **Percent Solids:** 77.9
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149659.D	5	10/09/19 21:54	EH	10/05/19 19:00	GP24160	V3D6396
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	0.0036	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	106%		64-135%
2037-26-5	Toluene-D8	92%		76-117%
460-00-4	4-Bromofluorobenzene	103%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-05
Lab Sample ID: JC96286-5 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 77.9
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5P63819.D	5	10/10/19 13:57	HSS	10/08/19 09:15	OP23169	E5P2993
Run #2	5P63827.D	250	10/10/19 17:12	HSS	10/08/19 09:15	OP23169	E5P2993

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2	30.6 g	1.0 ml

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	11900	210	72	ug/kg	
208-96-8	Acenaphthylene	80400 [b]	10000	5300	ug/kg	
98-86-2	Acetophenone	ND	1000	45	ug/kg	
120-12-7	Anthracene	76500 [b]	10000	6400	ug/kg	
1912-24-9	Atrazine [c]	ND	420	90	ug/kg	
56-55-3	Benzo(a)anthracene	165000 [b]	10000	3000	ug/kg	
50-32-8	Benzo(a)pyrene	165000 [b]	10000	4800	ug/kg	
205-99-2	Benzo(b)fluoranthene	196000 [b]	10000	4600	ug/kg	
191-24-2	Benzo(g,h,i)perylene	97200 [b]	10000	5200	ug/kg	
207-08-9	Benzo(k)fluoranthene	77800 [b]	10000	4900	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	420	81	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	420	51	ug/kg	
92-52-4	1,1'-Biphenyl	1500	420	29	ug/kg	
100-52-7	Benzaldehyde	ND	1000	52	ug/kg	
91-58-7	2-Chloronaphthalene	ND	420	50	ug/kg	
106-47-8	4-Chloroaniline	ND	1000	76	ug/kg	
86-74-8	Carbazole	4450	420	30	ug/kg	
105-60-2	Caprolactam	ND	420	83	ug/kg	
218-01-9	Chrysene	150000 [b]	10000	3300	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	420	45	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	420	90	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	420	75	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	420	68	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	210	65	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	210	110	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	420	170	ug/kg	
123-91-1	1,4-Dioxane	ND	210	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	23600 [b]	10000	4600	ug/kg	
132-64-9	Dibenzofuran	8710	420	85	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	420	34	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	420	52	ug/kg	
84-66-2	Diethyl phthalate	ND	420	45	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-05		
Lab Sample ID:	JC96286-5	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	77.9
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
131-11-3	Dimethyl phthalate	ND	420	37	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	420	49	ug/kg	
206-44-0	Fluoranthene	362000 [b]	10000	4700	ug/kg	
86-73-7	Fluorene	18700	210	96	ug/kg	
118-74-1	Hexachlorobenzene	ND	420	53	ug/kg	
87-68-3	Hexachlorobutadiene [c]	ND	210	84	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2100	83	ug/kg	
67-72-1	Hexachloroethane [c]	ND	1000	100	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	104000 [b]	10000	4900	ug/kg	
78-59-1	Isophorone	ND	420	45	ug/kg	
91-57-6	2-Methylnaphthalene	4230	210	47	ug/kg	
88-74-4	2-Nitroaniline [d]	ND	1000	50	ug/kg	
99-09-2	3-Nitroaniline	ND	1000	52	ug/kg	
100-01-6	4-Nitroaniline	ND	1000	54	ug/kg	
91-20-3	Naphthalene	18000	210	59	ug/kg	
98-95-3	Nitrobenzene	ND	420	81	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	420	61	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1000	77	ug/kg	
85-01-8	Phenanthrene	174000 [b]	10000	3500	ug/kg	
129-00-0	Pyrene	297000 [b]	10000	3400	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1000	53	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	52%	58%	26-134%
321-60-8	2-Fluorobiphenyl	68%	74%	39-124%
1718-51-0	Terphenyl-d14	54%	85%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	unknown	13.29	18000	ug/kg	J
	unknown	13.36	16000	ug/kg	J
	unknown PAH substance	13.68	52000	ug/kg	J
	Dinaphtho[-d]furan	13.77	15000	ug/kg	J
	unknown PAH substance	13.88	68000	ug/kg	J
	unknown	14.22	15000	ug/kg	J
	unknown	14.27	13000	ug/kg	J
	unknown	14.58	21000	ug/kg	J
	unknown	14.69	11000	ug/kg	J
	unknown PAH substance	14.96	11000	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-05		
Lab Sample ID:	JC96286-5	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	77.9
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	unknown	15.03	9900	ug/kg	J
	unknown PAH substance	15.19	25000	ug/kg	J
	unknown PAH substance	15.50	13000	ug/kg	J
	unknown PAH substance	15.55	23000	ug/kg	J
	unknown PAH substance	15.94	29000	ug/kg	J
	Total TIC, Semi-Volatile		339900	ug/kg	J

(a) Dilution required due to viscosity of the extract matrix.
(b) Result is from Run# 2
(c) Associated CCV outside of control limits high, sample was ND.
(d) Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-05		
Lab Sample ID:	JC96286-5	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	77.9
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P132197.D	1	10/09/19 17:13	AR	10/06/19 17:00	OP23173	EP5994
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol [a]	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol [a]	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		14-88%
4165-62-2	Phenol-d5	24%		10-110%
118-79-6	2,4,6-Tribromophenol	75%		39-149%
4165-60-0	Nitrobenzene-d5	68%		32-128%
321-60-8	2-Fluorobiphenyl	62%		35-119%
1718-51-0	Terphenyl-d14	65%		10-126%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-05		
Lab Sample ID:	JC96286-5	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8151A SW846 3510C	**Percent Solids:**	77.9
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA142909.D	1	10/10/19 18:43	VDT	10/08/19 07:00	OP23176	GOA4941
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	53%		13-169%
19719-28-9	2,4-DCAA	48%		13-169%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-05		
Lab Sample ID:	JC96286-5	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	77.9
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	8G26692.D	1	10/10/19 13:24	AB	10/10/19 06:30	OP23177	G8G948
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane) [a]	0.00030	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		30-137%
877-09-8	Tetrachloro-m-xylene	90%		30-137%
2051-24-3	Decachlorobiphenyl	90%		10-137%
2051-24-3	Decachlorobiphenyl	84%		10-137%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-05		
Lab Sample ID:	JC96286-5	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8082A SW846 3546	**Percent Solids:**	77.9
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G185139.D	10	10/09/19 00:18	TR	10/07/19 17:20	OP23188	G2G4791
Run #2							

	Initial Weight	Final Volume
Run #1	16.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	400	190	ug/kg	
11104-28-2	Aroclor 1221	ND	400	250	ug/kg	
11141-16-5	Aroclor 1232	ND	400	260	ug/kg	
53469-21-9	Aroclor 1242	ND	400	160	ug/kg	
12672-29-6	Aroclor 1248	ND	400	360	ug/kg	
11097-69-1	Aroclor 1254	ND	400	220	ug/kg	
11096-82-5	Aroclor 1260	ND	400	170	ug/kg	
11100-14-4	Aroclor 1268	ND	400	170	ug/kg	
37324-23-5	Aroclor 1262	ND	400	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	121%		31-146%
877-09-8	Tetrachloro-m-xylene	200% [b]		31-146%
2051-24-3	Decachlorobiphenyl	6081% [b]		17-164%
2051-24-3	Decachlorobiphenyl	3166% [b]		17-164%

(a) Dilution required due to viscosity of the extract matrix.
(b) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-05
Lab Sample ID: JC96286-5
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 77.9

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Barium	< 1.0	D005	100	1.0	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Cadmium	< 0.020	D006	1.0	0.020	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Lead	< 0.50	D008	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	10/07/19	10/07/19	LL	SW846 7470A [1]	SW846 7470A [4]
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Silver	< 0.050	D011	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA47575
(2) Instrument QC Batch: MA47591
(3) Prep QC Batch: MP17719
(4) Prep QC Batch: MP17757

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID: SP1-05
Lab Sample ID: JC96286-5 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Percent Solids: 77.9
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.48 NC		su	1	10/10/19 11:40	RI	SW846 9045D
Cyanide	7.5	0.28	mg/kg	1	10/09/19 11:13	KI	SW846 9012B/LACHAT
Cyanide Reactivity	< 13	13	mg/kg	1	10/09/19 10:04	KI	SW846 CHAP7/9012 B
Heat Content, BTU	4750	100	BTU/lb	1	10/13/19	JOO	ASTM D240-92
Ignitability (Flashpoint)	> 200		Deg. F	1	10/10/19 12:00	RI	SW846 1010A/ASTM D93
Solids, Percent	77.9		%	1	10/07/19 17:00	BG	SM2540 G 18TH ED MOD
Sulfide Reactivity	< 130	130	mg/kg	1	10/09/19 13:04	CD	SW846 CHAP7/9034

RL = Reporting Limit

Report of Analysis

Client Sample ID: SP1-05
Lab Sample ID: JC96286-5A
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 77.9

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	11500	62	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Antimony	< 2.5	2.5	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Arsenic	13.4	2.5	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Barium	94.0	25	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Beryllium	0.80	0.25	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Cadmium	2.9	0.62	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Calcium	14000	620	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Chromium	57.4	1.2	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Cobalt	8.1	6.2	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Copper [a]	111	6.2	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Iron	32300	120	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Lead	157	2.5	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Magnesium	4430	620	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Manganese [a]	525	3.7	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Mercury	4.4	0.43	mg/kg	10	10/11/19	10/11/19	CH	SW846 7471B [2]	SW846 7471B [5]
Nickel	32.9	4.9	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Potassium	1690	1200	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Selenium [a]	< 4.9	4.9	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Silver [a]	2.8	1.2	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Sodium	< 1200	1200	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Sulfur	2440	12	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Thallium [a]	< 2.5	2.5	mg/kg	2	10/07/19	10/11/19	ND	SW846 6010D [3]	SW846 3050B [4]
Vanadium	31.0	6.2	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]
Zinc	546	6.2	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [1]	SW846 3050B [4]

(1) Instrument QC Batch: MA47580
(2) Instrument QC Batch: MA47611
(3) Instrument QC Batch: MA47612
(4) Prep QC Batch: MP17721
(5) Prep QC Batch: MP17821

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SP1-06		
Lab Sample ID:	JC96286-6	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C	**Percent Solids:**	79.0
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y187112.D	1	10/08/19 19:25	PS	n/a	n/a	VY8135
Run #2							

	Initial Weight
Run #1	8.5 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	7.4	3.0	ug/kg	
71-43-2	Benzene	ND	0.37	0.34	ug/kg	
74-97-5	Bromochloromethane	ND	3.7	0.42	ug/kg	
75-27-4	Bromodichloromethane	ND	1.5	0.33	ug/kg	
75-25-2	Bromoform	ND	3.7	0.43	ug/kg	
74-83-9	Bromomethane	ND	3.7	0.74	ug/kg	
78-93-3	2-Butanone (MEK)	ND	7.4	2.8	ug/kg	
75-15-0	Carbon disulfide	ND	1.5	0.69	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.5	0.46	ug/kg	
108-90-7	Chlorobenzene	ND	1.5	0.34	ug/kg	
75-00-3	Chloroethane	ND	3.7	0.44	ug/kg	
67-66-3	Chloroform	ND	1.5	0.36	ug/kg	
74-87-3	Chloromethane	ND	3.7	1.5	ug/kg	
110-82-7	Cyclohexane [a]	ND	1.5	0.49	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.5	0.62	ug/kg	
124-48-1	Dibromochloromethane	ND	1.5	0.42	ug/kg	
106-93-4	1,2-Dibromoethane	ND	0.74	0.31	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.74	0.41	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.74	0.37	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.74	0.37	ug/kg	
75-71-8	Dichlorodifluoromethane [a]	ND	3.7	0.54	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.74	0.37	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.74	0.35	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.74	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.74	0.63	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.74	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.5	0.35	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	0.35	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	0.34	ug/kg	
100-41-4	Ethylbenzene	ND	0.74	0.41	ug/kg	
76-13-1	Freon 113	ND	3.7	0.75	ug/kg	
591-78-6	2-Hexanone	ND	3.7	1.6	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-06		
Lab Sample ID:	JC96286-6	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C	**Percent Solids:**	79.0
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.5	0.52	ug/kg	
79-20-9	Methyl Acetate	ND	3.7	1.0	ug/kg	
108-87-2	Methylcyclohexane	ND	1.5	0.65	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.74	0.35	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	3.7	1.7	ug/kg	
75-09-2	Methylene chloride	ND	3.7	0.74	ug/kg	
100-42-5	Styrene	ND	1.5	0.43	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	1.5	0.43	ug/kg	
108-88-3	Toluene	ND	0.74	0.39	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	3.7	1.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3.7	1.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.5	0.36	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.41	ug/kg	
79-01-6	Trichloroethene	ND	0.74	0.57	ug/kg	
75-69-4	Trichlorofluoromethane [a]	ND	3.7	0.51	ug/kg	
75-01-4	Vinyl chloride [a]	ND	1.5	0.36	ug/kg	
	m,p-Xylene	ND	0.74	0.67	ug/kg	
95-47-6	o-Xylene	ND	0.74	0.43	ug/kg	
1330-20-7	Xylene (total)	ND	0.74	0.43	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	122%		75-127%
17060-07-0	1,2-Dichloroethane-D4	116%		75-130%
2037-26-5	Toluene-D8	108%		80-120%
460-00-4	4-Bromofluorobenzene	117%		79-127%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-06		
Lab Sample ID:	JC96286-6	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	79.0
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5P63820.D	5	10/10/19 14:22	HSS	10/08/19 09:15	OP23169	E5P2993
Run #2	5P63828.D	250	10/10/19 17:37	HSS	10/08/19 09:15	OP23169	E5P2993

	Initial Weight	Final Volume
Run #1	30.4 g	1.0 ml
Run #2	30.4 g	1.0 ml

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	11500	210	72	ug/kg	
208-96-8	Acenaphthylene	73100 [b]	10000	5300	ug/kg	
98-86-2	Acetophenone	ND	1000	45	ug/kg	
120-12-7	Anthracene	64900 [b]	10000	6400	ug/kg	
1912-24-9	Atrazine [c]	ND	420	89	ug/kg	
56-55-3	Benzo(a)anthracene	142000 [b]	10000	2900	ug/kg	
50-32-8	Benzo(a)pyrene	150000 [b]	10000	4700	ug/kg	
205-99-2	Benzo(b)fluoranthene	181000 [b]	10000	4600	ug/kg	
191-24-2	Benzo(g,h,i)perylene	87500 [b]	10000	5200	ug/kg	
207-08-9	Benzo(k)fluoranthene	62000 [b]	10000	4900	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	420	80	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	420	51	ug/kg	
92-52-4	1,1'-Biphenyl	1300	420	29	ug/kg	
100-52-7	Benzaldehyde	ND	1000	52	ug/kg	
91-58-7	2-Chloronaphthalene	ND	420	50	ug/kg	
106-47-8	4-Chloroaniline	ND	1000	75	ug/kg	
86-74-8	Carbazole	4480	420	30	ug/kg	
105-60-2	Caprolactam	ND	420	82	ug/kg	
218-01-9	Chrysene	129000 [b]	10000	3300	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	420	45	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	420	90	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	420	75	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	420	67	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	210	65	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	210	100	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	420	170	ug/kg	
123-91-1	1,4-Dioxane	ND	210	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	27300 [b]	10000	4600	ug/kg	
132-64-9	Dibenzofuran	7050	420	85	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	420	34	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	420	52	ug/kg	
84-66-2	Diethyl phthalate	ND	420	44	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-06		
Lab Sample ID:	JC96286-6	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	79.0
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
131-11-3	Dimethyl phthalate	ND	420	37	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	420	49	ug/kg	
206-44-0	Fluoranthene	293000 [b]	10000	4600	ug/kg	
86-73-7	Fluorene	15300	210	96	ug/kg	
118-74-1	Hexachlorobenzene	ND	420	53	ug/kg	
87-68-3	Hexachlorobutadiene [c]	ND	210	84	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2100	83	ug/kg	
67-72-1	Hexachloroethane [c]	ND	1000	100	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	99500 [b]	10000	4900	ug/kg	
78-59-1	Isophorone	ND	420	45	ug/kg	
91-57-6	2-Methylnaphthalene	4250	210	47	ug/kg	
88-74-4	2-Nitroaniline [d]	ND	1000	49	ug/kg	
99-09-2	3-Nitroaniline	ND	1000	52	ug/kg	
100-01-6	4-Nitroaniline	ND	1000	54	ug/kg	
91-20-3	Naphthalene	19400	210	59	ug/kg	
98-95-3	Nitrobenzene	ND	420	80	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	420	60	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1000	76	ug/kg	
85-01-8	Phenanthrene	127000 [b]	10000	3500	ug/kg	
129-00-0	Pyrene	268000 [b]	10000	3300	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1000	53	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	45%	52%	26-134%
321-60-8	2-Fluorobiphenyl	59%	76%	39-124%
1718-51-0	Terphenyl-d14	45%	79%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
7320-53-8	Dibenzofuran, methyl-	7.80	6500	ug/kg	JN
	unknown	13.29	12000	ug/kg	J
	unknown	13.36	7100	ug/kg	J
	unknown PAH substance	13.69	60000	ug/kg	J
	Dinaphtho[-d]furan	13.77	9400	ug/kg	J
	unknown PAH substance	13.88	68000	ug/kg	J
	unknown	14.24	21000	ug/kg	J
	unknown	14.28	11000	ug/kg	J
	unknown	14.58	16000	ug/kg	J
	unknown	14.96	6600	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-06		
Lab Sample ID:	JC96286-6	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	79.0
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	unknown PAH substance	15.20	18000	ug/kg	J
	unknown PAH substance	15.51	11000	ug/kg	J
	unknown PAH substance	15.56	14000	ug/kg	J
	unknown PAH substance	15.95	28000	ug/kg	J
	unknown	16.68	8200	ug/kg	J
	Total TIC, Semi-Volatile		296800	ug/kg	J

(a) Dilution required due to viscosity of the extract matrix.
(b) Result is from Run# 2
(c) Associated CCV outside of control limits high, sample was ND.
(d) Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.

Report of Analysis

Client Sample ID:	SP1-06		
Lab Sample ID:	JC96286-6	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8082A SW846 3546	**Percent Solids:**	79.0
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G185140.D	10	10/09/19 00:35	TR	10/07/19 17:20	OP23188	G2G4791
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	410	190	ug/kg	
11104-28-2	Aroclor 1221	ND	410	250	ug/kg	
11141-16-5	Aroclor 1232	ND	410	260	ug/kg	
53469-21-9	Aroclor 1242	ND	410	170	ug/kg	
12672-29-6	Aroclor 1248	ND	410	360	ug/kg	
11097-69-1	Aroclor 1254	ND	410	220	ug/kg	
11096-82-5	Aroclor 1260	ND	410	170	ug/kg	
11100-14-4	Aroclor 1268	ND	410	170	ug/kg	
37324-23-5	Aroclor 1262	ND	410	270	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		31-146%
877-09-8	Tetrachloro-m-xylene	49%		31-146%
2051-24-3	Decachlorobiphenyl	4697% [b]		17-164%
2051-24-3	Decachlorobiphenyl	2821% [b]		17-164%

(a) Dilution required due to viscosity of the extract matrix.
(b) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-06
Lab Sample ID: JC96286-6
Matrix: SO - Soil
Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 79.0
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	11500	66	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Antimony	3.7	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Arsenic	12.3	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Barium	111	26	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Beryllium	0.83	0.26	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Cadmium	3.0	0.66	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Calcium	16100	660	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Chromium	54.4	1.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Cobalt	8.1	6.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Copper [a]	369	6.6	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Iron	28900	130	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Lead	238	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Magnesium	5010	660	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Manganese [a]	652	4.0	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Mercury	3.7	0.41	mg/kg	10	10/07/19	10/07/19	CH	SW846 7471B [1]	SW846 7471B [5]
Nickel	36.2	5.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Potassium	1720	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Selenium [a]	< 5.3	5.3	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Silver [a]	1.5	1.3	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Sodium	< 1300	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Sulfur	2600	13	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Thallium [a]	< 2.6	2.6	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Vanadium	31.5	6.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Zinc	460	6.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]

(1) Instrument QC Batch: MA47576
(2) Instrument QC Batch: MA47580
(3) Instrument QC Batch: MA47590
(4) Prep QC Batch: MP17721
(5) Prep QC Batch: MP17750

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SP1-06		
Lab Sample ID:	JC96286-6	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
		Percent Solids:	79.0
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	5.3	0.35	mg/kg	1	10/09/19 11:15	KI	SW846 9012B/LACHAT
Heat Content, BTU	2410	100	BTU/lb	1	10/13/19	JOO	ASTM D240-92
Solids, Percent	79		%	1	10/07/19 17:00	BG	SM2540 G 18TH ED MOD

RL = Reporting Limit

Report of Analysis

Client Sample ID: SP1-06
Lab Sample ID: JC96286-6A **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8260C SW846 1311 **Percent Solids:** 79.0
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149660.D	5	10/09/19 22:19	EH	10/05/19 19:00	GP24160	V3D6396
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	0.0056	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		64-135%
2037-26-5	Toluene-D8	88%		76-117%
460-00-4	4-Bromofluorobenzene	93%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-06		
Lab Sample ID:	JC96286-6A	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	79.0
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P132198.D	1	10/09/19 17:40	AR	10/06/19 17:00	OP23173	EP5994
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol [a]	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol [a]	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	31%		14-88%
4165-62-2	Phenol-d5	25%		10-110%
118-79-6	2,4,6-Tribromophenol	92%		39-149%
4165-60-0	Nitrobenzene-d5	68%		32-128%
321-60-8	2-Fluorobiphenyl	61%		35-119%
1718-51-0	Terphenyl-d14	67%		10-126%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-06		
Lab Sample ID:	JC96286-6A	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8151A SW846 3510C	**Percent Solids:**	79.0
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA142910.D	1	10/10/19 19:12	VDT	10/08/19 07:00	OP23176	GOA4941
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	62%		13-169%
19719-28-9	2,4-DCAA	55%		13-169%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-06
Lab Sample ID: JC96286-6A **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8081B SW846 3510C **Percent Solids:** 79.0
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	8G26693.D	1	10/10/19 13:42	AB	10/10/19 06:30	OP23177	G8G948
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		30-137%
877-09-8	Tetrachloro-m-xylene	88%		30-137%
2051-24-3	Decachlorobiphenyl	90%		10-137%
2051-24-3	Decachlorobiphenyl	81%		10-137%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-06
Lab Sample ID: JC96286-6A
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 79.0

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Barium	< 1.0	D005	100	1.0	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Cadmium	< 0.020	D006	1.0	0.020	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Lead	< 0.50	D008	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	10/07/19	10/07/19	LL	SW846 7470A [1]	SW846 7470A [4]
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Silver	< 0.050	D011	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA47575
(2) Instrument QC Batch: MA47591
(3) Prep QC Batch: MP17719
(4) Prep QC Batch: MP17757

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID:	SP1-06		
Lab Sample ID:	JC96286-6A	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
		Percent Solids:	79.0
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.48 NC		su	1	10/10/19 11:43	RI	SW846 9045D
Cyanide Reactivity	< 13	13	mg/kg	1	10/09/19 10:08	KI	SW846 CHAP7/9012 B
Ignitability (Flashpoint)	> 200		Deg. F	1	10/10/19 12:00	RI	SW846 1010A/ASTM D93
Sulfide Reactivity	< 130	130	mg/kg	1	10/09/19 13:04	CD	SW846 CHAP7/9034

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SP2-01		
Lab Sample ID:	JC96286-7	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C	**Percent Solids:**	80.8
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y187113.D	1	10/08/19 19:54	PS	n/a	n/a	VY8135
Run #2							

	Initial Weight
Run #1	7.7 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	8.0	3.2	ug/kg	
71-43-2	Benzene	ND	0.40	0.37	ug/kg	
74-97-5	Bromochloromethane	ND	4.0	0.45	ug/kg	
75-27-4	Bromodichloromethane	ND	1.6	0.36	ug/kg	
75-25-2	Bromoform	ND	4.0	0.46	ug/kg	
74-83-9	Bromomethane	ND	4.0	0.80	ug/kg	
78-93-3	2-Butanone (MEK)	ND	8.0	3.0	ug/kg	
75-15-0	Carbon disulfide	ND	1.6	0.75	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.6	0.50	ug/kg	
108-90-7	Chlorobenzene	ND	1.6	0.37	ug/kg	
75-00-3	Chloroethane	ND	4.0	0.47	ug/kg	
67-66-3	Chloroform	ND	1.6	0.39	ug/kg	
74-87-3	Chloromethane	ND	4.0	1.6	ug/kg	
110-82-7	Cyclohexane [a]	ND	1.6	0.53	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.6	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	1.6	0.45	ug/kg	
106-93-4	1,2-Dibromoethane	ND	0.80	0.34	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.80	0.44	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.80	0.40	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.80	0.40	ug/kg	
75-71-8	Dichlorodifluoromethane [a]	ND	4.0	0.58	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.80	0.40	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.80	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.80	0.53	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.80	0.68	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.80	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.6	0.38	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.6	0.38	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.6	0.37	ug/kg	
100-41-4	Ethylbenzene	ND	0.80	0.44	ug/kg	
76-13-1	Freon 113	ND	4.0	0.81	ug/kg	
591-78-6	2-Hexanone	ND	4.0	1.7	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP2-01		
Lab Sample ID:	JC96286-7	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C	**Percent Solids:**	80.8
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.6	0.56	ug/kg	
79-20-9	Methyl Acetate	ND	4.0	1.1	ug/kg	
108-87-2	Methylcyclohexane	ND	1.6	0.70	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.80	0.38	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	4.0	1.8	ug/kg	
75-09-2	Methylene chloride	ND	4.0	0.80	ug/kg	
100-42-5	Styrene	ND	1.6	0.46	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.6	0.48	ug/kg	
127-18-4	Tetrachloroethene	ND	1.6	0.47	ug/kg	
108-88-3	Toluene	ND	0.80	0.42	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.0	1.6	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.0	1.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.6	0.39	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.6	0.45	ug/kg	
79-01-6	Trichloroethene	ND	0.80	0.61	ug/kg	
75-69-4	Trichlorofluoromethane [a]	ND	4.0	0.55	ug/kg	
75-01-4	Vinyl chloride [a]	ND	1.6	0.39	ug/kg	
	m,p-Xylene	ND	0.80	0.72	ug/kg	
95-47-6	o-Xylene	ND	0.80	0.47	ug/kg	
1330-20-7	Xylene (total)	ND	0.80	0.47	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	120%		75-127%
17060-07-0	1,2-Dichloroethane-D4	122%		75-130%
2037-26-5	Toluene-D8	110%		80-120%
460-00-4	4-Bromofluorobenzene	113%		79-127%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP2-01
Lab Sample ID: JC96286-7 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 80.8
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5P63821.D	5	10/10/19 14:46	HSS	10/08/19 09:15	OP23169	E5P2993
Run #2	5P63829.D	50	10/10/19 18:02	HSS	10/08/19 09:15	OP23169	E5P2993

	Initial Weight	Final Volume
Run #1	31.2 g	1.0 ml
Run #2	31.2 g	1.0 ml

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	4290	200	68	ug/kg	
208-96-8	Acenaphthylene	16000	200	100	ug/kg	
98-86-2	Acetophenone	ND	990	43	ug/kg	
120-12-7	Anthracene	18400	200	120	ug/kg	
1912-24-9	Atrazine [b]	ND	400	85	ug/kg	
56-55-3	Benzo(a)anthracene	55600 [c]	2000	560	ug/kg	
50-32-8	Benzo(a)pyrene	56600 [c]	2000	900	ug/kg	
205-99-2	Benzo(b)fluoranthene	65300 [c]	2000	880	ug/kg	
191-24-2	Benzo(g,h,i)perylene	32600 [c]	2000	990	ug/kg	
207-08-9	Benzo(k)fluoranthene	26600 [c]	2000	930	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	400	77	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	400	48	ug/kg	
92-52-4	1,1'-Biphenyl	426	400	27	ug/kg	
100-52-7	Benzaldehyde	ND	990	49	ug/kg	
91-58-7	2-Chloronaphthalene	ND	400	47	ug/kg	
106-47-8	4-Chloroaniline	ND	990	71	ug/kg	
86-74-8	Carbazole	2820	400	29	ug/kg	
105-60-2	Caprolactam	ND	400	78	ug/kg	
218-01-9	Chrysene	46100 [c]	2000	620	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	400	42	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	400	85	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	400	71	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	400	64	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	200	61	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	200	100	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	400	170	ug/kg	
123-91-1	1,4-Dioxane	ND	200	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	7920	200	88	ug/kg	
132-64-9	Dibenzofuran	3580	400	81	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	400	32	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	400	49	ug/kg	
84-66-2	Diethyl phthalate	ND	400	42	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP2-01		
Lab Sample ID:	JC96286-7	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	80.8
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
131-11-3	Dimethyl phthalate	ND	400	35	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	400	46	ug/kg	
206-44-0	Fluoranthene	112000 [c]	2000	880	ug/kg	
86-73-7	Fluorene	7880	200	91	ug/kg	
118-74-1	Hexachlorobenzene	ND	400	50	ug/kg	
87-68-3	Hexachlorobutadiene [b]	ND	200	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2000	79	ug/kg	
67-72-1	Hexachloroethane [b]	ND	990	98	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	36200 [c]	2000	930	ug/kg	
78-59-1	Isophorone	ND	400	42	ug/kg	
91-57-6	2-Methylnaphthalene	1620	200	45	ug/kg	
88-74-4	2-Nitroaniline [d]	ND	990	47	ug/kg	
99-09-2	3-Nitroaniline	ND	990	50	ug/kg	
100-01-6	4-Nitroaniline	ND	990	51	ug/kg	
91-20-3	Naphthalene	6210	200	56	ug/kg	
98-95-3	Nitrobenzene	ND	400	77	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	400	57	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	990	73	ug/kg	
85-01-8	Phenanthrene	61100 [c]	2000	670	ug/kg	
129-00-0	Pyrene	85000 [c]	2000	630	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	990	50	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	52%	54%	26-134%
321-60-8	2-Fluorobiphenyl	64%	73%	39-124%
1718-51-0	Terphenyl-d14	52%	75%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Dibenzofuran, -methyl-	7.80	2900	ug/kg	J
	Pyrene methyl	10.72	3000	ug/kg	J
	unknown	13.02	3300	ug/kg	J
	unknown	13.26	3500	ug/kg	J
	unknown PAH substance	13.62	14000	ug/kg	J
	unknown	13.65	4400	ug/kg	J
	unknown PAH substance	13.85	20000	ug/kg	J
	unknown	14.05	3500	ug/kg	J
	unknown	14.19	5800	ug/kg	J
	unknown	14.24	3400	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP2-01		
Lab Sample ID:	JC96286-7	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	80.8
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	unknown	14.53	5000	ug/kg	J
	unknown PAH substance	15.16	5400	ug/kg	J
	unknown PAH substance	15.46	5400	ug/kg	J
	unknown PAH substance	15.88	9300	ug/kg	J
	unknown	16.13	3000	ug/kg	J
	Total TIC, Semi-Volatile		91900	ug/kg	J

(a) Dilution required due to viscosity of the extract matrix.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Result is from Run# 2
(d) Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.

Report of Analysis

Client Sample ID:	SP2-01		
Lab Sample ID:	JC96286-7	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8082A SW846 3546	**Percent Solids:**	80.8
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G185141.D	10	10/09/19 00:52	TR	10/07/19 17:20	OP23188	G2G4791
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	410	190	ug/kg	
11104-28-2	Aroclor 1221	ND	410	250	ug/kg	
11141-16-5	Aroclor 1232	ND	410	260	ug/kg	
53469-21-9	Aroclor 1242	ND	410	170	ug/kg	
12672-29-6	Aroclor 1248	ND	410	360	ug/kg	
11097-69-1	Aroclor 1254	ND	410	220	ug/kg	
11096-82-5	Aroclor 1260	ND	410	170	ug/kg	
11100-14-4	Aroclor 1268	ND	410	170	ug/kg	
37324-23-5	Aroclor 1262	ND	410	270	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		31-146%
877-09-8	Tetrachloro-m-xylene	71%		31-146%
2051-24-3	Decachlorobiphenyl	3042% [b]		17-164%
2051-24-3	Decachlorobiphenyl	2138% [b]		17-164%

(a) Dilution required due to viscosity of the extract matrix.
(b) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP2-01
Lab Sample ID: JC96286-7
Matrix: SO - Soil
Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 80.8
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	11800	65	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Antimony	< 2.6	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Arsenic	11.6	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Barium	120	26	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Beryllium	0.89	0.26	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Cadmium	3.3	0.65	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Calcium	19300	650	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Chromium	78.6	1.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Cobalt	8.0	6.5	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Copper [a]	82.9	6.5	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Iron	34400	130	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Lead	161	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Magnesium	4760	650	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Manganese [a]	936	3.9	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Mercury	1.2	0.080	mg/kg	2	10/07/19	10/07/19	CH	SW846 7471B [1]	SW846 7471B [5]
Nickel	35.0	5.2	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Potassium	1790	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Selenium [a]	< 5.2	5.2	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Silver [a]	1.3	1.3	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Sodium	< 1300	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Sulfur	1050	13	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Thallium [a]	< 2.6	2.6	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Vanadium	23.2	6.5	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Zinc	468	6.5	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]

(1) Instrument QC Batch: MA47576
(2) Instrument QC Batch: MA47580
(3) Instrument QC Batch: MA47590
(4) Prep QC Batch: MP17721
(5) Prep QC Batch: MP17750

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SP2-01		
Lab Sample ID:	JC96286-7	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
		Percent Solids:	80.8
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	1.9	0.31	mg/kg	1	10/09/19 11:16	KI	SW846 9012B/LACHAT
Heat Content, BTU	1870	100	BTU/lb	1	10/13/19	JOO	ASTM D240-92
Solids, Percent	80.8		%	1	10/07/19 17:00	BG	SM2540 G 18TH ED MOD

RL = Reporting Limit

Report of Analysis

Client Sample ID: SP2-01
Lab Sample ID: JC96286-7A **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8260C SW846 1311 **Percent Solids:** 80.8
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149661.D	5	10/09/19 22:45	EH	10/05/19 19:00	GP24160	V3D6396
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		64-135%
2037-26-5	Toluene-D8	102%		76-117%
460-00-4	4-Bromofluorobenzene	92%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP2-01
Lab Sample ID: JC96286-7A **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8270D SW846 3510C **Percent Solids:** 80.8
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P132199.D	1	10/09/19 18:06	AR	10/06/19 17:00	OP23173	EP5994
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol [a]	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol [a]	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		14-88%
4165-62-2	Phenol-d5	25%		10-110%
118-79-6	2,4,6-Tribromophenol	83%		39-149%
4165-60-0	Nitrobenzene-d5	68%		32-128%
321-60-8	2-Fluorobiphenyl	63%		35-119%
1718-51-0	Terphenyl-d14	64%		10-126%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP2-01		
Lab Sample ID:	JC96286-7A	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8151A SW846 3510C	**Percent Solids:**	80.8
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA142911.D	1	10/10/19 19:40	VDT	10/08/19 07:00	OP23176	GOA4941
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	58%		13-169%
19719-28-9	2,4-DCAA	49%		13-169%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP2-01		
Lab Sample ID:	JC96286-7A	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	80.8
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	8G26694.D	1	10/10/19 13:58	AB	10/10/19 06:30	OP23177	G8G948
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	62%		30-137%
877-09-8	Tetrachloro-m-xylene	65%		30-137%
2051-24-3	Decachlorobiphenyl	72%		10-137%
2051-24-3	Decachlorobiphenyl	69%		10-137%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP2-01
Lab Sample ID: JC96286-7A
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 80.8

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Barium	< 1.0	D005	100	1.0	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Cadmium	< 0.020	D006	1.0	0.020	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Lead	< 0.50	D008	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	10/07/19	10/07/19	LL	SW846 7470A [1]	SW846 7470A [4]
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Silver	< 0.050	D011	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA47575
(2) Instrument QC Batch: MA47591
(3) Prep QC Batch: MP17719
(4) Prep QC Batch: MP17757

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID: SP2-01
Lab Sample ID: JC96286-7A
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 80.8

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.72 NC		su	1	10/10/19 11:45	RI	SW846 9045D
Cyanide Reactivity	< 13	13	mg/kg	1	10/09/19 10:09	KI	SW846 CHAP7/9012 B
Ignitability (Flashpoint)	> 200		Deg. F	1	10/10/19 12:00	RI	SW846 1010A/ASTM D93
Sulfide Reactivity	< 130	130	mg/kg	1	10/09/19 13:04	CD	SW846 CHAP7/9034

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SP2-02		
Lab Sample ID:	JC96286-8	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C	**Percent Solids:**	77.4
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y187128.D	1	10/09/19 15:20	PS	n/a	n/a	VY8136
Run #2							

	Initial Weight
Run #1	8.6 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	7.5	3.0	ug/kg	
71-43-2	Benzene	0.93	0.38	0.34	ug/kg	
74-97-5	Bromochloromethane	ND	3.8	0.42	ug/kg	
75-27-4	Bromodichloromethane	ND	1.5	0.33	ug/kg	
75-25-2	Bromoform	ND	3.8	0.43	ug/kg	
74-83-9	Bromomethane	ND	3.8	0.75	ug/kg	
78-93-3	2-Butanone (MEK)	ND	7.5	2.8	ug/kg	
75-15-0	Carbon disulfide	ND	1.5	0.70	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.5	0.46	ug/kg	
108-90-7	Chlorobenzene	ND	1.5	0.34	ug/kg	
75-00-3	Chloroethane	ND	3.8	0.44	ug/kg	
67-66-3	Chloroform	ND	1.5	0.37	ug/kg	
74-87-3	Chloromethane	ND	3.8	1.5	ug/kg	
110-82-7	Cyclohexane	ND	1.5	0.49	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.5	0.63	ug/kg	
124-48-1	Dibromochloromethane	ND	1.5	0.42	ug/kg	
106-93-4	1,2-Dibromoethane	ND	0.75	0.32	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.75	0.41	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.75	0.37	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.75	0.37	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	3.8	0.55	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.75	0.37	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.75	0.35	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.75	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.75	0.63	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.75	0.46	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.5	0.36	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	0.36	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	0.34	ug/kg	
100-41-4	Ethylbenzene	ND	0.75	0.41	ug/kg	
76-13-1	Freon 113	ND	3.8	0.76	ug/kg	
591-78-6	2-Hexanone	ND	3.8	1.6	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP2-02		
Lab Sample ID:	JC96286-8	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C	**Percent Solids:**	77.4
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.5	0.52	ug/kg	
79-20-9	Methyl Acetate	ND	3.8	1.0	ug/kg	
108-87-2	Methylcyclohexane	ND	1.5	0.66	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.75	0.35	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	3.8	1.7	ug/kg	
75-09-2	Methylene chloride	ND	3.8	0.75	ug/kg	
100-42-5	Styrene	ND	1.5	0.43	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	1.5	0.44	ug/kg	
108-88-3	Toluene	0.42	0.75	0.39	ug/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	3.8	1.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3.8	1.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.5	0.36	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.42	ug/kg	
79-01-6	Trichloroethene	ND	0.75	0.57	ug/kg	
75-69-4	Trichlorofluoromethane	ND	3.8	0.51	ug/kg	
75-01-4	Vinyl chloride	ND	1.5	0.36	ug/kg	
	m,p-Xylene	0.72	0.75	0.67	ug/kg	J
95-47-6	o-Xylene	ND	0.75	0.44	ug/kg	
1330-20-7	Xylene (total)	0.72	0.75	0.44	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	122%		75-127%
17060-07-0	1,2-Dichloroethane-D4	115%		75-130%
2037-26-5	Toluene-D8	113%		80-120%
460-00-4	4-Bromofluorobenzene	125%		79-127%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
108-67-8	Benzene, 1,3,5-trimethyl-	15.49	4.5	ug/kg	JN
496-11-7	Indane	16.53	11	ug/kg	JN
95-13-6	Indene	16.76	4.6	ug/kg	JN
	1H-Indene, methyl- isomer	18.05	6.8	ug/kg	J
91-20-3	Naphthalene	18.58	95	ug/kg	JN
91-57-6	Naphthalene, 2-methyl-	19.83	30	ug/kg	JN
	Naphthalene, methyl- isomer	20.04	21	ug/kg	J
	Total TIC, Volatile		172.9	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP2-02
Lab Sample ID: JC96286-8 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 77.4
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5P63822.D	5	10/10/19 15:10	HSS	10/08/19 09:15	OP23169	E5P2993
Run #2	5P63830.D	100	10/10/19 18:26	HSS	10/08/19 09:15	OP23169	E5P2993

	Initial Weight	Final Volume
Run #1	30.7 g	1.0 ml
Run #2	30.7 g	1.0 ml

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	6760	210	73	ug/kg	
208-96-8	Acenaphthylene	48600 [b]	4200	2100	ug/kg	
98-86-2	Acetophenone	76.7	1100	45	ug/kg	J
120-12-7	Anthracene	45800 [b]	4200	2600	ug/kg	
1912-24-9	Atrazine [c]	ND	420	90	ug/kg	
56-55-3	Benzo(a)anthracene	110000 [b]	4200	1200	ug/kg	
50-32-8	Benzo(a)pyrene	115000 [b]	4200	1900	ug/kg	
205-99-2	Benzo(b)fluoranthene	132000 [b]	4200	1900	ug/kg	
191-24-2	Benzo(g,h,i)perylene	67000 [b]	4200	2100	ug/kg	
207-08-9	Benzo(k)fluoranthene	50700 [b]	4200	2000	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	420	81	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	420	51	ug/kg	
92-52-4	1,1'-Biphenyl	1040	420	29	ug/kg	
100-52-7	Benzaldehyde	ND	1100	52	ug/kg	
91-58-7	2-Chloronaphthalene	ND	420	50	ug/kg	
106-47-8	4-Chloroaniline	ND	1100	76	ug/kg	
86-74-8	Carbazole	2670	420	31	ug/kg	
105-60-2	Caprolactam	ND	420	83	ug/kg	
218-01-9	Chrysene	96000 [b]	4200	1300	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	420	45	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	420	91	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	420	76	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	420	68	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	210	65	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	210	110	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	420	180	ug/kg	
123-91-1	1,4-Dioxane	ND	210	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	15800	210	93	ug/kg	
132-64-9	Dibenzofuran	5250	420	86	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	420	34	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	420	52	ug/kg	
84-66-2	Diethyl phthalate	ND	420	45	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP2-02		
Lab Sample ID:	JC96286-8	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	77.4
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
131-11-3	Dimethyl phthalate	ND	420	37	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	420	49	ug/kg	
206-44-0	Fluoranthene	208000 [b]	4200	1900	ug/kg	
86-73-7	Fluorene	11400	210	97	ug/kg	
118-74-1	Hexachlorobenzene	ND	420	53	ug/kg	
87-68-3	Hexachlorobutadiene [c]	ND	210	85	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2100	84	ug/kg	
67-72-1	Hexachloroethane [c]	ND	1100	100	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	74600 [b]	4200	2000	ug/kg	
78-59-1	Isophorone	ND	420	45	ug/kg	
91-57-6	2-Methylnaphthalene	3180	210	48	ug/kg	
88-74-4	2-Nitroaniline [d]	ND	1100	50	ug/kg	
99-09-2	3-Nitroaniline	ND	1100	53	ug/kg	
100-01-6	4-Nitroaniline	ND	1100	54	ug/kg	
91-20-3	Naphthalene	12100	210	59	ug/kg	
98-95-3	Nitrobenzene	ND	420	81	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	420	61	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1100	77	ug/kg	
85-01-8	Phenanthrene	115000 [b]	4200	1400	ug/kg	
129-00-0	Pyrene	180000 [b]	4200	1300	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1100	53	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	54%	72%	26-134%
321-60-8	2-Fluorobiphenyl	70%	88%	39-124%
1718-51-0	Terphenyl-d14	53%	106%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	unknown	13.29	8700	ug/kg	J
	unknown PAH substance	13.36	7300	ug/kg	J
	unknown PAH substance	13.65	34000	ug/kg	J
	Dinaphtho[-d]furan	13.75	11000	ug/kg	J
	unknown PAH substance	13.87	44000	ug/kg	J
	unknown	14.21	17000	ug/kg	J
	unknown	14.26	8100	ug/kg	J
	unknown	14.37	6500	ug/kg	J
	unknown	14.56	13000	ug/kg	J
	unknown	14.68	6700	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP2-02		
Lab Sample ID:	JC96286-8	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	77.4
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	unknown PAH substance	14.95	7100	ug/kg	J
	unknown PAH substance	15.19	18000	ug/kg	J
	unknown PAH substance	15.49	11000	ug/kg	J
	unknown PAH substance	15.53	18000	ug/kg	J
	unknown PAH substance	15.92	23000	ug/kg	J
	Total TIC, Semi-Volatile		233400	ug/kg	J

(a) Dilution required due to viscosity of the extract matrix.
(b) Result is from Run# 2
(c) Associated CCV outside of control limits high, sample was ND.
(d) Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP2-02		
Lab Sample ID:	JC96286-8	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8082A SW846 3546	**Percent Solids:**	77.4
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G185142.D	10	10/09/19 01:08	TR	10/07/19 17:20	OP23188	G2G4791
Run #2							

	Initial Weight	Final Volume
Run #1	15.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	420	190	ug/kg	
11104-28-2	Aroclor 1221	ND	420	260	ug/kg	
11141-16-5	Aroclor 1232	ND	420	270	ug/kg	
53469-21-9	Aroclor 1242	ND	420	170	ug/kg	
12672-29-6	Aroclor 1248	ND	420	370	ug/kg	
11097-69-1	Aroclor 1254	ND	420	220	ug/kg	
11096-82-5	Aroclor 1260	ND	420	180	ug/kg	
11100-14-4	Aroclor 1268	ND	420	180	ug/kg	
37324-23-5	Aroclor 1262	ND	420	270	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	99%		31-146%
877-09-8	Tetrachloro-m-xylene	62%		31-146%
2051-24-3	Decachlorobiphenyl	3567% [b]		17-164%
2051-24-3	Decachlorobiphenyl	2414% [b]		17-164%

(a) Dilution required due to viscosity of the extract matrix.
(b) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP2-02
Lab Sample ID: JC96286-8
Matrix: SO - Soil
Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 77.4
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	11900	66	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Antimony	< 2.6	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Arsenic	13.1	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Barium	107	26	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Beryllium	1.0	0.26	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Cadmium	2.4	0.66	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Calcium	19100	660	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Chromium	54.4	1.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Cobalt	8.8	6.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Copper [a]	139	6.6	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Iron	29500	130	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Lead	178	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Magnesium	5260	660	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Manganese [a]	818	4.0	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Mercury	2.9	0.38	mg/kg	10	10/07/19	10/07/19	CH	SW846 7471B [1]	SW846 7471B [5]
Nickel	43.3	5.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Potassium	1990	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Selenium [a]	< 5.3	5.3	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Silver [a]	1.4	1.3	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Sodium	< 1300	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Sulfur	2960	13	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Thallium [a]	< 2.6	2.6	mg/kg	2	10/07/19	10/08/19	EAL	SW846 6010D [3]	SW846 3050B [4]
Vanadium	31.3	6.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]
Zinc	415	6.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [4]

(1) Instrument QC Batch: MA47576
(2) Instrument QC Batch: MA47580
(3) Instrument QC Batch: MA47590
(4) Prep QC Batch: MP17721
(5) Prep QC Batch: MP17750

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SP2-02		
Lab Sample ID:	JC96286-8	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
		Percent Solids:	77.4
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	7.8	0.29	mg/kg	1	10/09/19 11:17	KI	SW846 9012B/LACHAT
Heat Content, BTU	4110	100	BTU/lb	1	10/13/19	JOO	ASTM D240-92
Solids, Percent	77.4		%	1	10/07/19 17:00	BG	SM2540 G 18TH ED MOD

RL = Reporting Limit

Report of Analysis

Client Sample ID: SP2-02
Lab Sample ID: JC96286-8A **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8260C SW846 1311 **Percent Solids:** 77.4
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V62354.D	5	10/11/19 11:22	KC	10/05/19 19:00	GP24160	V2V2563
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	108%		64-135%
2037-26-5	Toluene-D8	98%		76-117%
460-00-4	4-Bromofluorobenzene	99%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP2-02		
Lab Sample ID:	JC96286-8A	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	77.4
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P132200.D	1	10/09/19 18:33	AR	10/06/19 17:00	OP23173	EP5994
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol [a]	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol [a]	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		14-88%
4165-62-2	Phenol-d5	23%		10-110%
118-79-6	2,4,6-Tribromophenol	85%		39-149%
4165-60-0	Nitrobenzene-d5	66%		32-128%
321-60-8	2-Fluorobiphenyl	61%		35-119%
1718-51-0	Terphenyl-d14	62%		10-126%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP2-02		
Lab Sample ID:	JC96286-8A	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8151A SW846 3510C	**Percent Solids:**	77.4
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA142912.D	1	10/10/19 20:08	VDT	10/08/19 07:00	OP23176	GOA4941
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	59%		13-169%
19719-28-9	2,4-DCAA	55%		13-169%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP2-02
Lab Sample ID: JC96286-8A **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8081B SW846 3510C **Percent Solids:** 77.4
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	8G26695.D	1	10/10/19 14:14	AB	10/10/19 06:30	OP23177	G8G948
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		30-137%
877-09-8	Tetrachloro-m-xylene	97%		30-137%
2051-24-3	Decachlorobiphenyl	90%		10-137%
2051-24-3	Decachlorobiphenyl	93%		10-137%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP2-02
Lab Sample ID: JC96286-8A
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 77.4

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Barium	< 1.0	D005	100	1.0	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Cadmium	< 0.020	D006	1.0	0.020	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Lead	< 0.50	D008	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	10/07/19	10/07/19	LL	SW846 7470A [1]	SW846 7470A [4]
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Silver	< 0.050	D011	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA47575
(2) Instrument QC Batch: MA47591
(3) Prep QC Batch: MP17719
(4) Prep QC Batch: MP17757

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID:	SP2-02		
Lab Sample ID:	JC96286-8A	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
		Percent Solids:	77.4
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.55 NC		su	1	10/10/19 11:46	RI	SW846 9045D
Cyanide Reactivity	< 14	14	mg/kg	1	10/09/19 10:11	KI	SW846 CHAP7/9012 B
Ignitability (Flashpoint)	> 200		Deg. F	1	10/10/19 12:00	RI	SW846 1010A/ASTM D93
Sulfide Reactivity	< 140	140	mg/kg	1	10/09/19 13:04	CD	SW846 CHAP7/9034

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SP1-05 DUP		
Lab Sample ID:	JC96286-9	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C	**Percent Solids:**	76.3
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y187115.D	1	10/08/19 20:50	PS	n/a	n/a	VY8135
Run #2							

	Initial Weight
Run #1	9.5 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	6.9	2.8	ug/kg	
71-43-2	Benzene	0.36	0.34	0.31	ug/kg	
74-97-5	Bromochloromethane	ND	3.4	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	1.4	0.31	ug/kg	
75-25-2	Bromoform	ND	3.4	0.40	ug/kg	
74-83-9	Bromomethane	ND	3.4	0.69	ug/kg	
78-93-3	2-Butanone (MEK)	ND	6.9	2.6	ug/kg	
75-15-0	Carbon disulfide	ND	1.4	0.64	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.4	0.43	ug/kg	
108-90-7	Chlorobenzene	ND	1.4	0.32	ug/kg	
75-00-3	Chloroethane	ND	3.4	0.41	ug/kg	
67-66-3	Chloroform	ND	1.4	0.34	ug/kg	
74-87-3	Chloromethane	ND	3.4	1.4	ug/kg	
110-82-7	Cyclohexane [a]	ND	1.4	0.45	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.4	0.58	ug/kg	
124-48-1	Dibromochloromethane	ND	1.4	0.39	ug/kg	
106-93-4	1,2-Dibromoethane	ND	0.69	0.29	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.69	0.38	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.69	0.34	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.69	0.34	ug/kg	
75-71-8	Dichlorodifluoromethane [a]	ND	3.4	0.50	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.69	0.34	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.69	0.32	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.69	0.45	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.69	0.58	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.69	0.42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.4	0.33	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.4	0.33	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.4	0.32	ug/kg	
100-41-4	Ethylbenzene	ND	0.69	0.38	ug/kg	
76-13-1	Freon 113	ND	3.4	0.70	ug/kg	
591-78-6	2-Hexanone	ND	3.4	1.5	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-05 DUP		
Lab Sample ID:	JC96286-9	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8260C	**Percent Solids:**	76.3
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.4	0.48	ug/kg	
79-20-9	Methyl Acetate	ND	3.4	0.96	ug/kg	
108-87-2	Methylcyclohexane	ND	1.4	0.60	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.69	0.32	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	3.4	1.6	ug/kg	
75-09-2	Methylene chloride	ND	3.4	0.69	ug/kg	
100-42-5	Styrene	ND	1.4	0.40	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.4	0.41	ug/kg	
127-18-4	Tetrachloroethene	ND	1.4	0.40	ug/kg	
108-88-3	Toluene	ND	0.69	0.36	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	3.4	1.3	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3.4	1.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.4	0.33	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.4	0.38	ug/kg	
79-01-6	Trichloroethene	ND	0.69	0.53	ug/kg	
75-69-4	Trichlorofluoromethane [a]	ND	3.4	0.47	ug/kg	
75-01-4	Vinyl chloride [a]	ND	1.4	0.33	ug/kg	
	m,p-Xylene	ND	0.69	0.62	ug/kg	
95-47-6	o-Xylene	ND	0.69	0.40	ug/kg	
1330-20-7	Xylene (total)	ND	0.69	0.40	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	123%		75-127%
17060-07-0	1,2-Dichloroethane-D4	115%		75-130%
2037-26-5	Toluene-D8	109%		80-120%
460-00-4	4-Bromofluorobenzene	115%		79-127%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
496-11-7	Indane	16.53	5.4	ug/kg	JN
91-20-3	Naphthalene	18.58	16	ug/kg	JN
91-57-6	Naphthalene, 2-methyl-	19.82	6.8	ug/kg	JN
	Naphthalene, methyl- isomer	20.03	6.4	ug/kg	J
	Total TIC, Volatile		34.6	ug/kg	J

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-05 DUP
Lab Sample ID: JC96286-9 **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 76.3
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2P90272.D	5	10/09/19 10:21	CS	10/08/19 09:45	OP23196	E2P3995
Run #2	2P90318.D	25	10/10/19 23:15	JC	10/08/19 09:45	OP23196	E2P3997
Run #3	2P90329.D	250	10/11/19 13:12	JC	10/08/19 09:45	OP23196	E2P3998

	Initial Weight	Final Volume
Run #1	31.9 g	1.0 ml
Run #2	31.9 g	1.0 ml
Run #3	31.9 g	1.0 ml

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	24700 [b]	1000	350	ug/kg	
208-96-8	Acenaphthylene	77900 [b]	1000	520	ug/kg	
98-86-2	Acetophenone	138	1000	44	ug/kg	J
120-12-7	Anthracene	76400 [c]	10000	6300	ug/kg	
1912-24-9	Atrazine	ND	410	88	ug/kg	
56-55-3	Benzo(a)anthracene	180000 [c]	10000	2900	ug/kg	
50-32-8	Benzo(a)pyrene	191000 [c]	10000	4700	ug/kg	
205-99-2	Benzo(b)fluoranthene	200000 [c]	10000	4500	ug/kg	
191-24-2	Benzo(g,h,i)perylene	116000 [c]	10000	5100	ug/kg	
207-08-9	Benzo(k)fluoranthene	73800 [c]	10000	4800	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	410	79	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	410	50	ug/kg	
92-52-4	1,1'-Biphenyl	3990	410	28	ug/kg	
100-52-7	Benzaldehyde	ND	1000	51	ug/kg	
91-58-7	2-Chloronaphthalene	ND	410	49	ug/kg	
106-47-8	4-Chloroaniline	ND	1000	74	ug/kg	
86-74-8	Carbazole	10300	410	30	ug/kg	
105-60-2	Caprolactam	ND	410	81	ug/kg	
218-01-9	Chrysene	158000 [c]	10000	3200	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	410	44	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	410	89	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	410	74	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	410	67	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	210	64	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	210	100	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	410	170	ug/kg	
123-91-1	1,4-Dioxane	ND	210	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	6290	210	91	ug/kg	
132-64-9	Dibenzofuran	28400 [b]	2100	420	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	410	33	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-05 DUP		
Lab Sample ID:	JC96286-9	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	76.3
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
117-84-0	Di-n-octyl phthalate	ND	410	51	ug/kg	
84-66-2	Diethyl phthalate	ND	410	44	ug/kg	
131-11-3	Dimethyl phthalate	ND	410	37	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	410	48	ug/kg	
206-44-0	Fluoranthene	473000 [c]	10000	4600	ug/kg	
86-73-7	Fluorene	52900 [b]	1000	470	ug/kg	
118-74-1	Hexachlorobenzene	ND	410	52	ug/kg	
87-68-3	Hexachlorobutadiene	ND	210	83	ug/kg	
77-47-4	Hexachlorocyclopentadiene [d]	ND	2100	82	ug/kg	
67-72-1	Hexachloroethane	ND	1000	100	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	127000 [c]	10000	4800	ug/kg	
78-59-1	Isophorone	ND	410	44	ug/kg	
91-57-6	2-Methylnaphthalene	17900	210	46	ug/kg	
88-74-4	2-Nitroaniline	ND	1000	48	ug/kg	
99-09-2	3-Nitroaniline	ND	1000	51	ug/kg	
100-01-6	4-Nitroaniline	ND	1000	53	ug/kg	
91-20-3	Naphthalene	72400 [b]	1000	290	ug/kg	
98-95-3	Nitrobenzene	ND	410	79	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	410	59	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1000	75	ug/kg	
85-01-8	Phenanthrene	243000 [c]	10000	3500	ug/kg	
129-00-0	Pyrene	382000 [c]	10000	3300	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1000	52	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
4165-60-0	Nitrobenzene-d5	54%	66%	62%	26-134%
321-60-8	2-Fluorobiphenyl	43%	51%	51%	39-124%
1718-51-0	Terphenyl-d14	37%	49%	57%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
95-13-6	Indene	4.71	9400	ug/kg	JN
	Naphthalene, -dimethyl-	6.97	4400	ug/kg	J
	Naphthalene, -dimethyl-	7.07	5100	ug/kg	J
	unknown	8.41	4800	ug/kg	J
	Dibenzofuran methyl	8.51	8800	ug/kg	J
	Cyclopenta[def]phenanthrene	10.63	3200	ug/kg	J
	unknown	11.68	13000	ug/kg	J
	unknown	12.03	11000	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-05 DUP		
Lab Sample ID:	JC96286-9	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	76.3
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

BN TCL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Pyrene methyl	12.51	2700	ug/kg	J
	Pyrene methyl	12.62	2000	ug/kg	J
	Unknown PAH Substance	15.72	4200	ug/kg	J
	Unknown PAH Substance	15.90	3400	ug/kg	J
	Unknown PAH Substance	15.97	4400	ug/kg	J
	Unknown PAH Substance	16.13	4400	ug/kg	J
	Unknown PAH Substance	18.12	2900	ug/kg	J
	Total TIC, Semi-Volatile		83700	ug/kg	J

(a) Dilution required due to viscosity of the extract matrix.
(b) Result is from Run# 2
(c) Result is from Run# 3
(d) Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-05 DUP		
Lab Sample ID:	JC96286-9	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8082A SW846 3546	**Percent Solids:**	76.3
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G185143.D	10	10/09/19 01:25	TR	10/07/19 17:20	OP23188	G2G4791
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	430	200	ug/kg	
11104-28-2	Aroclor 1221	ND	430	270	ug/kg	
11141-16-5	Aroclor 1232	ND	430	280	ug/kg	
53469-21-9	Aroclor 1242	ND	430	180	ug/kg	
12672-29-6	Aroclor 1248	ND	430	380	ug/kg	
11097-69-1	Aroclor 1254	ND	430	230	ug/kg	
11096-82-5	Aroclor 1260	ND	430	180	ug/kg	
11100-14-4	Aroclor 1268	ND	430	180	ug/kg	
37324-23-5	Aroclor 1262	ND	430	280	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		31-146%
877-09-8	Tetrachloro-m-xylene	41%		31-146%
2051-24-3	Decachlorobiphenyl	4121% [b]		17-164%
2051-24-3	Decachlorobiphenyl	2493% [b]		17-164%

(a) Dilution required due to viscosity of the extract matrix.
(b) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-05 DUP
Lab Sample ID: JC96286-9
Matrix: SO - Soil
Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 76.3
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	10100	66	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Antimony	< 2.6	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Arsenic	12.5	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Barium	90.0	26	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Beryllium	0.85	0.26	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Cadmium	2.4	0.66	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Calcium	14700	660	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Chromium	37.6	1.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Cobalt	8.2	6.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Copper	90.2	3.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Iron	25800	66	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Lead	156	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Magnesium	4570	660	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Manganese	543	2.0	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Mercury	3.6	0.42	mg/kg	10	10/07/19	10/07/19	CH	SW846 7471B [1]	SW846 7471B [4]
Nickel	32.0	5.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Potassium	1570	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Selenium	< 2.6	2.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Silver	2.0	0.66	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Sodium	< 1300	1300	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Sulfur	3270	13	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Thallium	< 1.3	1.3	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Vanadium	32.1	6.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]
Zinc	435	6.6	mg/kg	1	10/07/19	10/08/19	ND	SW846 6010D [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA47576
(2) Instrument QC Batch: MA47580
(3) Prep QC Batch: MP17721
(4) Prep QC Batch: MP17750

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SP1-05 DUP		
Lab Sample ID:	JC96286-9	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
		Percent Solids:	76.3
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	6.1	0.26	mg/kg	1	10/09/19 11:19	KI	SW846 9012B/LACHAT
Heat Content, BTU	3990	100	BTU/lb	1	10/13/19	JOO	ASTM D240-92
Solids, Percent	76.3		%	1	10/07/19 17:00	BG	SM2540 G 18TH ED MOD

RL = Reporting Limit

Report of Analysis

Client Sample ID: SP1-05 DUP
Lab Sample ID: JC96286-9A **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8260C SW846 1311 **Percent Solids:** 76.3
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149663.D	5	10/09/19 23:35	EH	10/05/19 19:00	GP24160	V3D6396
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	0.0064	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		64-135%
2037-26-5	Toluene-D8	104%		76-117%
460-00-4	4-Bromofluorobenzene	87%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-05 DUP		
Lab Sample ID:	JC96286-9A	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	76.3
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P132201.D	1	10/09/19 19:00	AR	10/06/19 17:00	OP23173	EP5994
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol [a]	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol [a]	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	28%		14-88%
4165-62-2	Phenol-d5	21%		10-110%
118-79-6	2,4,6-Tribromophenol	74%		39-149%
4165-60-0	Nitrobenzene-d5	65%		32-128%
321-60-8	2-Fluorobiphenyl	57%		35-119%
1718-51-0	Terphenyl-d14	64%		10-126%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SP1-05 DUP		
Lab Sample ID:	JC96286-9A	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
Method:	SW846 8151A SW846 3510C	**Percent Solids:**	76.3
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA142913.D	1	10/10/19 20:37	VDT	10/08/19 07:00	OP23176	GOA4941
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	55%		13-169%
19719-28-9	2,4-DCAA	48%		13-169%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-05 DUP
Lab Sample ID: JC96286-9A **Date Sampled:** 10/03/19
Matrix: SO - Soil **Date Received:** 10/05/19
Method: SW846 8081B SW846 3510C **Percent Solids:** 76.3
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	8G26696.D	1	10/10/19 14:31	AB	10/10/19 06:30	OP23177	G8G948
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		30-137%
877-09-8	Tetrachloro-m-xylene	97%		30-137%
2051-24-3	Decachlorobiphenyl	103%		10-137%
2051-24-3	Decachlorobiphenyl	100%		10-137%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SP1-05 DUP
Lab Sample ID: JC96286-9A
Matrix: SO - Soil
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

Date Sampled: 10/03/19
Date Received: 10/05/19
Percent Solids: 76.3

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Barium	< 1.0	D005	100	1.0	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Cadmium	< 0.020	D006	1.0	0.020	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Lead	< 0.50	D008	5.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	10/07/19	10/07/19	LL	SW846 7470A [1]	SW846 7470A [4]
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]
Silver	< 0.050	D011	5.0	0.050	mg/l	5	10/06/19	10/09/19	ND	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA47575
(2) Instrument QC Batch: MA47591
(3) Prep QC Batch: MP17719
(4) Prep QC Batch: MP17757

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID:	SP1-05 DUP		
Lab Sample ID:	JC96286-9A	**Date Sampled:**	10/03/19
Matrix:	SO - Soil	**Date Received:**	10/05/19
		Percent Solids:	76.3
Project:	PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.44 NC		su	1	10/10/19 11:48	RI	SW846 9045D
Cyanide Reactivity	< 14	14	mg/kg	1	10/09/19 10:12	KI	SW846 CHAP7/9012 B
Ignitability (Flashpoint)	> 200		Deg. F	1	10/10/19 12:00	RI	SW846 1010A/ASTM D93
Sulfide Reactivity	< 140	140	mg/kg	1	10/09/19 13:04	CD	SW846 CHAP7/9034

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Parameter Certification Exceptions

Job Number: JC96286
Account: HWINJM Honeywell International Inc.
Project: PESNYL: Tonawanda Coke Corp (TCC), Site 108, 3800 River Road, Tonawanda, NY

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Sulfur	7704-34-9	**SW846 6010D**	SO	SGS is not certified for this parameter.[a]
Cyanide Reactivity		**SW846 CHAP7/9012 B**	SO	SGS is not certified for this parameter.[b]
Sulfide Reactivity		**SW846 CHAP7/9034**	SO	SGS is not certified for this parameter.[b]

(a) Analyte is not certified with NJDEP for this reference method.
(b) Reactivity analyzed following SW846 Chapter 7 is no longer recognized by regulatory agencies. Use of results should be verified through the program to which the data is being submitted.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

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FED-EX Tracking # 1215 6025 8803 | Bottle Order Control # | SGS Quote # | SGS Job # JC96286

Client / Reporting Information

Company Name: Parsons
Street Address: 301 Plainfield Rd.
City State Zip: Syracuse NY 13212
Project Contact E-mail: TomWallen@parsons.com
Phone #: 315-400-7384
Sampler(s) Name(s) Phone #: Thomas Wallen

Project Information

Project Name: Tonawanda Coke Site 108
Street: 3800 River Rd.
City State: Tonawanda NY
Project #: 451872.05711
Client Purchase Order #:
Project Manager: Tom Abrams

Billing Information (If different from Report to)

Company Name:
Street Address:
City State Zip:
Attention:

Requested Analysis

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	HCl	NaOH	HNO_3	H_2SO_4	NONE	DI Water	MEOH	ENCORE	CrVI 0.5	V8260 TCL 20+	V8260 TCLP	LAB USE ONLY
1	SP1-01		10/3/19	1500	TOM	G	SO						1	2	2	1		✓	✓	
2	SP1-02		10/3/19	1520	AD	G	SO						1	2	2	1		✓	✓	D38
3	SP1-03		10/3/19	1540	AD	G	SO						1	2	2	1		✓	✓	C59
4	SP1-04		10/3/19	1610	AD	G	SO						1	2	2	1		✓	✓	D25T2
5	SP1-05		10/3/19	1625	AD	G	SO						1	2	2	1		✓	✓	4A
6	SP1-06		10/3/19	1655	AD	G	SO						1	2	2	1		✓	✓	P31
7	SP2-01		10/3/19	1710	AD	G	SO						1	2	2	1		✓	✓	14U1
8	SP2-02		10/3/19	1720	TOM	G	SO						1	2	2	1		✓	✓	40132
9	SP1-05 DUP		10/3/19	1635	TOM	G	SO						1	2	2	1		✓	✓	Encore
10	TB-01							1										X		V1179

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

Turn Around Time (Business Days)

Approved By (SGS PM): / Date:

- [ ] 10 Business Days
- [ ] 5 Business Days
- [x] 3 Business Days
- [ ] 2 Business Days
- [ ] 1 Business Day
- [ ] Other

All data available via Labink — Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [ ] EDD Format
- [ ] DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

2x 25g ENCORE

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished By:	Date / Time:	Received By:
1		10/3/19	1
2	1	10/3/19 1745	2
3	2		3
4	3		4
5	4		5

Custody Seal # — Intact / Not Intact — Preserved where applicable — Absent — Therm. ID: — On Ice — Cooler Temp. °C: 6.7, 2.5 -c TP Iw

melted ice 8.9

3A SPG

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

CHAIN OF CUSTODY

SGS

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

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FED-EX Tracking # 121560258766 | Bottle Order Control # | SGS Quote # | SGS Job # JC96286

Client / Reporting Information	Project Information	Requested Analysis
Company Name: Parsons	Project Name: Tonawanda Coke Site LOB	
Street Address: 301 Plainfield Rd	Street: 3 Bbw River Rd.	Billing Information (if different from Report to)
City: Syracuse State: NY Zip: 13212	City: Tonawanda State: NY	Company Name
Project Contact: Tom.Waller@parsons.com E-mail:	Project #: 451822.05711	Street Address
Phone #: 315 400-7384	Client Purchase Order #	City State Zip
Sampler(s) Name(s): Tom Waller Phone #	Project Manager: Tom Abrams	Attention:

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB-Equipment Blank; RB - Rinse Blank; TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	8270 TCL 20+	SICP	CN	8082 PCB 11	8260	BTU	TCLP FULL	MTAL	LAB USE ONLY
1	SP1-01		10/3/19	1500	TAW	G	SO	4									X	X	X	X	X	X	X		
2	SP1-02		10/3/19	1520	AD	G	SO	4									X	X	X	X	X	X	X		
3	SP1-03		10/3/19	1540	AD	G	SO	4									X	X	X	X	X	X	X		
4	SP1-04		10/3/19	1610	AD	G	SO	4									X	X	X	X	X	X	X		
5	SP1-05		10/3/19	1625	AD	G	SO	4									X	X	X	X	X	X	X		

Turn Around Time (Business Days)

Approved By (SGS PM): / Date:

- [ ] 10 Business Days
- [ ] 5 Business Days
- [X] 3 Business Days
- [ ] 2 Business Days
- [ ] 1 Business Day
- [ ] Other

All data available via Labilink — Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [ ] EDD Format
- [ ] DOD-QSMS

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Initial Assessment ZAK
Label Verification

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:
1	10/3/19 1800	1	2	10/5/19 0941	2 DL
3		3	4		4
5		5	Custody Seal #	Intact / Not intact	Preserved where applicable / Absent / Therm. ID:	Cooler Temp. °C

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

8863 Page 2 of 5

FED-EX Tracking # 121560259777 | Bottle Order Control # | SGS Quote # | SGS Job # JC96286

Client / Reporting Information

Company Name: Parsons
Street Address: 301 Plainfield Rd
City: Syracuse State: NY Zip: 13212
Project Contact: Tom.Wolfe@parsons.com E-mail:
Phone #: 315 400 - 7384
Sampler(s) Name(s): Thomas Wolfe Phone #:

Project Information

Project Name: Tonawanda Coke Site 108
Street: 3800 River Rd
City: Tonawanda State: NY
Project #: 451872.05711
Client Purchase Order #:
Project Manager: Tom Abrams

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	Number of preserved Bottles: HCl	MeOH	HNO_3	H_2SO_4	NONE	DI Water	MEOH	ENCORE	8270 TCL 20+	SICP	CN	8082 PCB 11	RCRA	BTEX	TCLP Full	mTAL
5	SP1-05 Dup		10/3/19	1635	TJW	G	SO	4									X	X	X	X	X	X	X	X
6	SP1-06		10/3/19	1655	AD	G	SO	4									X	X	X	X	X	X	X	X
7	SP2-01		10/3/19	1710	DB	G	SO	4									X	X	X	X	X	X	X	X
8	SP2-02		10/3/19	1720	TJW	G	SO	4									X	X	X	X	X	X	X	X

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB-Equipment Blank
RB - Rinse Blank
TB - Trip Blank

LAB USE ONLY

Turn Around Time (Business Days)

Approved By (SGS PM): / Date:

- [ ] 10 Business Days
- [ ] 5 Business Days
- [X] 3 Business Days
- [ ] 2 Business Days
- [ ] 1 Business Day
- [ ] Other

All data available via Lablink

Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria_____
- [ ] CT RCP Criteria_____
- [ ] State Forms
- [ ] EDD Format_____
- [ ] DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:
1		10/3/19 8:30	
2			Date / Time: 10/5/19 0945
3			
4			Date / Time:
5		Date / Time:	

Received By: 1 | Received By: 2 | Received By: 3 | Received By: 4 | Received By: 5

Custody Seal # | Intact | Not intact | Preserved where applicable | Absent | Therm. ID: | On Ice | Cooler Temp. °C

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

SGS Sample Receipt Summary

Job Number: JC96286 **Client:** PARSONS ENGINEERING SCIENCE **Project:** PESNYL: TONAWANDA COKE CORP (TCC), SI

Date / Time Received: 10/5/2019 9:45:00 AM **Delivery Method:** FedEx **Airbill #'s:** 12156025-8766,-8777,-8803

Cooler Temps (Raw Measured) °C: Cooler 1: (6.7); Cooler 2: (12.9); Cooler 3: (8.9);

Cooler Temps (Corrected) °C: Cooler 1: (6.6); Cooler 2: (12.8); Cooler 3: (8.8);

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☐	☑
2. Cooler temp verification:	IR Gun	
3. Cooler media:	No Ice	
4. No. Coolers:	3	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify) _____ _____

Comments: 1) Samples rec'd outside of temp criteria without ice.

SM089-02 Rev. Date 12/1/16

Responded to by:

Response Date:

Please proceed as noted per client .

Job Change Order: JC96286

Requested Date:	10/10/2019	**Received Date:**	10/5/2019
Account Name:	Honeywell International Inc.	**Due Date:**	10/10/2019
Project Description:	PESNYL: Tonawanda Coke Corp (TCC), Site 108,	**Deliverable:**	FULT1
C/O Initiated By:	KD **PM:** KD	**TAT (Days):**	14

==========

Sample #: JC96286-10 **Change:**

Dept: Please cancel sample

TAT: 14

TB-01

==========

Above Changes Per: Client / Heather Fettig **Date/Time:** 10/10/2019 12:10:59 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Job Change Order: JC96286

Requested Date: 10/10/2019
Account Name: Honeywell International Inc.
Project Description: PESNYL: Tonawanda Coke Corp (TCC), Site 108,
C/O Initiated By: KD **PM:** KD

Received Date: 10/5/2019
Due Date: 10/10/2019
Deliverable: FULT1
TAT (Days): 2

==========

Sample #: JC96286-1 through -5
Dept:
TAT: 2

Change:
Please relog for MTAL on original job (due 10/14).

==========

Above Changes Per: Client / Heather Fettig **Date/Time:** 10/10/2019 12:46:22 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

APPENDIX E ASBESTOS ABATEMENT DOCUMENTATION

TANK DEMOLITION ASBESTOS ABATEMENT DOCUMENTATION

NEW YORK STATE OF OPPORTUNITY. | Department of Labor

Andrew M. Cuomo, Governor
Roberta L. Reardon, Commissioner

September 27, 2019

AMD Environmental
712 Main St
Buffalo, NY 14202

RE: File No. 19-1271

Dear Sir/Madam:

STATE OF NEW YORK
DEPARTMENT OF LABOR
DIVISION OF SAFETY AND HEALTH

The attached is a copy of Decision, dated, 9/27/2019, which I have compared with the original filed in this office and which I DO HEREBY CERTIFY to be a correct transcript of the text of the said original.

If you are aggrieved by this decision you may appeal within 60 days from its issuance to the Industrial Board of Appeals as provided by Section 101 of the Labor Law. Your appeal should be addressed to the Industrial Board of Appeals, State Office Building Campus, Building 12, Room 116, Albany, New York, 12240 as prescribed by its Rules and Procedure, a copy of which may be obtained upon request.

WITNESS my hand and the seal of the
NYS Department of Labor, at the City of
Albany, on this day of 9/27/2019.

Edward A. Smith, P.E.
Professional Engineer 2 (Industrial)

STATE OF NEW YORK
DEPARTMENT OF LABOR
STATE OFFICE BUILDING CAMPUS
ALBANY, NEW YORK 12240-0100

Variance Petition

Of

AMD Environmental Consultants, Inc.
Petitioner's Agent on Behalf of

Tonawanda Coke Inc.
Petitioner

in re

Premises: Tonawanda Coke Coal Tar Tank Farm
3875 River Road
Buffalo, NY 14150

ACM Pipe/Fitting Insulation and Debris Removals

File No. 19-1271

DECISION

Cases 1-4

ICR 56

The Petitioner, pursuant to Section 30 of the Labor Law, having filed Petition No. 19-1271 on September 24, 2019 with the Commissioner of Labor for a variance from the provisions of Industrial Code Rule 56 as hereinafter cited on the grounds that there are practical difficulties or unnecessary hardship in carrying out the provisions of said Rule; and the Commissioner of Labor having reviewed the submission of the petitioner dated September 22, 2019; and

Upon considering the merits of the alleged practical difficulties or unnecessary hardship and upon the record herein, the Commissioner of Labor does hereby take the following actions:

Case No. 1	ICR 56-11.3(e)
Case No. 2	ICR 56-11.8(b)(4)(iii)
Case No. 3	ICR 56-7.8
Case No. 4	ICR 56-9.2(d)

VARIANCE GRANTED. The Petitioner's proposal for cleanup and removal of friable pipe/fitting insulation and debris in quantities as note in the petitioner's proposal at the subject premises in accordance with the attached 03-page stamped copy of the Petitioner's submittal is accepted; subject to the Conditions noted below:

CONDITIONS

1. The full time on-site Project Monitor will be responsible to determine if pipe/fitting insulation or other thermal system insulations is too damaged to perform wrap-and-cut or glovebag operations. Any thermal system insulation that is significantly damaged and will likely be disturbed during wrapping or glovebag installation, shall require gross removal as per the conditions of this variance and per the petitioner's submittal. All failures of the abatement contractor to comply with the project monitor's determination regarding damage shall be immediately reported by the project monitor to the local district of the asbestos control bureau.

Negative Pressure Glovebags Pipe and Fitting Insulation Removals:

2. Personal protective equipment as required by ICR 56 shall be required of and used by all persons within the work area.

3. An attached project decontamination system enclosure shall be installed and utilized for the asbestos cleanup project. If safety concerns prevent the enclosure from being attached to the work area then the enclosure may be remote and waste decontamination shall comply with ICR 56-7.5(d)&(f).

4. All workers within the work area and all equipment operators accessing the work area to disturb asbestos-containing materials shall be certified in accordance with ICR 56-3.2.

5. Critical Barriers to any vicinity structures within 25 foot of the immediate glovebag removal area shall be installed in conformance to Subpart 56-7.11(a). All openings (critical barriers) shall be covered with two (2) layers of (6) six-mil fire retardant polyethylene or for around pipes or similar openings an expandable foam or other sealant may be used.

6. A commercially available negative pressure glovebags may be utilized for removals, in lieu of glovebag removals within negative pressure tent/shroud

enclosures. Glovebag removal procedures shall be consistent with ICR 56-8.4 and OSHA 29 CFR 1926.1101, for all insulation removals.

7. If negative pressure glovebags are not available, standard glovebags placed under negative pressure using a HEPA vacuum during removal may be utilized. These glovebags shall be fitted with adequate interior support to prevent collapse while under negative pressure. The integrity of the glovebag shall not be compromised by this additional support.

8. The makeup air inlet to the glovebag shall be fitted with a HEPA filter

9. Under areas where ACM is scheduled for negative pressure glovebag operations without a tent enclosure, a dropcloth, made of 6 mil fire retardant polyethylene sheeting, shall be placed below the material to be removed to prevent spread of any ACM remnants. This dropcloth shall be a minimum of 10 feet wide with an additional 10-ft. of width for every 20 feet in height above the floor/ground level where removal work will take place. This dropcloth shall be removed and containerized following removal of the glovebags or abandoned piping, prior to the cleaning stage. All remnants observed on the dropcloth shall be collected and immediately bagged or containerized for disposal as ACM.

10. Actions that shall be taken in the event of a loss of glovebag integrity are as outlined in Subpart 56-8.4(a) (11).

11. Once ACM removal has been completed, one thorough cleaning as described in ICR 56-9.1(e) and one settling, waiting period shall suffice, except when an air test fails.

12. The contractor shall observe, at a minimum, two-hour waiting (settling/drying) periods for glovebag removals.

13. After removal and cleanings are complete and a minimum drying period has elapsed, Project Monitor shall determine if the area is dry and free of visible asbestos debris. If the area is determined to be acceptable and the most recent daily abatement air sample results meet 56-4.11 clearance criteria, the final dismantling of the site may begin.

14. All pipe waste must be immediately containerized and labeled. All generated waste shall be adequately wet and transported as an asbestos-containing material by appropriate legal methods.

Wrap and Cut Procedures:

15. Wrap and Cut pipe removals shall be per ICR 56-11.8.

Exterior Friable ACM Removals
Secure the Work Site

16. The entire area and all surrounding portions of the site to be utilized for cleanup, staging areas and regulated abatement work areas, shall be enclosed within a barrier or fence (orange construction fence or snow fence) at a distance of twenty-five (25'). The intent of this barrier is to define the restricted area at the work site, alert the public to the asbestos work and associated hazards, and to prevent unauthorized entry onto the work site.

17. Entry/Exit of all persons and equipment shall be through one designated and secure "doorway" in the barrier or fence, which shall provide an adequate and appropriate means of egress from the work site.

18. Signage in accordance with the requirements of ICR 56-7.4(c) shall be posted on the exterior of the work site boundary fence/barrier, to warn the public of the asbestos hazard.

Establishment of Regulated Areas

19. The regulated work areas, decontamination units, airlocks, and dumpster areas shall be cordoned off at a distance of twenty-five feet (25') where possible and shall remain vacated except for certified workers until satisfactory clearance air monitoring results have been achieved or the abatement project is complete. These areas shall have Signage posted in accordance with Subpart 56-7.4(c) of this Code Rule. For areas where twenty-five feet isn't possible, the areas shall be cordoned off as practical, and a daily abatement air sample shall be included in the vicinity of the barrier.

Exterior Project Removals

20. Uncertified personnel shall not be allowed to access any regulated abatement work area, with the exception of waste hauler truck drivers. These truck drivers will be restricted to their enclosed cab, while temporarily in the regulated work area for waste transfer activities only. All equipment operators utilized for demolition or removal activities within the regulated work area must be certified in compliance with ICR 56-3.2.

21. No dry disturbance or removal of asbestos material shall be permitted.

22. A remote personal decontamination enclosure system that otherwise complies with ICR 56-7.5(d) shall be utilized. A remote waste decontamination enclosure system that otherwise complies with ICR 56-7.5(f) shall be utilized. These enclosures shall be located as close as possible to the regulated work area and shall be removed only after

satisfactory clearance air monitoring results have been achieved for the regulated abatement work area.

23. The walkway from the regulated abatement work area to the decontamination system shall have a cleared pathway. This walk way will be delineated and separated from non-certified personnel access and signage installed as per section 56-7.4(c), to delineate it from the public.

24. In areas where ACM is removed, a drop cloth, made of six (6) mil fire retardant polyethylene sheeting shall be placed and adequately sized on the ground near the work area to prevent spread of any ACM remnants.

25. In situations where insulation is in a state of disrepair, Materials during removals shall be immediately containerized/bagged or wrapped in two layers of 6 mil, fire retardant plastic sheeting and secured air tight prior to transport to the waste decontamination facility.

26. In situations where insulation is in a state of disrepair, an asbestos handler (worker) shall keep the material continually wet while another worker with a HEPA vacuum will position the vacuum hose within four (4) inches of the material being removed to capture small pieces of non-friable ACM and asbestos fines. The hose end will be positioned so that as many smaller pieces of material as possible will fall into the vacuum hose end. Larger pieces of ACM should be immediately bagged or containerized.

27. Asbestos containing material will not be allowed to accumulate on the drop cloth.

Perimeter Air Sampling:

28. In addition to the requirement of Subpart 56-4.9(c), air monitoring shall be conducted daily at the perimeter of the work area.

29. A minimum of two upwind air samples shall be collected. The samples shall be spaced approximately 30 degrees apart from the prevailing wind direction.

30. A minimum of three downwind samples shall be collected. The samples shall be equally spaced in a 180-degree arc downwind from the source.

31. If more than one shift daily is required to accomplish the work, air monitoring within the work area during abatement shall be performed on each shift.

Site Soil Cleanup:

32. The site where the demolition occurred shall be assessed and cleaned up as follows.

33. Soil cleanup shall include, all visible asbestos or suspect asbestos debris. Soil removal shall meet ASTM 1368 (latest edition), Section 9.1.1-9.1.5 inspection criteria.

34. No pieces of ACM shall be present on top of the soil.

35. Visibly contaminated soil or soil suspected of being contaminated shall be removed down to the level where no visible contamination is noted.

36. The Project Monitor shall record the results of his/her inspection on the Project Log.

37. After abatement of the asbestos, all plastic sheeting and tape will be treated as contaminated material and properly disposed of asbestos waste at the end of the project.

38. Usage of this variance is limited to those asbestos removals identified in this variance or as outlined in the Petitioner's proposal.

In addition to the conditions required by the above specific variances, the Petitioner shall also comply with the following general conditions:

GENERAL CONDITIONS

1. A copy of this DECISION and the Petitioner's proposals shall be conspicuously displayed at the entrance to the personal decontamination enclosure.

2. This DECISION shall apply only to the removal of asbestos-containing materials from the aforementioned areas of the subject premises.

3. The Petitioner shall comply with all other applicable provisions of Industrial Code Rule 56-1 through 56-12.

4. The NYS Department of Labor Engineering Service Unit retains full authority to interpret this variance for compliance herewith and for compliance with Labor Law Article 30. Any deviation to the conditions leading to this variance shall render this variance Null and Void pursuant to 12NYCRR 56-12.2. Any questions regarding the conditions supporting the need for this variance and/or regarding compliance hereto must be directed to the Engineering Services Unit for clarification.

5. This DECISION shall terminate on **December 27, 2019.**

Date: September 27, 2019

ROBERTA L. REARDON
COMMISSIONER OF LABOR

By

for Edward A. Smith, P.E.
Professional Engineer 2 (Industrial)

PREPARED BY: Mark G. Wykes, P.E.
Professional Engineer 1 (Industrial)

REVIEWED BY: Edward A. Smith, P.E.
Professional Engineer 2 (Industrial)

191271

EMERGENCY VARIANCE PROPOSAL
Tonawanda Coke, 3800 River Rd, Buffalo, NY

AMD ENVIRONMENTAL

New York State Department of Labor
Division of Safety and Health
Engineering Services Unit
State Office Building Campus
Albany, New York 12240

September 23, 2019

ATTN: Engineering Services Unit

RE: Emergency Variance Proposal
Tonawanda Coke Corporation
3800 River Rd.
Buffalo, New York 14150

Project Description:

This project involves removal of asbestos-containing pipe insulation and cleanup of debris associated with three coal tar storage tanks to facilitate removal of coal tar, demolition of the tanks, and removal of water and coal tar within the bermed area of the storage tanks. The USEPA has designated the coal tar and contact water as a listed hazardous waste (K 142). The pipe insulation is in poor condition; most of the material has fallen off the pipe into the bermed area of the tanks. The bermed area has 2-feet plus of standing water. Any delay in addressing the asbestos conditions will impact the aggressive removal action being conducted under an Administrative Settlement Agreement and Order on Consent with the USEPA. The removal action needs to be completed before freezing temperature arrive in Buffalo and the asbestos abatement must be completed before work can proceed on the storage tanks.

Formerly used for steam and material transport piping, this insulation is in such a state for disrepair, in many some locations, neither glovebag nor wrap and cut processes are practical. An estimated 100 linear feet of TSI needs to be removed. The current debris field on the ground is estimated to be approximately 2,000 square feet currently underwater. Access to remove TSI and debris are further complicated by standing water, silt, soil, and cat-tails within the secondary containment berms.

This variance is intended to serve as a work plan for this project.

Question 9: ICR 56 Relief Sought
The petitioner is requesting relief from the following sections of Code Rule 56;

1.	56-11.3(e)	Glove bag removal without tent
2.	56-11.8(b)(4)(iii)	Glove bag removal without tent
3.	56-7.8	Negative pressure enclosure
4.	56-9.2(d)	Clearance air sampling

Question 10: Hardship Description

Although this project is isolated from the public, not only does this project have the hazards of asbestos abatement, exposure to hazardous chemicals such as benzene are of concern.

Construction of tents are not practical due to accessibility and condition of this TSI. Most of the TSI has already fallen from the pipes around this tank farm. Lack of maintenance and severe weather have destroyed the structural integrity of the insulation and in some case the integrity of the piping itself.

191271

EMERGENCY VARIANCE PROPOSAL

Tonawanda Coke, 3800 River Rd, Buffalo, NY

Therefore, AMD Environmental Consultants Inc. is requesting relief from portions of Code Rule 56 in order to complete the project. Please review the attached information in Question 11 outlining our proposed modifications of Code Rule 56.

Question 11: Proposed Abatement Method

All work methods shall be conducted consistent with Code Rule 56 and as amended in the provisions below;

Air Sampling:

1. Air monitoring shall be conducted consistent with 56-4 except for the following:
   - 1.1. Background air sampling shall not be required,
   - 1.2. In addition to the requirement of Subpart 56-4.9(b-c), Minimum of 2 air samples shall be run at all work areas during Phase IIA & IIB of insulation removal. These samples will be in close proximity of removals.
   - 1.3. The final days' "work in progress" air sample results shall serve as clearance air sampling.

Regulated Abatement Work Area Preparation For TSI Removal

2. Each regulated abatement work area shall be established and signage posted as per the requirements of Section 56-7.4. Each regulated abatement work area shall remain vacated except for certified workers until satisfactory Project Monitor visual inspection or the asbestos project is complete.
3. The asbestos project regulated abatement work area shall extend twenty-five (25') feet from the perimeter of the immediate work area in accordance with Section 56-7.4.
4. Preliminary Preparation. Regulated abatement work area preparation shall also comply with Sections 56-7.2, 7.3, 7.4, 7.5, 7.6, and 7.7.
5. Precleaning will not be performed due to the contamination.
6. Due to the nature of exterior tank farm work, critical barriers are not required.
7. Wrap and cut methods will be performed when practical.
8. Some of the pipe and TSI is in jeopardy of falling, therefor wrapping or glovebag installation may not be safe nor practical. When wrapping or installation of glove bags is deemed unsafe by the Asbestos Supervisor, or impractical by Project Monitor and Asbestos Supervisor, TSI shall be carefully removed using wet methods and a HEPA vacuum held in close proximity to the removal.
9. Since each of these minor TSI removals is in a remote area and construction of tent are difficult due the work area conditions, when utilized, glovebag operations shall be treated as "an isolated event" and will be performed without a negative pressure tent — similar to what is allowed for a single minor maintenance activity (CR56-11.3 (d)).

SEE VARIANCE CONDITIONS #8&9

Work Practice for Wrap and cut removal

10. Removal of remaining insulated pipe shall be consistent with 56-11.8 Abandoned Pipe/Duct/ Conduit Wrap and Cut Removal, except tents shall not be required.

Debris field clean up

11. Work practices shall be consistent with CR56-11.5 Controlled Demolition with the following exceptions and clarifications:
    - 11.1. Air sampling shall be as defined above.
    - 11.2. This work practice shall be limited to debris field clean up. No asbestos will remain in place.
    - 11.3. Project is a Large Project; approximately 2,000 square feet.
    - 11.4. Since Tonawanda Coke is a secure facility the regulated work area shall be demarcated by red asbestos tape in locations consistent with CR56-11.5 (c)(2), not a construction fence.
    - 11.5. A small mobil decon shall be attached to the regulated work area.
    - 11.6. The ACM contaminated soil has been submerged under recent removed Benzene contaminated water. It is expected that the soil is sufficiently wet. Adding water will

EMERGENCY VARIANCE PROPOSAL
Tonawanda Coke, 3800 River Rd, Buffalo, NY

generate more benzene contaminated waste. Additional water shall only be used when Asbestos Supervisor and Project Monitor observe visible airborne emissions during the excavation of contaminated soil.

SEE VARIANCE CONDITIONS ATTACHED →

11.7. ~~Up to 3" of~~ Soil shall be removed from the immediate vicinity of visible debris.

11.8. Final visual inspection shall consist of Project Monitor inspecting for visible debris in excavated area.

SEE VARIANCE CONDITIONS ATTACHED →

11.9. The final days' "work in progress" air sample results shall serve as clearance air sampling.

11.10. Remaining soil shall be removed based on EPA and DEC requirements for contaminates found.

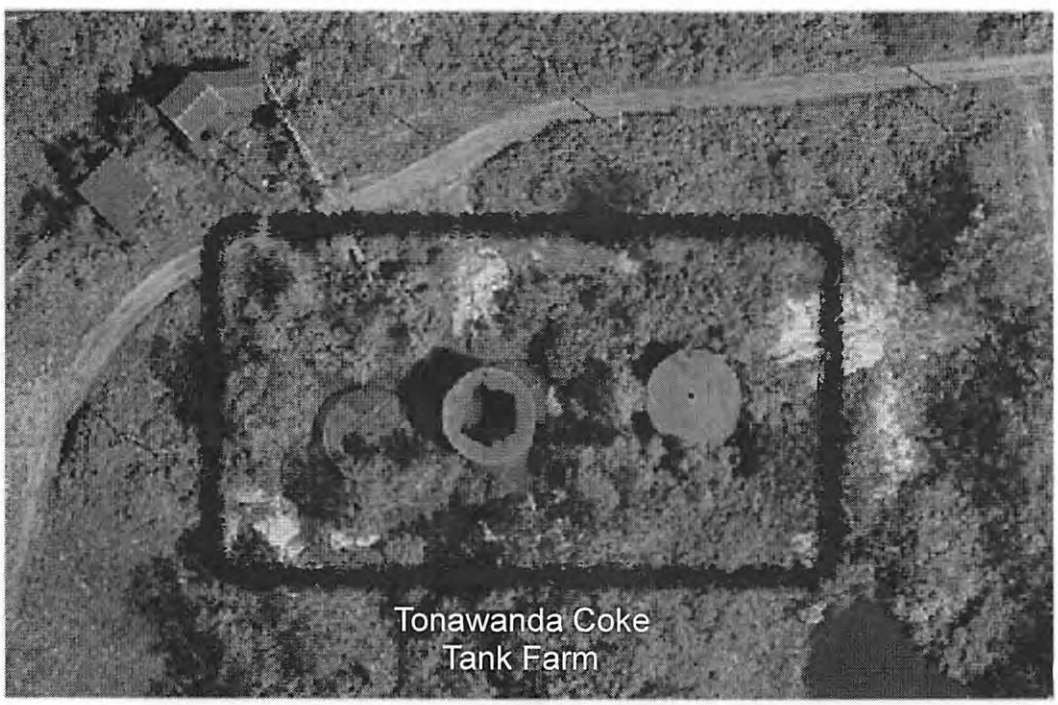
11.11. Due to various contaminants, waste shall be characterized following DEC, EPA and DOT regulations to determine disposal requirements including asbestos as RACM.

We believe the above work process represents safe methods to perform the work needed on the project.

Kevin Hutton NYSDOL/EPA Certified Project Designer
NYSDOL Certified Project Designer Certification No. 07-15574
AMD Environmental Consultants, Inc, AH License No. 56177
712 Main St. Suite L1, Buffalo, New York 14202

191271

EMERGENCY VARIANCE PROPOSAL
Tonawanda Coke, 3800 River Rd, Buffalo, NY



New York State Department of Labor
Division of Safety and Health - Engineering Services Unit
State Office Campus
Building 12, Room 154
Albany, NY 12240

Petition for an Asbestos Variance

To apply for an asbestos variance, the Project Designer must:

- Complete all of the information on pages one and two of this asbestos variance request. Please type or print.
- Sign and date page two of the certification and all of the attachments.
- Send two copies of the petition and all attachments, with your $350 fee, to the address at the top of this page.
  - Make your check or money order payable to the Commissioner of Labor.
- Optional: To speed up the process you may include a self-addressed, stamped, express-mail envelope.

1 a. **Is this petition related to a safety or health emergency?** X Yes ____ No
b. If yes, explain: **Chemical storage tank leaks have been discovered. This abatement is required to prior to environmental clean up that must occur before freezing weather**

2 a. **Name of Petitioner (Property Owner):** Tonawanda Coke, Inc
b. Street Address: 3875 River Rd.
c. City: Buffalo d. State: NY e. Zip: 14150
f. Telephone Number: (716) 876 - 6222 g. Fax Number: (716) 408 - 3008
h. Petitioner's Federal Employee Identification Number (FEIN) 16-1098956

3 a. **Petitioner's Agent (Asbestos Contractor) Firm Name:** AMD Environmental Consultants, Inc
b. Street Address: 712 Main St
c. City: Buffalo d. State: NY e. Zip: 14202
f. Telephone Number: (716)833-0043 g. Fax Number: ( ) -

4 a. **Asbestos Contractor License No.** 56177 b. Name of Firm: AMD Environmental Consultants, Inc

5. **Building Description:**
a. Affecting premises known as: Tonawanda Coke Coal Tar Tank Farm
b. These premises are situated on the ___North, ___South, ___East, X West side of ___Street, ___Ave, X Road.
c. County of Erie
d. Street Address: 3800 River Rd
e. City: Buffalo f. State: NY g. Zip: 14150
h. Is building occupied? X Yes ____ No
i. Current function of building: Former iron coke processing facility
j. Approximate area (square feet) of building: NA k. Number of stories or height in feet: NA
l. What is within 25 feet of all four sides (North, South, East, West) of building? i.e. sidewalk, alley, land, another building, etc.: This project is isolated from the general public, there are no occupied facilities in close proximity of the tank farm

6. **Order To Comply or Notice of Violation.** Attach copy.
a. Issued to: ___Owner ____Asbestos Contractor ____Operator ____Other
b. Name on Order or Notice: ____ c. Date issued: ___/___/___
d. List the Industrial Code Rule (ICR) citations given on the Order to Comply or Notice of Violation: ____

7. **If a variance has been granted previously for work closely resembling this project list:**
a. Variance number: ____ b. Date variance granted: ___/___/___

Note: Add a separate typed or printed page for each work area and work procedure. Sign and date each page.

8. **Work Area Description Table:** Attach additional tables and scale drawings of work area and pictures, as needed.

Work Area Designation	Exterior or Interior	Work/Room Area Dimensions	Type of Asbestos Containing Material (ACM)	Quantity of ACM	Condition of ACM (level of damage)	Friability of ACM (non-friable or friable)	Type of Containment (full, 2-layer tent, single layer tent, open-air, etc.)
SEE ATTACHED							

9. **ICR 56 Relief Sought:** List the individual sections of ICR 56 for which relief is sought, for each work area or method used. Provide sufficient detail in an attachment. SEE ATTACHED

10. **Hardship Description:** What is the hardship, (e.g. Limited room for decons, exhaust ducts must be longer than 25 feet, all surfaces are contaminated and cannot be plasticized) for each work area or method used? Provide sufficient detail in an attachment. Include condemnation letter or EPA Approval letter if applicable. SEE ATTACHED

11. **Proposed Abatement Method Description for each work area or method used:** Include scale drawings and pictures as necessary. Lack of sufficient detail will delay issuance of variance decision.
    a. Will proposed abatement methods render non-friable ACM material friable? _____ Yes X No
    b. What proposed abatement method, increased engineering controls and detailed procedures will be used to compensate for the relief being sought? (i.e. Increased negative air rate, negative pressure glovebag, negative pressure glovebox, high temperature glovebag, intact component removal, etc.) Include sufficiently detailed procedures to complete the proposed work. _____

SEE ATTACHED

Project Designer Certification

I request that the Commissioner of Labor issue a variance from the requirements of Industrial Code Rule (ICR) 56. This request is based on the information in this application and the attached documents.

I certify that the information contained in this petition is true and accurate.

I understand that if a variance is granted it may be withdrawn by the Commissioner if:

- Any of the information provided in this petition is found to be inaccurate
- There are violations of Article 30 of the New York State Labor Law or New York State regulations

I give the Commissioner of Labor permission to provide all of my companies records for Unemployment Insurance (UI) reports and contributions to employees of the New York State Department of Labor. This includes information about withholding, wage reporting, UI returns, UI registration, new hires, and all records of UI delinquencies. This information may only be used for government purposes regarding the licensing and certification of this company as required by Article 30 of the New York State Labor Law and the regulations of the New York State Department of Labor, and for monitoring the company's compliance with Article 30 and ICR 56.

12 a. Project designer name (print): Kevin Hutton b. E-mail: kbhutton@yahoo.com

c. Project Design Asbestos Contractor firm name: AMD Environmental Consultants, Inc

d. Street: 712 Main St

e. City: Buffalo f. State: NY g. Zip: 14202 h. Phone: (585) 727- 2058

i. Designer certificate number: 07-15574 j. Expiration Date: 09 / 31 / 2020

k. Design Firm Asbestos Contractor License Number 56177 l. Expiration Date: 11 / 30 / 2019

13 a. Project designer signature: _____ b. Date: 9 / 22 / 2019

EMERGENCY VARIANCE PROPOSAL

Tonawanda Coke, 3800 River Rd, Buffalo, NY

New York State Department of Labor
Division of Safety and Health
Engineering Services Unit
State Office Building Campus
Albany, New York 12240

September 23, 2019

ATTN: Engineering Services Unit

RE: Emergency Variance Proposal
Tonawanda Coke Corporation
3800 River Rd.
Buffalo, New York 14150

Project Description:

This project involves removal of asbestos-containing pipe insulation and cleanup of debris associated with three coal tar storage tanks to facilitate removal of coal tar, demolition of the tanks, and removal of water and coal tar within the bermed area of the storage tanks. The USEPA has designated the coal tar and contact water as a listed hazardous waste (K 142). The pipe insulation is in poor condition; most of the material has fallen off the pipe into the bermed area of the tanks. The bermed area has 2-feet plus of standing water. Any delay in addressing the asbestos conditions will impact the aggressive removal action being conducted under an Administrative Settlement Agreement and Order on Consent with the USEPA. The removal action needs to be completed before freezing temperature arrive in Buffalo and the asbestos abatement must be completed before work can proceed on the storage tanks.

Formerly used for steam and material transport piping, this insulation is in such a state for disrepair, in many some locations, neither glovebag nor wrap and cut processes are practical. An estimated 100 linear feet of TSI needs to be removed. The current debris field on the ground is estimated to be approximately 2,000 square feet currently underwater. Access to remove TSI and debris are further complicated by standing water, silt, soil, and cat-tails within the secondary containment berms.

This variance is intended to serve as a work plan for this project.

Question 9: ICR 56 Relief Sought

The petitioner is requesting relief from the following sections of Code Rule 56;

1. 56-11.3(e) Glove bag removal without tent
2. 56-11.8(b)(4)(iii) Glove bag removal without tent
3. 56-7.8 Negative pressure enclosure
4. 56-9.2(d) Clearance air sampling

Question 10: Hardship Description

Although this project is isolated from the public, not only does this project have the hazards of asbestos abatement, exposure to hazardous chemicals such as benzene are of concern.

Construction of tents are not practical due to accessibility and condition of this TSI. Most of the TSI has already fallen from the pipes around this tank farm. Lack of maintenance and severe weather have destroyed the structural integrity of the insulation and in some case the integrity of the piping itself.

EMERGENCY VARIANCE PROPOSAL

Tonawanda Coke, 3800 River Rd, Buffalo, NY

Therefore, AMD Environmental Consultants Inc. is requesting relief from portions of Code Rule 56 in order to complete the project. Please review the attached information in Question 11 outlining our proposed modifications of Code Rule 56.

Question 11: Proposed Abatement Method

All work methods shall be conducted consistent with Code Rule 56 and as amended in the provisions below;

Air Sampling:

1. Air monitoring shall be conducted consistent with 56-4 except for the following:
    1.1. Background air sampling shall not be required,
    1.2. In addition to the requirement of Subpart 56-4.9(b-c), Minimum of 2 air samples shall be run at all work areas during Phase IIA & IIB of insulation removal. These samples will be in close proximity of removals.
    1.3. The final days' "work in progress" air sample results shall serve as clearance air sampling.

Regulated Abatement Work Area Preparation For TSI Removal

2. Each regulated abatement work area shall be established and signage posted as per the requirements of Section 56-7.4. Each regulated abatement work area shall remain vacated except for certified workers until satisfactory Project Monitor visual inspection or the asbestos project is complete.
3. The asbestos project regulated abatement work area shall extend twenty-five (25') feet from the perimeter of the immediate work area in accordance with Section 56-7.4.
4. Preliminary Preparation. Regulated abatement work area preparation shall also comply with Sections 56-7.2, 7.3, 7.4, 7.5, 7.6, and 7.7.
5. Precleaning will not be performed due to the contamination.
6. Due to the nature of exterior tank farm work, critical barriers are not required.
7. Wrap and cut methods will be performed when practical.
8. Some of the pipe and TSI is in jeopardy of falling, therefor wrapping or glovebag installation may not be safe nor practical. When wrapping or installation of glove bags is deemed unsafe by the Asbestos Supervisor, or impractical by Project Monitor and Asbestos Supervisor, TSI shall be carefully removed using wet methods and a HEPA vacuum held in close proximity to the removal.
9. Since each of these minor TSI removals is in a remote area and construction of tent are difficult due the work area conditions, when utilized, glovebag operations shall be treated as "an isolated event" and will be performed without a negative pressure tent — similar to what is allowed for a single minor maintenance activity (CR56-11.3 (d)).

Work Practice for Wrap and cut removal

10. Removal of remaining insulated pipe shall be consistent with 56-11.8 Abandoned Pipe/Duct/ Conduit Wrap and Cut Removal, except tents shall not be required.

Debris field clean up

11. Work practices shall be consistent with CR56-11.5 Controlled Demolition with the following exceptions and clarifications:
    11.1. Air sampling shall be as defined above.
    11.2. This work practice shall be limited to debris field clean up. No asbestos will remain in place.
    11.3. Project is a Large Project; approximately 2,000 square feet.
    11.4. Since Tonawanda Coke is a secure facility the regulated work area shall be demarcated by red asbestos tape in locations consistent with CR56-11.5 (c)(2), not a construction fence.
    11.5. A small mobil decon shall be attached to the regulated work area.
    11.6. The ACM contaminated soil has been submerged under recent removed Benzene contaminated water. It is expected that the soil is sufficiently wet. Adding water will

generate more benzene contaminated waste. Additional water shall only be used when Asbestos Supervisor and Project Monitor observe visible airborne emissions during the excavation of contaminated soil.

11.7. Up to 3” of soil shall be removed from the immediate vicinity of visible debris.
11.8. Final visual inspection shall consist of Project Monitor inspecting for visible debris in excavated area.
11.9. The final days’ “work in progress” air sample results shall serve as clearance air sampling.
11.10. Remaining soil shall be removed based on EPA and DEC requirements for contaminates found.
11.11. Due to various contaminants, waste shall be characterized following DEC, EPA and DOT regulations to determine disposal requirements including asbestos as RACM.

We believe the above work process represents safe methods to perform the work needed on the project.

Kevin Hutton NYSDOL/EPA Certified Project Designer
NYSDOL Certified Project Designer Certification No. 07-15574
AMD Environmental Consultants, Inc, AH License No. 56177
712 Main St. Suite L1, Buffalo, New York 14202

EMERGENCY VARIANCE PROPOSAL
Tonawanda Coke, 3800 River Rd, Buffalo, NY

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Arric Corp.
5033 Transit Road
Depew, NY 14043

FILE NUMBER: 99-0167
LICENSE NUMBER: 29332
LICENSE CLASS: FULL
DATE OF ISSUE: 02/14/2019
EXPIRATION DATE: 02/29/2020

Duly Authorized Representative – Paul Keller:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

BUILDING OCCUPANT NOTIFICATION

TO: Tonawanda Coke (TCC108)
Former Tank Farm
3800 River Rd.
Tonawanda, NY 14150

FROM: Darryl J. Cassata
Arric Corp.

DATE: September 17 , 2019

SUBJECT: Asbestos Abatement

Notification of all building occupants must be made prior to the commencement of any project in which asbestos containing material is removed from a building.

A project has been planned to remove 100 LF and 2,000 SF of asbestos containing pipe and debris clean up from the Former Tank Farm at Tonawanda Coke (TCC108) located at 3800 River Rd., Tonawanda, NY 14150.

This asbestos removal project is scheduled to begin September 30, 2019 and be completed by December 30, 2019.

The air monitoring firm for the this project Watts Architecture & Engineering, License No. 68007 and the lab for the project is EMSL Analytical, ELAP#11606.

Arric Corp. is a New York State certified contractor, which currently holds the NYS Department of Labor Asbestos Handling License Number 29332.

This notification complies with the mandates of NYS Industrial Code Rule 56, cited as 12NYCRR, Part 56.

Should there be any questions concerning this notification please contact Darryl J. Cassata, Arric Corp. at (716) 681-3535.

DJC/md

Asbestos Project Notification

Project Reference Number:	26474329	Type:	Initial Notification
Status:	Notification Received	Notification Received:	9/17/2019
Payment Status:	Paid in full	Number of amendments:	0
Notification Entered By:	Arric Corporation		

Contractor Information

FEIN:161342998

Arric Corp.

5033 Transit Road

Depew NY 14043

Asbestos License Number: 29332

Mailing Address

Duly Authorized Representative

Paul Keller, Officer

Phone Number: 716-681-3535

E-mail Address: arriccorp@yahoo.com

Project Information

Project Start Date:	9/30/2019
Project End Date:	12/30/2019
Project Location County:	Erie

Worker Compensation

Worker Compensation Policy#:	
WC Exemption Certificate#:	
Number of your employees you expect to be on project:	
Will temporary workers be used?	
If yes, name of temporary agency:	

Project Location

Building Name:	Tonawanda Coke (TCC108)
Room or Location:	Former Tank Farm
Bridge ID#:	
Address Line 1:	3800 River Rd.
Address Line 2:	
City Town or Village:	Tonawanda
State:	New York
Zip Code:	14150

Building Information

Current Use:	Vacant
Prior Use:	Commercial
Approximate Year Built:	1960
Size(sq.ft):	2000
Is this fee exempt project?:	NO
Reason:	

Building Representative/Site Contact

Name:	Michael Durkin
Phone Number:	716-876-6222
E-mail Address:	
Cell Phone Number:	

Phase Details

Phase #	Phase Start Date	Phase End Date	Phase Location	Phase Scope

Sub-Contractor Details

Name:	Asbestos License Number:

Night/Weekend/Shift Work Details

Party for Whom Work is being Performed

First Name:		Last Name:	
Organization:	Ontario Specialty Contracting		
Apt./Suite:		Address Line 1:	333 Ganson St.
Address Line 2:		City Town or Village:	Buffalo
Province:		State:	NY
Zip Code:	14206	Country:	United States
Contract Dollar Amount:	$32,000.00		

Variance Information

Procedures and Type of Equipment and Ventilation Systems Used

Hepa vacuum, wet wipe

Air Monitoring Firm

Name:	Asbestos License Number:
Watts Architecture & Engineering, D.P.C.	68007

Laboratory Performing Analysis

Name:	ELAP Registration Number:
EMSL Analytical	11606

Type of Asbestos Work

Pipe Related:	Yes	Siding:	No
Clean up:	No	Vessel covering:	No
Caulking/mastic:	No	Spray-on insulation:	No
Roofing/flashing:	No	VAT:	No
Demolition:	No	Demolition Ref#:	
Other-specify:	Debris clean		

Waste Transporter

Name:	Tonawanda Tank Transport
NYS DEC or EPA Permit Number:	9A-080
Phone Number:	7168739703
Apt./Suite:	
Address Line 1:	PO Box H
Address Line 2:	
City Town or Village:	Buffalo
Province:	
State:	
Zip Code:	14217
Country:	United States

Landfill

Name:	Minerva Enterprises
Phone Number:	3308663435
Apt./Suite:	9000 Minerva Rd.
Address Line 1:	9000 Minerva Rd.
Address Line 2:	
City Town or Village:	Waynesburg
Province:	
State:	
Zip Code:	44688
Country:	United States

Type and Amount of Asbestos Containing Material

Friable linear feet:	100	Friable square feet:	2000
Non-friable linear feet:	0	Non-friable square feet:	0

Fee

Total linear feet:	100.0
Total square feet:	2000.0
Total Fee:	2000.0

Project Fee Schedule

If the notification was submitted prior to 4/7/09, the actual project fee is one half of the amount shown on the fee schedule

Linear Feet:	Fee	Square Feet:	Fee
0 - 259 feet:	$0	0 - 159 feet:	$0
260 - 429 feet:	$200	160 - 259 feet:	$200
430 - 824 feet:	$400	260 - 499 feet:	$400
825 - 1649 feet:	$1000	500 - 999 feet:	$1000
1650 or more feet:	$2000	1000 or more feet:	$2000

Remarks

Cert Mail # 7017 1000 0000 8889 4535

U.S. EPA NOTIFICATION OF DEMOLITION AND RENOVATION

Operator Project #	Postmark	Date Received	Notification #

I. Type of Notification (check one): ☑ Original ☐ Revised ☐ Canceled

II. Facility Description

Building Name: Tonawanda Coke Former Tank Farm (RCC1108)

Address: 3800 River Rd.

City: Tonawanda State: NY Zip Code: 14150 County: Erie

Site Location : Former Tank Farm

Building Size (square feet): Exterior # of Floors: 1 Age in Years: 49

Present Use: Abandoned Prior Use: Tank Farm

III. Type of Operation (check one): ☐ Demo ☐ Ordered Demo ☑ Renovation ☐ Emergency Renovation ☐ Fire Training

IV. Is Asbestos Present? (check one): ☑ Yes ☐ No

V. Facility Information

Owner Name: Tonawanda Coke

Address: 3875 River Rd.

City: Tonawanda State: NY Zip Code: 14150

Contact: Michael Durkin Telephone: (716) 876-6222 Fax:

Removal Contractor Name: Arric Corp.

Address: 5033 Transit Rd.

City: Depew State: NY Zip Code: 14043

Contact: Paul Keller Telephone: (716) 681-3535 Fax: 681-5889

Other Operator (demolition/general):

Address:

City: State: Zip Code:

Contact: Telephone: ( ) Fax:

VI. Procedure, including analytical methods, employed to detect the presence of and to estimate the quantity of RACM and Category I and Category II non-friable ACM:

PLM

VII. Approximate Amount of Asbestos Materials:

	RACM to be Removed	Non-friable Asbestos Material to be Removed		Non-friable Asbestos Material NOT to be Removed	
		Category I	Category II	Category I	Category II
Pipes (linear feet)	100				
Surface Area (square feet)	2,000				
Facility Components (cubic feet)					

VIII. Scheduled Dates Demolition or Renovation: Start: Complete:

IX. Dates for Asbestos Removal (MM/DD/YY) Start: 10/01/19 Complete: 12/30/19

Days of the Week:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Hours of Operation:	7-3:30	7-3:30	7-3:30	7-3:30	7-3:30		

U.S. EPA NOTIFICATION OF DEMOLITION AND RENOVATION

X. **Description of planned Demolition or Renovation work to be performed and method(s) to be employed, including demolition or renovation techniques to be used and description of affected facility components:**

XI. **Description of work practices and engineering controls to be used to comply with the requirements, including asbestos removal and waste handling emission control procedures:**

Hepa vacuum, wet wipe

XII. **Waste Transporter #1**

Name: Keller Associates

Address: 5033 Transit Rd.

City: Depew State: NY Zip Code: 14043

Contact: Ken Keller Telephone: (716)681-3535

Waste Transporter #2

Name: Tonawanda Tank Transport Services

Address: PO Box H

City: Buffalo State: NY Zip Code: 14217

Contact: Jonathan Price Telephone: (716) 873-9703

XIII. **Waste Disposal**

Name: Minvera Enterprises

Address: 9000 Minerva Rd.

City: Waynesburg State: OH Zip Code: 44688

Contact: Telephone: (330) 866-3435

XIV. **Emergency Demolition** (complete Item XIV only if this project is an Emergency Demo.)

1. Attach a copy of the Order to this notice.
2. Name of Authority Issuing Order: Title:
3. Authority of Order (Citation of Code):
4. Date of Order (MM/DD/YY): Date Ordered to Begin

XV. **Emergency Renovation** (Attach separate sheet with the following information if project is Emergency Renovation.)

1. Date and Hour of the Emergency:
2. Description of the Sudden, Unexpected Event:
3. Explanation of how the event caused unsafe conditions or equipment damage or an unreasonable financial burden.

XVI. **Description of procedures to be followed in the event that unexpected RACM is found or non-friable ACM becomes crumbled, pulverized, or reduced to powder.**

Stop work and notify Authorities

XVII. **I certify that an individual trained in the provisions of NESHAP (40 CFR PART 61, SUBPART M) will be on -site during the Demolition or Renovation, and evidence that the required training has been accomplished by this person will be available during normal business hours.**

Signature of Owner/Operator	Date	Type or Print Name and Title
	09/17/19	Paul Keller, President

XVIII. **I acknowledge the existence of laws prohibiting the submission of false or misleading statements, and I certify that facts contained in this notification are true, accurate, and complete.**

Signature of Owner/Operator	Date	Type or Print Name and Title
	09/17/19	Paul Keller, President

Asbestos Air Monitoring Report

Project Location:

Tonawanda Coke Corporation
Tar Tank Farm - Pipe Insulation / Debris Cleanup Project
3875 River Road
Buffalo, NY 14150

Project ID:

19-1007SM-A

Prepared For:

Attn: Thomas Abrams
Parsons - Senior Project Manager
301 Plainfield Rd., Suite 350
Syracuse, NY 13212

Prepared by:

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
OFFICE (716) 833-0043 | FAX (716) 241-8689
www.amdenvironmental.com

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Table of Contents

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
O: 716 833-0043 |F: 716 241-8689
www.amdenvironmental.com

1.0 Project Summary

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
O: 716 833-0043 |F: 716 241-8689
www.amdenvironmental.com

October 25, 2019

Attn: Thomas Abrams
Parsons - Senior Project Manager
301 Plainfield Rd., Suite 350
Syracuse, NY 13212

Re: Asbestos Project PCM Air Sampling
Tonawanda Coke Corporation
Tar Tank Farm-Pipe Insulation/Debris Cleanup Project
3875 River Road
Buffalo, NY 14150
Project ID: 19-1007DM-A

Mr. Abrams;

I am pleased to present our air sampling report for the above referenced project. Sampling activities were conducted on the following dates: 10/07/2019, 10/15/2019, 10/16/2019 (Phase IIB). A total of twenty-seven (27) samples were collected during that period. Visual inspections of the worksite area(s) were conducted on: 10/07/2019, 10/15/2019, and 10/16/2019.

Air sampling activities were performed in accordance with New York State CFR 56-4, requirements for an asbestos abatement project. Per that standard, a project monitor must visually inspect the project and clearance air samples must either be at a level of <0.01f/cc, or else fall below the background level for that location.

Based on clearance air sampling result standards the work area has passed clearance requirements in accordance with NYS Site Specific Variance # 19-1271. Approximately 100 ln. ft. of pipe insulation on pipes and approximately 2,000 sq. ft. debris field on the ground has been abated.

Our New York State licensed site representatives was Stephen Maghran. Analysis was conducted at AMD Environmental Consultants' laboratory; a NYS ELAP approved facility in Buffalo, New York (ID: 11108). Enclosed please find the air sample report complete with analytical results.

Thank you for your consideration and we look forward to working with you again in the future.

Sincerely,

Anthony DeMiglio
President

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com

1.1 PCM Air Monitoring Results

AMD ENVIRONMENTAL

712 Main St. Suite L1 Buffalo NY 14202
Office: 716-833-0043 x104 Fax 716-241-8689
labs@amdenv.com -- ELAP ID No: 11108

PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**19-1007SM-A**	**Lab Project No:**	**19-229**
	712 Main St. Suite L1	**Project Name:**	**Tonawanda Coke Coal Tar Tank Farm**	**Sample Received:**	**10/08/2019**
	Buffalo, NY 14202	**Job Address:**	**3875 River Rd.**	**Sample Date:**	**10/07/2019**
		City, ST Zip:	**Buffalo, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**10/08/2019**	**Work Area:**	**Coal Tar Tank**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
1	Environmental	OWA	Personal Decon Ent.	1230	0	0	0.0000	< .01
2	Environmental	OWA	Personal Decon Ext.	1230	0	0	0.0000	< .01
3	Environmental	OWA	Critical Barrier #1 Upwind	1242	0	0	0.0000	< .01
4	Environmental	OWA	Critical Barrier #2 Upwind	1233	0	0	0.0000	< .01
5	Environmental	OWA	Critical Barrier #3 Downwind	1239	0	0	0.0000	< .01
6	Environmental	OWA	Critical Barrier #4 Downwind	1206	0	0	0.0000	< .01
7	Environmental	OWA	Critical Barrier #5 Downwind	1200	0	0	0.0000	< .01
8	Blank	Blank	Box Blank Lot 20190802	N/A	0	0	0.0000	NA
9	Blank	Blank	Field Blank	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

	RSD by Fiber Range			
Analyst Name:	Microscope:	0-20	21-50	51-100
Joylyn Kovatchev	Olympus CX41-3	0.2260	0.1170	0.0920
Lab		0.2079	0.1052	0.1099

Results Approved By Asbestos Technical Director:

Comments:

PCM results relate only to the samples listed, as received by the lab. These results are based on sampling data provided by the client. AMD Environmental Consultants, Inc. is not responsible for the data supplied by an independent technician. NYS Department of Health Environmental Laboratory Approval Program (ELAP) requirements mandate that this report not be reproduced, except in full, without the approval of the laboratory. This report must not be used to claim product endorsement by NYS ELAP or any agency of the US Government. Quality control data is available upon request.

AMD ENVIRONMENTAL

712 Main St. Suite L1 Buffalo NY 14202
Office: 716-833-0043 x104 Fax 716-241-8689
labs@amdenv.com -- ELAP ID No: 11108

PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**19-1007SM-A**	**Lab Project No:**	**19-229**
	712 Main St. Suite L1	**Project Name:**	**Tonawanda Coke Coal Tar Tank Farm**	**Sample Received:**	**10/16/2019**
	Buffalo, NY 14202	**Job Address:**	**3875 River Rd.**	**Sample Date:**	**10/15/2019**
		City, ST Zip:	**Buffalo, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**10/16/2019**	**Work Area:**	**Storage Tank #2**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
10	Environmental	OWA	Personal Decon Ent.	1089	1	1.274	0.0005	< .01
11	Environmental	OWA	Personal Decon Ext.	1089	1.5	1.911	0.0007	< .01
12	Environmental	OWA	Critical #1 Upwind	1095	0	0	0.0000	< .01
13	Environmental	OWA	Critical #2 Upwind	1092	3	3.822	0.0013	< .01
14	Environmental	OWA	Critical #3 Downwind	1086	0	0	0.0000	< .01
15	Environmental	OWA	Critical #4 Downwind	1086	0	0	0.0000	< .01
16	Environmental	OWA	Critical #5 Downwind	1089	0	0	0.0000	< .01
17	Blank	Blank	Box Blank Lot 20190802	N/A	0	0	0.0000	NA
18	Blank	Blank	Field Blank	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

		RSD by Fiber Range		
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Jordan Martin	**Olympus CX41-1**	**0.9720**	**0.2110**	**0.2430**
Lab		**0.2079**	**0.1052**	**0.1099**

Results Approved By Asbestos Technical Director:

Comments:

PCM results relate only to the samples listed, as received by the lab. These results are based on sampling data provided by the client. AMD Environmental Consultants, Inc. is not responsible for the data supplied by an independent technician. NYS Department of Health Environmental Laboratory Approval Program (ELAP) requirements mandate that this report not be reproduced, except in full, without the approval of the laboratory. This report must not be used to claim product endorsement by NYS ELAP or any agency of the US Government. Quality control data is available upon request.

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**19-1007SM-A**	**Lab Project No:**	**19-229**
	712 Main St. Suite L1	**Project Name:**	**Tonawanda Coke Coal Tar Tank Farm**	**Sample Received:**	**10/16/2019**
	Buffalo, NY 14202	**Job Address:**	**3875 River Rd.**	**Sample Date:**	**10/16/2019**
		City, ST Zip:	**Buffalo, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**10/16/2019**	**Work Area:**	**Exterior Tank #1**	**Phase/Activity:**	**IIB- Enviro. As Final**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
19	Enviro As Final	OWA	Personal Decon Ent.	1107	0	0	0.0000	< .01
20	Enviro As Final	OWA	Personal Decon Ext.	1107	0	0	0.0000	< .01
21	Enviro As Final	OWA	Critical #1 Upwind	1110	0	0	0.0000	< .01
22	Enviro As Final	OWA	Critical #2 Upwind	1110	0	0	0.0000	< .01
23	Enviro As Final	OWA	Critical #3 Downwind	1110	0	0	0.0000	< .01
24	Enviro As Final	OWA	Critical #4 Downwind	1104	0	0	0.0000	< .01
25	Enviro As Final	OWA	Critical #5 Downwind	1107	0	0	0.0000	< .01
26	Blank	Blank	Box Blank Lot 20190802	N/A	0	0	0.0000	NA
27	Blank	Blank	Field Blank	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

		RSD by Fiber Range		
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Jordan Martin	**Olympus CX41-1**	**0.9720**	**0.2110**	**0.2430**
Lab		**0.2079**	**0.1052**	**0.1099**

Results Approved By Asbestos Technical Director:

Comments:

PCM results relate only to the samples listed, as received by the lab. These results are based on sampling data provided by the client. AMD Environmental Consultants, Inc. is not responsible for the data supplied by an independent technician. NYS Department of Health Environmental Laboratory Approval Program (ELAP) requirements mandate that this report not be reproduced, except in full, without the approval of the laboratory. This report must not be used to claim product endorsement by NYS ELAP or any agency of the US Government. Quality control data is available upon request.

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www.amdenvironmental.com

1.2 Sample Chains of Custody

AMD ENVIRONMENTAL
712 Main St. Suite L1
Buffalo, NY 14202
NYS ELAP ID: 11108
Lab (716) 833-0043 x104
Lab Director Cell (716) 335-1460
fax (716) 241-8689
labs@amdenv.com

PCM Air Sampling Chain of Custody

Tonawanda Coke Coal Tar Tank FARM Coal Tar Tanks Job Name	Work Area Location 1,2,3	Client	10-7-19 Sample Date
19-1007-SM-A Job ID No.	53° / cloudy / 8 mph SW 12 MPH	Client Contact	Turn-Around Time (TAT) Requested: (Please circle one) Rush 24 HR 48 HR - Standard
3875 River Rd Job Street Address	20190802 Filter Lot No.	Client Phone	Analysis: PCM TEM
Buffalo, NY 14150 City, State Zip Code	13 / 13 1st Calib. No. / 2nd Calibrator	Client Email	Call AMD in advance for Evening, Weekend & RUSH analysis. Additional charges apply.

Sample #	Pump #	Pump Location (on Map)	Sample Location Description	IB / OB	IWA / OWA	PHASE: IB, IIA, IIB, IIC (B, P, E, F)	Time Start	Time Stop	Time Total	Flow Beg	Flow End	Flow Avg	Total Volume (L)	Lab Sample ID
1		P1	Personal Decon Exit	OB	OWA	IIB E	0820	1510	410	3	3	3	1230	19A1812-1
2		P2	Personal Decon Exit				0821	1511	410	3	3	3	1230	19A1812-2
3		P3	Critical Barrier #1 upwind				0823	1517	414	3	3	3	1242	19A1812-3
4		P4	Critical Barrier #2 upwind				0825	1516	411	3	3	3	1233	19A1812-4
5		P5	Critical Barrier #3 downwind				0830	1513	413	3	3	3	1239	19A1812-5
6		P6	Critical B. #4 downwind				0832	1514	402	3	3	3	1206	19A1812-6
7		P7	Critical B. #5 downwind	✓	✓	✓	0835	1515	400	3	3	3	1200	19A1812-7
8		BB	Bag Blank											19A1812-8
9		FB	Field Blank											

Samples analyzed by PCM according to NIOSH 7400 method

Sampled By (Print Name)	Sampled by Signature
Stephen Maghran	Stephen Maghran

Relinquished to Lab By (Signature)	Date	Time
Stephen Maghran	10-7-19	330
	Drop Off	

Site Notes:

**** For Lab Use Only ****

Received by (Print Name)	Date	Time
JoAnn Kovatchev	10/8/19	8AM

Lab PO No.	19-229
Lab Personnel Signature	
Lab Batch No.	19A1812
Samples Prepped By:	AM

Send Results: Call w/Results E-mail Fax
(Please Circle One)

Name: _____

Email/Phone/Fax: _____

☐ Check here if this sample set of daily environmental samples is to be used as clearance samples, per NYS Variance on site.

Lab Notes / Sample Condition:

Revised 07/09/2019

3875 River Road

9

19-1007SM-A

AMD ENVIRONMENTAL
712 Main St. Suite L1
Buffalo, NY 14202
NYS ELAP ID: 11108
Lab (716) 833-0043 x104
Lab Director Cell (716) 335-1460
fax (716) 241-8689
labs@amdenv.com

PCM Air Sampling Chain of Custody

Job Name: Tonawanda Coke Coal Tar tank Farm	Work Area Location: Storage Tank #2	Client:	Sample Date: 10-15-19
Job ID No.: 19-1007-SM-A	Temp/Rain/Wind: 53°/sun/S 8 MPH	Client Contact:	Turn-Around Time (TAT) Requested: (Please circle one) Rush 24 HR 48 HR - Standard
Job Street Address: 3875 River Road	Filter Lot No.: 20190802	Client Phone:	Analysis: PCM TEM
City, State Zip Code: Tonawanda, NY 14150	1st Calib. No. / 2nd Calibrator: 13 / 13	Client Email:	Call AMD in advance for Evening, Weekend & RUSH analysis. Additional charges apply.

Sample #	Pump #	Pump Location (on Map)	Sample Location Description	IB / OB	IWA / OWA	PHASE: IB, IIA, IIB, IIC (B, P, E, F)	Time Start	Time Stop	Time Total	Flow Beg	Flow End	Flow Avg	Total Volume (L)	Lab Sample ID
10		E1	Personal Decon Ent.	OB	OWA	IIB E	0750	1453	363	3	3	3	1089	19A18601-1
11		E2	Personal Decon Exit				0750	1453	363	3	3	3	1089	19A18601-2
12		E3	critical #1 upwind				0745	1450	365	3	3	3	1095	19A18601-3
13		E4	Critical #2 upwind				0747	1451	364	3	3	3	1092	19A18601-4
14		E5	Critical #3 downwind				0752	1454	362	3	3	3	1086	19A18601-5
15		E6	Critical #4 downwind				0754	1456	362	3	3	3	1086	19A18601-6
16		E7	Critical #5 downwind				0755	1458	363	3	3	3	1089	19A18601-7
17		BB	Box Blank											19A18601-8
18		FB	Field Blank											19A18601-9

Samples analyzed by PCM according to NIOSH 7400 method

Sampled By (Print Name)	Sampled by Signature	Relinquished to Lab By (Signature)	Date	Time
Stephen Maghran	Stephen Maghran	Stephen Maghran	10-15-19	330 pm

Drop Off

Site Notes:

For Lab Use Only

Received by (Print Name)	Date	Time
Joylyn Kovatchev	10/16/19	8AM

Lab Personnel Signature

Lab PO No.: 19-229

Lab Batch No.: 19A18601

Samples Prepped By:

Send Results: Call w/Results E-mail Fax
(Please Circle One)

Name: _____

Email/Phone/Fax: _____

☐ Check here if this sample set of daily environmental samples is to be used as clearance samples, per NYS Variance on site.

Lab Notes / Sample Condition:

Revised 07/09/2019

3875 River Road 10 19-1007SM-A

AMD ENVIRONMENTAL
712 Main St. Suite L1
Buffalo, NY 14202
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Lab Director Cell (716) 335-1460
fax (716) 241-8689
labs@amdenv.com

PCM Air Sampling Chain of Custody

3875 River Rd — Job Name	E2 Tonawanda Tank #1 — Work Area Location	— Client	10-16-19 — Sample Date
19-1007-SM-A — Job ID No.	57°/Rain/15 MPH S.E — Temp/Rain/Wind	— Client Contact	Turn-Around Time (TAT) Requested: (Please circle one) Rush 24 HR (48 HR - Standard)
3875 River Rd. — Job Street Address	20190802 — Filter Lot No.	— Client Phone	Analysis: (PCM) TEM
Tonawanda, NY 14150 — City, State Zip Code	13/13 — 1st Calib. No. / 2nd Calibrator	— Client Email	Call AMD in advance for Evening, Weekend & RUSH analysis. Additional charges apply.

Sample #	Pump #	Pump Location (on Map)	Sample Location Description	IB / OB	IWA / OWA	PHASE: IB, IIA, IIB, IIC (B, P, E, F)	Time Start	Time Stop	Time Total	Flow Beg	Flow End	Flow Avg	Total Volume (L)	Lab Sample ID
19		E1	Personal Decon Ent.	OB	OWA	IIB E	0745	1354	369	3	3	3	1107	19A18617-1
20		E2	Personal Decon Exit				0746	1355	369	3	3	3	1107	19A18617-2
21		E3	Critical #1 Upwind				0740	1350	370	3	3	3	1110	19A18617-3
22		E4	Critical #2 Upwind				0741	1351	370	3	3	3	1110	19A18617-4
23		E5	Critical #3 Down Wind				0747	1357	370	3	3	3	1110	19A18617-5
24		E6	Critical #4 Down Wind				0748	1356	368	3	3	3	1104	19A18617-6
25		E7	Critical #5 Down Wind	↓	↓	↓	0751	1400	369	3	3	3	1107	19A18617-7
26		BB	Box Blank											19A18617-8
27		FB	Field Blank											19A18617-9

Samples analyzed by PCM according to NIOSH 7400 method

Stephen Maybran — Sampled By (Print Name)	Stephen Maybran — Sampled by Signature	Jordan Martin — Received by (Print Name)	10/16/19 — Date	3450 — Time
Stephen Maybran — Relinquished to Lab By (Signature)	10-16-19 — Date	330 pm — Time	Jordan M — Lab Personnel Signature	19-229 — Lab PO No.
	Drop Off			19A18617 — Lab Batch No.
Site Notes:				dm — Samples Prepped By:

** For Lab Use Only **

Send Results: Call w/Results E-mail Fax (Please Circle One)

Name: _____

Email/Phone/Fax: _____

☒ Check here if this sample set of daily environmental samples is to be used as clearance samples, per NYS Variance on site.

Lab Notes / Sample Condition:

Revised 07/09/2019

3875 River Road

11

19-1007SM-A

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com

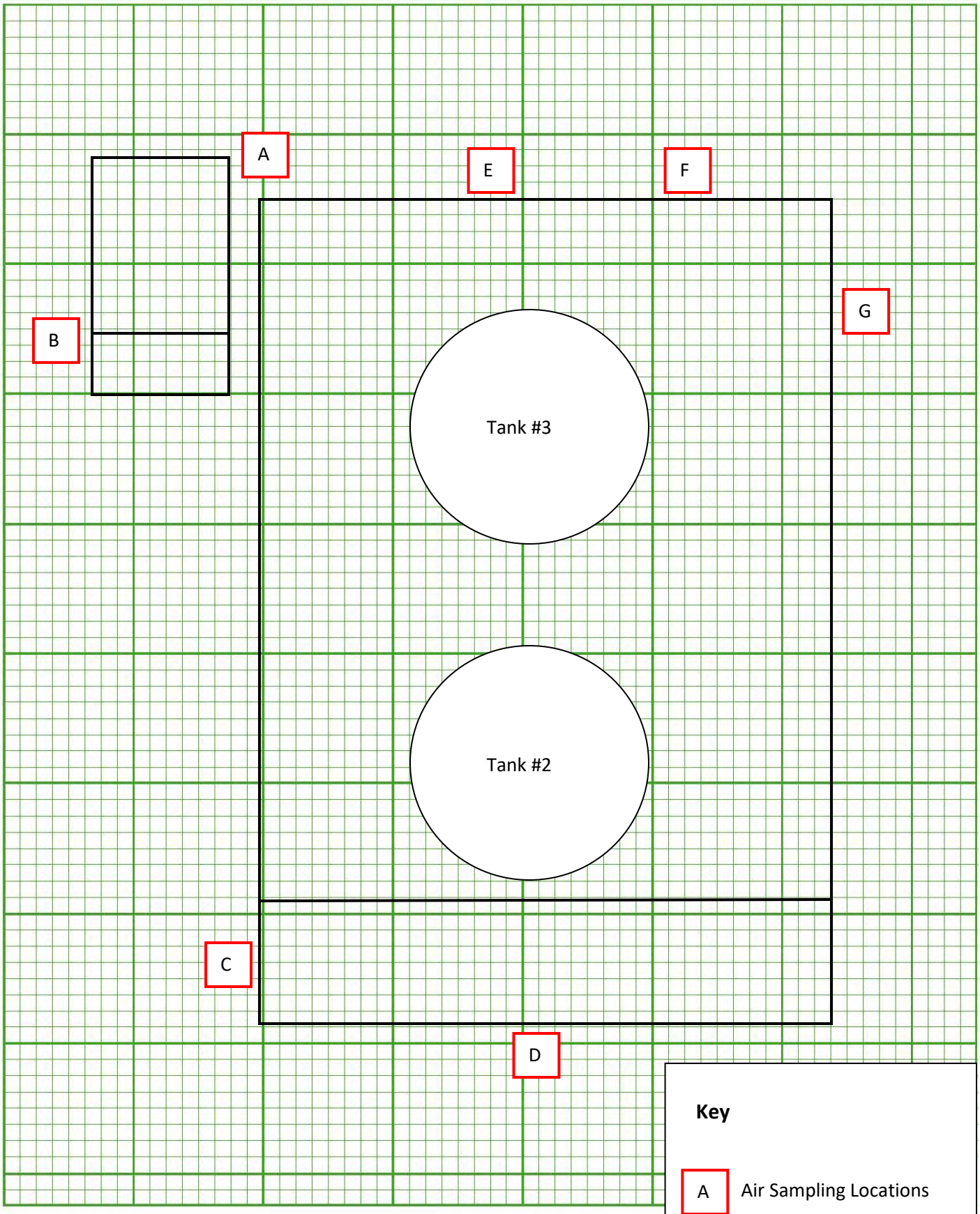
1.3 Site Map

Address: 3875 River Road

North

Job ID No: 19-1007SM-A

Date: 10/07/2019



Site Map

Not to Scale

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com

1.4 Visual Inspection(s)

AMD ENVIRONMENTAL

Asbestos Project Visual Inspection Form

Project Address: 3875 River Rd
TONAWANDA, NY 14150

Date: 10-7-19

Job Number: 19-1007-SM-A

Project Monitor Certification:

The monitor performing this visual inspection hereby certifies that all surfaces within this asbestos work area (i.e. pipes , horizontal surfaces , poly sheeting, ceiling, floor, decon, etc.) have been cleaned successfully and has found no dust ,debris or residue.
This visual assessment has been performed in accordance with the ASTM Standard E1368 "Standard Practice for Visual Inspection of Asbestos Abatement Projects".

Project Monitor Signature: Stephen Maghan

Print Name: Stephen Maghan **License No.:** 15-11170

Site Notes : Contractor Abated Remaining sections of Thermal Insulation from the Top Vertical pipes on the Exterior of COAL TAR STORAGE TANKS #3 + #2 There may be more TSI - But, it is not visible due to water inside + surrounding the TANK. LIKE A MOAT AROUND THE TANK This will be addressed after the water is removed pumped / shoveled out of the TANK + surrounding AREA.

Supervisor Certification:

As the certified supervisor of this asbestos abatement project. I hereby certify that I accompanied the project monitor on this visual inspection of all areas associated with the asbestos project and verify that the inspection was thorough and complete.
Under penalty of law I attest that the above certification is true and accurate

Supervisor Signature: Hal Blackwell

Print Name: Hal Blackwell **License No.:** 9015015

AMD ENVIRONMENTAL

Asbestos Project Visual Inspection Form

Project Address: 3875 River Rd. Tonawanda, NY 14150 **Date:** 10-15-19

Job Number: 19-1007-SM-A

Project Monitor Certification:

The monitor performing this visual inspection hereby certifies that all surfaces within this asbestos work area (i.e. pipes , horizontal surfaces , poly sheeting, ceiling, floor, decon, etc.) have been cleaned successfully and has found no dust ,debris or residue.
This visual assessment has been performed in accordance with the ASTM Standard E1368 "Standard Practice for Visual Inspection of Asbestos Abatement Projects".

Project Monitor Signature: Stephen Maghran

Print Name: Stephen Maghran **License No.:** 15-11170

Site Notes : Contractors Abated Approximately 23 linear feet of Thermal Systems Insulation from pipes on the exterior of Tar Coal tank #2. Also loose TSI debris due to poor condition of Pipe wrap. No sign of TSI on Ground or pipes - Visual Inspection Passed.
TANK # 1 20 LR FT. gm

Supervisor Certification:

As the certified supervisor of this asbestos abatement project. I hereby certify that I accompanied the project monitor on this visual inspection of all areas associated with the asbestos project and verify that the inspection was thorough and complete.
Under penalty of law I attest that the above certification is true and accurate

Supervisor Signature: H Blackwell

Print Name: Hal Blackwell **License No.:** 901501 8

AMD ENVIRONMENTAL

Asbestos Project Visual Inspection Form

Project Address: 3875 River Road Tonawanda, NY 14150 **Date:** 10-16-19

Job Number: 19-1007-SM-A

Project Monitor Certification:

The monitor performing this visual inspection hereby certifies that all surfaces within this asbestos work area (i.e. pipes , horizontal surfaces , poly sheeting, ceiling, floor, decon, etc.) have been cleaned successfully and has found no dust ,debris or residue.
This visual assessment has been performed in accordance with the ASTM Standard E1368 "Standard Practice for Visual Inspection of Asbestos Abatement Projects".

Project Monitor Signature: Stephen Mayhew

Print Name: Stephen Mayhew **License No.:** 15-11170

Site Notes : Contractor Abated Approximately 25 Linear Feet from piping that goes from tank #2 to tank #1. Also included in the above Contractor Abated 75 F from piping on Tank # 1 Lower section. Performed clean up of debris around the tanks #1+2. Visual Inspection Passed.

Supervisor Certification:

As the certified supervisor of this asbestos abatement project. I hereby certify that I accompanied the project monitor on this visual inspection of all areas associated with the asbestos project and verify that the inspection was thorough and complete.
Under penalty of law I attest that the above certification is true and accurate

Supervisor Signature: Hal Blackwell

Print Name: Hal Blackwell **License No.:** 901501S

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com

2.0 Firm Qualifications and Personnel License(s)

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

AMD Environmental Consultants, Inc.
Suite L1
712 Main Street

Buffalo, NY 14202

FILE NUMBER: 10-56177
LICENSE NUMBER: 56177
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 10/25/2019
EXPIRATION DATE: 11/30/2020

Duly Authorized Representative – Anthony DeMiglio:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

AMD Environmental Consultants, Inc.
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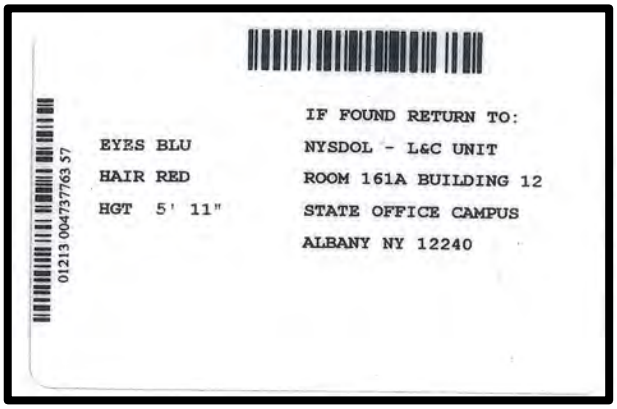

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Office: 716-833-0043 Fax: 716-241-8689
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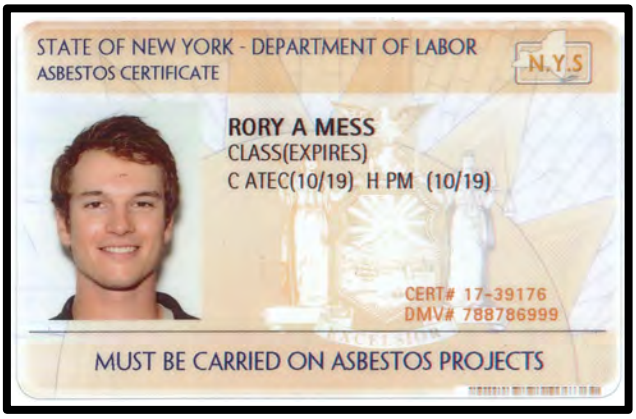

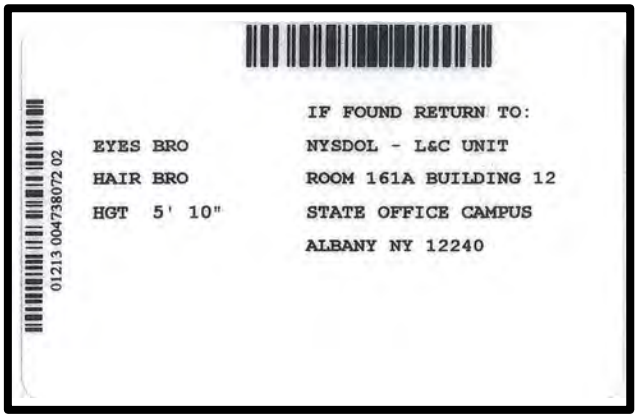

AMD Environmental Consultants, Inc.
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Office: 716-833-0043 Fax: 716-241-8689
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3.0 Laboratory Qualifications

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2020
Issued April 01, 2019
Revised June 12, 2019

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

JOYLYN M. KOVATCHEV
AMD ENVIRONMENTAL CONSULTANTS, INC
712 MAIN ST. SUITE L1
BUFFALO, NY 14202

NY Lab Id No: 11108

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES AIR AND EMISSIONS
All approved subcategories and/or analytes are listed below:

Miscellaneous

Fibers	NIOSH 7400 A RULES

NEW YORK STATE | Department of Health

Serial No.: 60362

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

Page 1 of 1

WASTE SHIPMENT RECORD

19114

381833

REPORT DATE 10/17/19

GENERATOR

1. Work site name and mailing address
Tonawanda Coke
3500 River Rd. Tonawanda NY

Owner's Name

Owner's telephone no.

2. Operator's name and address
ARRIC Corporation
5033 Transit Rd. Depew NY 14043

Operator's telephone no. 716-681-3535

3. Waste Disposal Site (WDS)
Name Minerva Enterprises
Mailing Address 9000 Minerva Rd.
Wayresburg OH 44688
Physical Site Location 9000 Minerva Rd.

WDS telephone no. 330-866-3435

Additional Information
Manifest # 19271

4. Name and address of responsible agency
US EPA Region II
26 Federal Plaza New York NY 10278

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
RQ NA2212 Asbestos 9 PG III	23	BAGS	

8. Special handling instructions and additional information
PPE

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Thomas J. Weller (Construction Manager)		10/17/19

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Joe Hugh Truck Driver		10/17/19

Address and telephone no.
Keller Associates
5033 Transit Rd.
Depew NY 14043
716-681-3535

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Joe Barr Driver		10/17/19

Address and telephone no.
Tonawanda Tank Transport
PO Box H
Buffalo NY 14217
716-873-9703

DISPOSAL SITE

12. Discrepancy indication space

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Tim Roberts		10/18/19

ORIGINAL RETURN TO GENERATOR

WASTE SHIPMENT RECORD

388648

REPORT DATE: 12/23/19

GENERATOR

1. Work site name and mailing address: Tonawanda Coke, 3500 River Rd. Tonawanda NY
   Owner's Name:
   Owner's telephone no.:
2. Operator's name and address: ARRIC CORPORATION, 5033 TRANSIT RD., DEPEW, NY 14043
   MANIFEST #: 19332
   Operator's telephone no.: 716-681-3535
3. Waste Disposal Site (WDS)
   Name: MINERVA ENTERPRISES, INC.
   Mailing Address: 9000 MINERVA RD., WAYNESBURG, OH 44688
   Physical Site Location: 9000 MINERVA RD.
   WDS telephone no.: 330-866-3435
   Additional Information:
4. Name and address of responsible agency: USEPA REGION II 26 FEDERAL PLAZA, NEW YORK NY 10278

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
RQ, NA2212, ASBESTOS 9, PGIII	93	DM65	

8. Special handling instructions and additional information: PPE, 24 HOURS EMERGENCY NUMBER 716-863-7957

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
Ronald Prohaska-Parsons, agent for Honeywell KENNETH J. KELLER, VP		12	23	19

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Joe Kissies Truck Driver		12	23	19

Address and telephone no.: KELLER ASSOCIATES, INC., 5033 TRANSIT RD., DEPEW, NY 14043, 716-681-3535

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Joe Burk Driver		4	2	20

Address and telephone no.: TONAWANDA TANK TRANSPORT SERVICE, PO BOX H, BUFFALO, NY 14217, 716-873-9703

DISPOSAL SITE

12. Discrepancy indication space

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.
    Grid Coordinates: East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
K Burge	K Burge	4	3	2020

ORIGINAL RETURN TO GENERATOR

WASTE SHIPMENT RECORD

388648

REPORT DATE: 12/17/19

GENERATOR

1. Work site name and mailing address
Tonawanda Coke
3800 River Rd. Tonawanda NY

Owner's Name:

Owner's telephone no.:

2. Operator's name and address
ARRIC CORPORATION
5033 TRANSIT RD.
DEPEW, NY 14043

MANIFEST # 19330

Operator's telephone no.: 716-681-3535

3. Waste Disposal Site (WDS)
Name: MINERVA ENTERPRISES, INC.
Mailing Address: 9000 MINERVA RD.
WAYNESBURG, OH 44688
Physical Site Location: 9000 MINERVA RD.

WDS telephone no.: 330-866-3435

Additional Information:

4. Name and address of responsible agency
USEPA REGION II 26 FEDERAL PLAZA, NEW YORK NY 10278

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
RQ, NA2212, ASBESTOS 9, PGIII	14	BAGS	

8. Special handling instructions and additional information
PPE, 24 HOURS EMERGENCY NUMBER 716-863-7957

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

12/17/19

Printed/typed name & title	Signature	Month	Day	Year
KENNETH J. KELLER, VP		12	17	19

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Matt Hayes Truck Driver		12	17	19

Address and telephone no.:
KELLER ASSOCIATES, INC.
5033 TRANSIT RD.
DEPEW, NY 14043
716-681-3535

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Joe Booth Driver		4	2	20

Address and telephone no.:
TONAWANDA TANK TRANSPORT SERVICE
PO BOX H
BUFFALO, NY 14217
716-873-9703

DISPOSAL SITE

12. Discrepancy indication space

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates: East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
K Burge	K Burge	4	3	2020

ORIGINAL RETURN TO GENERATOR

CONVEYANCE PIPE ASBESTOS ABATEMENT DOCUMENTATION

STATE OF NEW YORK
DEPARTMENT OF LABOR
STATE OFFICE BUILDING CAMPUS
ALBANY, NEW YORK 12240-0100

Variance Petition

Of

Environmental Connection Inc.
Petitioner's Agent on Behalf of

Precision Environmental Company
Petitioner's Agent on Behalf of

Honeywell International, Inc.
Petitioner

in re

Premises: Tonawanda Coke Corporation Site 108
3800 River Road
Tonawanda, NY 14151

Interior and Exterior ACM Pipe/Fitting Insulation and Debris Removals

File No. 20-0951

DECISION

Cases 1-5

ICR 56

The Petitioner, pursuant to Section 30 of the Labor Law, having filed Petition No. 20-0951 on August 17, 2020 with the Commissioner of Labor for a variance from the provisions of Industrial Code Rule 56 as hereinafter cited on the grounds that there are practical difficulties or unnecessary hardship in carrying out the provisions of said Rule; and the Commissioner of Labor having reviewed the submission of the petitioner dated August 14, 2020; and

Upon considering the merits of the alleged practical difficulties or unnecessary hardship and upon the record herein, the Commissioner of Labor does hereby take the following actions:

Case No. 1	ICR 56-7.8(a)
Case No. 2	ICR 56-7.8(a)(1) – Pump house
Case No. 3	ICR 56-7.11(a)
Case No. 4	ICR 56-7.11(e)
Case No. 5	ICR 56-9.2(d) – Exterior work only

VARIANCE GRANTED. The Petitioner's proposal for interior and exterior cleanup and removal of friable pipe/fitting insulation and debris in quantities as note in the petitioner's proposal at the subject premises in accordance with the attached 13-page stamped copy of the Petitioner's submittal is accepted; subject to the Conditions noted below:

CONDITIONS

1. The full time on-site Project Monitor will be responsible to determine if pipe/fitting insulation or other thermal system insulations is too damaged to perform wrap-and-cut or glovebag operations. Any thermal system insulation that is significantly damaged and will likely be disturbed during wrapping or glovebag installation, shall require gross removal as per the conditions of this variance and per the petitioner's submittal. All failures of the abatement contractor to comply with the project monitor's determination regarding damage shall be immediately reported by the project monitor to the local district of the asbestos control bureau.

2. The restricted areas, regulated abatement work areas, decontamination units, airlocks, and dumpster areas shall be cordoned off at a distance of twenty-five feet (25') where possible, and shall remain vacated except for certified workers until satisfactory clearance air monitoring results have been achieved or the abatement project is complete. For areas where 25-feet aren't possible, the areas shall be cordoned off as practical, and a daily abatement air sample shall be included within 10 feet of the barrier.

3. Signage in accordance with the requirements of ICR 56-7.4(c) shall be posted on the exterior of the work site boundary fence/barrier, to warn the public of the asbestos hazard.

Negative Air Shutdown

4. When negative air machines are shut down at the end of each workday, the negative air machines shall continue to run for a minimum of thirty (30) minutes following completion of all abatement/cleaning activity for the day.

Once the thirty (30) minute time period has elapsed, all accesses to the regulated abatement work area shall be sealed airtight, after all workers have exited the work area.

5. When re-establishing the work area in the morning, wait 30 minutes after manometer reads a minimum of -.02" of water pressure differential before entering the work.

Remote Decontamination System

6. Remote Decontamination Units as per ICR 56-7.5(d)(e) **are allowed**, provided negative pressure tent and glovebags or negative pressure glovebags are used for all pipe insulation removals.

7. Remote Personal Decontamination Units must be located on-site and within 50 foot of the structure that is subject to abatement. These enclosure systems shall be removed only after satisfactory clearance air monitoring results have been achieved or the abatement project is complete. The walkway from the regulated abatement work area to the decontamination system or next work area shall have a cleared pathway. This walkway will be delineated and separated from non-certified personnel access.

8. If remote decontamination units are to be used, an airlock as defined in Subpart 56-7.5(b) (11) of this Code Rule shall be constructed at the entrance to each restricted area and shall be large enough to serve as a changing area. Within the airlock, workers shall remove their outer suit, wipe off their inner suit and don a clean outer suit prior to proceeding to another work area or to the remote personal decontamination unit over a walkway as defined above. The airlock/changing area shall not be used as a waste storage area.

9. The restricted work areas and decontamination unit shall be cordoned off at a distance of 25-feet and shall remain vacated except for certified workers. These areas shall have Signage posted in accordance with Subpart 56-8.1(b) of this Code Rule.

10. Entry to the regulated abatement work area shall be restricted to the asbestos contractors involved with the asbestos project, employees of the asbestos contractors, authorized visitors, and other public safety personnel. Visitors shall comply with all applicable requirements of OSHA 29 CFR 1926.

Negative Pressure Glovebags Pipe and Fitting Insulation Removals:

11. The Remote Personal Decontamination Unit must be located as close to the abatement area as practicable. The walkway from the regulated abatement work area to the decontamination system shall have a cleared

pathway. This walkway will be delineated and separated from non-certified personnel access.

12. The restricted work areas and decontamination unit shall be cordoned off as proposed and shall remain vacated except for certified workers. These areas shall have signage posted in accordance with subpart 56-8.1(b) of this Code Rule.

13. Entry/Exit of all persons and equipment shall be through one designated and secure “doorway” in the barrier or fence, which shall provide an adequate and appropriate means of egress from the work area.

14. Personal protective equipment as required by ICR 56 shall be required of and used by all persons within the work area.

15. Exposed asbestos at the edges of the removal area shall be encapsulated.

16. All workers within the work area and all equipment operators accessing the work area to disturb asbestos-containing materials, shall be certified in accordance with ICR 56-3.2.

17. Critical Barriers to any vicinity structures within 25 foot of the immediate glovebag removal area shall be installed in conformance to Subpart 56-7.11(a). All openings (critical barriers) shall be covered with two (2) layers of (6) six-mil fire retardant polyethylene or for around pipes or similar openings an expandable foam or other sealant may be used.

18. Under areas where ACM is scheduled for negative pressure glovebag operations without a tent enclosure, a dropcloth, made of 6 mil fire retardant polyethylene sheeting, shall be placed below the material to be removed to prevent spread of any ACM remnants. This dropcloth shall be a minimum of 10 feet wide with an additional 10-ft. of width for every 20 feet in height above the floor/ground level where removal work will take place. This dropcloth shall be removed and containerized following removal of the glovebags or abandoned piping, prior to the cleaning stage. All remnants observed on the dropcloth shall be collected and immediately bagged or containerized for disposal as ACM**.**

19. If a straight scaffolding, man-lift, swing scaffolding or similar equipment is used, the lift/scaffolding unit shall be plasticized with two layers of 6 mil fire retardant polyethylene on the platform with plastic sheeting on all platform sides. While the platform/lift walking surfaces must be plasticized, the Contractor must provide proper traction surfaces or equipment to assure the safety and comfort of abatement workers while performing abatement activities on the lift/scaffold equipment. After glovebags are removed from each work location, the platform and plasticized surfaces shall be wet wiped

and/or HEPA vacuumed clean before reuse. The plastic on the lift or scaffolding shall be periodically inspected during use and repaired as needed.

20. A commercially available negative pressure glovebags may be utilized for removals, in lieu of glovebag removals within negative pressure tent/shroud enclosures. Glovebag removal procedures shall be consistent with ICR 56-8.4 and OSHA 29 CFR 1926.1101, for all insulation removals.

21. If negative pressure glovebags are not available, standard glovebags placed under negative pressure using a HEPA vacuum during removal may be utilized. These glovebags shall be fitted with adequate interior support to prevent collapse while under negative pressure. The integrity of the glovebag shall not be compromised by this additional support.

22. The makeup air inlet to the glovebag shall be fitted with a HEPA filter

23. Actions that shall be taken in the event of a loss of glovebag integrity are as outlined in Subpart 56-8.4(a)(11).

24. Once ACM removal has been completed, one thorough cleaning as described in ICR 56-9.1(e) and one settling, waiting period shall suffice, except when an air test fails.

25. The contractor shall observe, at a minimum, two-hour waiting (settling/drying) periods for glovebag removals, and 20-minute waiting (settling/drying) periods for man-lift removals.

26. After removal and cleanings are complete and a minimum drying period has elapsed, Project Monitor shall determine if the area is dry and free of visible asbestos debris. For man-lift work areas, if the area is determined to be acceptable and the most recent daily abatement air sample results meet 56-4.11 clearance criteria, the final dismantling of the site may begin.

27. All pipe waste must be immediately containerized and labeled. All generated waste shall be adequately wet and transported as an asbestos-containing material by appropriate legal methods.

Wrap and Cut Procedures:

28. Wrap and Cut pipe removals shall be per ICR 56-11.8.

Exterior Friable ACM and ACM Debris Cleanup and Removals

Secure the Work Site

29. The entire area and all surrounding portions of the site to be utilized for cleanup, staging areas and regulated abatement work areas, shall be enclosed within a barrier or fence (orange construction fence or snow fence) at a distance of twenty-five (25'). The intent of this barrier is to define the restricted area at the work site, alert the public to the asbestos work and associated hazards, and to prevent unauthorized entry onto the work site.

Exterior Debris Project Cleanup and Removals

30. Uncertified personnel shall not be allowed to access any regulated abatement work area, with the exception of waste hauler truck drivers. These truck drivers will be restricted to their enclosed cab, while temporarily in the regulated work area for waste transfer activities only. All equipment operators utilized for demolition or removal activities within the regulated work area must be certified in compliance with ICR 56-3.2.

31. No dry disturbance or removal of asbestos material shall be permitted.

32. A remote personal decontamination enclosure system that otherwise complies with ICR 56-7.5(d) shall be utilized. A remote waste decontamination enclosure system that otherwise complies with ICR 56-7.5(f) shall be utilized. These enclosures shall be located as close as possible to the regulated work area and shall be removed only after satisfactory clearance air monitoring results have been achieved for the regulated abatement work area.

33. The walkway from the regulated abatement work area to the decontamination system shall have a cleared pathway. This walk way will be delineated and separated from non-certified personnel access and signage installed as per section 56-7.4(c), to delineate it from the public.

34. In areas where ACM is removed, a drop cloth, made of six (6) mil fire retardant polyethylene sheeting shall be placed and adequately sized on the ground near the work area to prevent spread of any ACM remnants.

35. In situations where insulation is in a state of disrepair, Materials during removals shall be immediately containerized/bagged or wrapped in two layers of 6 mil, fire retardant plastic sheeting and secured air tight prior to transport to the waste decontamination facility.

36. In situations where insulation is in a state of disrepair, an asbestos handler (worker) shall keep the material continually wet while another worker with a HEPA vacuum will position the vacuum hose within four (4) inches of the material being removed to capture small pieces of non-friable ACM and asbestos fines. The hose end will be positioned so that as many smaller

pieces of material as possible will fall into the vacuum hose end. Larger pieces of ACM should be immediately bagged or containerized.

37. Asbestos containing material will not be allowed to accumulate on the drop cloth.

Perimeter Air Sampling:

38. In addition to the requirement of Subpart 56-4.9(c), air monitoring shall be conducted daily at the perimeter of the work area.

39. A minimum of two upwind air samples shall be collected. The samples shall be spaced approximately 30 degrees apart from the prevailing wind direction.

40. A minimum of three downwind samples shall be collected. The samples shall be equally spaced in a 180-degree arc downwind from the source.

41. If more than one shift daily is required to accomplish the work, air monitoring within the work area during abatement shall be performed on each shift.

Site Soil Cleanup:

42. The site where the demolition occurred shall be assessed and cleaned up as follows.

43. Soil cleanup shall include, all visible asbestos or suspect asbestos debris. Soil removal shall meet ASTM 1368 (latest edition), Section 9.1.1-9.1.5 inspection criteria.

44. No pieces of ACM shall be present on top of the soil.

45. Visibly contaminated soil or soil suspected of being contaminated shall be removed down to the level where no visible contamination is noted.

46. The Project Monitor shall record the results of his/her inspection on the Project Log.

Pump House Friable ACM Cleanup and Removals

47. A personal decontamination enclosure system that complies with Subpart 56-7.5 shall be utilized. A waste decontamination enclosure system that fully complies with Subpart 56-7.5 shall be utilized. These enclosure systems **must be attached (contiguous)** to the regulated abatement work area and shall be removed only after satisfactory clearance air monitoring results have been achieved for the regulated abatement work area. Where physical space restrictions limit the decontamination enclosure system

allowable size, small asbestos project combined decontamination enclosure systems in compliance with ICR 56-7.5 (c) & 56-7.5(e)(9) may be utilized.

48. All non-porous wall, ceiling, floor surfaces, fixtures, and movable and fixed objects contaminated with asbestos debris shall be cleaned as part of this abatement project. Porous materials, if any, shall be disposed of as RACM.

49. The regulated work area, decontamination units and dumpster areas shall be cordoned off at a distance of 25-feet where possible and shall remain vacated except for certified workers until the project is complete.

50. Prior to removal of ACM debris, installation of critical/isolation barriers as per ICR 56-7.11 (a) and establishment of negative air as per ICR 56-7.8 shall be completed. All visible accumulations of ACM in the area of the critical barriers shall be cleaned as per ICR 56-7.10(c)(1) prior to installation of the barriers.

51. Installation of wall and ceiling plastic sheeting is not required on removal surfaces and surfaces that are potentially contaminated and shall be cleaned as part of the asbestos project and in accordance to ICR 56-11.7(b)(5).

52. When relief is granted to not plasticize or when a tent/enclosure unit is used, one thorough cleaning as described in ICR 56-9.1(e) and one settling, waiting period shall suffice, except when an air test fails.

53. A minimum of 8 air changes per hour must be observed once the negative air has been established. A minimum four-hour pre-abatement settling period as per 56-8.2(b) shall elapse once the negative air has been established.

54. After removal and cleanings are complete and a minimum Eight (08) hour waiting/drying period has been observed, the Project Monitor shall determine if the area is dry and free of visible asbestos debris in accordance with 56-9.1(d)(1). If the area is determined to be acceptable, the Project Monitor may authorize clearance air sampling in accordance with ICR 56-9.2(d).

55. After abatement of the asbestos and asbestos debris, all plastic sheeting and tape will be treated as contaminated material and properly disposed of asbestos waste at the end of the project.

56. Usage of this variance is limited to those asbestos removals identified in this variance or as outlined in the Petitioner's proposal.

In addition to the conditions required by the above specific variances, the Petitioner shall also comply with the following general conditions:

GENERAL CONDITIONS

1. A copy of this DECISION and the Petitioner's proposals shall be conspicuously displayed at the entrance to the personal decontamination enclosure.

2. This DECISION shall apply only to the removal of asbestos-containing materials from the aforementioned areas of the subject premises.

3. The Petitioner shall comply with all other applicable provisions of Industrial Code Rule 56-1 through 56-12.

4. The NYS Department of Labor Engineering Service Unit retains full authority to interpret this variance for compliance herewith and for compliance with Labor Law Article 30. Any deviation to the conditions leading to this variance shall render this variance Null and Void pursuant to 12NYCRR 56-12.2. Any questions regarding the conditions supporting the need for this variance and/or regarding compliance hereto must be directed to the Engineering Services Unit for clarification.

5. This DECISION shall terminate on **August 31, 2021.**

Date: August 18, 2020

ROBERTA L. REARDON
COMMISSIONER OF LABOR

By Edward A Smith

Edward A. Smith, P.E.
Professional Engineer 2 (Industrial)

PREPARED BY: Mark G. Wykes, P.E.
Professional Engineer 1 (Industrial)

REVIEWED BY: Edward A. Smith, P.E.
Professional Engineer 2 (Industrial)

NEW YORK STATE OF OPPORTUNITY. Department of Labor

Division of Safety and Health
Engineering Services Unit
Harriman State Office Campus
Building 12, Room 154
Albany, NY 12240

Petition for an Asbestos Variance

To apply for an asbestos variance, the Project Designer must:

- Complete all of the information on pages one and two of this asbestos variance request. Please type or print.
- Sign and date page two of the certification and all of the attachments.
- Send two copies of the petition and all attachments, with your $350 fee, to the address at the top of this page.
  - Make your check or money order payable to the Commissioner of Labor.
- Optional: To speed up the process you may include a self-addressed, stamped, express-mail envelope.

1 a. **Is this petition related to a safety or health emergency?** _____Yes __X__No
b. If yes, explain: _____

2 a. **Name of Petitioner (Property Owner):** Honeywell International Inc.
b. Street Address: 115 Tabor Road
c. City: Morris Plains d. State: NJ e. Zip: 07950
f. Telephone Number: (302) 791 - 6738 g. Fax Number: (_____) _____ - _____
h. Petitioner's Federal Employee Identification Number (FEIN) 22-2640650

3 a. **Petitioner's Agent (Asbestos Contractor) Firm Name:** Precision Environmental Company
b. Street Address: 5500 Old Brecksville Road
c. City: Independence d. State: OH e. Zip: 44131
f. Telephone Number: (216) 642 - 6040 g. Fax Number: (216) 642 - 6041

4 a. **Asbestos Contractor License No.** 29861 b. Name of Firm: Precision Environmental Company

5. **Building Description:**
a. Affecting premises known as: Tonawanda Coke Corporation Site 108
b. These premises are situated on the ____North, ____South, ____East, __X__West side of ____Street, ____Ave, __X__Road.
c. County of Erie
d. Street Address: 3800 River Road
e. City: Tonawanda f. State: New York g. Zip: 14151
h. Is building occupied? _____Yes __X__No
i. Current function of building: Vacant Industrial Site
j. Approximate area (square feet) of building: N/A k. Number of stories or height in feet: N/A
l. What is within 25 feet of all four sides (North, South, East, West) of building? i.e. sidewalk, alley, land, another building, etc.: North: property fence line, grass; South: gravel driveway, abandoned structures; West: vegetation, Niagara River; East: vegetation, River Road

6. **Order To Comply or Notice of Violation.** Attach copy.
a. Issued to: _____Owner _____Asbestos Contractor _____Operator _____Other
b. Name on Order or Notice: _____ c. Date issued: _____/_____/_____
d. List the Industrial Code Rule (ICR) citations given on the Order to Comply or Notice of Violation: _____

7. **If a variance has been granted previously for work closely resembling this project list:**
a. Variance number: _____ b. Date variance granted: _____/_____/_____

Note: Add a separate typed or printed page for each work area and work procedure. Sign and date each page.

8. **Work Area Description Table:** Attach additional tables and scale drawings of work area and pictures, as needed.

Work Area Designation	Exterior or Interior	Work/Room Area Dimensions	Type of Asbestos Containing Material (ACM)	Quantity of ACM	Condition of ACM (level of damage)	Friability of ACM (non-friable or friable)	Type of Containment (full, 2-layer tent, single layer tent, open-air, etc.)
				See Attachment			

9. **ICR 56 Relief Sought:** List the individual sections of ICR 56 for which relief is sought, for each work area or method used. Provide sufficient detail in an attachment. See Attachment

10. **Hardship Description:** What is the hardship, (e.g. Limited room for decons, exhaust ducts must be longer than 25 feet, all surfaces are contaminated and cannot be plasticized) for each work area or method used? Provide sufficient detail in an attachment. Include condemnation letter or EPA Approval letter if applicable. See Attachment

11. **Proposed Abatement Method Description for each work area or method used:** Include scale drawings and pictures as necessary. Lack of sufficient detail will delay issuance of variance decision.
    a. Will proposed abatement methods render non-friable ACM material friable? ____ Yes __X__ No
    b. What proposed abatement method, increased engineering controls and detailed procedures will be used to compensate for the relief being sought? (i.e. Increased negative air rate, negative pressure glovebag, negative pressure glovebox, high temperature glovebag, intact component removal, etc.) Include sufficiently detailed procedures to complete the proposed work.

See Attachment

Project Designer Certification

I request that the Commissioner of Labor issue a variance from the requirements of Industrial Code Rule (ICR) 56. This request is based on the information in this application and the attached documents.

I certify that the information contained in this petition is true and accurate.

I understand that if a variance is granted it may be withdrawn by the Commissioner if:

- Any of the information provided in this petition is found to be inaccurate
- There are violations of Article 30 of the New York State Labor Law or New York State regulations

I give the Commissioner of Labor permission to provide all of my companies records for Unemployment Insurance (UI) reports and contributions to employees of the New York State Department of Labor. This includes information about withholding, wage reporting, UI returns, UI registration, new hires, and all records of UI delinquencies. This information may only be used for government purposes regarding the licensing and certification of this company as required by Article 30 of the New York State Labor Law and the regulations of the New York State Department of Labor, and for monitoring the company's compliance with Article 30 and ICR 56.

12 a. Project designer name (print): Roland C. Jones b. E-mail: rjones@vti.hq.com

c. Project Design Asbestos Contractor firm name: Environmental Connection, Inc

d. Street: 120 N. Warren St.

e. City: Trenton f. State: NJ g. Zip: 08608 h. Phone: (609) 392-4200

i. Designer certificate number: 06-03755 j. Expiration Date: 05 / 25 / 2021

k. Design Firm Asbestos Contractor License Number 63202 l. Expiration Date: 10 / 31 / 2020

13 a. Project designer signature: RCJ b. Date: 8 / 14 / 2020

PRECISION

Environmental Co.

Attachment A

Variance Supplement

PRECISION
Environmental Co.

5500 Old Brecksville Road • Independence, Ohio 44131
(216) 642-6040 • fax (216) 642-6041

State of New York – Department of Labor
Division of Safety & Health
Engineering Services Unit
State Office Building Campus: Building 12, Room 154
Albany, NY 12240

Re: Petition for Variance – TCC Site 108, 3800 River Road Tonawanda, NY 14151

Thermal System Insulation (TSI) Removal – Work Area Description

Work Area Designation	Interior or Exterior	Work Area Dimensions	Type of asbestos containing material (ACM)	Quantity of ACM	Condition of ACM	Friability of ACM	Type of Containment
NW Fence	Exterior	4,760 ft^2	TSI Debris	4,760 ft^2	Poor	Friable	Open-air
NW Fence	Exterior	4,760 ft^2	TSI	4,075 ft	Poor	Friable	Negative Pressure Glovebag

Reason for Variance Request

TCC Site 108 is a vacant industrial site formerly involved in the operation of Tonawanda Coke Corporation's (TCC) Coke Production Facility. The site was primarily used for main plant shipping and deliveries by way of the Niagara River, including coke, coal, and coal tar. Asbestos abatement is being conducted under an Administrative Settlement Agreement and Order on Consent for a Removal Action between Honeywell and the USEPA (Index No. CERCLA-02-2019-2006) issued in June 2019. The purpose of requesting relief from the applicable sections of Part 56, Title 12 is to expedite the process of cleanup and prevent the further contamination of Site 108.

Site activities will include the abatement of TSI on pipe runs and associated TSI debris clean up. The majority of TSI is located on exterior pipe runs extending along the Northwest border of the property. TSI on piping scheduled to be abated also resides in a Pump House that is no longer weather resistant and showing signs of deterioration. Asbestos-containing debris exists in each area, with exterior work areas being established after vegetation is cleared to create access to the material. Due to the poor condition of the TSI, it is in all parties' best interest to clean the debris and abate the remaining TSI. The Owner requests relief from the following provisions:

PRECISION Environmental Co.
5500 Old Brecksville Road • Independence, Ohio 44131
(216) 642-6040 • fax (216) 642-6041

56-7.8(a) – The operation of Negative Pressure Equipment shall be used for glovebag removal of TSI; ~~they would not be used for air changes within a containment.~~ HEPA vacuums would be attached to provide negative pressure to glove bags. See Variance conditions - mgw

56-7.8(a)(1) – For the intended work within the pump house, negative pressure will be established during working hours, and shut down during off shift hours. See variance Conditions for pump house Abatement

56-7.11(a) – Based on the fact that the project is outdoors, the site is closed to unauthorized personnel, and has been vacated, we are proposing that a regulated area consist of red "Danger Asbestos" barrier tape, and warning signs.
56-7.11(e) – As stated previously, a full containment would not be used as regulated areas shall consist of red "Danger Asbestos" barrier tape and warning signs. Personnel and waste decontamination shall occur through a Prefabricated Trailer Unit as described in 56-7.11(b)(7) adjacent to the regulated area.

56-9.2(d) – ~~We propose that personal air samples collected during removal and cleaning activities serve as clearance samples for each work area. Requirements of 56-9.2(e) shall be met.~~ See Variance Conditions for air sampling - mgw

Hardship Description

Due to the poor condition of the ACM, these methods are desirable to prevent further damage to the remaining ACM and to prevent potential release of asbestos to the environment. It has been determined that by meeting all requirements of New York Code Rule 56 would create excessive safety hazards, as well as lengthening the timeframe of the project significantly.

The construction of freestanding containments around the entire length of pipe would be infeasible due to the current site conditions. Visual documentation is provided in Attachment C. Building full containments around the pipe racks that surround the pipe would create a challenge that negatively impacts worker safety in a greater capacity than our proposed regulated area setup. Workers would be under quite difficult conditions to build structures due to the awkward ergonomics and tight corners. Tools would be difficult to use and there would be increased likelihood of a sprain/strain, laceration, and/or struck by injury. Using the red "danger asbestos" tape as a regulated area would provide increased visibility during abatement, as well as providing safer means during preparation.

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Proposed Abatement Methods

1. Asbestos project regulated abatement work areas will be established by NYSDOL certified abatement workers.

2. A remote, pre-fabricated decontamination trailer will be installed in-line with the regulated abatement work area to be used for worker and waste decontamination.

3. Vegetation surrounding the debris and remaining TSI shall be removed to create safe access to the work area. Visible debris shall be wetted with an amended solution and packaged for disposal as regulated asbestos waste.

4. Damaged and/or dislodged insulated pipe runs will be addressed via negative pressure glove bags and promptly packaged as regulated asbestos waste.

5. Relief from the installation of negative pressure tent enclosures is requested. Negative pressure glovebags will be utilized. Where feasible, 6-mil Fire-Retardant (FR) polyethylene sheeting would be installed as isolation barriers around the structures (racks) containing pipe to be abated.

6. Installation of 6-mil FR polyethylene sheeting drop cloth shall be staged below all insulated pipe runs to be abated via negative pressure glove bag methods.

7. The Owner's project monitor shall conduct a visual inspection of the work area prior to the commencement of glove bag removal operations.

8. Negative pressure glove bag operations will be conducted from the ground and from within an aerial lift man basket. The basket is to be protected from contamination via (2) layers of 6-mil FR polyethylene sheeting.

9. In lieu of post abatement monitoring, daily isolation air samples collected during removal and cleaning activities would be used for comparison against clearance criteria. Clean-up procedures would comply with ICR 56-9, except that only one stage of cleaning (final) will be performed. See Variance conditions for air sampling - mgw

10. The pump house that connects to the main pipe run shall be isolated and prepared according to the normal regulations listed in NYCRR 56. It shall consist of a full containment with critical barriers, signs, and negative pressure. Glovebag methods shall be utilized for removal. A five stage decontamination unit shall be established adjacent to the work area.

See Variance conditions for Pump House - mgw

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11. Waste shall be decontaminated and contained in a single waste area that will consist of a lockable, double-lined dumpster meeting the requirements of NYCRR 56-8.9(d).

12. Post abatement activities would include a visual inspection by the project monitor and abatement supervisor. Air sampling shall meet the criteria of clearance sampling.

13. After receiving clearance, completion of abatement activities within the regulated area will result in the collection and proper disposal of all polyethylene sheeting used as drop cloths. Equipment would then be moved down the pipe run to the next area to be abated. The waste and decontamination trailer would be positioned in-line with the next area to be abated.

20-0951

PRECISION

Environmental Co.

Attachment B

Site Map

PRECISION Environmental Co.
ProCUT

3800 River Road Remediation Plan
3800 River Road
Tonawanda, New York
TCC Site 108

Legend

- Asbestos Pipe Insulation
- Asbestos Caution Tape Work Areas (Limits determined in field)
- Asbestos Decon Trailer Personel/Waste
- Disposal Container Staging Area
- Asbestos Containment
- Office Trailer
- Project Fencing

20-0951

20-0951

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Attachment C

Site Photos

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Environmental Co.

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October 1st, 2020

New York State Department of Labor
Asbestos Project Notification
Building 12, Room 161B
State Office Campus
Albany, NY 12240

Re: Amended Notification #2
3800 River Road
Tonawanda, NY 14151
Project Number #26565147

Section # 11:

Shift work for October 2nd, 2020 hours of operation will be changed to 7:00 am to 3:30 pm.

Regular hours of operation will return to 7:00 am to 5:30 pm on October 5th, 2020.

New York State Department of Labor
Asbestos Project Notification
Building 12, Room 161B
State Office Campus
Albany, NY 12240

A. Type of notification

Check only one type of notification below.

- [ ] Initial — Complete all sections. We must receive this notification and fee at least 10 days before the project starts.
- [ ] Renewal — Complete all sections. Submit with fee within the last 30 days of a project that will extend beyond 12 months.
- [x] Amended — Submit amended notification with all sections completed and amended item(s) circled.
- [ ] Cancelled — Complete Section G and attach copy of initial notification or complete all sections.
- [ ] Emergency — You must first call 518-485-9263 for prior approval of emergency status, then complete and return this form including:

Emergency reference # _ _ _ _ _ _ _ _ _ _

B. Contractor information

Provide all information requested below.

1. FEIN 3 4 -- 1 5 7 0 8 0 6

2. Asbestos license number 29861

3. Contractor name and address
Precision Environmental Company
5500 Old Brecksville Rd
Independence, Ohio 44131

4. Mailing address (if different)

5. Workers' Compensation Policy # WC 0184334-04 or WC Exemption Certificate #

Number of your employees you expect to be on project: 10
NOTE: If you intend to have employees at the site, you must have proper workers' compensation before the start of the project.
Will temporary workers be used? [ ] Yes [x] No. If yes, name of temporary agency:

C. Project site information

Provide all information requested below for the building/site where the asbestos project will be conducted.

6. Project dates: Starting date 8-31-20 Completion date 10-16-20
If amended: Starting date Completion date

7. Project location: County Erie
Name of building N/A
Room or other specific location Exterior Pipe Rack & Pump House
Bridge Projects only. Bridge ID Number: _ _ _ _ _ _ _
Street address 3800 River Rd
City, Town or Village Tonawanda State NY Zip Code 14151

8. Building information
Current use Vacant
Prior use Industrial Year built
Is this a Federal building? [x] No [ ] Yes Building size N/A sq. ft.

9. Building representative/site contact: Name Tom Abrams Phone number (315) 263-5109

Supply all of the information requested below about the specifics of asbestos removal.

10. Is this a phased project? ☑ No ☐ Yes

If yes, list scope, location and start and end dates for each phase below. If there are more than 4 phases, please use Section F to continue.

Start date	End date	Location	Scope

10. Will sub-contractor(s) be used: ☑ No ☐ Yes (If yes, complete lines below.)

Name _____ Asbestos Lic. No. _____

Name _____ Asbestos Lic. No. _____

11. Do you anticipate doing: ☐ Night work ☐ Weekend work ☑ Shift work

Days/hours Monday, Tuesday, Wednesday, Thursday 7:00 am - 5:30 pm Friday 7:00 am - 3:30 pm See Attachment

12. The party you are doing the work for: Name Honeywell International, Inc

Address 115 Tabor Road

City, Town or Village Morris Plains

State NJ Zip Code 07950

13. Dollar amount of contract between parties named in Item 3 and Item 12. $ 215,000.00

14. If work is being conducted under a variance, check appropriate box and supply variance number.
Note: Forms AV 86 through AV 120 can no longer be used. Please refer to Part 56 of Title 12 of the Official Compilation of Codes, Rules and Regulations of the State of New York (12 NYCRR Part 56).

☐ Applicable variance number: _____ ☒ Individual variance petition number: 20-0951

15. Procedures and type of equipment and ventilation system used (attach more sheets, if necessary.)

a) Type of equipment and ventilation systems used: Negative pressure glovebags - Eurovac GD930 HEPA vacuum; Negative pressure enclosure - HEPA filtered aerospace America Aeroclean 2000

b) Name of air monitoring firm: AMD Environmental Consultants

Asbestos license number: 56177

c) Name of laboratory performing the analysis: AMD Environmental Laboratory

ELAP Registration number: 11108

16. Type of asbestos work (check all that apply)

☑ Pipe related ☐ Roofing/flashing ☐ Caulking/Mastic ☐ Clean up
☐ Vessel covering ☐ Siding ☐ VAT ☐ Sprayed on insulation
☐ Other (specify) _____

☐ Demolition: if site survey was previously submitted, provide the reference: _____

17. Waste transporter name: Waste Management of New York, LLC
NYS DEC permit number: 9A-047
Address: 10860 Olean Rd
City, Town or Village: Chaffee
State: New York or Province: _____
Zip Code: 14030
Phone number: 716-677-7365

18. Waste disposal site
Name Chaffee Landfill
Address: 10860 Olean Rd
City, Town or Village: Chaffee
State: New York or Province: _____
Zip Code: 14030
Phone number: 713-512-6200

19. Type and amount of asbestos-containing material involved

Friable linear feet	4075	Friable square feet	ground debris over 4760
Non-Friable linear feet +		Non-Friable square feet +	
Total linear feet	= 4075	Total square feet	= 4760

E. Fee schedule

This fee is non-refundable. Refer to Item 19 to calculate your required fees.

Check one box for linear feet and one box for square feet.

20. Fee schedule:

a) Linear feet
☐ 0 – 259 .....($0)
☐ 260 – 429 ..... ($200)
☐ 430 – 824 ..... ($400)
☐ 825 – 1649 ..... ($1,000)
☑ 1650 or more ..... ($2,000)

b) Square feet
☐ 0 – 159 .....($0)
☐ 160 – 259 .....($200)
☐ 260 – 499 ..... ($400)
☐ 500 – 999 ..... ($1,000)
☑ 1000 or more ..... .($2,000)

21. Total fee due for project $ 4,000.00 (add 20a and 20b)

F. Remarks.

Use this area to provide details. Attach more sheets, if necessary.

See attached

G. Signature

I certify that the information specified on this notification is true and accurate and that the project will be conducted in compliance with the requirements of Code Rule 56. (no cosigns or stamps)

Daniel Eureka

Signature of the Contractor or Duly Authorized Representative

10-01-20

Date

Daniel Eureka

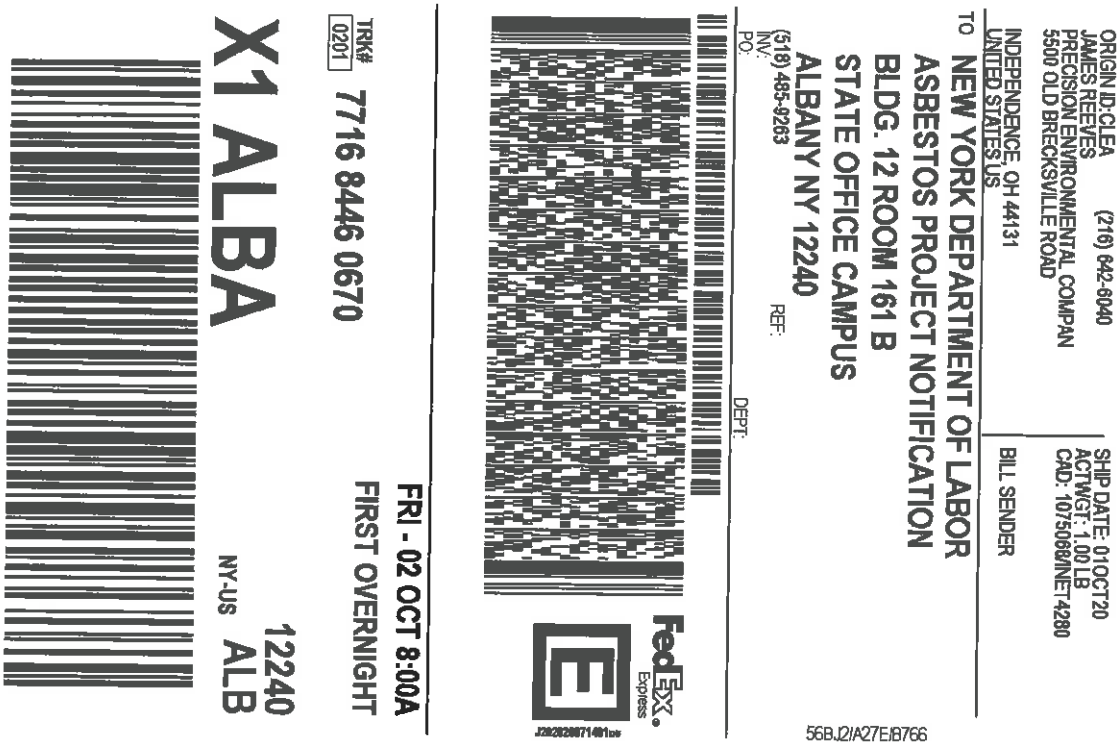
Print name of the Contractor or Duly Authorized Representative

10-01-20

Date

Cole, Jennifer

From: labor.sm.AsbestosNotification <labor.sm.AsbestosNotification@labor.ny.gov>
Sent: Thursday, October 1, 2020 3:59 PM
To: Cole, Jennifer
Subject: Read: Asbestos Notification Amended
Attachments: Read: Asbestos Notification Amended



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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

PRECISION
Environmental Co.

5500 Old Brecksville Road · Independence, Ohio 44131
(216) 642-6040 · fax (216) 642-6041
We are an equal opportunity employer

September 30, 2020

New York State Department of Labor
Asbestos Project Notification
Building 12, Room 161B
State Office Campus
Albany, NY 12240

Re: Amended Notification #1
3800 River Road
Tonawanda, NY 14151
Project Number #26565147

Section # 11:

Shift work for September 30th and October 1st, 2020 hours of operation will be changed to 7:00 am to 7:30 pm.

Regular hours of operation will return to 7:00 am to 5:30 pm on October 5th, 2020.

New York State Department of Labor
Asbestos Project Notification
Building 12, Room 161B
State Office Campus
Albany, NY 12240

A. Type of notification

Check only one type of notification below.

[ ] Initial — Complete all sections. We must receive this notification and fee at least 10 days before the project starts.

☐ Renewal — Complete all sections. Submit with fee within the last 30 days of a project that will extend beyond 12 months.

☑ Amended — Submit amended notification with all sections completed and amended item(s) circled.

☐ Cancelled — Complete Section G and attach copy of initial notification or complete all sections.

☐ Emergency — You must first call 518-485-9263 for prior approval of emergency status, then complete and return this form including:
Emergency reference # _____

B. Contractor information

Provide all information requested below.

1. FEIN 34 -- 1570806

2. Asbestos license number 29861

3. Contractor name and address
Precision Environmental Company
5500 Old Brecksville Rd
Independence, Ohio 44131

4. Mailing address (if different)

5. Workers' Compensation Policy # WC 0184334-04 or WC Exemption Certificate #

Number of your employees you expect to be on project: 10

NOTE: If you intend to have employees at the site, you must have proper workers' compensation before the start of the project.

Will temporary workers be used? ☐ Yes ☑ No. If yes, name of temporary agency: _____

C. Projectsite information

Provide all information requested below for the building/site where the asbestos project will be conducted.

6. Project dates: Starting date 8-31-20 Completion date 10-16-20

If amended: Starting date _____ Completion date _____

7. Project location: County Erie

Name of building N/A

Room or other specific location Exterior Pipe Rack & Pump House

Bridge Projects only. Bridge ID Number: _____

Street address 3800 River Rd

City, Town or Village Tonawanda State NY Zip Code 14151

8. Building information

Current use Vacant

Prior use Industrial Year built _____

Building size N/A sq. ft.

Is this a Federal building? ☑ No ☐ Yes

9. Building representative/site contact: Name Tom Abrams Phone number (315) 263-5109

Supply all of the information requested below about the specifics of asbestos removal.

10. Is this a phased project? ☑ No ☐ Yes

If yes, list scope, location and start and end dates for each phase below. If there are more than 4 phases, please use Section F to continue.

Start date	End date	Location	Scope

10. Will sub-contractor(s) be used: ☑ No ☐ Yes (If yes, complete lines below.)

Name _____ Asbestos Lic. No. _____

Name _____ Asbestos Lic. No. _____

11. Do you anticipate doing: ☐ Night work ☐ Weekend work ☑ Shift work

Days/hours Monday, Tuesday, Wednesday, Thursday *(Weather related makeups potentially on Friday)*
7:00 am - 5:30pm

12. The party you are doing the work for: Name Honeywell International, Inc

Address 115 Tabor Road

City, Town or Village Morris Plains

State NJ Zip Code 07950

13. Dollar amount of contract between parties named in Item 3 and Item 12. $ 215,000.00

14. If work is being conducted under a variance, check appropriate box and supply variance number.
Note: Forms AV 86 through AV 120 can no longer be used. Please refer to Part 56 of Title 12 of the Official Compilation of Codes, Rules and Regulations of the State of New York (12 NYCRR Part 56).

☐ Applicable variance number: _____ ☒ Individual variance petition number: 20-0951

15. Procedures and type of equipment and ventilation system used (attach more sheets, if necessary.)

a) Type of equipment and ventilation systems used:
Negative pressure glovebags - Eurovac GD930 HEPA vacuum; Negative pressure enclosure - HEPA filtered aerospace America Aeroclean 2000

b) Name of air monitoring firm: AMD Environmental Consultants
Asbestos license number: 56177

c) Name of laboratory performing the analysis: AMD Environmental Laboratory
ELAP Registration number: 11108

16. Type of asbestos work (check all that apply)

☑ Pipe related ☐ Roofing/flashing ☐ Caulking/Mastic ☐ Clean up
☐ Vessel covering ☐ Siding ☐ VAT ☐ Sprayed on insulation
☐ Other (specify) _____

☐ Demolition: if site survey was previously submitted, provide the reference: _____

17. Waste transporter name: Waste Management of New York, LLC
NYS DEC permit number: 9A-047
Address: 10860 Olean Rd
City, Town or Village: Chaffee
State: New York or Province: _____
Zip Code: 14030
Phone number: 716-677-7365

18. Waste disposal site
Name Chaffee Landfill
Address: 10860 Olean Rd
City, Town or Village: Chaffee
State: New York or Province: _____
Zip Code: 14030
Phone number: 713-512-6200

19. Type and amount of asbestos-containing material involved

Friable linear feet	4075	Friable square feet	ground debris over 4760
Non-Friable linear feet +		Non-Friable square feet +	
Total linear feet	= 4075	**Total square feet**	= 4760

E. Fee schedule

This fee is non-refundable. Refer to Item 19 to calculate your required fees.

Check one box for linear feet and one box for square feet.

20. Fee schedule:

a) Linear feet
- ☐ 0 – 259 .....($0)
- ☐ 260 – 429 ..... ($200)
- ☐ 430 – 824 ..... ($400)
- ☐ 825 – 1649 ..... ($1,000)
- ☑ 1650 or more ..... ($2,000)

b) Square feet
- ☐ 0 – 159 .....($0)
- ☐ 160 – 259 .....($200)
- ☐ 260 – 499 ..... ($400)
- ☐ 500 – 999 ..... ($1,000)
- ☑ 1000 or more ..... .($2,000)

21. Total fee due for project $ 4,000.00 (add 20a and 20b)

F. Remarks:

Use this area to provide details. Attach more sheets, if necessary.

See attached

G. Signature

I certify that the information specified on this notification is true and accurate and that the project will be conducted in compliance with the requirements of Code Rule 56. (no cosigns or stamps)

Daniel Eureka

Signature of the Contractor or Duly Authorized Representative

09-30-20

Date

Daniel Eureka

Print name of the Contractor or Duly Authorized Representative

09-30-20

Date

Cole, Jennifer

From: labor.sm.AsbestosNotification <labor.sm.AsbestosNotification@labor.ny.gov>
Sent: Wednesday, September 30, 2020 9:22 AM
To: Cole, Jennifer
Subject: Read: Asbestos Notification Amended
Attachments: Read: Asbestos Notification Amended

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Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

AMD ENVIRONMENTAL

712 Main St. Suite L1 Buffalo NY 14202
Office: 716-833-0043 x104 Fax 716-241-8689
labs@amdenv.com -- ELAP ID No: 11108

PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/01/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**08/31/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/01/2020**	**Work Area:**	**Pumphouse**	**Phase/Activity:**	**IIA- Prep**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
01	Prep	OWA	Personal Decon Ent.	1026	0	0	0.0000	< .01
02	Prep	OWA	Waste Out	1026	1	1.274	0.0005	< .01
03	Prep	OWA	Upwind Air Sample	1041	0	0	0.0000	< .01
04	Prep	OWA	Upwind Air Sample	1044	0	0	0.0000	< .01
05	Prep	OWA	Downwind Air Sample	1035	0	0	0.0000	< .01
06	Prep	OWA	Downwind Air Sample	1035	0	0	0.0000	< .01
07	Prep	OWA	Downwind Air Sample	1036	0	0	0.0000	< .01
08	Prep	OWA	Critical Barrier #1	1029	19	24.204	0.0091	< .01
09	Prep	OWA	Critical Barrier #2	1032	0	0	0.0000	< .01
10	Blank	Blank	Box Blank Lot 20200702	N/A	0	0	0.0000	NA
11	Blank	Blank	Field Blank	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

		RSD by Fiber Range		
Analyst Name:	Microscope:	0-20	21-50	51-100
Jordan Martin	Olympus CX41-1	0.3380	0.2190	0.1110
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:

AMD ENVIRONMENTAL

712 Main St. Suite L1 Buffalo NY 14202
Office: 716-833-0043 x104 Fax 716-241-8689
labs@amdenv.com -- ELAP ID No: 11108

PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/02/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/01/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis	**09/02/2020**	**Work Area:**	**Pumphouse/Walkway Path by Exterior**	**Phase/Activity:**	**IIA-Prep**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
12	Prep	OWA	Personal Decon Ent.	1734	4	5.096	0.0011	< .01
13	Prep	OWA	Waste Out	1310	18.5	23.567	0.0069	< .01
14	Prep	OWA	Critical Barrier #1	1716	2.5	3.185	0.0007	< .01
15	Prep	OWA	Critical Barrier #2	1713	0	0	0.0000	< .01
16	Prep	OWA	Upwind Sample #1	1746	0	0	0.0000	< .01
17	Prep	OWA	Upwind Sample #2	1302	0	0	0.0000	< .01
18	Prep	OWA	Downwind Sample #1	1803	0	0	0.0000	< .01
19	Prep	OWA	Downwind Sample #2	1806	0	0	0.0000	< .01
20	Prep	OWA	Downwind Sample #3	1806	0	0	0.0000	< .01
21	Prep	OWA	Negative Air Exhaust	1337	0	0	0.0000	< .01
22	Blank	Blank	Box Blank Lot 20200702	N/A	0	0	0.0000	NA
23	Blank	Blank	Field Blank	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

		RSD by Fiber Range		
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Natalie Brown	**Olympus CX41-2**	**0.2980**	**0.2520**	**0.1560**
Lab		**0.1630**	**0.2270**	**0.0790**

Results Approved By Asbestos Technical Director:

Comments:

AMD ENVIRONMENTAL

712 Main St. Suite L1 Buffalo NY 14202
Office: 716-833-0043 x104 Fax 716-241-8689
labs@amdenv.com -- ELAP ID No: 11108

PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/03/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/02/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/03/2020**	**Work Area:**	**Pumphouse + Walkway Path**	**Phase/Activity:**	**IIA- Prep**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
24	Prep	OWA	Personal Decon Ent.	1740	0	0	0.0000	< .01
25	Prep	OWA	Waste Out	1734	0	0	0.0000	< .01
26	Prep	OWA	Critical Barrier #1	1743	0	0	0.0000	< .01
27	Prep	OWA	Critical Barrier #2	1740	0	0	0.0000	< .01
28	Prep	OWA	Upwind Sample #1	1734	0	0	0.0000	< .01
29	Prep	OWA	Upwind Sample #2	1734	0	0	0.0000	< .01
30	Prep	OWA	Downwind Sample #1	1710	0	0	0.0000	< .01
31	Prep	OWA	Downwind Sample #2	1710	0	0	0.0000	< .01
32	Prep	OWA	Downwind Sample #3	1689	0	0	0.0000	< .01
33	Prep	OWA	Negative Air Exhaust	1689	0	0	0.0000	< .01
34	Blank	Blank	Box Blank Lot 20200702	N/A	0	0	0.0000	NA
35	Blank	Blank	Field Blank	N/A	0	0	0.0000	NA
36	Prep	OWA	Barrier Sample	738	0	0	0.0000	< .01

Samples were analyzed according to the following method: NIOSH 7400

		RSD by Fiber Range		
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Jordan Martin	**Olympus CX41-1**	**0.3380**	**0.2190**	**0.1110**
Lab		**0.1630**	**0.2270**	**0.0790**

Results Approved By Asbestos Technical Director:

Comments:

PCM results relate only to the samples listed, as received by the lab. These results are based on sampling data provided by the client. AMD Environmental Consultants, Inc. is not responsible for the data supplied by an independent technician. NYS Department of Health Environmental Laboratory Approval Program (ELAP) requirements mandate that this report not be reproduced, except in full, without the approval of the laboratory. This report must not be used to claim product endorsement by NYS ELAP or any agency of the US Government. Quality control data is available upon request.

AMD ENVIRONMENTAL

712 Main St. Suite L1 Buffalo NY 14202
Office: 716-833-0043 x104 Fax 716-241-8689
labs@amdenv.com -- ELAP ID No: 11108

PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/04/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/03/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/04/2020**	**Work Area:**	**Pumphouse + Path along pipe to river rd.**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
37	Environmental	OWA	Personal Decon Ent.	1695	0	0	0.0000	< .01
38	Environmental	OWA	Waste Out	1695	0	0	0.0000	< .01
39	Environmental	OWA	Critical Barrier #1	1695	0	0	0.0000	< .01
40	Environmental	OWA	Critical Barrier #2	1695	0	0	0.0000	< .01
41	Environmental	OWA	Upwind Sample #1	1683	0	0	0.0000	< .01
42	Environmental	OWA	Upwind Sample #2	1683	0	0	0.0000	< .01
43	Environmental	OWA	Downwind Sample #1	1698	0	0	0.0000	< .01
44	Environmental	OWA	Downwind Sample #2	1698	0	0	0.0000	< .01
45	Environmental	OWA	Downwind Sample #3	1689	0	0	0.0000	< .01
46	Environmental	OWA	Negative Air	1710	0	0	0.0000	< .01
47	Environmental	OWA	Required Perimeter Sample	1689	0	0	0.0000	< .01
48	Blank	Blank	Blank #1	N/A	0	0	0.0000	NA
49	Blank	Blank	Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

	RSD by Fiber Range			
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Jordan Martin	**Olympus CX41-1**	**0.3380**	**0.2190**	**0.1110**
Lab		**0.1630**	**0.2270**	**0.0790**

Results Approved By Asbestos Technical Director:

Comments:

PCM results relate only to the samples listed, as received by the lab. These results are based on sampling data provided by the client. AMD Environmental Consultants, Inc. is not responsible for the data supplied by an independent technician. NYS Department of Health Environmental Laboratory Approval Program (ELAP) requirements mandate that this report not be reproduced, except in full, without the approval of the laboratory. This report must not be used to claim product endorsement by NYS ELAP or any agency of the US Government. Quality control data is available upon request.

AMD ENVIRONMENTAL

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/09/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/08/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/09/2020**	**Work Area:**	**Pump House and Ground Clean Up East**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
50	Environmental	OWA	Personal Decon Ent.	1710	Overloaded	Overloaded	Overloaded	Overloaded
51	Environmental	OWA	Waste Out	1710	Overloaded	Overloaded	Overloaded	Overloaded
52	Environmental	OWA	Critical Barrier #1	1710	Overloaded	Overloaded	Overloaded	Overloaded
53	Environmental	OWA	Critical Barrier #2	1710	Overloaded	Overloaded	Overloaded	Overloaded
54	Environmental	OWA	Upwind Sample ENE 1	1704	Overloaded	Overloaded	Overloaded	Overloaded
55	Environmental	OWA	Upwind Sample ENE 2	1704	Overloaded	Overloaded	Overloaded	Overloaded
56	Environmental	OWA	Downwind Sample ENE 1	1704	Overloaded	Overloaded	Overloaded	Overloaded
57	Environmental	OWA	Downwind Sample ENE 2	1701	Overloaded	Overloaded	Overloaded	Overloaded
58	Environmental	OWA	Downwind Sample 3	1701	Overloaded	Overloaded	Overloaded	Overloaded
59	Environmental	OWA	Ambient	1704	Overloaded	Overloaded	Overloaded	Overloaded
60	Blank	Blank	Blank #1	N/A	0	0	0.0000	NA
61	Blank	Blank	Blank #2	N/A	0	0	0.0000	NA
62	Environmental	OWA	Negative Air	1641	Overloaded	Overloaded	Overloaded	Overloaded

Samples were analyzed according to the following method: NIOSH 7400

		RSD by Fiber Range		
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Natalie Brown	Olympus CX41-2	0.2980	0.2520	0.1560
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:
Overloaded samples have >50% of filter area covered with particulate and are uncountable and probably biased.

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/10/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/09/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/10/2020**	**Work Area:**	**Pumphouse**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
63	Environmental	OWA	Personal Decon Ent.	1635	Overloaded	Overloaded	Overloaded	Overloaded
64	Environmental	OWA	Waste Out	1635	3	3.822	0.0009	< .01
65	Environmental	OWA	Critical Barrier #1	1635	1.5	1.911	0.0004	< .01
66	Environmental	OWA	Critical Barrier #2	1635	1	1.274	0.0003	< .01
67	Environmental	OWA	Upwind Sample #1	1629	2.5	3.185	0.0008	< .01
68	Environmental	OWA	Upwind Sample #2	1596	2.5	3.185	0.0008	< .01
69	Environmental	OWA	Downwind Sample #1	1626	0	0	0.0000	< .01
70	Environmental	OWA	Downwind Sample #2	1620	Overloaded	Overloaded	Overloaded	Overloaded
71	Environmental	OWA	Downwind Sample #3	1620	Overloaded	Overloaded	Overloaded	Overloaded
72	Environmental	OWA	Ambient	1674	2.5	3.185	0.0007	< .01
73	Environmental	OWA	Negative Air	1632	Overloaded	Overloaded	Overloaded	Overloaded
74	Blank	Blank	Blank #1	N/A	0	0	0.0000	NA
75	Blank	Blank	Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

		RSD by Fiber Range		
Analyst Name:	Microscope:	0-20	21-50	51-100
Jordan Martin	Olympus CX41-1	0.3380	0.2190	0.1110
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:
Overloaded samples have >50% of filter area covered with particulate and are uncountable and probably biased.

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/10/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/09/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/10/2020**	**Work Area:**	**Pump House**	**Phase/Activity:**	**IIC- Final**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
76	Final	IWA	F1	1200	0	0	0.0000	< .01
77	Final	IWA	F2	1200	0	0	0.0000	< .01
78	Final	IWA	F3	1200	Overloaded	Overloaded	Overloaded	Overloaded
79	Final	IWA	F4	1200	Overloaded	Overloaded	Overloaded	Overloaded
80	Final	IWA	F5	1200	Overloaded	Overloaded	Overloaded	Overloaded
81	Final	OWA	F6	1200	0	0	0.0000	< .01
82	Final	OWA	F7	1200	0	0	0.0000	< .01
83	Final	OWA	F8	1200	Overloaded	Overloaded	Overloaded	Overloaded
84	Final	OWA	F9	1200	Overloaded	Overloaded	Overloaded	Overloaded
85	Final	OWA	F10	1200	Overloaded	Overloaded	Overloaded	Overloaded
86	Blank	Blank	Blank #1	N/A	0	0	0.0000	NA
87	Blank	Blank	Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

		RSD by Fiber Range		
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Natalie Brown	Olympus CX41-2	0.2980	0.2520	0.1560
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:
Overloaded samples have >50% of filter area covered with particulate and are uncountable and probably biased.

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/11/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/10/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/11/2020**	**Work Area:**	**Upper Pipe 20 ft high by pump house**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
88	Environmental	OWA	Personal Decon Ent.	1368	0	0	0.0000	< .01
89	Environmental	OWA	Personal Decon Exit	1368	0	0	0.0000	< .01
90	Environmental	OWA	Upwind Sample #1	1374	0	0	0.0000	< .01
91	Environmental	OWA	Upwind Sample #2	1368	0	0	0.0000	< .01
92	Environmental	OWA	Ambient Sample	1296	0	0	0.0000	< .01
93	Environmental	OWA	Downwind Sample #1	1338	0	0	0.0000	< .01
94	Environmental	OWA	Downwind Sample #2	1323	0	0	0.0000	< .01
95	Environmental	OWA	Downwind Sample #3	1317	0	0	0.0000	< .01
96	Blank	Blank	Blank #1	N/A	0	0	0.0000	NA
97	Blank	Blank	Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

	RSD by Fiber Range			
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Natalie Brown	**Olympus CX41-2**	**0.2980**	**0.2520**	**0.1560**
Lab		**0.1630**	**0.2270**	**0.0790**

Results Approved By Asbestos Technical Director:

Comments:

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/14/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/11/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/14/2020**	**Work Area:**	**Overhead pipe conveyer to pump house**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
098	Environmental	OWA	E1- Personal decon entrance	1725	Overloaded	Overloaded	Overloaded	Overloaded
099	Environmental	OWA	E2- Personal decon exit	1722	Overloaded	Overloaded	Overloaded	Overloaded
100	Environmental	OWA	E3- Upwind sample #1	1704	0	0	0.0000	< .01
101	Environmental	OWA	E4- Upwind sample #2	1689	0	0	0.0000	< .01
102	Environmental	OWA	E5- Ambient	1710	0	0	0.0000	< .01
103	Environmental	OWA	E6- Downwind sample #1	1680	4.5	5.733	0.0013	< .01
104	Environmental	OWA	E7- Downwind sample #2	1668	0	0	0.0000	< .01
105	Environmental	OWA	E8- Downwind sample #3	1662	0	0	0.0000	< .01
106	Blank	Blank	Box Blank #1 Lot 20200702	N/A	0	0	0.0000	NA
107	Blank	Blank	Box Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

Results Approved By Asbestos Technical Director:

Analyst Name:	RSD by Fiber Range Microscope:	0-20	21-50	51-100
Joylyn Kovatchev	Olympus CX41-3	0.2460	0.1540	0.1070
Lab		0.1630	0.2270	0.0790

Comments:

Overloaded samples have >50% of filter area covered with particulate and are uncountable and probably biased.

>50% of filter area covered with dust and is uncountable.

EMSL Analytical, Inc.

490 Rowley Road Depew, NY 14043
Tel/Fax: (716) 651-0030 / (716) 651-0394
http://www.EMSL.com / buffalolab@emsl.com

EMSL Order: 142003715
Customer ID: AMDE25
Customer PO:
Project ID:

Attention: John Wolf
AMD Environmental
712 Main Street
Suite L1
Buffalo, NY 14214

Phone: (716) 833-0043
Fax:
Received Date: 09/14/2020 09:42 AM
Analysis Date: 09/14/2020
Collected Date: 09/14/2020

Project: 20-0831-SM-A / 3800 River Rd / 3800 River Rd Tonawanda, NY 14150 / Pump House

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

Sample	Location	Volume (Liters)	Area Analyzed (mm²)	Non Asb	Asbestos Type(s)	#Structures ≥0.5µ < 5µ	#Structures ≥5µ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm²)	Asbestos Concentration (S/cc)
108	IWA	1200.00	0.0690	0	None Detected	0	0	0.0047	<14.00	<0.0046
142003715-0001										
109	IWA	1200.00	0.0690	0	None Detected	0	0	0.0047	<14.00	<0.0046
142003715-0002										
110	IWA	1200.00	0.0690	0	None Detected	0	0	0.0047	<14.00	<0.0046
142003715-0003										
111	IWA	1200.00	0.0690	0	None Detected	0	0	0.0047	<14.00	<0.0046
142003715-0004										
112	IWA	1200.00	0.0690	0	None Detected	0	0	0.0047	<14.00	<0.0046
142003715-0005										
113	OWA	1200.00	0.0690	0	None Detected	0	0	0.0047	<14.00	<0.0046
142003715-0006										
114	OWA	1200.00	0.0690	0	None Detected	0	0	0.0047	<14.00	<0.0046
142003715-0007										
115	OWA	1200.00	0.0690	0	None Detected	0	0	0.0047	<14.00	<0.0046
142003715-0008										
116	OWA	1200.00	0.0690	0	None Detected	0	0	0.0047	<14.00	<0.0046
142003715-0009										
117	OWA	1200.00	0.0690	0	None Detected	0	0	0.0047	<14.00	<0.0046
142003715-0010										

auth code: 03356G

Analyst(s)

Mark Tate (10)

Rhonda McGee

Rhonda McGee, Laboratory Manager
or other approved signatory

Initial report from: 09/14/2020 14:36 PM

1420037715

AMD ENVIRONMENTAL

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Buffalo, NY 14202
NYS ELAP ID: 11108

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Lab Director Cell (716) 335-1460
fax (716) 241-8689
labs@amdenv.com

PCM Air Sampling Chain of Custody

Job Name: 3800 River Rd	Work Area Location: Pump house	Client: PARSONS	Sample Date: 9-14-20
Job ID No.: 20-0831-SM.A	Temp/Rain/Wind: 58° /	Client Contact: TOM ABRAMS	Turn-Around Time (TAT) Requested: (Please circle one) 6 HOUR Rush 24 HR 48 HR - Standard
Job Street Address: 3800 River Rd	Filter Lot No.: 20190702	Client Phone: 315-263-5109	Analysis: PCM TEM
City, State Zip Code: Tonawanda, NY 14150	1st Calib. No. / 2nd Calibrator: AMD15 / AMD15	Client Email: tom.abrams@parsons.com ronald.prohaska@parsons.com	Call AMD in advance for Evening, Weekend & RUSH analysis. Additional charges apply.

Sample #	Pump #	Pump Location (on Map)	Sample Location Description	IB / OB	IWA / OWA	PHASE: IB, IIA, IIB, IIC (B, P, E, F)	Time Start	Time Stop	Time Total	Flow Beg	Flow End	Flow Avg	Total Volume (L)	Lab Sample ID
108		F1	IWA	IB	IWA	IIC F	0540	0810	150	8	8	8	1200	
109		F2	IWA	IB	IWA	IIC F	0540	0810	150	8	8	8	1200	
110		F3	IWA	IB	IWA	IIC F	0540	0810	150	8	8	8	1200	
111		F4	IWA	IB	IWA	IIC F	0540	0810	150	8	8	8	1200	
112		F5	IWA	IB	IWA	IIC F	0540	0810	150	8	8	8	1200	
113		F6	OWA	OB	OWA	IIC F	0500	0730	150	8	8	8	1200	
114		F7	OWA	OB	OWA	IIC F	0500	0730	150	8	8	8	1200	
115		F8	OWA	OB	OWA	IIC F	0500	0730	150	8	8	8	1200	
116		F9	OWA	OB	OWA	IIC F	0500	0730	150	8	8	8	1200	
117		F10	OWA	OB	OWA	IIC F	0500	0730	150	8	8	8	1200	
118		B1	Box Blank	x	x	x	x	x	x	x	x	x	x	
119		B2	IWA Field Blank	x	x	x	x	x	x	x	x	x	x	
120		B3	OWA Field Blank	x	x	x	x	x	x	x	x	x	x	

Samples analyzed by PCM according to NIOSH 7400 method

Sampled By (Print Name)	Sampled by Signature	Date	Time
Stephen Maghran	Stephen Maghran	9-14-20	

Relinquished to Lab By (Signature): RWL — Date: 9-14-20 — Time: Drop Off

Site Notes: READ ~~[illegible]~~ I.W.A. + O.W.A TEM

** For Lab Use Only **

Received by (Print Name)	Date	Time

Lab PO No.:

Lab Personnel Signature:

Lab Batch No.:

Samples Prepped By:

Send Results: Call w/Results E-mail Fax (Please Circle One)

Name: JWOLF@AMDENV.com John-doucette@AMDENV.com Admin@AMDENV.com

Email/Phone/Fax: ronald.prohaska@parsons.com ~~tomas.abrams@parsons.com~~ Tom

☐ Check here if this sample set of daily environmental samples is to be used as clearance samples, per NYS Variance on site.

Lab Notes / Sample Condition:

RECEIVED SEP 14 2020 9:42am BY: WT

Revised 07/09/2019

AMD ENVIRONMENTAL

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Office: 716-833-0043 x104 Fax 716-241-8689
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PCM AIR MONITORING REPORT

Client:	AMD Environmental Consultants	**Project No.:**	20-0831SM-A	**Lab Project No:**	20-148
	712 Main St. Suite L1	**Project Name:**	3800 River Rd.	**Sample Received:**	09/15/2020
	Buffalo, NY 14202	**Job Address:**	3800 River Rd.	**Sample Date:**	09/14/2020
		City, ST Zip:	Tonawanda, NY 14150	**Sample Tech:**	Stephen Maghran
Analysis Date:	09/15/2020	**Work Area:**	Piping Over the Road	**Phase/Activity:**	IIB- Environmental

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
121	Environmental	OWA	Personal Decon Ent	1734	3	3.822	0.0008	< .01
122	Environmental	OWA	Personal Decon Exit	1734	0	0	0.0000	< .01
123	Environmental	OWA	Upwind Sample #1	1734	0	0	0.0000	< .01
124	Environmental	OWA	Upwind Sample #2	1731	0	0	0.0000	< .01
125	Environmental	OWA	Downwind Sample #1	1746	Overloaded	Overloaded	Overloaded	Overloaded
126	Environmental	OWA	Downwind Sample #2	1743	Overloaded	Overloaded	Overloaded	Overloaded
127	Environmental	OWA	Downwind Sample #3	1743	0	0	0.0000	< .01
128	Environmental	OWA	Ambient	1740	0	0	0.0000	< .01
129	Blank	Blank	Box Blank #1 Lot 20200702	N/A	0	0	0.0000	NA
130	Blank	Blank	Box Blank #2	N/A	0	0	0.0000	NA
131	Environmental	OWA	Critical Barrier #1	1725	0	0	0.0000	< .01
132	Environmental	OWA	Critical Barrier #2	1728	0	0	0.0000	< .01

Samples were analyzed according to the following method: NIOSH 7400

Results Approved By Asbestos Technical Director:

		RSD by Fiber Range		
Analyst Name:	Microscope:	0-20	21-50	51-100
Natalie Brown	Olympus CX41-2	0.2980	0.2520	0.1560
Lab		0.1630	0.2270	0.0790

Comments:

Overloaded samples have >50% of filter area covered with particulate and are uncountable and probably biased.

>50% of filter area covered with dust and is uncountable.

AMD ENVIRONMENTAL

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/16/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/15/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/16/2020**	**Work Area:**	**Grid C-3 Overhead Piping**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
133	Environmental	OWA	P. Decon Entrance	1662	Overloaded	Overloaded	Overloaded	Overloaded
134	Environmental	OWA	P. Decon Exit	1653	0	0	0.0000	< .01
135	Environmental	OWA	Upwind Sample #1	1683	0	0	0.0000	< .01
136	Environmental	OWA	Upwind Sample #2	1680	0	0	0.0000	< .01
137	Environmental	OWA	Downwind Sample #1	1680	0	0	0.0000	< .01
138	Environmental	OWA	Downwind Sample #2	1677	0	0	0.0000	< .01
139	Environmental	OWA	Downwind Sample #3	1677	0	0	0.0000	< .01
140	Environmental	OWA	Upwind S#1 Grid 3	1662	0	0	0.0000	< .01
141	Environmental	OWA	Downwind S#2 Grid 3	1656	0	0	0.0000	< .01
142	Environmental	OWA	Ambient	1557	0	0	0.0000	< .01
143	Blank	Blank	Box Blank Lot 20200702	N/A	0	0	0.0000	NA
144	Blank	Blank	Box Blank	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

Results Approved By Asbestos Technical Director:

		RSD by Fiber Range		
Analyst Name:	Microscope:	0-20	21-50	51-100
Natalie Brown	Olympus CX41-2	0.2980	0.2520	0.1560
Lab		0.1630	0.2270	0.0790

Comments:

Overloaded samples have >50% of filter area covered with particulate and are uncountable and probably biased.

>50% of filter area covered with dust and is uncountable.

AMD ENVIRONMENTAL

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/17/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/16/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/17/2020**	**Work Area:**	**Grid #C3**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
145	Environmental	OWA	Personal Decon Ent.	1686	5	6.369	0.0015	< .01
146	Environmental	OWA	Personal Decon Exit	1686	0	0	0.0000	< .01
147	Environmental	OWA	Upwind Sample #1	1764	7	8.917	0.0019	< .01
148	Environmental	OWA	Upwind Sample #2	1767	0	0	0.0000	< .01
149	Environmental	OWA	Downwind Sample #1	1725	0	0	0.0000	< .01
150	Environmental	OWA	Downwind Sample #2	1719	0	0	0.0000	< .01
151	Environmental	OWA	Downwind Sample #3	1716	3.5	4.459	0.0010	< .01
152	Environmental	OWA	Critical #1 grid C3	1734	Overloaded	Overloaded	Overloaded	Overloaded
153	Environmental	OWA	Critical #2 grid C3	1578	0	0	0.0000	< .01
154	Environmental	OWA	Ambient	1620	0	0	0.0000	< .01
155	Blank	Blank	Box Blank #1 Lot 20200702	N/A	0	0	0.0000	NA
156	Blank	Blank	Box Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

Results Approved By Asbestos Technical Director:

	RSD by Fiber Range			
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Jordan Martin	Olympus CX41-1	0.3380	0.2190	0.1110
Lab		0.1630	0.2270	0.0790

Comments:

Overloaded samples have >50% of filter area covered with particulate and are uncountable and probably biased.

>50% of filter area covered with dust and is uncountable.

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PCM AIR MONITORING REPORT

Client:	AMD Environmental Consultants	**Project No.:**	20-0831SM-A	**Lab Project No:**	20-148
	712 Main St. Suite L1	**Project Name:**	3800 River Rd.	**Sample Received:**	09/18/2020
	Buffalo, NY 14202	**Job Address:**	3800 River Rd.	**Sample Date:**	09/17/2020
		City, ST Zip:	Tonawanda, NY 14150	**Sample Tech:**	Stephen Maghran
Analysis Date:	09/18/2020	**Work Area:**	Grid C-3	**Phase/Activity:**	IIB- Environmental

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
157	Environmental	OWA	P. Decon Entrance	1728	Overloaded	Overloaded	Overloaded	Overloaded
158	Environmental	OWA	P. Decon Exit	1683	Overloaded	Overloaded	Overloaded	Overloaded
159	Environmental	OWA	Upwind Sample #1	1662	Overloaded	Overloaded	Overloaded	Overloaded
160	Environmental	OWA	Upwind Sample #2	1668	Overloaded	Overloaded	Overloaded	Overloaded
161	Environmental	OWA	Downwind Sample #1	1755	0	0	0.0000	< .01
162	Environmental	OWA	Downwind Sample #2	1746	0	0	0.0000	< .01
163	Environmental	OWA	Downwind Sample #3	1731	Overloaded	Overloaded	Overloaded	Overloaded
164	Environmental	OWA	Critical Barrier #1 N. Pipe	1596	0	0	0.0000	< .01
165	Environmental	OWA	Critical Barrier #2 N. Pipe	1578	Overloaded	Overloaded	Overloaded	Overloaded
166	Environmental	OWA	Ambient	1773	0	0	0.0000	< .01
167	Blank	Blank	Box Blank Lot #1 20200702	N/A	0	0	0.0000	NA
168	Blank	Blank	Box Blank Lot #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

Results Approved By Asbestos Technical Director:

		RSD by Fiber Range		
Analyst Name:	Microscope:	0-20	21-50	51-100
Jordan Martin	Olympus CX41-1	0.3380	0.2190	0.1110
Lab		0.1630	0.2270	0.0790

Comments:

Overloaded samples have >50% of filter area covered with particulate and are uncountable and probably biased.

>50% of filter area covered with dust and is uncountable.

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/22/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/21/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/22/2020**	**Work Area:**	**GRID C3**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
169	Environmental	OWA	Personal Decon Entrance	1698	4	5.096	0.0012	< .01
170	Environmental	OWA	P. Decon Exit	1671	1	1.274	0.0003	< .01
171	Environmental	OWA	Upwind Sample #1	1743	0	0	0.0000	< .01
172	Environmental	OWA	Upwind Sample #2	1743	0	0	0.0000	< .01
173	Environmental	OWA	Downwind Sample #1	1716	0	0	0.0000	< .01
174	Environmental	OWA	Downwind Sample #2	1704	Overloaded	Overloaded	Overloaded	Overloaded
175	Environmental	OWA	Downwind Sample #3	1701	0	0	0.0000	< .01
176	Environmental	OWA	Pipeline CB#1	1635	0	0	0.0000	< .01
177	Environmental	OWA	Pipeline CB#2	1662	0	0	0.0000	< .01
178	Environmental	OWA	Ambient	1695	0	0	0.0000	< .01
179	Blank	Blank	Box Blank Lot #1 20200702	N/A	0	0	0.0000	NA
180	Blank	Blank	Box Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

Results Approved By Asbestos Technical Director:

		RSD by Fiber Range		
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Joylyn Kovatchev	Olympus CX41-3	0.2460	0.1540	0.1070
Lab		0.1630	0.2270	0.0790

Comments:

Overloaded samples have >50% of filter area covered with particulate and are uncountable and probably biased.

>50% of filter area covered with dust and is uncountable.

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/23/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/22/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis	**09/23/2020**	**Work Area:**	**Pipe/C4/Overhead C3/Pumphouse C3**	**Phase/Activity:**	**IIB-**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
181	Environmental	OWA	Personal Decon Entrance	1725	4.5	5.733	0.0013	< .01
182	Environmental	OWA	Personal Decon Exit	1695	0	0	0.0000	< .01
183	Environmental	OWA	Upwind Sample #1	1746	1	1.274	0.0003	< .01
184	Environmental	OWA	Upwind Sample #2	1776	0.5	0.637	0.0001	< .01
185	Environmental	OWA	Downwind Sample #1	1749	2.5	3.185	0.0007	< .01
186	Environmental	OWA	Downwind Sample #2	1752	Overloaded	Overloaded	Overloaded	Overloaded
187	Environmental	OWA	Downwind Sample #3	1755	0	0	0.0000	< .01
188	Environmental	OWA	Critical #1 Pipeline	1626	2	2.548	0.0006	< .01
189	Environmental	OWA	Critical #2 Pipeline	1626	0	0	0.0000	< .01
190	Environmental	OWA	Ambient	1626	0	0	0.0000	< .01
191	Blank	Blank	Box Blank #1 Lot 20200702	N/A	0	0	0.0000	NA
192	Blank	Blank	Box Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

Results Approved By Asbestos Technical Director:

		RSD by Fiber Range		
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Natalie Brown	Olympus CX41-2	0.2980	0.2520	0.1560
Lab		0.1630	0.2270	0.0790

Comments:

Overloaded samples have >50% of filter area covered with particulate and are uncountable and probably biased.

>50% of filter area covered with dust and is uncountable.

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PCM AIR MONITORING REPORT

Client:	AMD Environmental Consultants	**Project No.:**	20-0831SM-A	**Lab Project No:**	20-148
	712 Main St. Suite L1	**Project Name:**	3800 River Rd.	**Sample Received:**	09/24/2020
	Buffalo, NY 14202	**Job Address:**	3800 River Rd.	**Sample Date:**	09/23/2020
		City, ST Zip:	Tonawanda, NY 14150	**Sample Tech:**	Stephen Maghran
Analysis Date:	09/24/2020	**Work Area:**	Grid C-3/C-4	**Phase/Activity:**	IIB- Environmental

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
193	Environmental	OWA	Personal Decon Entrance	1758	3.5	4.459	0.0010	< .01
194	Environmental	OWA	Personal Decon Exit	1671	5	6.369	0.0015	< .01
195	Environmental	OWA	Upwind Sample #1	1785	0	0	0.0000	< .01
196	Environmental	OWA	Upwind Sample #2	1791	1	1.274	0.0003	< .01
197	Environmental	OWA	Downwind Sample #1	1740	1.5	1.911	0.0004	< .01
198	Environmental	OWA	Downwind Sample #2	1725	5.5	7.006	0.0016	< .01
199	Environmental	OWA	Downwind Sample #3	1734	Overloaded	Overloaded	Overloaded	Overloaded
200	Environmental	OWA	Critical Barrier Pipeline #1	1644	7	8.917	0.0021	< .01
201	Environmental	OWA	Critical Barrier Pipeline #2	1728	3.5	4.459	0.0010	< .01
202	Environmental	OWA	Ambient	1866	0	0	0.0000	< .01
203	Blank	Blank	Box Blank #1 Lot 20200702	N/A	0	0	0.0000	NA
204	Blank	Blank	Box Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

		RSD by Fiber Range		
Analyst Name:	Microscope:	0-20	21-50	51-100
Jordan Martin	Olympus CX41-1	0.3380	0.2190	0.1110
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:
Overloaded samples have >50% of filter area covered with particulate and are uncountable and probably biased.

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/25/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/24/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/25/2020**	**Work Area:**	**Grid C4 pipeline/Grid C3**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
205	Enviro As Final	OWA	E1- Personal decon entrance	1701	2	2.548	0.0006	< .01
206	Enviro As Final	OWA	E2- Personal decon exit	1689	0	0	0.0000	< .01
207	Enviro As Final	OWA	E3- Upwind #1	1764	0	0	0.0000	< .01
208	Enviro As Final	OWA	E4- Upwind #2	1761	0	0	0.0000	< .01
209	Enviro As Final	OWA	E5- Downwind #1	1761	0	0	0.0000	< .01
210	Enviro As Final	OWA	E6- Downwind #2	1758	0	0	0.0000	< .01
211	Enviro As Final	IWA	E7- Downwind #3	1755	0	0	0.0000	< .01
212	Enviro As Final	OWA	E8- Critical #1 pipeline	1632	0	0	0.0000	< .01
213	Enviro As Final	OWA	E9- Critical #2 pipeline	1629	0	0	0.0000	< .01
214	Enviro As Final	OWA	E10- Ambient	1782	0	0	0.0000	< .01
215	Blank	Blank	Box Blank #1 Lot 20200902	N/A	0	0	0.0000	NA
216	Blank	Blank	Box Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

	RSD by Fiber Range			
Analyst Name:	Microscope:	0-20	21-50	51-100
Joylyn Kovatchev	Olympus CX41-3	0.2460	0.1540	0.1070
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/29/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/28/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/29/2020**	**Work Area:**	**Pipeline**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
217	Environmental	OWA	Personal Decon Entrance	1740	0	0	0.0000	< .01
218	Environmental	OWA	P. Decon Exit	1737	0	0	0.0000	< .01
219	Environmental	OWA	Upwind #1	1740	0	0	0.0000	< .01
220	Environmental	OWA	Upwind #2	1740	0	0	0.0000	< .01
221	Environmental	OWA	Downwind #1	1740	0	0	0.0000	< .01
222	Environmental	OWA	Downwind #2	1740	0	0	0.0000	< .01
223	Environmental	OWA	Downwind #3	1740	0.5	0.637	0.0001	< .01
224	Environmental	OWA	Critical Barrier Pipe #1	1593	Overloaded	Overloaded	Overloaded	Overloaded
225	Environmental	OWA	Critical Barrier Pipe #2	1590	0	0	0.0000	< .01
226	Environmental	OWA	Ambient	1812	0	0	0.0000	< .01
227	Blank	Blank	Box Blank Lot #20200902	N/A	0	0	0.0000	NA
228	Blank	Blank	Box Blank	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

		RSD by Fiber Range		
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Natalie Brown	Olympus CX41-2	0.2980	0.2520	0.1560
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:
Overloaded samples have >50% of filter area covered with particulate and are uncountable and probably biased.

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**09/30/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/29/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**09/30/2020**	**Work Area:**	**Pipeline Toward River Rd**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
229	Environmental	OWA	Personal Decon Entrance	1755	0.5	0.637	0.0001	< .01
230	Environmental	OWA	Personal Decon Exit	1755	0	0	0.0000	< .01
231	Environmental	OWA	Upwind #1	1800	0	0	0.0000	< .01
232	Environmental	OWA	Upwind #2	1800	0	0	0.0000	< .01
233	Environmental	OWA	Downwind #1	1794	0	0	0.0000	< .01
234	Environmental	OWA	Downwind #2	1791	0	0	0.0000	< .01
235	Environmental	OWA	Downwind #3	1788	0	0	0.0000	< .01
236	Environmental	OWA	Critical Barrier #1	1635	0	0	0.0000	< .01
237	Environmental	OWA	Critical Barrier #2	1635	0	0	0.0000	< .01
238	Environmental	OWA	Ambient	1878	0	0	0.0000	< .01
239	Blank	Blank	Box Blank #1 Lot 20200902	N/A	0	0	0.0000	NA
240	Blank	Blank	Box Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

	RSD by Fiber Range			
Analyst Name:	Microscope:	0-20	21-50	51-100
Natalie Brown	Olympus CX41-2	0.2980	0.2520	0.1560
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:

AMD ENVIRONMENTAL

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**10/01/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**09/30/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**10/01/2020**	**Work Area:**	**Pipeline Gris A7+C2**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
241	Environmental	OWA	Personal Decon Ent.	1587	0	0	0.0000	< .01
242	Environmental	OWA	Personal Decon Exit	1575	0	0	0.0000	< .01
243	Environmental	OWA	Upwind #1	1986	0	0	0.0000	< .01
244	Environmental	OWA	Upwind #2	1986	0	0	0.0000	< .01
245	Environmental	OWA	Downwind #1	1992	0	0	0.0000	< .01
246	Environmental	OWA	Downwind #2	1995	0	0	0.0000	< .01
247	Environmental	OWA	Downwind #3	1992	0	0	0.0000	< .01
248	Environmental	OWA	Critical Barrier Grid C2	1590	0	0	0.0000	< .01
249	Environmental	OWA	Critical Barrier Grid C2	1590	0	0	0.0000	< .01
250	Environmental	OWA	Ambient	1995	0	0	0.0000	< .01
251	Blank	Blank	Box Blank #1 Lot 20200902	N/A	0	0	0.0000	NA
252	Blank	Blank	Box Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

		RSD by Fiber Range		
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Jordan Martin	**Olympus CX41-1**	**0.3380**	**0.2190**	**0.1110**
Lab		**0.1630**	**0.2270**	**0.0790**

Results Approved By Asbestos Technical Director:

Comments:

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**10/02/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**10/01/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**10/02/2020**	**Work Area:**	**Grid C-1 & C-2**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
253	Environmental	OWA	Personal Decon Entrance	1860	0	0	0.0000	< .01
254	Environmental	OWA	Personal Decon Exit	1878	0	0	0.0000	< .01
255	Environmental	OWA	Upwind #1	2010	0	0	0.0000	< .01
256	Environmental	OWA	Upwind #2	2010	0	0	0.0000	< .01
257	Environmental	OWA	Downwind #1	2010	0	0	0.0000	< .01
258	Environmental	OWA	Downwind #2	2010	0	0	0.0000	< .01
259	Environmental	OWA	Downwind #3	2010	0	0	0.0000	< .01
260	Environmental	OWA	Critical Barrier W. Pipeline #1	2088	0	0	0.0000	< .01
261	Environmental	OWA	Critical Barrier W. Pipeline #2	2085	0	0	0.0000	< .01
262	Environmental	OWA	Ambient	2154	0	0	0.0000	< .01
263	Blank	Blank	Box Blank #1 Lot 20200902	N/A	0	0	0.0000	NA
264	Blank	Blank	Box Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

		RSD by Fiber Range		
Analyst Name:	**Microscope:**	**0-20**	**21-50**	**51-100**
Natalie Brown	Olympus CX41-2	0.2980	0.2520	0.1560
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:

PCM results relate only to the samples listed, as received by the lab. These results are based on sampling data provided by the client. AMD Environmental Consultants, Inc. is not responsible for the data supplied by an independent technician. NYS Department of Health Environmental Laboratory Approval Program (ELAP) requirements mandate that this report not be reproduced, except in full, without the approval of the laboratory. This report must not be used to claim product endorsement by NYS ELAP or any agency of the US Government. Quality control data is available upon request.

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**10/05/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**10/02/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**10/05/2020**	**Work Area:**	**Grid #C2**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
264	Environmental	OWA	Personal Decon Ent	1368	0	0	0.0000	< .01
265	Environmental	OWA	Personal Decon Exit	1308	0	0	0.0000	< .01
266	Environmental	OWA	Upwind #1	1383	0	0	0.0000	< .01
267	Environmental	OWA	Upwind #2	1356	0	0	0.0000	< .01
268	Environmental	OWA	Downwind #1	1371	0	0	0.0000	< .01
269	Environmental	OWA	Downwind #2	1371	0	0	0.0000	< .01
270	Environmental	OWA	Downwind #3	1371	0	0	0.0000	< .01
271	Environmental	OWA	Critical Barrier #1 Pipeline	1365	0	0	0.0000	< .01
272	Environmental	OWA	Critical Barrier #2 Pipeline	1365	0	0	0.0000	< .01
273	Environmental	OWA	Ambient	1434	0	0	0.0000	< .01
274	Blank	Blank	Blank #1	N/A	0	0	0.0000	NA
275	Blank	Blank	Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

	RSD by Fiber Range			
Analyst Name:	Microscope:	0-20	21-50	51-100
Joylyn Kovatchev	Olympus CX41-3	0.2460	0.1540	0.1070
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**10/06/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**10/05/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Peisong Liu**
Analysis Date:	**10/06/2020**	**Work Area:**	**CO2 Pipeline**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
276	Environmental	OWA	Decon Entrance	1770	7	8.917	0.0019	< .01
277	Environmental	OWA	Decon Exit	885	0	0	0.0000	< .01
278	Environmental	OWA	Upwind #1	1770	0	0	0.0000	< .01
279	Environmental	OWA	Upwind #2	1770	0	0	0.0000	< .01
280	Environmental	OWA	Downwind #1	1770	0	0	0.0000	< .01
281	Environmental	OWA	Downwind #2	1740	0	0	0.0000	< .01
282	Environmental	OWA	Downwind #3	1740	0	0	0.0000	< .01
283	Environmental	OWA	Critical #1 West	1740	0	0	0.0000	< .01
284	Environmental	OWA	Critical #2 East	1740	0	0	0.0000	< .01
285	Environmental	OWA	Ambient Air	1770	0	0	0.0000	< .01
286	Blank	Blank	Box Blank Lot 20200902	N/A	0	0	0.0000	NA
287	Blank	Blank	Field Blank	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

	RSD by Fiber Range			
Analyst Name:	Microscope:	0-20	21-50	51-100
Joylyn Kovatchev	Olympus CX41-3	0.2460	0.1540	0.1070
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**10/06/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**10/05/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Peisong Liu**
Analysis Date:	**10/06/2020**	**Work Area:**	**Tunnel Pipe**	**Phase/Activity:**	**IIA- Prep**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
288	Prep	OWA	Decon Entrance	396	0	0	0.0000	< .01
289	Prep	OWA	Decon Exit	198	0	0	0.0000	< .01
290	Prep	OWA	Critical #1	480	0	0	0.0000	< .01
291	Prep	OWA	Critical #2	483	0	0	0.0000	< .01
292	Prep	OWA	Ambient Air	480	0	0	0.0000	< .01
293	Blank	Blank	Box Blank Lot 20200902	N/A	0	0	0.0000	NA
294	Blank	Blank	Field Blank	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

	RSD by Fiber Range			
Analyst Name:	Microscope:	0-20	21-50	51-100
Joylyn Kovatchev	Olympus CX41-3	0.2460	0.1540	0.1070
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**10/07/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**10/06/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**10/07/2020**	**Work Area:**	**Entire pipeline**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
295	Environmental	OWA	E1- Personal decon entrance	1512	0	0	0.0000	< .01
296	Environmental	OWA	E2- Personal decon exit	1500	0	0	0.0000	< .01
297	Environmental	OWA	E3- Upwind #1	1779	0	0	0.0000	< .01
298	Environmental	OWA	E4- Upwind #2	1779	0	0	0.0000	< .01
299	Environmental	OWA	E5- Downwind #1	1752	0	0	0.0000	< .01
300	Environmental	OWA	E6- Downwind #2	1737	0	0	0.0000	< .01
301	Environmental	OWA	E7- Downwind #3	1731	0	0	0.0000	< .01
302	Environmental	OWA	E8- Critical barrier grid C1	1737	0	0	0.0000	< .01
303	Environmental	OWA	E9- Critical barrier grid C2	1545	0	0	0.0000	< .01
304	Environmental	OWA	E10- Ambient	1620	0	0	0.0000	< .01
305	Blank	Blank	Blank #1	N/A	0	0	0.0000	NA
306	Blank	Blank	Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

		RSD by Fiber Range		
Analyst Name:	Microscope:	0-20	21-50	51-100
Natalie Brown	Olympus CX41-2	0.2980	0.2520	0.1560
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:

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PCM AIR MONITORING REPORT

Client:	**AMD Environmental Consultants**	**Project No.:**	**20-0831SM-A**	**Lab Project No:**	**20-148**
	712 Main St. Suite L1	**Project Name:**	**3800 River Rd.**	**Sample Received:**	**10/08/2020**
	Buffalo, NY 14202	**Job Address:**	**3800 River Rd.**	**Sample Date:**	**10/07/2020**
		City, ST Zip:	**Tonawanda, NY 14150**	**Sample Tech:**	**Stephen Maghran**
Analysis Date:	**10/08/2020**	**Work Area:**	**Pumphouse East + West Pipeline**	**Phase/Activity:**	**IIB- Environmental**

SAMPLE NO.	SAMPLE TYPE	LOCATION	LOCATION DESCRIPTION	Volume(L)	Fibers/ 100 Fields	Fibers/ mm^2	Sensitivity	Fibers/cc
307	Environmental	OWA	Personal Decon Entrance	1671	0	0	0.0000	< .01
308	Environmental	OWA	Personal Decon Exit	1455	2	2.548	0.0007	< .01
309	Environmental	OWA	Upwind #1	1710	0	0	0.0000	< .01
310	Environmental	OWA	Upwind #2	1707	0	0	0.0000	< .01
311	Environmental	OWA	Downwind #1	1740	0	0	0.0000	< .01
312	Environmental	OWA	Downwind #2	1740	0	0	0.0000	< .01
313	Environmental	OWA	Downwind #3	1740	0.5	0.637	0.0001	< .01
314	Environmental	OWA	Critical Barrier West #1	1692	4	5.096	0.0012	< .01
315	Environmental	OWA	Critical Barrier West #2	1689	0	0	0.0000	< .01
316	Environmental	OWA	Ambient	1692	0	0	0.0000	< .01
317	Blank	Blank	Blank #1 Lot 20200902	N/A	0	0	0.0000	NA
318	Blank	Blank	Blank #2	N/A	0	0	0.0000	NA

Samples were analyzed according to the following method: NIOSH 7400

	RSD by Fiber Range			
Analyst Name:	Microscope:	0-20	21-50	51-100
Jordan Martin	Olympus CX41-1	0.3380	0.2190	0.1110
Lab		0.1630	0.2270	0.0790

Results Approved By Asbestos Technical Director:

Comments:

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ENVIRONMENTAL PROJECT DAILY LOG

Date: 10-2-20 Job: 20-0831-SMA Project Type: ACM Pg 1 of 1

Project Name/Address: 3800 River Road Tonawanda NY 14150 Start Time: 645

Client/Contact: Parsons - Tom Abrams - 315-263-5109

Work Area Location: Grid C-2 pipeline West + C1 End Time:

Materials Removed: X Pipe Insulation; Mastic; Caulk; Floor Tile; Fireproofing; Boiler/Tank Insulation; Transite; Roofing; Drywall/Plaster; Other: RACM / Ground Debris Clean up

Contractor: Precision Supervisor: Harry Sheldon

Air Monitor: Technician: Stephen Maghran

Project Monitor: AMD

License(s) Posted: y		No. of Samples Required: 12	
Air Monitor Cert Posted: y		Pump Locations Checked: y	
Personal Safety Euipment: PPE - O.S.H.A. 1/2 mask		Pumps Calibrated: y	
Work Area(s) Size: 4 LARGE		Visual Inspection OK: —	
Enclosure Type Barrier Tape - ACM/HAZ. signs		Waiting Period Required: —	
Phase: IB, IIA, (IIB), IIC, IAQ		Air Results Reviewed? —	Any High Levels? —
Sample #s Used: 264 - 275			
OSHA Personals Ran:	STEL or Pers.	Air Results Reviewed?	Any High Levels?
Pers. Sample #s Used:			

~~Pre-Clean Inspection:~~ ~~Containment Inspection:~~ ~~Work Area Inspection:~~ ~~Clearance/Final Visual:~~

Notes: Arrived on site, Calibrated pumps. 0700 Safety/COVID19-meeting - Then set air samplus pumps around the work area. Scope of work is to glovebag TSI from the pipeline at the Conveyor Buildings - working their way West towards the River. Work crew consists of the supervisor and 6 laborers. Marcie Sarmas is here for clerical administrative support. John Swetland + Matthew Rattai are not on site today - Harry Sheldon will be operating the skid steer today. 0835 - Contractors glovebagging West pipe line using wet method and Attached HEPA vacuums per NYstate variance. By 1000 hours the 4TH Dumpster is Full - 5TH Dumpster arrived early this morning. Approximately 1400 hours went to monitor/Inspect the work area. Found a few spots that will need clean up next week. Contractor Abated Approximately 230 Linear feet of Pipe wrap. section/grid E- + C1 End of shift collected samples, completed paperwork/Chain of Custody + took samples to the Lab.

12 hours for personal pumps 4 hours for area pumps

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ENVIRONMENTAL PROJECT DAILY LOG

Date: 10-1-20	Job: 20-0831-SMA	Project Type: ACM				Pg 1 of 2
Project Name/Address:	3800 River Rd. Tonawanda, NY 14150					Start Time: 6 45
Client/Contact:	PARSONS - Tom Abrams 315-263-5109					
Work Area Location:	Pipeline - West Grid C-2, C1					
Materials Removed:	X Pipe Insulation	Mastic	Caulk	Floor Tile	Fireproofing	End Time:
	Boiler/Tank Insulation	Transite	Roofing	Drywall/Plaster		
	Other: RACM / Ground debris clean up					
Contractor:	Precision		Supervisor:	Harry Sheldon		
Air Monitor:			Technician:	Stephen Maghran		
Project Monitor:	AMD					

License(s) Posted: y		No. of Samples Required: 12	
Air Monitor Cert Posted: y		Pump Locations Checked: y	
Personal Safety Euipment: y	PPE for OSHA	Pumps Calibrated: y	
Work Area(s) Size:	LARGE	Visual Inspection OK:	
Enclosure Type	Barrier Tape Asbestos Hazsigns	Waiting Period Required:	
Phase: IB, IIA, IIB, IIC, IAQ		Air Results Reviewed? y	Any High Levels? no
Sample #s Used: 253 - 264			
OSHA Personals Ran:	STEL or Pers.	Air Results Reviewed?	Any High Levels?
Pers. Sample #s Used:			

~~Pre-Clean Inspection:~~ Arrived on site 0644 hours - Calibrated pumps. 0700 Safety / COVID19 daily meeting - Set up pumps around the work area. Scope of work today is to put the entire work crew (8 LABORERS) on the pipeline from the Conveyor Building Abating West towards the River. Ground clean up first, then glove bag - the pipe work (T.S.I.). 0845 to 0955 In Containment for Inspection ground debris Southside of the pipe line. There is an area of two that needs to be cleaned - Advised contractor. Contractor is almost done with the South side of the ~~pipes~~ ground debris clean up. North side grounds still needs to be addressed ~~on Tape~~ Work crew consists of the SAME 8 LABORERS, Harry the supervisor + Marcel - who is here to assist Harry with clerical / paperwork. Total 10 People - Weather - sunny 56° winds 15 MPH WSW. Contractor had to cut some TREE Branches sticking out of the ground that had ACM white Residue on them. Took photos of contractors doing ground cleanup + cleaning up the areas that I advised need to be cleaned. 1130 hours - contractors still cleaning up debris. Approximately 1235pm contractor advised that the ground cleanup is done. Site supervisor is going to visually Inspect the ground

~~Containment Inspection:~~

~~Work Area Inspection:~~

~~Clearance/Final Visual:~~

Notes:

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ENVIRONMENTAL PROJECT DAILY LOG

Date: 10-1-20	Job:	Project Type: Acm				Pg 2 of 2
Project Name/Address:	3800 River Rd. Tonawanda, NY 14150					Start Time:
Client/Contact:	PARSONS - Tom Abrams 315-263-5109					
Work Area Location:	Grid C-1 + C2					End Time:
Materials Removed:	X Pipe Insulation	Mastic	Caulk	Floor Tile	Fireproofing	
	Boiler/Tank Insulation	Transite	Roofing	Drywall/Plaster		
	Other: Debris Ground Clean Up					
Contractor:	Precision	Supervisor:	Harry Sheldon			
Air Monitor:		Technician:	Steve Maghran			
Project Monitor:	AMD					

License(s) Posted:	No. of Samples Required:
Air Monitor Cert Posted:	Pump Locations Checked:
Personal Safety Euipment:	Pumps Calibrated:
Work Area(s) Size:	Visual Inspection OK:
Enclosure Type	Waiting Period Required:

Phase: IB, IIA, IIB, IIC, IAQ		Air Results Reviewed?	Any High Levels?
Sample #s Used: _____ - _____			
OSHA Personals Ran:	STEL or Pers.	Air Results Reviewed?	Any High Levels?
Pers. Sample #s Used: _____			

~~Pre-Clean Inspection~~: clean up/debris this afternoon. After he advises of his inspection findings I will check the grounds - Visual Inspection.
~~Containment Inspection~~: Checked air monitoring pumps before lunch and after lunch. Went into Containment from 1420 Hours to 1600 Hours to Inspect pipe line ground clean up work. Found PACT TAPE PAPER. Advised Harry S. - Supervisor and the loose material was made into piles for the laborers to bag out. Also walked part way down the East pipe line to Inspect the pipe that has been glove bagged. Dry pipe looked clean up to the point where the contractors stopped cleaning (About 1/3 the way from the conveyor building to River Road. There was a good amount of pipe wrap on the ground. Advised contractor. He said He would have it bagged tomorrow.
~~Work Area Inspection~~:
~~Clearance/Final Visual~~:
Notes: 1620pm Ron Prodast phoned and advised lightning - Stay in CAR 30 minutes. Lightning Protocol. Ground 1650 sent. Ron Prodast This mornings ground clean up photos. Contractors glove bagged 40 Linear feet + 60 linear feet on the pipes in Grid C-2. End of shift collected samples completed AMD paperwork / Chain of Custody and took samples to the Lab.

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ENVIRONMENTAL PROJECT DAILY LOG

Date: 9-30-21	Job: 20-0831-SM-A	Project Type: ACM				Pg 1 of 2
Project Name/Address:	3800 River Rd. Tonawanda, NY 14150					Start Time: 645
Client/Contact:	Parsons - Tom Abrams - 315-263-5709					
Work Area Location:	Pipeline Grids - A-7 + C2					End Time:
Materials Removed:	X Pipe Insulation	Mastic	Caulk	Floor Tile	Fireproofing	
	Boiler/Tank Insulation	Transite	Roofing	Drywall/Plaster		
	Other: debris / grounds cleanup					
Contractor:	Precision	Supervisor:	Harry Shebben			
Air Monitor:		Technician:	Steve Maghran			
Project Monitor:	AMD					

License(s) Posted: y		No. of Samples Required: 12	
Air Monitor Cert Posted: y		Pump Locations Checked: y	
Personal Safety Eqipment: PPE - O.S.H.A FACE 1/2		Pumps Calibrated: y	
Work Area(s) Size: LARGE		Visual Inspection OK: - ongoing down pipeline	
Enclosure Type Barrier Tape / ACM HAZ SIGNS		Waiting Period Required: -	
Phase: IB, IIA, (IIB), IIC, IAQ	Air Results Reviewed? y	Any High Levels? y one over load pipeline -	
Sample #s Used: 241 - 252			
OSHA Personals Ran: STEL or Pers.	Air Results Reviewed?	Any High Levels?	
Pers. Sample #s Used:			

~~Pre-Clean Inspection:~~ Arrived on site 0640 - Calibrated pumps - 0700 SAFETY / COVID19 MEETING - Rain conditions today. Wind 11MPH

~~Containment Inspection:~~ SSW. 0718 - Lightning stand down 30 minutes. 0830 Lightning Protocal - Stand down 30 minutes.

~~Work Area Inspection:~~ 0930 - 1040 Inspected ground cleanup from the Conveyor Bldg. going west towards the River. cleared approximately 2 to East so Contractor can begin glue bagging the pipe WRAP (T.S.I.) - Lightning is back - Site Safety Officer

~~Clearance/Final Visual~~

Notes: advised, work crew to stand down until the Officer Advises. Wind is from The W.S.W 16 MPH. Rain and Hail coming down. Contractors went Back into containment around 1140. Contractors to finish the pipe run in section A7 today. Also started ground cleanup in Grid C2 with 2ND group following down the pipe line with glove bags (Per Variance). As I clear each 40 FOOT sections with Visual Inspection contractors glove bag the T.S.I. from the pipeline. Lightning again At Approximately 1239pm - ~~Emp~~ workers must stop working for 30 minutes. Checked pumps before Lunch around 12:15pm. Lightning Again 1242pm - 30 more minutes ~~down~~ Stand down. Again 1244pm - 1247, ... 1252 ... Lunch... Approximately 1420hours - contractors are able to start work Again.

SEE PAGE #2

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ENVIRONMENTAL PROJECT DAILY LOG

Date: 9-30-20 Job: 20-0831-SMA Project Type: ACM Pg 2 of 3

Project Name/Address: 3800 River Road Tonawanda, NY 14150 Start Time:

Client/Contact: PARSONS - Tom Adrums 315-283-5109

Work Area Location: Grids A-7 + C2

Materials Removed: ☑ Pipe Insulation ☐ Mastic ☐ Caulk ☐ Floor Tile ☐ Fireproofing ☐ Boiler/Tank Insulation ☐ Transite ☐ Roofing ☐ Drywall/Plaster ☐ Other: RACM/Debris/Ground cleanUp End Time:

Contractor: Precision Supervisor: Harry Selden

Air Monitor: Technician: Steve Maghran

Project Monitor: AMD.

License(s) Posted: Y	No. of Samples Required: 12
Air Monitor Cert Posted:	Pump Locations Checked: ✓
Personal Safety Euipment: PPE per O.S.H.A.	Pumps Calibrated: ✓
Work Area(s) Size: LARGE	Visual Inspection OK: yes
Enclosure Type Barrier Tape ACM Signs	Waiting Period Required: —

Phase: IB, IIA, (IIB), IIC, IAQ		Air Results Reviewed? —	Any High Levels? —
Sample #s Used: 241 - 252			
OSHA Personals Ran:	STEL or Pers.	Air Results Reviewed?	Any High Levels?
Pers. Sample #s Used:			

~~Pre-Clean Inspection:~~ ~~Containment Inspection:~~ ~~Work Area Inspection:~~ ~~Clean-up/Final Visual:~~

Notes: Approximately 1400 hours. It was advised that contractor will be working Friday in an attempt to complete the project. Contacted AMD field supervisor to make sure I'm get scheduled at another site on Friday. Checked pumps around 1425. 1430 - 1630 I was in containment inspecting The ground clean up. Found a few areas that need clean up. Marked with Red Flags from Ron Prohask. Due to the Lightning 30 minute stand down, the contractors lost about half a days work time today. Checked pumps around 1700 hours. Contractors are staying / working later today. So they may make up some of the time lost to Lightning protocals 1744pm Ron Prohask just advised more lightning on the way. Advised contractors to get out of the work areas Tomorrow contractors should be in the same work areas Grid A7 + C2. 1750pm took photos of GRID C-2 - Contractors WRAPPED Deteriorated pipe areas as winds are to get up to 40MPH tonight. This may reduce the chance of more ACM GROUND clean up. Took Photos + forwarded to Ron Prohask. 1800 hours - Another lightning series may come by - Lightning protocal...

AMD ENVIRONMENTAL
712 Main St. Suite L1
Buffalo, NY 14202
Ph. 716-833-0043
fax 716-241-8689
jwolf@amdenv.com

ENVIRONMENTAL PROJECT DAILY LOG

Date: 9-30-20	Job: 20-0831-SM.A	Project Type: ACM				Pg 3 of 3
Project Name/Address:	3800 River Rd. Tonawanda – NY 14150					Start Time:
Client/Contact:	PARSONS					
Work Area Location:	Grids A-7 + C-2					
Materials Removed:	X Pipe Insulation	Mastic	Caulk	Floor Tile	Fireproofing	End Time:
	Boiler/Tank Insulation	Transite	Roofing	Drywall/Plaster		
	Other:					

Contractor:		Supervisor:	
Air Monitor:		Technician:	
Project Monitor:			
License(s) Posted:		No. of Samples Required:	
Air Monitor Cert Posted:		Pump Locations Checked:	
Personal Safety Euipment:		Pumps Calibrated:	
Work Area(s) Size:		Visual Inspection OK:	
Enclosure Type		Waiting Period Required:	
Phase: IB, IIA, IIB, IIC, IAQ		Air Results Reviewed?	Any High Levels?
Sample #s Used: _____ - _____			
OSHA Personals Ran:	STEL or Pers.	Air Results Reviewed?	Any High Levels?
Pers. Sample #s Used: _____			

Pre-Clean Inspection: C-2 cleared 3-25 Foot Sections - Ground Clean up on the pipeline. total 75 linear Feet. A-7 - Contractor glove bagged remaining pipe WRAP - AT The River Road End of the pipe line - Approximately 50 linear feet - Pipe still needs to be cleaned.

Containment Inspection:

Work Area Inspection:

Clearance/Final Visual:

Notes: 1800 - Waiting out 30 minute lightning protocal - Rm Preheat called + SAID there is another "Hot" Storm set of clouds behind this current one. 1820 collected samples/pumps As it Looks Like another ½ half hour shut down. Contractor advised they will stay until 1900 hours to see if the lightning subsides. It completed demo paperwork, the Chain of Custody and waited to with the contractor. End of shift took samples to the LAB.

AMD ENVIRONMENTAL
712 Main St. Suite L1
Buffalo, NY 14202
Ph. 716-833-0043
fax 716-241-8689
jwolf@amdenv.com

ENVIRONMENTAL PROJECT DAILY LOG

Date: 9-29-20 Job: 20-0831-SM-A Project Type: ACM Pg ___ of ___

Project Name/Address: 3800 River Rd. Tonawanda NY 14150 Start Time: 6:45 -

Client/Contact: PARSONS - Tom Abrams 315-263-5109

Work Area Location: pipeline going towards River Road End Time:

Materials Removed: X Pipe Insulation; Mastic; Caulk; Floor Tile; Fireproofing; Boiler/Tank Insulation; Transite; Roofing; Drywall/Plaster; Other: RACM / Debris / Ground Clean Up

Contractor: Precision Environmental Supervisor: Harry Sheldon

Air Monitor: Technician: Steve Mashraw

Project Monitor: AMD Environmental

License(s) Posted: yes	No. of Samples Required: 12
Air Monitor Cert Posted: yes	Pump Locations Checked: yes
Personal Safety Euipment: PPE-O.S.H.A. Respirator	Pumps Calibrated: yes
Work Area(s) Size: LARGE	Visual Inspection OK: —
Enclosure Type Barrier Tape, ACM HAZ. Signs	Waiting Period Required: —

Phase: IB, IIA, IIB, IIC, IAQ		Air Results Reviewed? Yes	Any High Levels? No
Sample #s Used: 229 - 240			
OSHA Personals Ran:	STEL or Pers.	Air Results Reviewed?	Any High Levels?
Pers. Sample #s Used:			

~~Pre-Clean Inspection:~~ ~~Containment Inspection:~~ ~~Work Area Inspection:~~ ~~Clearance/Final Visual~~

Notes: Arrived on site at 0640 hrs - Calibrated pumps and hung the Ambient sample - 0700 daily safety meeting COVID19 check. Set up the remainder Air samples around the work area. AMD Dave Batt Arrived while I was in containment. Updated Dave on contractors progress. We walked the pipeline towards River Road. After Dave left I spoke with Harry Sheldon. Tomorrow he wants to have a couple workers stay on the pipeline towards River Road + Pat + 4 workers on Ground clean up starting at the Conveyor buildings heading towards the River. Work crew consists of 8 Laborers, Marcie for Clerical and the supervisor; total 10 people. Dumpster swap out this morning - Contractor plasticizing dumpster Checked pumps shortly after 1100 hours. Contractor making progress in Grids A6 + A7 today. Took photos + sent to Ron Prodash. Checked pumps again after lunch. End of Shift, went into containment. Contractor gave Buggel Approximately 294 (147 x 2 pipes) lineal feet today in Grid sections A6 + A7. Completed paperwork / chain of Custody and took samples to the Lab.

AMD ENVIRONMENTAL
712 Main St. Suite L1
Buffalo, NY 14202
Ph. 716-833-0043
fax 716-241-8689
jwolf@amdenv.com

ENVIRONMENTAL PROJECT DAILY LOG

Date: 9-28-20	Job: 20-0831-SM-A	Project Type: ACM			Pg ___ of ___
Project Name/Address:	3800 River Rd Tonawanda, NY 14150				Start Time: 6:45 AM
Client/Contact:	PARSONS - Tom Abrams - 315-263-5109				
Work Area Location:	Pipeline towards River Road - Prep Conveyor Bldgs.				
Materials Removed:	X Pipe Insulation	Mastic	Caulk	Floor Tile	Fireproofing
	Boiler/Tank Insulation	Transite	Roofing	Drywall/Plaster	
	Other:				End Time:
Contractor:	Precision Environmental	Supervisor:	Harry Sheldon		
Air Monitor:		Technician:	Steve Maghran		
Project Monitor:	AMB Environmental				

License(s) Posted: yes		No. of Samples Required:	
Air Monitor Cert Posted: yes		Pump Locations Checked:	
Personal Safety Equipment: PPE per O.S.H.A. Hz Face		Pumps Calibrated:	
Work Area(s) Size: LARGE		Visual Inspection OK:	
Enclosure Type Barrier Tape ACM HAZ. signs		Waiting Period Required:	
Phase: IB, IIA, (IIB), IIC, IAQ		Air Results Reviewed?	Any High Levels?
Sample #s Used: 217 - 228			
OSHA Personals Ran:	STEL or Pers.	Air Results Reviewed?	Any High Levels?
Pers. Sample #s Used:			

Pre-Clean Inspection / Containment Inspection / Work Area Inspection / Clearance/Final Visual

Notes: Arrived on site 0645. Calibrated pumps. 0700 COVID19/SAFETY MEETING. Set AIR monitoring pumps around the work area. Scope of work today is to continue glove bagging TSI from pipeline leading towards River Road and prep the pipeline work area from the Conveyor Buildings towards the west/RIVER. Checked pumps around 11:00 hours. Contractor putting up Sheets of plywood covering open areas in the 2 conveyor buildings. This must be done to comply with the NY State Dept. of Labor Variance. 1415 Checked pumps - Approximately 1440 - After inquiring about hard card for the Carpenters Precision Boat the Hard wall ditkats on the Conveyor Buildings, Precision advised he doesn't have a New York certification. Advised Harry - He cannot work on an Asbestos project in Niagara, hard card. DAN Ricochelli. Also Mitch Surmon - no Hazard card, therefor s/he cannot labor on this project. Dumpster #1 arrived early this morning. Dumpster #2 is Full + Dumpster #3 is almost Full. Grid B4+A5. Approximately 280 linear feet. End of shift, collected samples Completed paperwork Chain of Custody Taken samples to LAB.

GRID B4 + A5

S.M.

Waste Management Chaffee LF
10860 Olean Rd
Chaffee, NY, 14030
Ph: (716) 496-5000

Reprint
Ticket# 652753

Customer Name WM-CLIROLLOFF WM-CLI ROLL OFF
Ticket Date 09/22/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket# 482066
Route
State Waste Code
Manifest 373498
Destination
PO 2005145
Profile 122864NY (FRIABLE ASBESTOS)
Generator 190-TONAWANDACOKE3810RIVER TONAWANDA COKE

Carrier WM WASTE MANAGEMENT
Vehicle# 413332- 40C
Container
Driver
Check#
Billing # 0000001
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	09/22/2020 09:09:15	INBOUND	JChapma7		Gross	44520 lb
Out	09/22/2020 09:33:47	OUTBOUND	JChapma7		Tare	36960 lb
					Net	7560 lb
					Tons	3.78

Comments PRECISION ENV 482066

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Asb Friable-Tons-A	100	3.78	Tons				ERI

Total Fees
Total Ticket

Driver`s Signature _____3F6-1585

WASTE SHIPMENT RECORD/ASBESTOS MANIFEST

(See Reverse for Instructions)

For Disposal Site Use Only
Elevation 376-1585
North _____ East _____

Generator

1-A. Special Waste Profile Number: 12864NY
NESHAP Notified: _____YES _____NO
WSR Number: 373498

1-B. Generator Name, Contact Name, and Complete Mailing Address (including Zip Code)
Precision Environmental
5500 Old Brecksville Rd
Independence, Ohio 44131
Dan Eunecka

1-C. Generator's Phone Number: 216-642-6040

1-D. Work Site Address
3800 River Rd
Tonawanda, NY
Tom Abrams

1-E. 24 Hour Emergency Response Telephone Number: 315-552-9670

2. Operator's Name and Complete Mailing Address
Honeywell International, Inc
115 Tabor Rd
Morris Plains, NJ 07950

Operator's Phone Number: 315-552-9670

3. Waste Disposal Site (WDS) Name and Complete Mailing Address
Chaffee Landfill
10860 Olean Rd
Chaffee, NY 14030

WDS Phone Number: ~~713-512-6200~~ 716-492-3420

4. Name and Address of Responsible Agency
NYDOL
Bldg 12 Rm 161B
State Office Campus Albany, NY, 12240

5. Description of Materials		6. Containers No.	6. Containers Type	7. Total Quantity yd3
Pipe Insulation				
friable asbestos	RQ, NA2212, Asbestos, 9, PGIII, ERG 171	1	Drums	40 yds ~~40-569~~
non-friable asbestos	Cat I ____ Cat II ____			

8. Special Handling Instructions and Additional Information
24 HOUR NOTICE GIVEN PRIOR TO DISPOSAL, MUST BE BURIED

9. GENERATOR/OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. I hereby certify that the asbestos is not contaminated with hazardous, PCB, and/or any special waste.

Printed/Typed Name and Title: As Agent for Honeywell Ronald J. Hrabaska - Parsons
Signature
Date: 9-22-20

Transporter

10. Transporter 1 Company Name: Waste Management
Complete Mailing Address: 10860 Olean Rd Chaffee N.Y. 14030
Telephone Number (including area code): 716-496-5000
Driver Signature
Printed Name and Title: Ron Gates driver
Date: 9-22-20

11. Transporter 2 Company Name
Complete Mailing Address
Telephone Number (including area code)
Driver Signature
Printed Name and Title
Date

Disposal Site

12. Discrepancy Indication Space

13. Waste Disposal Site Owner or Operator
Special Waste Approval is issued by signature in the case of a Generic Asbestos Approval.
Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.
652 753

Printed/Typed Name and Title
Signature
Date: 9-22-20

DCE-230-97

WHITE - Disposal Site
CANARY - Generator (To be mailed by Disposal Site)
PINK - Transporter
GOLD - Generator (To be taken prior to disposal)

Waste Management Chaffee LF
10860 Olean Rd
Chaffee, NY, 14030
Ph: (716) 496-5000

Reprint
Ticket# 653603

Customer Name WM-CLIROLLOFF WM-CLI ROLL OFF
Ticket Date 09/29/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket# 483601
Route
State Waste Code
Manifest 373500
Destination
PO 2005145
Profile 122864NY (FRIABLE ASBESTOS)
Generator 190-TONAWANDACOKE3810RIVER TONAWANDA COKE

Carrier WM WASTE MANAGEMENT
Vehicle# 413332- 40C
Container
Driver
Check#
Billing # 0000001
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	09/29/2020 11:29:30	INBOUND	JChapma7		Gross	43360 lb
Out	09/29/2020 11:51:33	OUTBOUND	JChapma7		Tare	36420 lb
					Net	6940 lb
					Tons	3.47

Comments PRECISION 483601

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Asb Friable-Tons-A	100	3.47	Tons				ERI

Total Fees
Total Ticket

Driver`s Signature _____4F5-1590

WASTE SHIPMENT RECORD/ASBESTOS MANIFEST

(See Reverse for Instructions)

For Disposal Site Use Only
Elevation 4FS-1590
North _____ East _____

Generator

1-A. Special Waste Profile Number	NESHAP Notified	WSR Number
122864 NY	_____YES _____NO	373500

1-B. Generator Name, Contact Name, and Complete Mailing Address (including Zip Code)
Precision Environmental
5500 OLD Brecksville Rd
Independence, Ohio 44131
Dan Ewaska

1-C. Generator's Phone Number
216-642-6040

1-D. Work Site Address
3800 River Rd
Tonawanda, NY
Tom Abrams

1-E. 24 Hour Emergency Response Telephone Number
315-552-9670

2. Operator's Name and Complete Mailing Address
Honeywell International, Inc
115 Tabor Rd
Morris Plains, NJ 07950
Tom Abrams

Operator's Phone Number
315-552-9670

3. Waste Disposal Site (WDS) Name and Complete Mailing Address
Chaffee Landfill
10860 Olean Rd
Chaffee, NY 14030

WDS Phone Number
716-512-6200

4. Name and Address of Responsible Agency
NYDOL
Bldg 12 Rm 161B
State Office Campus Albany, NY 12240

5. Description of Materials		6. Containers No.	6. Containers Type	7. Total Quantity yd3
	Pipe Insulation			
friable asbestos	RQ, NA2212, Asbestos, 9, PGIII, ERG 171	1	Dumpster	40 yds.
non-friable asbestos	Cat I ____ Cat II ____			#4P12051

8. Special Handling Instructions and Additional Information
24 HOUR NOTICE GIVEN PRIOR TO DISPOSAL, MUST BE BURIED PPE

9. GENERATOR/OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. I hereby certify that the asbestos is not contaminated with hazardous, PCB, and/or any special waste.

Printed/Typed Name and Title	Signature	Date
As Agent for Honeywell Int'l Inc Donald S Prokaska		9-29-20

Transporter

10. Transporter 1 Company Name	Driver Signature
Waste Management of New York, LLC	R Gates
Complete Mailing Address: 10860 Olean Rd, Chaffee, NY 14030	Printed Name and Title: Ron Gates Driver
Telephone Number (including area code): 716-627-7365	Date: 9-29-20

11. Transporter 2 Company Name	Driver Signature
Complete Mailing Address	Printed Name and Title
Telephone Number (including area code)	Date

Disposal Site

12. Discrepancy Indication Space

13. Waste Disposal Site Owner or Operator
Special Waste Approval is issued by signature in the case of a Generic Asbestos Approval.
Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12. 653603

Printed/Typed Name and Title	Signature	Date
		9-24-20

DCE-230-97

WHITE - Disposal Site | CANARY - Generator (To be mailed by Disposal Site) | PINK - Transporter | GOLD - Generator (To be taken prior to disposal)

Waste Management Chaffee LF
10860 Olean Rd
Chaffee, NY, 14030
Ph: (716) 496-5000

Reprint
Ticket# 653558

Customer Name WM-CLIROLLOFF WM-CLI ROLL OFF
Ticket Date 09/29/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket# 483670
Route
State Waste Code
Manifest 373499
Destination
PO 2005145
Profile 122864NY (FRIABLE ASBESTOS)
Generator 190-TONAWANDACOKE3810RIVER TONAWANDA COKE

Carrier WM WASTE MANAGEMENT
Vehicle# 413332- 40C
Container
Driver
Check#
Billing # 0000001
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	09/29/2020 08:39:53	INBOUND	JChapma7		Gross	42640 lb
Out	09/29/2020 09:00:13	OUTBOUND	JChapma7		Tare	36520 lb
					Net	6120 lb
					Tons	3.06

Comments PRECISION ENV 483670

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Asb Friable-Tons-A	100	3.06	Tons				ERI

Total Fees
Total Ticket

Driver`s Signature _____4F5-1590

WASTE SHIPMENT RECORD / ASBESTOS MANIFEST

(See Reverse for Instructions)

For Disposal Site Use Only
Elevation 495-1590
North_____ East_____

Generator

1-A. Special Waste Profile Number	NESHAP Notified	WSR Number
122864 NY	_____YES _____NO	373499

1-B. Generator Name, Contact Name, and Complete Mailing Address (including Zip Code)
Precision Environmental
5500 Old Brecksville Rd
Independence, OH 44131
Dan Evarts

1-C. Generator's Phone Number: 216-642-6040

1-D. Work Site Address
3800 River Rd
Tonawanda, NY
Tom Abbamonte

1-E. 24 Hour Emergency Response Telephone Number: 315-552-9670

2. Operator's Name and Complete Mailing Address
Honeywell International, Inc
115 Tabor Rd
Morris Plains, NJ 07950
Tom Abbamonte

Operator's Phone Number: 315-552-9670

3. Waste Disposal Site (WDS) Name and Complete Mailing Address
Chaffee Landfill
10860 Olean Rd
Chaffee, NY 14030

WDS Phone Number: 713-512-6200

4. Name and Address of Responsible Agency
NYDOL
Bldg 12 Rm 161B
State Office Campus Albany, NY 12240

5. Description of Materials		6. Containers No.	Type	7. Total Quantity yd3
Pipe Insulation				
friable asbestos	RQ, NA2212, Asbestos, 9, PGIII, ERG 171	1	Dumpster	40 yds
non-friable asbestos	Cat I ____ Cat II ____			40-100

8. Special Handling Instructions and Additional Information
24 HOUR NOTICE GIVEN PRIOR TO DISPOSAL, MUST BURIED

9. GENERATOR/OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. I hereby certify that the asbestos is not contaminated with hazardous, PCB, and/or any special waste.

Printed/Typed Name and Title	Signature	Date
AS Agent for Honeywell Intl Inc Ronald S. Prowska		9-29-20

Transporter

10. Transporter 1 Company Name
Waste Management of New York, LLC
Complete Mailing Address
10860 Olean Rd
Chaffee, NY 14030
Telephone Number (including area code)
716-677-7365

Driver Signature: R Gates
Printed Name and Title: Ron Gates driver
Date: 9-28-20

11. Transporter 2 Company Name
Complete Mailing Address
Telephone Number (including area code)

Driver Signature
Printed Name and Title
Date

Disposal Site

12. Discrepancy Indication Space

13. Waste Disposal Site Owner or Operator
Special Waste Approval is issued by signature in the case of a Generic Asbestos Approval.
Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.
653558

Printed/Typed Name and Title	Signature	Date
Chapman		9-29-20

DCE-230-97

WHITE - Disposal Site
CANARY - Generator (To be mailed by Disposal Site)
PINK - Transporter
GOLD - Generator (To be taken prior to disposal)

Waste Management Chaffee LF
10860 Olean Rd
Chaffee, NY, 14030
Ph: (716) 496-5000

Reprint
Ticket# 654320

Customer Name WM-CLIROLLOFF WM-CLI ROLL OFF
Ticket Date 10/06/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket# 485782
Route
State Waste Code
Manifest 373501
Destination
PO 2005145
Profile 122864NY (FRIABLE ASBESTOS)
Generator 190-TONAWANDACOKE3810RIVER TONAWANDA COKE

Carrier WM WASTE MANAGEMENT
Vehicle# 413332- 40C
Container
Driver
Check#
Billing # 0000001
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	10/06/2020 08:57:20	INBOUND	JChapma7		Gross	49200 lb
Out	10/06/2020 09:17:21	OUTBOUND	JChapma7		Tare	38520 lb
					Net	10680 lb
					Tons	5.34

Comments PRECISION ENV 485782

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Asb Friable-Tons-A	100	5.34	Tons				ERI

Total Fees
Total Ticket

Driver`s Signature _____4F5-1590

WASTE SHIPMENT RECORD / ASBESTOS MANIFEST

(See Reverse for Instructions)

For Disposal Site Use Only
Elevation 475-1590
North _____ East _____

Generator

1-A. Special Waste Profile Number	NESHAP Notified	WSR Number
122864 NY	_____YES _____NO	373501

1-B. Generator Name, Contact Name, and Complete Mailing Address (including Zip Code)
Precision Environmental
5500 Old Brecksville Rd
Independence, Ohio 44131 Dan Enick

1-C. Generator's Phone Number
216-642-6040

1-D. Work Site Address
3800 River Rd
Tonawanda, NY Tom Abrams

1-E. 24 Hour Emergency Response Telephone Number
315-552-9670

2. Operator's Name and Complete Mailing Address
Honeywell International, Inc
115 Tabor Rd
Morris Plains, NJ 07950 Tom Abrams

Operator's Phone Number
315-552-9670

3. Waste Disposal Site (WDS) Name and Complete Mailing Address
Chaffee Landfill
10860 Olean Rd
Chaffee, NY 14030

WDS Phone Number
~~713-512-6200~~
716-496-3420

4. Name and Address of Responsible Agency
NYDOL
Old 12 Room 161B
State Office Campus Albany, NY 12240

5. Description of Materials		6. Containers No.	6. Containers Type	7. Total Quantity yd3
Pipe Insulation				
friable asbestos X	RQ, NA2212, Asbestos, 9, PGIII, ERG 171	1	Dumpster	40 yds.
non-friable asbestos	Cat I ____ Cat II ____			#1003

8. Special Handling Instructions and Additional Information
24 HOUR NOTICE GIVEN PRIOR TO DISPOSAL, MUST BE BURIED PPE

9. GENERATOR/OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. I hereby certify that the asbestos is not contaminated with hazardous, PCB, and/or any special waste.

Printed/Typed Name and Title	Signature	Date
As Agent for Honeywell Int'l Inc Ronald J. Prohaska		10-6-20

Transporter

10. Transporter 1 Company Name
Waste Management of New York, LLC
Complete Mailing Address
1860 Olean Rd
Chaffee, NY 14030
Telephone Number (including area code)
716-677-7365

Driver Signature
R Gates
Printed Name and Title
Ron Gates driver
Date
10-6-20

11. Transporter 2 Company Name
Complete Mailing Address
Telephone Number (including area code)

Driver Signature
Printed Name and Title
Date

Disposal Site

12. Discrepancy Indication Space

13. Waste Disposal Site Owner or Operator
Special Waste Approval is issued by signature in the case of a Generic Asbestos Approval.
Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.
654320

Printed/Typed Name and Title	Signature	Date
Chapman		10-6-20

DCE-230-97

WHITE - Disposal Site
CANARY - Generator (To be mailed by Disposal Site)
PINK - Transporter
GOLD - Generator (To be taken prior to disposal)

Waste Management Chaffee LF
10860 Olean Rd
Chaffee, NY, 14030
Ph: (716) 496-5000

Reprint
Ticket# 654629

Customer Name WM-CLIROLLOFF WM-CLI ROLL OFF
Ticket Date 10/08/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket# 487913
Route
State Waste Code
Manifest 373502
Destination
PO 2005145
Profile 122864NY (FRIABLE ASBESTOS)
Generator 190-TONAWANDACOKE3810RIVER TONAWANDA COKE

Carrier WM WASTE MANAGEMENT
Vehicle# 413332- 40C
Container
Driver
Check#
Billing # 0000001
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	10/08/2020 10:10:52	INBOUND	JChapma7		Gross	45000 lb
Out	10/08/2020 10:29:45	OUTBOUND	JChapma7		Tare	37040 lb
					Net	7960 lb
					Tons	3.98

Comments PRECISION ENV 487913

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Asb Friable-Tons-A	100	3.98	Tons				ERI

Total Fees
Total Ticket

Driver`s Signature _____4F5-1590

WASTE SHIPMENT RECORD/ASBESTOS MANIFEST

(See Reverse for Instructions)

For Disposal Site Use Only
Elevation 415-1590
North _____ East _____

Generator

1-A.Special Waste Profile Number	NESHAP Notified	WSR Number
122864 NY	_____YES _____NO	373502

1-B. Generator Name, Contact Name, and Complete Mailing Address (including Zip Code)
Precision Environmental Inc
5500 Old Brecksville Rd
Independence, OH 44131
Dan Gracka

1-C. Generator's Phone Number
216-642-6040

1-D. Work Site Address
3800 River Rd
Tonawanda, NY
Tom Abrams

1-E. 24 Hour Emergency Response Telephone Number
315-552-9620

2. Operator's Name and Complete Mailing Address
Honeywell International, Inc
115 Tabor Rd
Morris Plains, NJ 07950
Tom Abrams

Operator's Phone Number
315-552-9620

3. Waste Disposal Site (WDS) Name and Complete Mailing Address
Chaffee Land Fill
10860 Olean Rd
Chaffee, NY 14030

WDS Phone Number
713-512-6200

4. Name and Address of Responsible Agency
NYDOL
Bldg 12 Rm 161B
State office Campus Albany, NY 12240

5. Description of Materials		6. Containers No.	6. Containers Type	7. Total Quantity yd3
	Pipe Insulation			
friable asbestos X	RQ, NA2212, Asbestos, 9, PGIII, ERG 171	1	Dumpster	40 yds
non-friable asbestos	Cat I ____ Cat II ____			

8. Special Handling Instructions and Additional Information
24 HOUR NOTICE GIVEN PRIOR TO DISPOSAL, MUST BE BURIED

9. GENERATOR/OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. I hereby certify that the asbestos is not contaminated with hazardous, PCB, and/or any special waste.

Printed/Typed Name and Title	Signature	Date
As Agent For Honeywell Int'l LLC. Ronald J. Probaska - Parsons		10-8-20

Transporter

10. Transporter 1 Company Name
Waste Management of New York
Complete Mailing Address
1860 Olean Rd
Chaffee, NY 14030
Telephone Number (including area code)
716-677-7365

Driver Signature
R Gates
Printed Name and Title
Ron Gates driver
Date 10-8-20

11. Transporter 2 Company Name
Complete Mailing Address
Telephone Number (including area code)

Driver Signature
Printed Name and Title
Date

Disposal Site

12. Discrepancy Indication Space

13. Waste Disposal Site Owner or Operator
Special Waste Approval is issued by signature in the case of a Generic Asbestos Approval.
Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.
654629

Printed/Typed Name and Title	Signature	Date
		10-8-20

DCE-230-97

WHITE - Disposal Site
CANARY - Generator (To be mailed by Disposal Site)
PINK - Transporter
GOLD - Generator (To be taken prior to disposal)

APPENDIX F RECYCLED STEEL DOCUMENTATION

LIBERTY
IRON & METAL INC.

267 Marilla Street
Buffalo, NY 14220

Phone: 716-823-2863
Fax: 716-824-4154

Shipment:	510626
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203	

Location
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203

Carrier
Diamond Hurwitz Scrap LLC 267 Marilla Street Buffalo, NY 14220

SCALE TICKET

Inbound

Ticket No.	**217851**
Truck #, Trailer #	SS911715
Contract No.	
Container No.	
Reference	G107341
Seal No.	
Order No.	
Deal No.	

Date	Time	Weights		OPERATOR
10/24/2019	7:59:01 AM	Gross	52,560	morganw
10/24/2019	8:14:22 AM	Tare	40,180	morganw
		Net	**12,380**	

Material Breakdown and Adjustments

Item	Net before	Tare	Adjustments Description	Weight Adjustment	Net after	Commodities	
1	6,190	0			6,190	Unprepared Shearing	
2	6,190	0			6,190	P&S - Prepared	
	12,380	**0**		**0**	**12,380**		

e-mailed
OCT 25 2019

PASSED THRU APPROVED RADIATION EQUIPMENT

333 Ganson Street • Buffalo, New York 14203
Phone: (716) 856-3333 • FAX: (716) 842-1630

G107341

Job No: 19015
Location: TTC JOB.
Client/Generator: Honeywell OSC.
Company/Hauler: HURWITZ
License/Truck: 911715
Truck/Load Type: 30 yard can / plate, pipe
Destination: Scrap yard
Materials: plate / pipe
No. Of Loads: 1
Issuer: Mark
Date: 10/23/19.

Scale Ticket/ Manifest No:
Authorized:
Time Out: 14:34

Comments:

White: Driver Yellow: Customer Pink: Office

LIBERTY
IRON & METAL INC.

267 Marilla Street
Buffalo, NY 14220

Phone: 716-823-2863
Fax: 716-824-4154

Shipment:	510626
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203	

Location
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203

Carrier
Diamond Hurwitz Scrap LLC 267 Marilla Street Buffalo, NY 14220

SCALE TICKET

Inbound

Ticket No.	**217902**
Truck #, Trailer #	DR7
Contract No.	
Container No.	
Reference	G107342
Seal No.	
Order No.	
Deal No.	

Date	Time	Weights		OPERATOR
10/24/2019	3:36:48 PM	Gross	46,100	morganw
10/24/2019	3:50:00 PM	Tare	37,280	morganw
		Net	**8,820**	

Material Breakdown and Adjustments

Item	Net before	Tare	Adjustments Description	Weight Adjustment	Net after	Commodities	
1	46,100	37,280			8,820	Unprepared Shearing	
	46,100	**37,280**		**0**	**8,820**		

e-mailed
OCT 25 2019

PASSED THRU APPROVED RADIATION EQUIPMENT

OSC
333 Ganson Street • Buffalo, New York 14203
Phone: (716) 856-3333 • FAX: (716) 842-1630

G107342

Job No: 19015
Location: TTC 108
Client/Generator: H.W. OSC
Company/Hauler: Hurwitz
License/Truck: 19512B3 - 7
Truck/Load Type: Straight - Rolloff (25A)
Destination: Scrap yard
Materials: plate
No. Of Loads: 1
Issuer: Mark
Date: 10/24/19

Scale Ticket/ Manifest No:
Authorized:
Time Out:

Comments:

White: Driver Yellow: Customer Pink: Office

LIBERTY
IRON & METAL INC.

267 Marilla Street
Buffalo, NY 14220

Phone: 716-823-2863
Fax: 716-824-4154

Shipment:	510626

Ontario Specialty Contracting Inc
333 Ganson St
Buffalo, NY 14203

Location

Ontario Specialty Contracting Inc
333 Ganson St
Buffalo, NY 14203

Carrier

Diamond Hurwitz Scrap LLC
267 Marilla Street
Buffalo, NY 14220

SCALE TICKET

Inbound

Ticket No.	**217909**
Truck #, Trailer #	DR7
Contract No.	
Container No.	
Reference	G107343
Seal No.	
Order No.	
Deal No.	

Date	Time	Weights		OPERATOR
10/25/2019	9:06:29 AM	Gross	51,100	morganw
10/25/2019	9:27:09 AM	Tare	39,000	morganw
		Net	**12,100**	

Material Breakdown and Adjustments

Item	Net before	Tare	Adjustments Description	Weight Adjustment	Net after	Commodities	
1	51,100	39,000			12,100	Unprepared Shearing 30-01	
	51,100	**39,000**		**0**	**12,100**		

e-mailed
OCT 25 2019

PASSED THRU APPROVED RADIATION EQUIPMENT

333 Ganson Street • Buffalo, New York 14203
Phone: (716) 856-3333 • FAX: (716) 842-1630

G107343

Job No: 19015

Location: TTC 10S.

Client/Generator: H.W. / OSC.

Company/Hauler: HURWITZ

License/Truck: 19512-PB. #7

Truck/Load Type: Straight / P.O. 30-01

Destination: Scrap Yard

Materials: Plate Steel

No. Of Loads: 1

Issuer: MLP.

Date: 10/25/19.

Scale Ticket/ Manifest No:

Authorized:

Time Out: 830

Comments:

White: Driver Yellow: Customer Pink: Office

LIBERTY
IRON & METAL Inc.

267 Marilla Street
Buffalo, NY 14220

Phone: 716-823-2863
Fax: 716-824-4154

Shipment:	510626
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203	

Location
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203

Carrier
Diamond Hurwitz Scrap LLC 267 Marilla Street Buffalo, NY 14220

SCALE TICKET

Inbound

Ticket No.	**218264**
Truck #, Trailer #	SS611715
Contract No.	
Container No.	
Reference	G107344
Seal No.	
Order No.	
Deal No.	

Date	Time	Weights		OPERATOR
11/5/2019	12:01:50 PM	Gross	54,940	morganw
11/5/2019	12:17:12 PM	Tare	40,700	morganw
		Net	**14,240**	

Material Breakdown and Adjustments

Item	Net before	Tare	Adjustments Description	Weight Adjustment	Net after	Commodities	
1	54,940	40,700			14,240	Unprepared Shearing 226	
	54,940	**40,700**		**0**	**14,240**		

PASSED THRU APPROVED RADIATION EQUIPMENT

OSC
333 Ganson Street • Buffalo, New York 14203
Phone: (716) 856-3333 • FAX: (716) 842-1630

G107344

Job No: 19015

Location: ITC 108

Client/Generator: Honeywell / OSC

Company/Hauler: HORWITZ Same

License/Truck: OHIC PHJ8312 / 91715

Scale Ticket/ Manifest No:

Truck/Load Type: Straight / R.O. 226

Destination: Scrapyard

Materials: Tank plate / pipe

No. Of Loads:

Issuer: Mark

Authorized:

Date: 4/3/19.

Time Out:

Comments:

White: Driver Yellow: Customer Pink: Office

LIBERTY
IRON & METAL INC.

267 Marilla Street
Buffalo, NY 14220

Phone: 716-823-2863
Fax: 716-824-4154

Shipment:	510626
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203	

Location
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203

Carrier
Diamond Hurwitz Scrap LLC 267 Marilla Street Buffalo, NY 14220

SCALE TICKET

Inbound

Ticket No.	**218699**
Truck #, Trailer #	DB911715
Contract No.	
Container No.	
Reference	G107345
Seal No.	
Order No.	
Deal No.	

Date	Time	Weights		OPERATOR
11/22/2019	2:13:57 PM	Gross	51,640	morganw
11/22/2019	2:49:05 PM	Tare	37,820	morganw
		Net	**13,820**	

Material Breakdown and Adjustments

Item	Net before	Tare	Adjustments Description	Weight Adjustment	Net after	Commodities	
1	51,640	37,820			13,820	Unprepared Shearing 30-45	
	51,640	**37,820**		**0**	**13,820**		

PASSED THRU APPROVED RADIATION EQUIPMENT

OSC
333 Ganson Street • Buffalo, New York 14203
Phone: (716) 856-3333 • FAX: (716) 842-1630

G107345

Job No: 19015

Location: TTC 108

Client/Generator: Honeywell / OSC

Company/Hauler: HURWITZ / LIBERTY

License/Truck: PWS 8317 / 911715

Truck/Load Type: STRAIGHT / 30yard Rolloff

Destination: SCRAPYARD

Materials: Tank Steel

No. Of Loads: 1

Issuer: MGR

Date: 11/22/19

cam # 3045

Scale Ticket/ Manifest No:

Authorized:

Time Out:

Comments:

White: Driver | Yellow: Customer | Pink: Office

LIBERTY IRON & METAL INC.

267 Marilla Street
Buffalo, NY 14220

Phone: 716-823-2863
Fax: 716-824-4154

Shipment: 510626

Ontario Specialty Contracting Inc
333 Ganson St
Buffalo, NY 14203

Location

Ontario Specialty Contracting Inc
333 Ganson St
Buffalo, NY 14203

Carrier

Diamond Hurwitz Scrap LLC
267 Marilla Street
Buffalo, NY 14220

SCALE TICKET

Inbound

Ticket No.	**218935**
Truck #, Trailer #	DB7
Contract No.	
Container No.	
Reference	G107346
Seal No.	
Order No.	
Deal No.	

Date	Time	Weights		OPERATOR
12/4/2019	2:05:11 PM	Gross	50,240	morganw
12/4/2019	2:14:08 PM	Tare	39,520	morganw
		Net	**10,720**	

Material Breakdown and Adjustments

Item	Net before	Tare	Adjustments Description	Weight Adjustment	Net after	Commodities	
1	50,240	39,520			10,720	Unprepared Shearing	
	50,240	**39,520**		**0**	**10,720**		

PASSED THRU APPROVED RADIATION EQUIPMENT

LIBERTY IRON & METAL INC.

267 Marilla Street
Buffalo, NY 14220

Phone: 716-823-2863
Fax: 716-824-4154

Shipment:	510626

Ontario Specialty Contracting Inc
333 Ganson St
Buffalo, NY 14203

Location

Ontario Specialty Contracting Inc
333 Ganson St
Buffalo, NY 14203

Carrier

Diamond Hurwitz Scrap LLC
267 Marilla Street
Buffalo, NY 14220

SCALE TICKET

Inbound

Ticket No.	**218940**
Truck #, Trailer #	DB7
Contract No.	
Container No.	
Reference	G107347
Seal No.	
Order No.	
Deal No.	

Date	Time	Weights		OPERATOR
12/5/2019	7:26:37 AM	Gross	58,960	morganw
12/5/2019	7:37:31 AM	Tare	38,700	morganw
		Net	**20,260**	

Material Breakdown and Adjustments

Item	Net before	Tare	Adjustments Description	Weight Adjustment	Net after	Commodities	
1	58,960	38,700			20,260	Unprepared Shearing 30-14	
	58,960	**38,700**		**0**	**20,260**		

PASSED THRU APPROVED RADIATION EQUIPMENT

OSC

333 Ganson Street • Buffalo, New York 14203
Phone: (716) 856-3333 • FAX: (716) 842-1630

G107346

Job No: 19015
Location: TTC 108
Client/Generator: Honeywell / OSC
Company/Hauler: DIAMOND HERWITZ
License/Truck: 19152 PB New York
Truck/Load Type: #7 / cap 30.02
Destination: SCRAP yard
Materials: Tank Walls/Floor (Plate)
No. Of Loads: 1
Issuer: MGR
Date: 12/4/19.

Scale Ticket/ Manifest No:
Authorized:
Time Out:

Comments:

White: Driver Yellow: Customer Pink: Office

OSC

333 Ganson Street • Buffalo, New York 14203
Phone: (716) 856-3333 • FAX: (716) 842-1630

G107347

Job No: 19015
Location: TTC 108
Client/Generator: Honeywell / OSC
Company/Hauler: DIAMOND HERWITZ
License/Truck: 19512-PB-NY 7
Truck/Load Type: STRAIGHT Roll off 30yd
Destination: SCRAP YARD
Materials: Plate Steel
No. Of Loads: 1
Issuer: MGR
Date: 12/4/19.

Scale Ticket/ Manifest No:
Authorized:
Time Out:

Comments:

LIBERTY IRON & METAL INC.

267 Marilla Street
Buffalo, NY 14220

Phone: 716-823-2863
Fax: 716-824-4154

Shipment:	510626
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203	

Location
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203

Carrier
Diamond Hurwitz Scrap LLC 267 Marilla Street Buffalo, NY 14220

SCALE TICKET

Inbound

Ticket No.	**219048**
Truck #, Trailer #	DB7
Contract No.	
Container No.	
Reference	G107348
Seal No.	
Order No.	
Deal No.	

Date	Time	Weights		OPERATOR
12/10/2019	9:07:13 AM	Gross	66,680	tonyb
12/10/2019	9:18:39 AM	Tare	39,540	tonyb
		Net	**27,140**	

Material Breakdown and Adjustments

Item	Net before	Tare	Adjustments Description	Weight Adjustment	Net after	Commodities	
1	66,680	39,540			27,140	Unprepared Shearing	
	66,680	**39,540**		**0**	**27,140**		

PASSED THRU APPROVED RADIATION EQUIPMENT

LIBERTY
IRON & METAL INC.

267 Marilla Street
Buffalo, NY 14220

Phone: 716-823-2863
Fax: 716-824-4154

Shipment:	510626

Ontario Specialty Contracting Inc
333 Ganson St
Buffalo, NY 14203

Location

Ontario Specialty Contracting Inc
333 Ganson St
Buffalo, NY 14203

Carrier

Diamond Hurwitz Scrap LLC
267 Marilla Street
Buffalo, NY 14220

SCALE TICKET

Inbound

Ticket No.	**219205**
Truck #, Trailer #	DB7
Contract No.	
Container No.	
Reference	G110950
Seal No.	
Order No.	
Deal No.	

Date	Time	Weights		OPERATOR
12/16/2019	7:42:23 AM	Gross	51,160	morganw
12/16/2019	7:56:39 AM	Tare	37,120	morganw
		Net	**14,040**	

Material Breakdown and Adjustments

Item	Net before	Tare	Adjustments Description	Weight Adjustment	Net after	Commodities	
1	51,160	37,120			14,040	Rebar 30-45	
	51,160	**37,120**		**0**	**14,040**		

85gt

-500 concrete

e-mailed
DEC 20 2019

PASSED THRU APPROVED RADIATION EQUIPMENT

333 Ganson Street • Buffalo, New York 14203
Phone: (716) 856-3333 • FAX: (716) 842-1630

G110950

Job No: 19015
Location: JTC 108.
Client/Generator: Honeywell / OSC
Company/Hauler: DIAMOND / HORTONTC
License/Truck: 1952 BB / #7.
Truck/Load Type: STRAIGHT / Rolloff
Destination: SCRAPYARD.
Materials: Rebar.
No. Of Loads: 1
Issuer: MKR
Date: 12/13/19

Scale Ticket/ Manifest No:
Authorized:
Time Out:

Comments:

White: Driver Yellow: Customer Pink: Office

LIBERTY
IRON & METAL INC.

267 Marilla Street
Buffalo, NY 14220

Phone: 716-823-2863
Fax: 716-824-4154

Shipment:	510626

Ontario Specialty Contracting Inc
333 Ganson St
Buffalo, NY 14203

Location

Ontario Specialty Contracting Inc
333 Ganson St
Buffalo, NY 14203

Carrier

Diamond Hurwitz Scrap LLC
267 Marilla Street
Buffalo, NY 14220

SCALE TICKET

Inbound

Ticket No.	**219401**
Truck #, Trailer #	VM911715
Contract No.	
Container No.	
Reference	G110951
Seal No.	
Order No.	
Deal No.	

Date	Time	Weights		OPERATOR
12/23/2019	10:39:45 AM	Gross	53,620	tonyb
12/23/2019	10:52:46 AM	Tare	37,880	tonyb
		Net	**15,740**	

Material Breakdown and Adjustments

Item	Net before	Tare	Adjustments Description	Weight Adjustment	Net after	Commodities	
1	53,620	37,880	Concrete	-250	15,490	Rebar	
	53,620	**37,880**		**0**	**15,490**		

e-mailed
DEC 30 2019

PASSED THRU APPROVED RADIATION EQUIPMENT

333 Ganson Street • Buffalo, New York 14203
Phone: (716) 856-3333 • FAX: (716) 842-1630

G110951

Job No: TTC 108 19015
Location: TTC 109
Client/Generator: Honeywell / OSC
Company/Hauler: DIAMOND HURWITZ
License/Truck: PWJ 8317 911715
Truck/Load Type: STRAIGHT / Rolloff # 3045
Destination: SCRAPYARD.
Materials: Rebar
No. Of Loads: 1
Issuer: MAR.
Date: 12/23/19.

Scale Ticket/ Manifest No:
Authorized:
Time Out:

Comments:

Box 30-45

White: Driver | Yellow: Customer | Pink: Office

LIBERTY
IRON & METAL INC.

267 Marilla Street
Buffalo, NY 14220

Phone: 716-823-2863
Fax: 716-824-4154

Shipment:	510626
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203	

Location
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203

Carrier
Diamond Hurwitz Scrap LLC 267 Marilla Street Buffalo, NY 14220

SCALE TICKET

Inbound

Ticket No.	**219601**
Truck #, Trailer #	DB911715
Contract No.	
Container No.	
Reference	G110952
Seal No.	
Order No.	
Deal No.	

Date	Time	Weights		OPERATOR
1/2/2020	1:24:08 PM	Gross	51,900	morganw
1/2/2020	1:33:19 PM	Tare	38,040	morganw
		Net	**13,860**	

Material Breakdown and Adjustments

Item	Net before	Tare	Adjustments Description	Weight Adjustment	Net after	Commodities	
1	51,900	38,040	Concrete	-300	13,560	Rebar NO #	
	51,900	**38,040**		**-300**	**13,560**		

e-mailed
JAN - 3 2019

PASSED THRU APPROVED RADIATION EQUIPMENT

OSC
333 Ganson Street • Buffalo, New York 14203
Phone: (716) 856-3333 • FAX: (716) 842-1630

G110952

Job No: #19015

Location: TTC 108.

Client/Generator: Honeywell / OSC

Company/Hauler: DIAMOND HURWITZ

License/Truck: PMJ 8317 / 911715

Scale Ticket/ Manifest No:

Truck/Load Type: STRAIGHT. / 30 ? TUSTED

~~no cash number~~ 30-0513

Destination: SCRAP YARD

Materials: Rebar

No. Of Loads: 1

Issuer: MAR

Authorized:

Date: 1-2-20

Time Out: 11:40

Comments:

White: Driver Yellow: Customer Pink: Office

LIBERTY IRON & METAL INC.

267 Marilla Street
Buffalo, NY 14220

Phone: 716-823-2863
Fax: 716-824-4154

Shipment:	510626
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203	

Location
Ontario Specialty Contracting Inc 333 Ganson St Buffalo, NY 14203

Carrier
Diamond Hurwitz Scrap LLC 267 Marilla Street Buffalo, NY 14220

SCALE TICKET

Inbound

Ticket No.	**220085**
Truck #, Trailer #	VM7
Contract No.	
Container No.	
Reference	G110953
Seal No.	
Order No.	
Deal No.	

Date	Time	Weights		OPERATOR
1/20/2020	2:23:44 PM	Gross	59,720	tonyb
1/20/2020	3:01:53 PM	Tare	39,420	tonyb
		Net	**20,300**	

Material Breakdown and Adjustments

Item	Net before	Tare	Adjustments Description	Weight Adjustment	Net after	Commodities	
1	59,720	39,420	Dirt	-250	20,050	Unprepared Shearing 30-25	
	59,720	**39,420**		**-250**	**20,050**		

e-mailed
JAN 22 2019

PASSED THRU APPROVED RADIATION EQUIPMENT

333 Ganson Street • Buffalo, New York 14203
Phone: (716) 856-3333 • FAX: (716) 842-1630

G110953

Job No: J# 19015

Location: TTC108 Tonawanda NY

Client/Generator: Honeywell Parsons / OSC

Company/Hauler: Diamond Hurwitz

License/Truck: 19512-PB(NY) / #7

Truck/Load Type: Straight Rolloff # 30-25

Destination: Scrapyard

Materials: Plate Steel

No. Of Loads: 1

Issuer: MLK.

Date: 1/19/20.

Scale Ticket/ Manifest No:

Authorized: Vernon Mckip

Time Out:

Comments:

White: Driver Yellow: Customer Pink: Office

LIBERTY IRON & METAL INC.

267 Marilla Street
Buffalo, NY 14220

Phone: 716-823-2863
Fax: 716-824-4154

Shipment:	510626

Ontario Specialty Contracting Inc
333 Ganson St
Buffalo, NY 14203

Location

Ontario Specialty Contracting Inc
333 Ganson St
Buffalo, NY 14203

Carrier

Diamond Hurwitz Scrap LLC
267 Marilla Street
Buffalo, NY 14220

SCALE TICKET

Inbound

Ticket No.	**220458**
Truck #, Trailer #	DB911715
Contract No.	
Container No.	
Reference	G110954
Seal No.	
Order No.	
Deal No.	

Date	Time	Weights		OPERATOR
1/31/2020	3:33:54 PM	Gross	43,700	morganw
1/31/2020	3:44:02 PM	Tare	37,640	morganw
		Net	**6,060**	

Material Breakdown and Adjustments

Item	Net before	Tare	Adjustments Description	Weight Adjustment	Net after	Commodities	
1	43,700	37,640			6,060	Unprepared Shearing	
	43,700	**37,640**		**0**	**6,060**		

e-mailed
FEB - 3 2020

PASSED THRU APPROVED RADIATION EQUIPMENT

OSC
333 Ganson Street • Buffalo, New York 14203
Phone: (716) 856-3333 • FAX: (716) 842-1630

G110954

Job No: J# 19015
Location: TTC 108.
Client/Generator: Honeywell / OSC
Company/Hauler: Diamond Horwitz
License/Truck: Pas. 8317 911715
Truck/Load Type: Straight / 3033
Destination: Scrapyard
Materials: Plate Steel
No. Of Loads: 1
Issuer: MCK
Date: 1-31-19.

Scale Ticket/ Manifest No:
Authorized:
Time Out:

Comments:

White: Driver | Yellow: Customer | Pink: Office

APPENDIX G DISPOSAL DOCUMENTATION

SOIL PILE DISPOSAL

47-19-7 (10/86)-Text 12

WTS# WTS# 44344

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE - BUREAU OF HAZARDOUS WASTE OPERATIONS
50 WOLF ROAD, ALBANY NEW YORK 12233-4017

FOR STATE USE ONLY		
SITE NO	APPLICATION NO.	DATE RECEIVED
DEPARTMENT ACTION ☐ Approved ☐ Disapproved		DATE

APPLICATION FOR TREATMENT OR DISPOSAL OF AN INDUSTRIAL WASTE STREAM

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE MHG

1. NAME OF PROJECT / FACILITY	2. COUNTY	3. SITE NUMBER
MODERN LANDFILL INC	NIAGARA	32N30
4. NAME OF OWNER	**5. ADDRESS (Street, City, State, Zip Code)**	**6. TELEPHONE NO**
MODERN LANDFILL INC	4746 MODEL CITY RD, MODEL CITY. NY	(716)754-8226
7. NAME OF OPERATOR	**8. ADDRESS (Street, City, State, Zip Code)**	**9. TELEPHONE NO.**
RICHARD WASHUTA	PLETCHER&HAROLD RD,MODEL CITY,NY 14107	(716)754-8226

10. METHOD OF TREATMENT OR DISPOSAL

SANITARY LANDFILL - D90

11. COMPANY GENERATING WASTE	12. ADDRESS OF FACILITY GENERATING WASTE (Street, City, State, Zip Code)
Tonawanda Coke Corp.	3875 River Road, Tonawanda, NY 14150

13. REPRESENTATIVE OF WASTE GENERATOR	14. MAILING ADDRESS OF REPRESENTATIVE	15. TELEPHONE NO.
Tom Wollen (authorized agent of Honeywell)	c/o Honeywell, 301 Plainfield Road, Suite 330, Syracuse, NY 13212	315-400-7348

16. DESCRIPTION OF PROCESS PRODUCING WASTE

Remediation

17. EXPECTED ANNUAL WASTE PRODUCTION	18. WASTE HAULED IN
10,000 Tons/Year _____ Gallons/Year	☐ Drums ☐ Bulk Tank ☐ Roll-off Container ☑ Other Dump Trucks

19. WASTE COMPOSITION 19a. Average Percent Solids	19b Physical State	19c pH Range
100	☐ Liquid ☐ Slurry ☐ Sludge ☑ Solid ☐ Contained Gas	n/a to _____

19d COMPONENTS	CONCENTRATION (Dry Weight) Upper	Lower	Typical	UNIT (Check one) Wt %	PPM
1) Soil and small stones	100	95		☑	☐
2) PPE/Debris	5	0		☑	☐
3)				☐	☐
4)				☐	☐

20. IS AN ANALYSIS OF WASTE ATTACHED?	21. WAS AN EP TOXICITY TEST CONDUCTED ON THE WASTE?	22. MATERIAL IS:
☑ Yes ☐ No	☑ Yes ☐ No If "Yes", attach results _____	☐ Hazardous ☑ Non-Hazardous

23. DETAIL ALL HAZARD AND NUISANCE PROBLEMS ASSOCIATED WITH THE WASTES. List necessary safety, handling, treatment, and disposal precautions.

handle in accordance with all site EHS policies/procedures.
SGS report# JC96286 attached.

24. WHERE WAS MATERIAL DISPOSED OF PREVIOUSLY?

First Time Disposal

25. NAME OF WASTE TRANSPORTER	26. ADDRESS (Street, City, State, Zip Code)	27. NYSDEC PERMIT No	28. TELEPHONE NO
Modern Disposal Services	4736 Model City Road, Model City, NY 14107	9A-073	716-754-8226

29. CERTIFICATION

I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

a. SIGNATURE AND TITLE OF REPRESENTATIVE OF WASTE GENERATOR	DATE
X [signature] Honeywell, Remediation Manager	10/25/2019
b. SIGNATURE AND TITLE OF REPRESENTATIVE OF TREATMENT OR DISPOSAL FACILITY	DATE
X	

GENERATOR WASTE CHARACTERIZATION REPORT WTS# 44344

INSTRUCTIONS: The following form is required for disposal of nonhazardous industrial/commercial wastes at Modern Landfill. Please complete all sections of this report. Send completed report along with the analytical, chain of custody and the Application for Disposal of an Industrial Waste Stream (47-19-7) to this office. A separate form is required for each waste stream.

GENERATOR INFORMATION:

Generator Name: Tonawanda Coke Corp.

Generating Facility Address: 3875 River Road, Tonawanda, NY 14150

Technical Contact: Martin Gregg Phone: (716) 754 5400

Alternate Contact: _____ Phone: (____) _____

INVOICING INFORMATION:

Contracting Firm: Waste Technology Services, Inc

Contact: Judy Cline Phone: (716) 754-5400

Do you have an existing account with Modern Landfill? [X] Yes [ ] No

Billing Address: 435 North 2nd Street
Lewiston, NY 14092

TRANSPORTER INFORMATION:

Hauler Name: Modern Disposal Services NYSDEC Permit No. 9A-073

Contact Person: Mike Gullo Phone: (716) 754 8226

Is Modern Landfill currently on your Transporter Permit: ☑ Yes ☐ No

If no, please enclose a Part C Application to cover this waste stream.

WASTE INFORMATION:

Common name of waste: Soil

Description of process generating this waste: Remediation of site.

Is this waste hazardous under US EPA Guidelines & 6NYCRR Part 371 (d)? ☐ Yes ☑ No

Indicate the category which best describes this waste stream:

- ☑ Industrial Waste
- ☐ Household Waste
- ☐ Commercial Solid Waste
- ☐ Construction & Demolition Debris
- ☐ Other (Please Specify) _____

PHYSICAL CHARACTERISTICS OF WASTE WTS# 44344

The waste Is at least 20% solid and contains no free liquid	Yes ☑	No ☐
The Flashpoint of the waste Is >140 F	Yes ☑	No ☐
The pH level of the waste Is between 2.0 and 12.5	Yes ☑	No ☐
Is the waste reactive (Cyanide/Sulfide)?	Yes ☐	No ☑
Is the waste free of PCBs?	Yes ☑	No ☐
Color: Brown/black	Odor: ☐ Strong ☐ Mild ☑ None	

TCLP TESTING AND CERTIFICATION

METALS

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
ARSENIC	5.0		✔
BARIUM	100.0		✔
CADMIUM	1.0		✔
CHROMIUM	5.0		✔
LEAD	5.0		✔
MERCURY	0.2		✔
SELENIUM	1.0		✔
SILVER	5.0		✔

HERBICIDES / PESTICIDES

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
2,4-D	10.0		✔
2,4,5-TP (SILVEX)	1.0		✔
ENDRIN	0.02		✔
LINDANE	0.4		✔
METHOXYCHLOR	10.0		✔
TOXAPHENE	0.5		✔
CHLORDANE	0.03		✔
HEPTACHLOR	0.008		✔

ACID EXTRACTABLES

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/1)	PRESENT	NOT PRESENT
O-CRESOL	200.0		✔
M-CRESOL	200.0		✔
P-CRESOL	200.0		✔
PENTACHLOROPHENOL	100.0		✔
2,4,5-TRICHLOROPHENOL	400.0		✔
2,4,6TRICHLOROPHENOL	2.0		✔

BASE NEUTRALS EXTRACTABLES

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
1.4-DICHLOROBENZENE	7.5		✔
2.4-DINITROTOLUENE	0.13		✔
HEXACHLOROBENZENE	0.13		✔
HEXACHLOROBUTADIENE	0.5		✔
HEXACHLOROETHANE	3		✔
NITROBENZENE	2		✔
PYRIDINE	5		✔

VOLATILE ORGANICS

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/1)	PRESENT	NOT PRESENT
1,1-DICHLOROETHYLENE	0.7		✔
METHYL ETHYL KETONE	200.0		✔
TETRACHLOROETHYLENE	0.7		✔
VINYL CHLORIDE	0.2		✔
BENZENE	0.5		✔
CARBON TETRACHLORIDE	0.5		✔
CHLOROBENZENE	100.0		✔
CHLOROFORM	6.0		✔
TRICHLOROETHYLENE	0.5		✔
1,2-DICHLOROETHANE	0.5		✔

CERTIFICATION

I CERTIFY THAT ALL INFORMATION CONTAINED WITHIN THIS GENERATOR WASTE CHARACTERIZATION REPORT, INCLUDING ALL ATTACHED INFORMATION, IS COMPLETE AND ACTUAL AND IS AN ACCURATE REPRESENTATION OF KNOWN OR SUSPECTED HAZARDS DESCRIBED HEREIN.

SIGNATURE: Eric Christodoulatos

PRINTED NAME: Eric Christodoulatos

TITLE: Remediation Manager

COMPANY: Honeywell

DATE: 10/25/2019

Honeywell - Tonawanda Coke Site 108 Stockpile Data Waste Characterization Data			Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SP1-01 SP1-01 JC96286-1 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 15:00	SP1-02 SP1-02 JC96286-2 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 15:20	SP1-03 SP1-03 JC96286-3 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 15:40
CAS NO.	COMPOUND	TCLP Criteria	UNITS:			
	TCLP VOLATILES					
71-43-2	BENZENE	0.5	mg/L	0.0025 U	0.0043	0.0025 U
78-93-3	2-BUTANONE (MEK)	200	mg/L	0.1 U	0.1 U	0.1 U
56-23-5	CARBON TETRACHLORIDE	0.5	mg/L	0.005 U	0.005 U	0.005 U
108-90-7	CHLOROBENZENE	100	mg/L	0.005 U	0.005 U	0.005 U
67-66-3	CHLOROFORM	6	mg/L	0.005 U	0.005 U	0.005 U
75-35-4	1,1-DICHLOROETHENE	0.7	mg/L	0.005 U	0.005 U	0.005 U
107-06-2	1,2-DICHLOROETHANE	0.5	mg/L	0.005 U	0.005 U	0.005 U
127-18-4	TETRACHLOROETHENE	0.7	mg/L	0.005 U	0.005 U	0.005 U
79-01-6	TRICHLOROETHENE	0.5	mg/L	0.005 U	0.005 U	0.005 U
75-01-4	VINYL CHLORIDE	0.2	mg/L	0.005 U	0.005 U	0.005 U
	TCLP SEMIVOLATILES					
95-48-7	2-METHYLPHENOL	200	mg/L	0.02 U	0.02 U	0.02 U
1319-77-3MP	3&4-METHYLPHENOL	200	mg/L	0.02 U	0.02 U	0.02 U
87-86-5	PENTACHLOROPHENOL	100	mg/L	0.1 U	0.1 U	0.1 U
95-95-4	2,4,5-TRICHLOROPHENOL	400	mg/L	0.05 U	0.05 U	0.05 U
88-06-2	2,4,6-TRICHLOROPHENOL	2	mg/L	0.05 U	0.05 U	0.05 U
106-46-7	1,4-DICHLOROBENZENE	7.5	mg/L	0.02 U	0.02 U	0.02 U
121-14-2	2,4-DINITROTOLUENE	0.13	mg/L	0.02 U	0.02 U	0.02 U
118-74-1	HEXACHLOROBENZENE	0.13	mg/L	0.02 U	0.02 U	0.02 U
87-68-3	HEXACHLOROBUTADIENE	0.5	mg/L	0.01 U	0.01 U	0.01 U
67-72-1	HEXACHLOROETHANE	3	mg/L	0.05 U	0.05 U	0.05 U
98-95-3	NITROBENZENE	2	mg/L	0.02 U	0.02 U	0.02 U
110-86-1	PYRIDINE	5	mg/L	0.02 U	0.02 U	0.02 U
	TCLP PESTICIDES					
58-89-9	gamma-BHC (Lindane)	0.4	mg/L	0.000067 U	0.000067 U	0.0001
12789-03-6	CHLORDANE	0.03	mg/L	0.0033 U	0.0033 U	0.0033 U
72-20-8	ENDRIN	0.02	mg/L	0.000067 U	0.000067 U	0.000067 U
76-44-8	HEPTACHLOR	0.008	mg/L	0.000067 U	0.000067 U	0.000067 U
1024-57-3	HEPTACHLOR EPOXIDE	0.008	mg/L	0.000067 U	0.000067 U	0.000067 U
72-43-5	METHOXYCHLOR	10	mg/L	0.00013 U	0.00013 U	0.00013 U
8001-35-2	TOXAPHENE	0.5	mg/L	0.0017 U	0.0017 U	0.0017 U
	TCLP HERBICIDES					
94-75-7	2,4-D	10	mg/L	0.0042 U	0.0042 U	0.0042 U
93-72-1	2,4,5-TP (Silvex)	1	mg/L	0.0012 U	0.0012 U	0.0012 U
	TCLP METALS					
7440-38-2	ARSENIC	5	mg/L	0.5 U	0.5 U	0.5 U
7440-39-3	BARIUM	0.5	mg/L	1 U	1 U	1 U
7440-43-9	CADMIUM	1	mg/L	0.02 U	0.02 U	0.02
7440-47-3	CHROMIUM	5	mg/L	0.05 U	0.05 U	0.05 U
7439-92-1	LEAD	5	mg/L	0.5 U	0.5 U	0.5 U
7439-97-6	MERCURY	0.2	mg/L	0.0002 U	0.0002 U	0.0002 U
7782-49-2	SELENIUM	1	mg/L	0.5 U	0.5 U	0.5 U
7440-22-4	SILVER	5	mg/L	0.05 U	0.05 U	0.05 U
	WASTE CHARACTERISTICS					
CORROS	CORROSIVITY		SU	7.53	7.28	7.32
REAC-CN	CYANIDE REACTIVITY		mg/kg	13 U	13 U	13 U
REAC-S	SULFIDE REACTIVITY		mg/kg	130 U	130 U	130 U
IGNITB	IGNITABILITY		Deg F	>200	>200	>200

Honeywell - Tonawanda Coke Site 108 Stockpile Data Waste Characterization Data			Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SP1-04 SP1-04 JC96286-4 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 16:10	SP1-05 SP1-05 JC96286-5 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 16:25	SP1-05 SP1-05 DUP JC96286-9 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 17:20
CAS NO.	COMPOUND	TCLP Criteria	UNITS:			
	TCLP VOLATILES					
71-43-2	BENZENE	0.5	mg/L	0.0033	0.0036	0.0064
78-93-3	2-BUTANONE (MEK)	200	mg/L	0.1 U	0.1 U	0.1 U
56-23-5	CARBON TETRACHLORIDE	0.5	mg/L	0.005 U	0.005 U	0.005 U
108-90-7	CHLOROBENZENE	100	mg/L	0.005 U	0.005 U	0.005 U
67-66-3	CHLOROFORM	6	mg/L	0.005 U	0.005 U	0.005 U
75-35-4	1,1-DICHLOROETHENE	0.7	mg/L	0.005 U	0.005 U	0.005 U
107-06-2	1,2-DICHLOROETHANE	0.5	mg/L	0.005 U	0.005 U	0.005 U
127-18-4	TETRACHLOROETHENE	0.7	mg/L	0.005 U	0.005 U	0.005 U
79-01-6	TRICHLOROETHENE	0.5	mg/L	0.005 U	0.005 U	0.005 U
75-01-4	VINYL CHLORIDE	0.2	mg/L	0.005 U	0.005 U	0.005 U
	TCLP SEMIVOLATILES					
95-48-7	2-METHYLPHENOL	200	mg/L	0.02 U	0.02 U	0.02 U
1319-77-3MP	3&4-METHYLPHENOL	200	mg/L	0.02 U	0.02 U	0.02 U
87-86-5	PENTACHLOROPHENOL	100	mg/L	0.1 U	0.1 U	0.1 U
95-95-4	2,4,5-TRICHLOROPHENOL	400	mg/L	0.05 U	0.05 U	0.05 U
88-06-2	2,4,6-TRICHLOROPHENOL	2	mg/L	0.05 U	0.05 U	0.05 U
106-46-7	1,4-DICHLOROBENZENE	7.5	mg/L	0.005 U	0.005 U	0.02 U
121-14-2	2,4-DINITROTOLUENE	0.13	mg/L	0.02 U	0.02 U	0.02 U
118-74-1	HEXACHLOROBENZENE	0.13	mg/L	0.02 U	0.02 U	0.02 U
87-68-3	HEXACHLOROBUTADIENE	0.5	mg/L	0.01 U	0.01 U	0.01 U
67-72-1	HEXACHLOROETHANE	3	mg/L	0.05 U	0.05 U	0.05 U
98-95-3	NITROBENZENE	2	mg/L	0.02 U	0.02 U	0.02 U
110-86-1	PYRIDINE	5	mg/L	0.02 U	0.02 U	0.02 U
	TCLP PESTICIDES					
58-89-9	gamma-BHC (Lindane)	0.4	mg/L	0.000067 U	0.0003	0.000067 U
12789-03-6	CHLORDANE	0.03	mg/L	0.0033 U	0.0033 U	0.0033 U
72-20-8	ENDRIN	0.02	mg/L	0.000067 U	0.000067 U	0.000067 U
76-44-8	HEPTACHLOR	0.008	mg/L	0.000067 U	0.000067 U	0.000067 U
1024-57-3	HEPTACHLOR EPOXIDE	0.008	mg/L	0.000067 U	0.000067 U	0.000067 U
72-43-5	METHOXYCHLOR	10	mg/L	0.00013 U	0.00013 U	0.00013 U
8001-35-2	TOXAPHENE	0.5	mg/L	0.0017 U	0.0017 U	0.0017 U
	TCLP HERBICIDES					
94-75-7	2,4-D	10	mg/L	0.0042 U	0.0042 U	0.0042 U
93-72-1	2,4,5-TP (Silvex)	1	mg/L	0.0012 U	0.0012 U	0.0012 U
	TCLP METALS					
7440-38-2	ARSENIC	5	mg/L	0.5 U	0.5 U	0.5 U
7440-39-3	BARIUM	0.5	mg/L	1 U	1 U	1 U
7440-43-9	CADMIUM	1	mg/L	0.02 U	0.02 U	0.02 U
7440-47-3	CHROMIUM	5	mg/L	0.05 U	0.05 U	0.05 U
7439-92-1	LEAD	5	mg/L	0.5 U	0.5 U	0.5 U
7439-97-6	MERCURY	0.2	mg/L	0.0002 U	0.0002 U	0.0002 U
7782-49-2	SELENIUM	1	mg/L	0.5 U	0.5 U	0.5 U
7440-22-4	SILVER	5	mg/L	0.05 U	0.05 U	0.05 U
	WASTE CHARACTERISTICS					
CORROS	CORROSIVITY		SU	7.43	7.48	7.44
REAC-CN	CYANIDE REACTIVITY		mg/kg	13 U	13 U	13 U
REAC-S	SULFIDE REACTIVITY		mg/kg	130 U	130 U	130 U
IGNITB	IGNITABILITY		Deg F	>200	>200	>200

Honeywell - Tonawanda Coke Site 108 Stockpile Data Waste Characterization Data			Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SP1-06 SP1-06 JC96286-6 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 16:55	SP2-01 SP2-01 JC96286-7 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 17:10	SP2-02 SP2-02 JC96286-8 0 - 0 ft ACTD JC96286 SOIL 10/3/2019 17:20
CAS NO.	COMPOUND	TCLP Criteria	UNITS:			
	TCLP VOLATILES					
71-43-2	BENZENE	0.5	mg/L	0.0056	0.0025 U	0.0025 U
78-93-3	2-BUTANONE (MEK)	200	mg/L	0.1 U	0.1 U	0.1 U
56-23-5	CARBON TETRACHLORIDE	0.5	mg/L	0.005 U	0.005 U	0.005 U
108-90-7	CHLOROBENZENE	100	mg/L	0.005 U	0.005 U	0.005 U
67-66-3	CHLOROFORM	6	mg/L	0.005 U	0.005 U	0.005 U
75-35-4	1,1-DICHLOROETHENE	0.7	mg/L	0.005 U	0.005 U	0.005 U
107-06-2	1,2-DICHLOROETHANE	0.5	mg/L	0.005 U	0.005 U	0.005 U
127-18-4	TETRACHLOROETHENE	0.7	mg/L	0.005 U	0.005 U	0.005 U
79-01-6	TRICHLOROETHENE	0.5	mg/L	0.005 U	0.005 U	0.005 U
75-01-4	VINYL CHLORIDE	0.2	mg/L	0.005 U	0.005 U	0.005 U
	TCLP SEMIVOLATILES					
95-48-7	2-METHYLPHENOL	200	mg/L	0.02 U	0.02 U	0.02 U
1319-77-3MP	3&4-METHYLPHENOL	200	mg/L	0.02 U	0.02 U	0.02 U
87-86-5	PENTACHLOROPHENOL	100	mg/L	0.1 U	0.1 U	0.1 U
95-95-4	2,4,5-TRICHLOROPHENOL	400	mg/L	0.05 U	0.05 U	0.05 U
88-06-2	2,4,6-TRICHLOROPHENOL	2	mg/L	0.05 U	0.05 U	0.05 U
106-46-7	1,4-DICHLOROBENZENE	7.5	mg/L	0.02 U	0.005 U	0.005 U
121-14-2	2,4-DINITROTOLUENE	0.13	mg/L	0.02 U	0.02 U	0.02 U
118-74-1	HEXACHLOROBENZENE	0.13	mg/L	0.02 U	0.02 U	0.02 U
87-68-3	HEXACHLOROBUTADIENE	0.5	mg/L	0.01 U	0.01 U	0.01 U
67-72-1	HEXACHLOROETHANE	3	mg/L	0.05 U	0.05 U	0.05 U
98-95-3	NITROBENZENE	2	mg/L	0.02 U	0.02 U	0.02 U
110-86-1	PYRIDINE	5	mg/L	0.02 U	0.02 U	0.02 U
	TCLP PESTICIDES					
58-89-9	gamma-BHC (Lindane)	0.4	mg/L	0.000067 U	0.000067 U	0.000067 U
12789-03-6	CHLORDANE	0.03	mg/L	0.0033 U	0.0033 U	0.0033 U
72-20-8	ENDRIN	0.02	mg/L	0.000067 U	0.000067 U	0.000067 U
76-44-8	HEPTACHLOR	0.008	mg/L	0.000067 U	0.000067 U	0.000067 U
1024-57-3	HEPTACHLOR EPOXIDE	0.008	mg/L	0.000067 U	0.000067 U	0.000067 U
72-43-5	METHOXYCHLOR	10	mg/L	0.00013 U	0.00013 U	0.00013 U
8001-35-2	TOXAPHENE	0.5	mg/L	0.0017 U	0.0017 U	0.0017 U
	TCLP HERBICIDES					
94-75-7	2,4-D	10	mg/L	0.0042 U	0.0042 U	0.0042 U
93-72-1	2,4,5-TP (Silvex)	1	mg/L	0.0012 U	0.0012 U	0.0012 U
	TCLP METALS					
7440-38-2	ARSENIC	5	mg/L	0.5 U	0.5 U	0.5 U
7440-39-3	BARIUM	0.5	mg/L	1 U	1 U	1 U
7440-43-9	CADMIUM	1	mg/L	0.02 U	0.02 U	0.02 U
7440-47-3	CHROMIUM	5	mg/L	0.05 U	0.05 U	0.05 U
7439-92-1	LEAD	5	mg/L	0.5 U	0.5 U	0.5 U
7439-97-6	MERCURY	0.2	mg/L	0.0002 U	0.0002 U	0.0002 U
7782-49-2	SELENIUM	1	mg/L	0.5 U	0.5 U	0.5 U
7440-22-4	SILVER	5	mg/L	0.05 U	0.05 U	0.05 U
	WASTE CHARACTERISTICS					
CORROS	CORROSIVITY		SU	7.48	7.72	7.55
REAC-CN	CYANIDE REACTIVITY		mg/kg	13 U	13 U	13 U
REAC-S	SULFIDE REACTIVITY		mg/kg	130 U	130 U	130 U
IGNITB	IGNITABILITY		Deg F	>200	>200	>200

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002082305 9A 148
Route: ~~PF~~ 9M-19 Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002082305	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002082318
Route: PF Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

PF32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002082318	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002082302
Route: PF33 Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002082302	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002082316

Route: PF Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

PF32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002082316	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002082304 9A748

Route: ~~PF~~ M-19 Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002082304	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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Work Order: 0002082300

Route: PF33 Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002082300	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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4746 Model City Road
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002082301

Route: PF 33 Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002082301	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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4746 Model City Road
PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002082309

Route: PF Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

MACHINERY QD

Work Order	Qty	Action	Type	Description
0002082309	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002082313

Route: PF 37 Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002082313	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002082308

Route: PF Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

MACHINEY 20

Work Order	Qty	Action	Type	Description
0002082308	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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4746 Model City Road
PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002082312

Route: PF 37 Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002082312	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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4746 Model City Road
PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002082317

Route: PF Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

PF32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
002082317	1.00	HAULING	DUMPTRUCK	Dump Truck Services

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Route: PF Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

MAWHINEY 20

Work Order	Qty	Action	Type	Description
0002082311	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002082310

Route: PF Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

MAWHINEY 20

Work Order	Qty	Action	Type	Description
0002082310	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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Work Order: 0002082306 9A748

Route: ~~PF~~ M-19 Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002082306	1.00	HAULING	DUMPTRUCK	Dump Truck Services

Modern Disposal Services, Inc.
4746 Model City Road
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Work Order: 0002082319

Route: PF Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

PF32

ustomer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002082319	1.00	HAULING	DUMPTRUCK	Dump Truck Services

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PO Box 209
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Work Order: 0002082314

Route: PF 37 Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
one: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002082314	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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Work Order: 0002082303

Route: PF 33 Map Grid:
Service Date: 12/02/2019
Rep/Order Date: MODERN\johnk 11/29/2019 10:34:19AM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF 33

Work Order	Qty	Action	Type	Description
0002082303	1.00	HAULING	DUMPTRUCK	Dump Truck Services

PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Route: PF Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

MAWINEY M20

Work Order	Qty	Action	Type	Description
0002083889	1.00	HAULING	DUMPTRUCK	Dump Truck Services

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002083901
Route: PF 37 Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083901	1.00	HAULING	DUMPTRUCK	Dump Truck Services

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002083894
Route: PF Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

PF 32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083894	1.00	HAULING	DUMPTRUCK	Dump Truck Services

4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Route: PF Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF32

Work Order	Qty	Action	Type	Description
0002083893	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002083885

Route: PF Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF29

Work Order	Qty	Action	Type	Description
0002083885	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002083900

Route: PF30 Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083900	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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Work Order: 0002083896

Route: PF Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

PF32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083896	1.00	HAULING	DUMPTRUCK	Dump Truck Services

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Work Order: 0002083878

Route: PF 37 Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083878	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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Work Order: 0002083890

Route: PF Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

M20

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083890	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002083879
Route: PF 37 Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083879	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
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Work Order: 0002083877
Route: PF 37 Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083877	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002083886
Route: PF Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

PF 29

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083886	1.00	HAULING	DUMPTRUCK	Dump Truck Services

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002083891

Route: PF
Service Date: 12/03/2019
Map Grid:
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

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Work Order	Qty	Action	Type	Description
0002083891	1.00	HAULING	DUMPTRUCK	Dump Truck Services

Modern Disposal Services, Inc.
4746 Model City Road
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Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002083881

Route: PF 30
Service Date: 12/03/2019
Map Grid:
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083881	1.00	HAULING	DUMPTRUCK	Dump Truck Services

Modern Disposal Services, Inc.
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002083882

Route: PF 30
Service Date: 12/03/2019
Map Grid:
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083882	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002083888

Route: PF Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF 29

Work Order	Qty	Action	Type	Description
0002083888	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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Work Order: 0002083897

Route: PF Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083897	1.00	HAULING	DUMPTRUCK	Dump Truck Services

PF 32

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002083898

Route: PF Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

MACHINEY 20

Work Order	Qty	Action	Type	Description
0002083898	1.00	HAULING	DUMPTRUCK	Dump Truck Services

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002083895

Route: PF Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

PF32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083895	1.00	HAULING	DUMPTRUCK	Dump Truck Services

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002083887

Route: PF Map Grid:
Service Date: 12/03/2019
Rep/Order Date: MODERN\johnk 12/2/2019 2:23:07PM
Requested By: Tim

PF29

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002083887	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084378

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084378	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084383

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

MACHINERY 20

Work Order	Qty	Action	Type	Description
0002084383	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084386

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF 29

Work Order	Qty	Action	Type	Description
0002084386	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084377

Route: PF 30 Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084377	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084397

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

PF 32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084397	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084393

Route: PF 37 Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
002084393	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084379

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

ustomer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084379	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084382

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
ontact: MARTIN GREGG
none: (716) 870-6773

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Work Order	Qty	Action	Type	Description
0002084382	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084387

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF 29

Work Order	Qty	Action	Type	Description
0002084387	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084374

Route: PF 30 Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084374	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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4746 Model City Road
PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084395

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

PF32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084395	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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4746 Model City Road
PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084391

Route: PF 37 Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084391	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084381

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084381	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084384

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

MAWHINEY 20

Work Order	Qty	Action	Type	Description
0002084384	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084388

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF 29

Work Order	Qty	Action	Type	Description
0002084388	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084375

Route: PF 30 Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084375	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084394

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF 32

Work Order	Qty	Action	Type	Description
0002084394	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084390

Route: PF 37 Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084390	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084380

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

ustomer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084380	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084385

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

MRWHINEY 20

Work Order	Qty	Action	Type	Description
0002084385	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084389

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF 29

Work Order	Qty	Action	Type	Description
0002084389	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084376

Route: PF 30 Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084376	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084396

Route: PF Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

PF 32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084396	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084392

Route: PF 37 Map Grid:
Service Date: 12/04/2019
Rep/Order Date: MODERN\johnk 12/3/2019 8:14:30AM
Requested By: Thomas Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084392	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084919 9A748

Route: ~~PF~~ M19 Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084919	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084912

Route: PF Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

MAWHINEY 20

Work Order	Qty	Action	Type	Description
0002084912	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084927

Route: PF 29 Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084927	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084910

Route: PF Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

PF32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084910	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084926

Route: PF 33 Map Grid:
Service Date: ~~12/05/2019~~
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084926	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084916 9A748

Route: ~~PF~~ M-19 Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084916	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084917

Route: PF Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

MAWHINEY 20

Work Order	Qty	Action	Type	Description
0002084917	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084928

Route: PF 29 Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084928	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084907

Route: PF Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

PF 32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084907	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084922 33

Route: ~~PF~~
Service Date: ~~12/05/2019~~
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim
Map Grid:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084922	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084913 9A748

Route: ~~PF~~ M-19
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim
Map Grid:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084913	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084911

Route: PF
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim
Map Grid:

MACHINE 20

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084911	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084929

Route: PF 29 Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084929	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084908

Route: PF Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

pf 32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084908	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084925

Route: PF 33 Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084925	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084915 9A748
Route: ~~PF~~ M-19 Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084915	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084920
Route: PF Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

MAWHINEY 20

Work Order	Qty	Action	Type	Description
0002084920	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
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Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084930
Route: PF 29 Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084930	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084906

Route: PF Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

PF32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084906	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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4746 Model City Road
PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084923

Route: PF 33 Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084923	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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4746 Model City Road
PO Box 209
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(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002084921

Route: PF 29 Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084921	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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PO Box 209
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(800) 662-0012 TEL (716) 754-8226 FAX (716) 754-8964

Work Order: 0002084909

Route: PF Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF32

Work Order	Qty	Action	Type	Description
0002084909	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

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PO Box 209
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(800) 662-0012 TEL (716) 754-8226 FAX (716) 754-8964

Work Order: 0002084924

Route: PF 33 Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/4/2019 11:30:56AM
Requested By: Tim

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002084924	1.00	HAULING	DUMPTRUCK	Dump Truck Services

(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002085498	1.00	HAULING	DUMPTRUCK	Dump Truck Services

Pf 29

PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Service Date: 12/06/2019
Rep/Order Date: MODERN\johnk 12/5/2019 3:01:34PM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002085501	1.00	HAULING	DUMPTRUCK	Dump Truck Services

PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Service Date: 12/06/2019
Rep/Order Date: MODERN\johnk 12/5/2019 3:01:34PM
Requested By:

Pf 32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002085493	1.00	HAULING	DUMPTRUCK	Dump Truck Services

PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Service Date: 12/06/2019
Rep/Order Date: MODERN\johnk 12/5/2019 3:01:34PM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF 29

Work Order	Qty	Action	Type	Description
0002085496	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002085503
Route: PF 30 Map Grid:
Service Date: 12/06/2019
Rep/Order Date: MODERN\johnk 12/5/2019 3:01:34PM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002085503	1.00	HAULING	DUMPTRUCK	Dump Truck Services

PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Service Date: 12/06/2019
Rep/Order Date: MODERN\johnk 12/5/2019 3:01:34PM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF 32

Work Order	Qty	Action	Type	Description
0002085494	1.00	HAULING	DUMPTRUCK	Dump Truck Services

PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Service Date: 12/06/2019
Rep/Order Date: MODERN\johnk 12/5/2019 3:01:34PM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF 29

Work Order	Qty	Action	Type	Description
0002085499	1.00	HAULING	DUMPTRUCK	Dump Truck Services

PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Service Date: 12/06/2019
Rep/Order Date: MODERN\johnk 12/5/2019 3:01:34PM
Requested By:

950

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002085502	1.00	HAULING	DUMPTRUCK	Dump Truck Services

PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Service Date: 12/06/2019
Rep/Order Date: MODERN\johnk 12/5/2019 3:01:34PM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF 32

Work Order	Qty	Action	Type	Description
0002085492	1.00	HAULING	DUMPTRUCK	Dump Truck Services

Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF 29

Work Order	Qty	Action	Type	Description
0002085497	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002085504
Route: PF 30 Map Grid:
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/5/2019 3:01:34PM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002085504	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002085491
Route: PF Map G
Service Date: 12/05/2019
Rep/Order Date: MODERN\johnk 12/5/2019 3:01:34PM
Requested By:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF 32

Work Order	Qty	Action	Type	Description
0002085491	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002087439

Route: PF Map Grid:
Service Date: 12/10/2019
Rep/Order Date: MODERN\johnk 12/9/2019 8:24:39AM
Requested By: Tom Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002087439	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002088174

Route: PF Map Grid:
Service Date: 12/10/2019
Rep/Order Date: MODERN\gabe 12/10/2019 8:02:35AM
Requested By:

PF32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002088174	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002088173

Route: PF Map Grid:
Service Date: 12/10/2019
Rep/Order Date: MODERN\gabe 12/10/2019 8:02:35AM
Requested By:

PF32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002088173	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002087440

Route: PF 33
Service Date: 12/10/2019
Rep/Order Date: MODERN\johnk 12/9/2019 8:24:39AM
Requested By: Tom Wollen
Map Grid:

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002087440	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002087438

Route: PF
Service Date: 12/10/2019
Rep/Order Date: MODERN\johnk 12/9/2019 8:24:39AM
Requested By: Tom Wollen
Map Grid:

PF 32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002087438	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002087441

Route: PF
Service Date: 12/10/2019
Rep/Order Date: MODERN\johnk 12/9/2019 8:24:39AM
Requested By: Tom Wollen
Map Grid:

PF 32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002087441	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN
Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002087442

Route: PF Map Grid:
Service Date: 12/10/2019
Rep/Order Date: MODERN\johnk 12/9/2019 8:24:39AM
Requested By: Tom Wollen

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF32

Work Order	Qty	Action	Type	Description
0002087442	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002088612

Route: PF Map Grid:
Service Date: 12/11/2019
Rep/Order Date: MODERN\gzientara 12/11/2019 7:22:52AM
Requested By: Paul

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF32

Work Order	Qty	Action	Type	Description
0002088612	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002088613

Route: PF Map Grid:
Service Date: 12/11/2019
Rep/Order Date: MODERN\gzientara 12/11/2019 7:22:52AM
Requested By: Paul

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF32

Work Order	Qty	Action	Type	Description
0002088613	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002088616

Route: PF Map Grid:
Service Date: 12/11/2019
Rep/Order Date: MODERN\gzientara 12/11/2019 7:22:52AM
Requested By: Paul

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

PF33

Work Order	Qty	Action	Type	Description
0002088616	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002088615

Route: PF Map Grid:
Service Date: 12/11/2019
Rep/Order Date: MODERN\gzientara 12/11/2019 7:22:52AM
Requested By: Paul

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002088615	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002088617

Route: PF Map Grid:
Service Date: 12/11/2019
Rep/Order Date: MODERN\gzientara 12/11/2019 7:22:52AM
Requested By: Paul

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002088617	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002088614

Route: PF Map Grid:
Service Date: 12/11/2019
Rep/Order Date: MODERN\gzientara 12/11/2019 7:22:52AM
Requested By: Paul

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002088614	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002088982

Route: PF 30 Map Grid:
Service Date: 12/12/2019
Rep/Order Date: MODERN\gzientara 12/12/2019 6:54:51AM
Requested By: Glenn

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002088982	1.00	HAULING	DUMPTRUCK	Dump Truck Services

MODERN

Modern Disposal Services, Inc.
4746 Model City Road
PO Box 209
Model City, NY 14107
(800) 662-0012 TEL. (716) 754-8226 FAX. (716) 754-8964

Work Order: 0002088925

Route: PF Map Grid:
Service Date: 12/12/2019
Rep/Order Date: MODERN\johnk 12/11/2019 3:22:00PM
Requested By:

PF 32

Customer #: 015389 PO #:
Customer Name: WASTE TECHNLY SRVC ATTN: ANN
Service Location: WTS@TONAWANDA COKE
Address: 3875 RIVER RD
City: TONAWANDA
Contact: MARTIN GREGG
Phone: (716) 870-6773

Work Order	Qty	Action	Type	Description
0002088925	1.00	HAULING	DUMPTRUCK	Dump Truck Services

METAL AND CONCRETE DEBRIS

GENERATOR APPROVAL NOTIFICATION

Customer: WASTE TECHNOLOGY SERVICES November 19, 2019

ENVIRONMENTAL MANAGER
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
ATTN: ROBERT KOLVEK
TONAWANDA, NY 14151

This Generator Approval Notification acknowledges the acceptability of waste material(s) into the noted US Ecology ("USE") facility(s) identified below and ensures that each facility has the appropriate permit(s) issued by federal and state regulatory agencies to properly transport, treat, and/or dispose of the waste material(s).

The Approval(s) listed below are based upon characterization information supplied to USE by the Customer and the Generator (if other than the Customer). The Customer is ultimately responsible for the accuracy and completeness of all such information, whether provided by the Customer or the Generator. The Customer must notify USE immediately upon knowledge of any changes to this information. The Approval and all wastes which are transported, delivered, or tendered to USE under this Approval shall be subject to the Standard Terms and Conditions associated with the original Waste Profile Form. (The Standard Terms and Conditions are incorporated into the Waste Profile Form as Page 4.)

The Approval(s) will expire on the date(s) noted. Any new Approvals obtained from USE on future business will be valid for a period of one (1) year from the date of issuance. Within 60 days of the Approval Expiration Date, you will be notified of the requirements for recertification.

Generator: TONAWANDA COKE CORPORATION

EPA ID No.: NYD088413877

Waste Common Name: K142 Debris (WTS 44349)

Waste Code(s): K142

Comments: This waste is being treated to the alternative treatment standards in 268.45. Debris must be >2.5 inches and <3'X3'X3' in size. Debris Must be >50% by volume based upon visual inspection. Containers must be less than 75% intact. EPA considers the intentional mixing of non debris waste with debris being treated by this standard to be impermissible dilution. Non debris should be profiled separately. No free liquids. VOCs must be <2%

Approval No.: J190069MDI-OTS **Expiration Date:** 10/23/2020

USE Facility Name & ID Number: Michigan Disposal Waste Treatment Plant (MID000724831)

US ecology

RE-APPROVAL NOTICE AND/OR PROFILE CHANGES

Customer Account: 000583

December 6, 2019

ENVIRONMENTAL MANAGER
WASTE TECHNOLOGY SERVICES
435 NORTH 2ND STREET
LEWISTON, NY 14092

Thank you for selecting US Ecology ("USE") as your environmental management partner. In the event that a waste stream has changed, the generator may use this form to amend and/or re-approve the waste profile.

Generator Name: TONAWANDA COKE CORPORATION **EPA ID No.:** NYD088413877

Waste Common Name: K142 Debris (WTS 44349)
Waste Code(s): K142

Approval No.: J190069MDI **Expiration Date:** 10/23/2020
USE Facility Name & ID Number: Michigan Disposal Waste Treatment Plant (MID000724831)

Please select one of the following options:

- ☐ Re-approval with No Profile Change
- ☒ Re-approval with Profile Change
- ☐ Profile Change

Please provide a detailed description below of the changes to the waste stream:

Please amend to include up to 5% sawdust. Sawdust was used after liner in the box, to help cushion the loading of the debris. This is not intentional mixing. The sawdust is virgin unused, and non-hazardous.

This Re-approval Notice acknowledges the acceptability of waste material(s) into the noted USE facility(s) and ensures each facility has the appropriate permit(s) issued by federal and state regulatory agencies to properly transport, treat, and/or dispose of the waste material(s). Upon signature and submittal of this form, the waste stream will be reviewed by USE. The expiration will be extended for one year, unless you are contacted otherwise.

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize USE to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize USE to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if USE approves the waste described herein, all such wastes that are transported, delivered, or tendered to USE by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the Standard Terms and Conditions associated with the original Waste Profile Form. (The Standard Terms and Conditions are incorporated into the Waste Profile Form as Page 4.)

Generator Signature: Eric Christodoulatos Printed Name: Eric Christodoulatos

Company: Honeywell Date: 12/6/19

Please return this form via fax (800) 592-5329 or email customer.service@usecology.com. Questions? Please call (800) 592-5489.

US ecology

Profile Tracking # _____

WASTE PROFILE FORM

For assistance in completing this document or for additional information on service offerings, please visit our website at www.usecology.com or call 800-592-5489.

US Ecology will choose the appropriate facility and method of waste management for your waste from the technologies offered at each operation.

If you wish to direct this waste to a specific facility(s) or treatment technology please indicate here:

USE Michigan Disposal
(WTS# 44349)
(MHG)

Waste Common Name: K142 Debris (WTS 44349)

Section 1 - Generator & Customer Information

Generator EPA ID # NYD-088-413-877
Generator TONAWANDA COKE CORPORATION
Facility Address 3875 RIVER ROAD
City TONAWANDA State NY Zip 14151
24-hour Emergency Response Number ( ) -

Mailing Address c/o Honeywell
301 Plainfield Road, Suite 330
City Syracuse State NY Zip 13212
Generator Contact Tom Abrams
Title Sr. Project Manager
Phone (315) 552-9670 Fax ( ) -
E-mail tom.abrams@parsons.com

Internal Use Only: EQ Division _____
EQ Customer No. 583
Invoicing Company WASTE TECHNOLOGY SERVICES
Address 435 NORTH 2ND STREET
City LEWISTON State NY Zip 14092
Country USA
Invoicing Contact ACCOUNTS PAYABLE
Phone (716) 754-5400 Fax (716) 754-8001

Technical Contact Martin Gregg
Phone (716) 754-5400 Fax ( ) -
Cell Phone ( ) -
E-mail _____

Section 2 - Shipping & Packaging Information

2.1) Shipping Volume & Frequency:
a) Volume of Waste to be Shipped: 200 Cubic Yard
b) Frequency: ○ One Time ● Month ○ Quarter ○ Year ○ Other _____

2.2) DOT Information
a) Is this a U.S. Department of Transportation (USDOT) Hazardous Material? ● Yes ○ No
b) If "Yes", indicate the proper shipping name per 49 CFR 172.101 Hazardous Materials Table:
RQ, NA3077, Hazardous waste, solid, n.o.s. (K142), 9, PGIII, (K142), ERG#171

Section 3 - Special Properties

3.1) Color VARIES

3.2) Odor ☐ None ☐ Ammonia ☐ Amines ☐ Mercaptans ☐ Sulfur ☐ Organic Acid ☐ Amines/Ammonia
☑ Other: mild organic to none

3.3) Consistency at 70 °F: ☐ Solid ☐ Dust/Powder ☑ Debris ☐ Sludge ☐ Liquid ☐ Gas/Aerosol ☐ Varies

3.4) What is the pH? ☐ ≤2 ☐ 2.1-4.9 ☐ 5-10 ☐ 10.1-12.4 ☐ ≥12.5 ☑ N/A

3.5) What is the flash point? ☐ <90 °F ☐ 90-139 °F ☐ 140-199 °F ☐ ≥200 °F ☑ N/A

3.6) Does this waste exhibit any of the following properties? **(check all that apply)**

☑ **None**	☐ Free Liquids	☐ Metal Fines	☐ Water Reactive	☐ Biohazard
☐ Shock Sensitive	☐ Oily Residue	☐ Dioxins	☐ Furans	☐ Aluminum
☐ Asbestos -non- friable	☐ Asbestos - friable	☐ Other Radioactive	☐ Air Reactive	☐ Isocyanates
☐ Biodegradable Sorbents	☐ Pyrophoric	☐ Reactive Sulfide	☐ Reactive Cyanide	☐ Explosives
☐ Temperature Controlled Organic Peroxide		☐ NORM	☐ TENORM	

Section 4 - Composition and Generating Process

4.1) Provide a physical and chemical composition of the waste (e.g. soil, water, PPE, debris, etc.). List the percent ranges or the concentration of each component, either estimated or known.

Cut up steel tanks (3' dimension)	50.	to	100.	%
Concrete (rebar trimmed)	0.	to	100.	%

4.2) Provide a description of the generating process. *Remediation & IDW Sites: please provide a site history.*

Removal of former coal tar storage tanks and associated pads

4.3) Are there any known previous handling or treatment issues involving this waste? ○ Yes* ● No

*If yes, describe:

Section 5 - Hazardous Wastes

As determined by 40 CFR, Part 261 and State Rules: **Please list applicable waste code(s):**

5.1) Is this waste exempted from RCRA? ○ Yes ● No

If Yes, please provide exemption:

5.2) Is this an EPA RCRA listed hazardous waste (F, K, P or U)? ● Yes ○ No K142

a) For F006-F009, F012, does this come from a generator that conducts a cyanide plating process? ○ Yes ○ No

5.3) Is this an EPA RCRA characteristic hazardous waste (D001-D043)? ○ Yes ● No

5.4) Do any State Specific Hazardous Waste Codes apply? ○ Yes ● No

If you answered 'no' to 5.2, 5.3 and 5.4, please proceed to Section 6.

5.5) EPA Source Code: G49 EPA Form Code: W002

5.6) Waste Code Determination Is Based On: ☑ Generator Knowledge ☐ Analysis ☐ MSDS

Analysis and/or MSDS may be required for review and approval for hazardous and non-hazardous waste streams.

5.7) Does this waste exceed Land Disposal Restriction levels? ● Yes ○ No

a) Is this stream a wastewater (WW) or non-wastewater (NWW)? ○ WW ● NWW

b) If this waste stream is greater than 50% soil, does it meet the alternative soil treatment standards of 40 CFR 268.49? ○ Yes ● No

c) Does this waste contain greater than 50% debris, by volume? (Debris is greater than 2.5 inches in size.) ● Yes ○ No

d) If the debris is larger than 3 ft x 3 ft x 3 ft, please provide the approximate dimensions and weight:

<3', to be sized by on site contractor

5.8) If this is a characteristic hazardous waste, does it contain Underlying Hazardous Constituents? ○ Yes* ● No

*If Yes, please list:

For a complete list of UHC constituents, please refer to 40 CFR 268.48

Section 6 - Non-Hazardous Wastes

Please list applicable waste code(s):

6.1) Do any State Specific Non-Hazardous Waste Codes apply? ○ Yes ● No

6.2) Is this a Universal (UNIV) waste or a Recyclable Good (RG) ? ○ UNIV ○ RG ● N/A

6.3) Is this waste used oil as defined by 40 CFR Part 279? ○ Yes ● No

a) If yes, is the total halogen content of the used oil waste stream greater than 1,000 ppm? ○ Yes ○ No

b) If yes, what is the source of the halogen content?

- ○ This is a metalworking oil/fluid containing chlorinated paraffins.
- ○ This is a used oil contaminated with chlorofluorocarbons from refrigeration units.
- ○ This oil contains halogenated solvents. List specific solvents:
- ○ Other, describe:

Section 7 - TSCA Information

7.1) What is the concentration of PCBs in the waste? ☑ None ☐ 0-49 ppm ☐ 50-499 ppm ☐ 500+ ppm

7.2) Does the waste contain PCB contamination from a source with a concentration ≥ 50 ppm? ○ Yes ● No ○ Unknown

If you answered "none" or '0-49 ppm' to 7.1 and "no" to 7.2, please proceed to Section 8.

7.3) Has this waste been processed into a non-liquid form? ○ Yes* ○ No

*If yes, what was the concentration of PCBs prior to processing? ○ 0-499 ppm ○ 500+ ppm

7.4) Is this non-liquid PCB waste in the form of soil, rags, debris, or other contaminated media? ○ Yes ○ No

7.5) Are you a PCB capacitor manufacturer or a PCB equipment manufacturer? ○ Yes ○ No

7.6) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained/flushed of all PCBs and decontaminated in accordance with 40 CFR 761.60(b)? ○ Yes ○ No ○ N/A

Section 8 - Clean Air Act Information

8.1) Is this waste subject to regulation under 40 CFR, Part 264, Subpart CC (VOC > 500 ppmw)? ● Yes ○ No

8.2) Is this waste subject to regulation under 40 CFR, Part 63, Subpart DD (VOHAP > 500 ppmw)? ○ Yes ● No

8.3) Is the site, or waste, subject to any other NESHAP/MACT standard(s)? ○ Yes* ● No

*If Yes this document serves as notification that this waste contains chemicals _____, required to be managed in accordance with Part ○ 61 ○ 62 ○ 63 Subpart _____ of NESHAP/MACT standards.

8.4) Does this waste stream contain Benzene? ○ Yes ● No

If you answered "no" to 8.4, please proceed to Section 9.

8.5) Does the waste stream come from a facility subject to 40 CFR 61, Subpart FF (Benzene NESHAP)? ○ Yes ○ No

If Yes, please provide the SIC/NAICS code: _____

If you answered "no" to 8.5, please proceed to Section 9.

8.6) Does your facility manage the waste subject to Benzene NESHAP in a manner other than shipping off-site? ○ Yes ○ No

If Yes, please specify: _____

8.7) Is the generating source of this waste a facility with Total Annual Benzene (TAB) ≥10 Mg/year? ○ Yes ○ No

8.8) Does the waste contain >10% water? ○ Yes ○ No

8.9) What is the TAB quantity for your facility? _____ Mg/year

8.10) What is the total Benzene concentration in your waste? _____ Percent or _____ ppmw

Supporting analysis must be attached. Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602 and 624.

Section 9 - Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards pertaining to the waste described herein. I authorize EQ's personnel to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's personnel to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

If I am an agent acting on behalf of the generator, I also certify that I have permission to sign any and all waste characterization paperwork on the generator's behalf and that I can produce such certification in writing upon request.

Generator Signature Eric Christodoulatos Printed Name Eric Christodoulatos

Company Honeywell Title Remediation Manager Date 10/23/2019

STANDARD TERMS AND CONDITIONS

The Agreement between the Customer and EQ - The Environmental Quality Company and/or its member companies (hereinafter "EQ") related to or associated with Delivered Waste, as herein defined, shall be governed by the following Standard Terms and Conditions in addition to the terms and conditions contained in any Waste Profile Form, Customer Approval Quote Confirmation, Generator Approval Notification, Notice of Waste Approval Expiration, and/or Credit Agreement associated with such Delivered Waste.

The Customer may use its standard forms (such as purchase orders, acknowledgments of orders, and invoices) to administer its dealings under this Agreement for convenience purposes, but all provisions thereof in conflict with these terms and conditions shall be deemed stricken.

Definitions

"Acceptable Waste" shall mean any hazardous waste, as defined under applicable State or federal law, determined by EQ as acceptable for treatment and/or disposal in accordance with this Agreement.

"Delivered Wastes" shall mean all wastes (i) which are transported, delivered, or tendered to EQ by the Customer; (ii) which the Customer has arranged for the transport, delivery or tender to EQ; or (iii)) which are transported, delivered, or tendered to EQ under a Credit Agreement between the Customer and EQ.

"Non-Conforming Wastes" shall mean wastes that (a) are not in accordance in all material respects with the warranties, descriptions, specifications or limitations stated in the Waste Profile Form and this Agreement; (b) have constituents or components of a type or concentration not specifically identified in the Waste Profile Form (i) which increase the nature or extent of the hazard and risk undertaken by EQ in treating and/or disposing of the waste, or (ii) for whose treatment and/or disposal a Waste Management Facility is not designed or permitted, or (iii) which increase the cost of treatment and/or disposal of waste beyond that specified in EQ's price quote; or (c) are not properly packaged, labeled, described, or placarded, or otherwise not in compliance with United States Department of Transportation and United States Environmental Protection Agency regulations.

Control of Operations.

EQ shall have sole control over all aspects of the operation of any treatment and/or disposal facility of EQ receiving Delivered Wastes under this Agreement (hereinafter "Waste Management Facility"), including, without limitation, maintaining EQ's desired volume of Acceptable Wastes being delivered to any Waste Management Facility by the Customer or any other person or entity.

Identification of Waste.

For each waste material to be transported, delivered, or tendered to EQ under this Agreement, the Customer shall provide, or cause to be provided, to EQ a representative sample of the waste material and a completed Waste Profile Form containing a physical and chemical description or analysis of such waste material, which description shall conform with any and all guidelines for waste acceptance provided by EQ. On the basis of EQ's analysis of such representative sample of the waste material and such Waste Profile Form, EQ will determine whether such wastes are Acceptable Wastes. EQ does not make any guarantee that it will handle any waste material or any particular quantity or type of waste material, and EQ reserves the right to the decline to transport, treat and/or dispose of waste material. The Customer shall promptly furnish to EQ any information regarding known, suspected or planned changes in the composition of the waste material. Further, the Customer shall promptly inform EQ of any change in the characteristic or condition of the waste material which becomes known to the Customer subsequent to the date of the Waste Profile Form.

Non-Conforming Wastes.

In the event that EQ at any time discovers that any Delivered Waste is Non-Conforming Waste, EQ may reject or revoke its acceptance of the Non-Conforming Waste. The Customer shall have seven (7) days to direct an alternative lawful manner of disposition of the waste, unless it is necessary by reason of law or otherwise to move the Non-Conforming Waste prior to expiration of the seven (7) day period. If the Customer does not direct an alternative disposal, at its option, EQ may return any such Non-Conforming Wastes to the Customer, and the Customer shall pay or reimburse EQ for all costs and expenses incurred by EQ in connection with the receipt, handling, sampling, analyses, transportation and return to the Customer of such Non-Conforming Wastes. If it is impossible or impractical for EQ to return the Non-Conforming Waste to the Customer, the Customer shall reimburse EQ for all costs, of any type or nature whatsoever, incurred by EQ, solely because such Delivered Waste was Non-Conforming Waste (including, but not limited to, all costs associated with any remedial steps necessary, due to the nature of the Non-Conforming Waste, in connection with material with which the Non-Conforming Waste may have been commingled and all expenses and charges for analyzing, handling, locating, preparing for transporting, storing and disposing of any Non-Conforming Waste).

Customer Warranty - Acceptable Wastes.

All Delivered Wastes shall be Acceptable Wastes and shall conform in all material respects to the description and specifications contained in the Waste Profile Form. The information set forth in the Waste Profile Form or any manifest, placard or label associated with any Delivered Wastes, or otherwise represented by the Customer or the generator (if other than the Customer) to EQ, is and shall be true, accurate and complete as of the date of receipt of the involved waste by EQ.

Customer Warranty - Title to Wastes.

Either the Customer or the generator (if other than the Customer) shall hold clear title, free of any all liens, claims, encumbrances, and charges to Delivered Waste until such waste is accepted by EQ.

Customer Warranty - Compliance with Laws.

The Customer shall comply with all applicable federal, state and local environmental statutes, regulations, and other governmental requirements, as well as directives issued by EQ from time to time, governing the transportation, treatment and/or disposal of Acceptable Wastes, including, but not limited to, all packaging, manifesting, containerization, placarding and labeling requirements.

Customer Warranty - Updating Information.

If the Customer receives information that Delivered Waste or other hazardous waste described in the Waste Profile Form, or some component of such waste, presents or may present a hazard or risk to persons, property or the environment which was not disclosed to EQ, or if the Customer or generator (if other than the Customer) has changed the process by which such waste results, the Customer shall promptly report such information to EQ in writing.

Customer Indemnity.

The Customer shall indemnify, defend and hold harmless EQ, and its affiliated or related companies, and all of their respective present or future officers, directors, shareholders, employees and agents from and against any and all losses, damages, liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, costs and expenses (including, but not limited to, reasonable costs of defense, settlement, and reasonable attorneys' fees), which may be asserted against any or all of them by any person or any governmental agency, or which any or all of them may hereafter suffer, incur, be responsible for or pay out, as a result of or in connection with bodily injuries (including, but not limited to, death, sickness, disease and emotional or mental distress) to any person (including EQ's employees), damage (including, but not limited to, loss of use) to any property (public or private), or any requirements to conduct or incur expense for investigative, removal or remedial expenses in connection with contamination of or adverse effect on the environment, or any violation or alleged violation of any statutes, ordinances, orders, rules or regulations of any governmental entity or agency, caused or arising out of (i) a breach of this Agreement by the Customer, (ii) the failure of any warranty of the Customer to be true, accurate and complete, or (iii) any willful or negligent act or omission of the Customer, or its employees or agents in connection with the performance of this Agreement.

Force Majeure.

EQ shall not be liable for any failure to accept, receive, handle, treat, and/or dispose of Delivered Waste due to an act of God, fire, casualty, flood, war, strike, lockout, labor trouble, failure of public utilities, equipment failure, facility shutdown, injunction, accident, epidemic, riot, insurrection, destruction of operation or transportation facilities, the inability to procure materials, equipment, or sufficient personnel or energy in order to meet operational needs without the necessity of allocation, the failure or inability to obtain any governmental approvals or to meet Environmental Requirements (including, but not limited to voluntary or involuntary compliance with any act, exercise, assertion, or requirement of any governmental authority) which may temporarily or permanently prohibit operations of EQ, the Customer, or the Generator, or any other circumstances beyond the control of EQ which prevents or delays performance of any of its obligations under this Agreement.

Governing Laws

This Agreement shall in all respects be governed by and shall be construed in accordance with the laws of the State of Michigan applied to contracts executed and performed wholly within such state.

Bulk Disposal Charges

Quoted bulk disposal charges for solid materials will be billed by the cubic yard, if the waste density is less than 2,000lbs./cubic yard. If waste density is greater than 2,000 lbs./cubic yard, then bulk disposal charges will be billed by the ton, regardless of the approved container.

RE-APPROVAL NOTICE AND/OR PROFILE CHANGES

Customer Account: 000583 January 3, 2020

ENVIRONMENTAL MANAGER
WASTE TECHNOLOGY SERVICES
435 NORTH 2ND STREET

Thank you for selecting US Ecology ("USE") as your environmental management partner. In the event that a waste stream has changed, the generator may use this form to amend and/or re-approve the waste profile.

Generator Name: TONAWANDA COKE CORPORATION **EPA ID No.:** NYD088413877

Waste Common Name: K142 Debris (WTS 44545)
Waste Code(s): K142

Approval No.: L1944545WTSMDI **Expiration Date:** 12/5/2020
USE Facility Name & ID Number: Michigan Disposal Waste Treatment Plant (MID000724831)

Please select one of the following options:

- ☐ Re-approval with No Profile Change
- ☒ Re-approval with Profile Change
- ☐ Profile Change

Please provide a detailed description below of the changes to the waste stream:

Amend to add 0-100% Miscellaneous Debris (PPE, Plastic, Filter Fabric).

This Re-approval Notice acknowledges the acceptability of waste material(s) into the noted USE facility(s) and ensures each facility has the appropriate permit(s) issued by federal and state regulatory agencies to properly transport, treat, and/or dispose of the waste material(s). Upon signature and submittal of this form, the waste stream will be reviewed by USE. The expiration will be extended for one year, unless you are contacted otherwise.

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize USE to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize USE to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if USE approves the waste described herein, all such wastes that are transported, delivered, or tendered to USE by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the Standard Terms and Conditions associated with the original Waste Profile Form. (The Standard Terms and Conditions are incorporated into the Waste Profile Form as Page 4.)

Generator Signature: _____ Printed Name: Eric Christodoulatos

Company: Honeywell Date: 1/7/2020

Please return this form via fax (800) 592-5329 or email customer.service@usecology.com. Questions? Please call (800) 592-5489.

Profile Tracking # _____

WASTE PROFILE FORM

For assistance in completing this document or for additional information on service offerings, please visit our website at www.usecology.com or call 800-592-5489.

US Ecology will choose the appropriate facility and method of waste management for your waste from the technologies offered at each operation.

If you wish to direct this waste to a specific facility(s) or treatment technology please indicate here:

Waste Common Name: K142 Concrete Debris (WTS# 44545) (JGM)

Section 1 - Generator & Customer Information

Generator EPA ID # NYD-088-413-877

Generator TONAWANDA COKE CORPORATION

Facility Address 3875 RIVER ROAD

City TONAWANDA State NY Zip 14151

24-hour Emergency Response Number ( ) -

Mailing Address c/o Honeywell
301 Plainfield Road

City Syracuse State NY Zip 13212

Generator Contact Tom Abrams

Title Sr. Project Manager

Phone (716) 876-6222 Fax ( ) -

E-mail

Internal Use Only: EQ Division _____

EQ Customer No. 583

Invoicing Company WASTE TECHNOLOGY SERVICES

Address 435 NORTH 2ND STREET

City LEWISTON State NY Zip 14092

Country USA

Invoicing Contact ACCOUNTS PAYABLE

Phone (716) 754-5400 Fax (716) 754-8001

Technical Contact Martin Gregg

Phone (716) 754-5400 Fax ( ) -

Cell Phone ( ) -

E-mail

Section 2 - Shipping & Packaging Information

2.1) Shipping Volume & Frequency:

a) Volume of Waste to be Shipped: 750 Tons

b) Frequency: ○ One Time ● Month ○ Quarter ○ Year ○ Other

2.2) DOT Information

a) Is this a U.S. Department of Transportation (USDOT) Hazardous Material? ● Yes ○ No

b) If "Yes", indicate the proper shipping name per 49 CFR 172.101 Hazardous Materials Table:

RQ, NA3077, Hazardous waste, solid, n.o.s. (K142), 9, PGIII, (K142), ERG#171

Section 3 - Special Properties

3.1) Color VARIES

3.2) Odor ☐ None ☐ Ammonia ☐ Amines ☐ Mercaptans ☐ Sulfur ☐ Organic Acid ☐ Amines/Ammonia
☑ Other: mild organic to none

3.3) Consistency at 70 °F: ☐ Solid ☐ Dust/Powder ☑ Debris ☐ Sludge ☐ Liquid ☐ Gas/Aerosol ☐ Varies

3.4) What is the pH? ☐ ≤2 ☐ 2.1-4.9 ☑ 5-10 ☐ 10.1-12.4 ☐ ≥12.5 ☐ N/A

3.5) What is the flash point? ☐ <90 °F ☐ 90-139 °F ☐ 140-199 °F ☑ ≥200 °F ☐ N/A

3.6) Does this waste exhibit any of the following properties? **(check all that apply)**

☑ **None**	☐ Free Liquids	☐ Metal Fines	☐ Water Reactive	☐ Biohazard
☐ Shock Sensitive	☐ Oily Residue	☐ Dioxins	☐ Furans	☐ Aluminum
☐ Asbestos -non- friable	☐ Asbestos - friable	☐ Other Radioactive	☐ Air Reactive	☐ Isocyanates
☐ Biodegradable Sorbents	☐ Pyrophoric	☐ Reactive Sulfide	☐ Reactive Cyanide	☐ Explosives
☐ Temperature Controlled Organic Peroxide		☐ NORM	☐ TENORM	

Section 4 - Composition and Generating Process

4.1) Provide a physical and chemical composition of the waste (e.g. soil, water, PPE, debris, etc.). List the percent ranges or the concentration of each component, either estimated or known.

Concrete (rebar trimmed)	99.9	to	100.	%
Coal tar residue	0.01	to	0.1	%

4.2) Provide a description of the generating process. *Remediation & IDW Sites: please provide a site history.*

Removal of structural concrete base support of coal tar storage tanks. Concrete shows evidence of light staining

4.3) Are there any known previous handling or treatment issues involving this waste? ○ Yes* ● No

*If yes, describe: _____

Section 5 - Hazardous Wastes

As determined by 40 CFR, Part 261 and State Rules: **Please list applicable waste code(s):**

5.1) Is this waste exempted from RCRA? ○ Yes ● No

If Yes, please provide exemption: _____

5.2) Is this an EPA RCRA listed hazardous waste (F, K, P or U)? ● Yes ○ No K142

a) For F006-F009, F012, does this come from a generator that conducts a cyanide plating process? ○ Yes ● No

5.3) Is this an EPA RCRA characteristic hazardous waste (D001-D043)? ○ Yes ● No

5.4) Do any State Specific Hazardous Waste Codes apply? ○ Yes ● No

If you answered 'no' to 5.2, 5.3 and 5.4, please proceed to Section 6.

5.5) EPA Source Code: G49 EPA Form Code: W002

5.6) Waste Code Determination Is Based On: ☑ Generator Knowledge ☐ Analysis ☐ MSDS

Analysis and/or MSDS may be required for review and approval for hazardous and non-hazardous waste streams.

5.7) Does this waste exceed Land Disposal Restriction levels? ● Yes ○ No

a) Is this stream a wastewater (WW) or non-wastewater (NWW)? ○ WW ● NWW

b) If this waste stream is greater than 50% soil, does it meet the alternative soil treatment standards of 40 CFR 268.49? ○ Yes ● No

c) Does this waste contain greater than 50% debris, by volume? (Debris is greater than 2.5 inches in size.) ● Yes ○ No

d) If the debris is larger than 3 ft x 3 ft x 3 ft, please provide the approximate dimensions and weight:

<3', to be sized by on site contractor

5.8) If this is a characteristic hazardous waste, does it contain Underlying Hazardous Constituents? ○ Yes* ● No

*If Yes, please list: _____

For a complete list of UHC constituents, please refer to 40 CFR 268.48

Section 6 - Non-Hazardous Wastes

Please list applicable waste code(s):

6.1) Do any State Specific Non-Hazardous Waste Codes apply? ○ Yes ● No

6.2) Is this a Universal (UNIV) waste or a Recyclable Good (RG) ? ○ UNIV ○ RG ● N/A

6.3) Is this waste used oil as defined by 40 CFR Part 279? ○ Yes ● No

a) If yes, is the total halogen content of the used oil waste stream greater than 1,000 ppm? ○ Yes ○ No

b) If yes, what is the source of the halogen content?

○ This is a metalworking oil/fluid containing chlorinated paraffins.
○ This is a used oil contaminated with chlorofluorocarbons from refrigeration units.
○ This oil contains halogenated solvents. List specific solvents: _____
○ Other, describe: _____

Section 7 - TSCA Information

7.1) What is the concentration of PCBs in the waste? ☑ None ☐ 0-49 ppm ☐ 50-499 ppm ☐ 500+ ppm

7.2) Does the waste contain PCB contamination from a source with a concentration ≥ 50 ppm? ○ Yes ● No ○ Unknown

If you answered "none" or '0-49 ppm' to 7.1 and "no" to 7.2, please proceed to Section 8.

7.3) Has this waste been processed into a non-liquid form? ○ Yes* ○ No

*If yes, what was the concentration of PCBs prior to processing? ○ 0-499 ppm ○ 500+ ppm

7.4) Is this non-liquid PCB waste in the form of soil, rags, debris, or other contaminated media? ○ Yes ○ No

7.5) Are you a PCB capacitor manufacturer or a PCB equipment manufacturer? ○ Yes ○ No

7.6) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained/flushed of all PCBs and decontaminated in accordance with 40 CFR 761.60(b)? ○ Yes ○ No ○ N/A

Section 8 - Clean Air Act Information

8.1) Is this waste subject to regulation under 40 CFR, Part 264, Subpart CC (VOC > 500 ppmw)? ○ Yes ● No

8.2) Is this waste subject to regulation under 40 CFR, Part 63, Subpart DD (VOHAP > 500 ppmw)? ○ Yes ● No

8.3) Is the site, or waste, subject to any other NESHAP/MACT standard(s)? ○ Yes* ● No

*If Yes this document serves as notification that this waste contains chemicals _____, required to be managed in accordance with Part ○ 61 ○ 62 ○ 63 Subpart _____ of NESHAP/MACT standards.

8.4) Does this waste stream contain Benzene? ○ Yes ● No

If you answered "no" to 8.4, please proceed to Section 9.

8.5) Does the waste stream come from a facility subject to 40 CFR 61, Subpart FF (Benzene NESHAP)? ○ Yes ○ No

If Yes, please provide the SIC/NAICS code: _____

If you answered "no" to 8.5, please proceed to Section 9.

8.6) Does your facility manage the waste subject to Benzene NESHAP in a manner other than shipping off-site? ○ Yes ○ No

If Yes, please specify: _____

8.7) Is the generating source of this waste a facility with Total Annual Benzene (TAB) ≥10 Mg/year? ○ Yes ○ No

8.8) Does the waste contain >10% water? ○ Yes ○ No

8.9) What is the TAB quantity for your facility? _____ Mg/year

8.10) What is the total Benzene concentration in your waste? _____ Percent or _____ ppmw.

Supporting analysis must be attached. Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602 and 624.

Section 9 - Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize EQ's personnel to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's personnel to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

If I am an agent acting on behalf of the generator, I also certify that I have permission to sign any and all waste characterization paperwork on the generator's behalf and that I can produce such certification in writing upon request.

Generator Signature E Christodoulatos Printed Name Eric Christodoulatos

Company Honeywell Title Remediation Manager Date 12/6/19

STANDARD TERMS AND CONDITIONS

The Agreement between the Customer and EQ - The Environmental Quality Company and/or its member companies (hereinafter "EQ") related to or associated with Delivered Waste, as herein defined, shall be governed by the following Standard Terms and Conditions in addition to the terms and conditions contained in any Waste Profile Form, Customer Approval Quote Confirmation, Generator Approval Notification, Notice of Waste Approval Expiration, and/or Credit Agreement associated with such Delivered Waste.

The Customer may use its standard forms (such as purchase orders, acknowledgments of orders, and invoices) to administer its dealings under this Agreement for convenience purposes, but all provisions thereof in conflict with these terms and conditions shall be deemed stricken.

Definitions

"Acceptable Waste" shall mean any hazardous waste, as defined under applicable State or federal law, determined by EQ as acceptable for treatment and/or disposal in accordance with this Agreement.

"Delivered Wastes" shall mean all wastes (i) which are transported, delivered, or tendered to EQ by the Customer; (ii) which the Customer has arranged for the transport, delivery or tender to EQ; or (iii)) which are transported, delivered, or tendered to EQ under a Credit Agreement between the Customer and EQ.

"Non-Conforming Wastes" shall mean wastes that (a) are not in accordance in all material respects with the warranties, descriptions, specifications or limitations stated in the Waste Profile Form and this Agreement; (b) have constituents or components of a type or concentration not specifically identified in the Waste Profile Form (i) which increase the nature or extent of the hazard and risk undertaken by EQ in treating and/or disposing of the waste, or (ii) for whose treatment and/or disposal a Waste Management Facility is not designed or permitted, or (iii) which increase the cost of treatment and/or disposal of waste beyond that specified in EQ's price quote; or (c) are not properly packaged, labeled, described, or placarded, or otherwise not in compliance with United States Department of Transportation and United States Environmental Protection Agency regulations.

Control of Operations.

EQ shall have sole control over all aspects of the operation of any treatment and/or disposal facility of EQ receiving Delivered Wastes under this Agreement (hereinafter, "Waste Management Facility"), including, without limitation, maintaining EQ's desired volume of Acceptable Wastes being delivered to any Waste Management Facility by the Customer or any other person or entity.

Identification of Waste.

For each waste material to be transported, delivered, or tendered to EQ under this Agreement, the Customer shall provide, or cause to be provided, to EQ a representative sample of the waste material and a completed Waste Profile Form containing a physical and chemical description or analysis of such waste material, which description shall conform with any and all guidelines for waste acceptance provided by EQ. On the basis of EQ's analysis of such representative sample of the waste material and such Waste Profile Form, EQ will determine whether such wastes are Acceptable Wastes. EQ does not make any guarantee that it will handle any waste material or any particular quantity or type of waste material, and EQ reserves the right to the decline to transport, treat and/or dispose of waste material. The Customer shall promptly furnish to EQ any information regarding known, suspected or planned changes in the composition of the waste material. Further, the Customer shall promptly inform EQ of any change in the characteristic or condition of the waste material which becomes known to the Customer subsequent to the date of the Waste Profile Form.

Non-Conforming Wastes.

In the event that EQ at any time discovers that any Delivered Waste is Non-Conforming Waste, EQ may reject or revoke its acceptance of the Non-Conforming Waste. The Customer shall have seven (7) days to direct an alternative lawful manner of disposition of the waste, unless it is necessary by reason of law or otherwise to move the Non-Conforming Waste prior to expiration of the seven (7) day period. If the Customer does not direct an alternative disposal, at its option, EQ may return any such Non-Conforming Wastes to the Customer, and the Customer shall pay or reimburse EQ for all costs and expenses incurred by EQ in connection with the receipt, handling, sampling, analyses, transportation and return to the Customer of such Non-Conforming Wastes. If it is impossible or impractical for EQ to return the Non-Conforming Waste to the Customer, the Customer shall reimburse EQ for all costs, of any type or nature whatsoever, incurred by EQ, solely because such Delivered Waste was Non-Conforming Waste (including, but not limited to, all costs associated with any remedial steps necessary, due to the nature of the Non-Conforming Waste, in connection with material with which the Non-Conforming Waste may have been commingled and all expenses and charges for analyzing, handling, locating, preparing for transporting, storing and disposing of any Non-Conforming Waste).

Customer Warranty - Acceptable Wastes.

All Delivered Wastes shall be Acceptable Wastes and shall conform in all material respects to the description and specifications contained in the Waste Profile Form. The information set forth in the Waste Profile Form or any manifest, placard or label associated with any Delivered Wastes, or otherwise represented by the Customer or the generator (if other than the Customer) to EQ, is and shall be true, accurate and complete as of the date of receipt of the involved waste by EQ.

Customer Warranty - Title to Wastes.

Either the Customer or the generator (if other than the Customer) shall hold clear title, free of any all liens, claims, encumbrances, and charges to Delivered Waste until such waste is accepted by EQ.

Customer Warranty - Compliance with Laws.

The Customer shall comply with all applicable federal, state and local environmental statutes, regulations, and other governmental requirements, as well as directives issued by EQ from time to time, governing the transportation, treatment and/or disposal of Acceptable Wastes, including, but not limited to, all packaging, manifesting, containerization, placarding and labeling requirements.

Customer Warranty - Updating Information.

If the Customer receives information that Delivered Waste or other hazardous waste described in the Waste Profile Form, or some component of such waste, presents or may present a hazard or risk to persons, property or the environment which was not disclosed to EQ, or if the Customer or generator (if other than the Customer) has changed the process by which such waste results, the Customer shall promptly report such information to EQ in writing.

Customer Indemnity.

The Customer shall indemnify, defend and hold harmless EQ, and its affiliated or related companies, and all of their respective present or future officers, directors, shareholders, employees and agents from and against any and all losses, damages, liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, costs and expenses (including, but not limited to, reasonable costs of defense, settlement, and reasonable attorneys' fees), which may be asserted against any or all of them by any person or any governmental agency, or which any or all of them may hereafter suffer, incur, be responsible for or pay out, as a result of or in connection with bodily injuries (including, but not limited to, death, sickness, disease and emotional or mental distress) to any person (including EQ's employees), damage (including, but not limited to, loss of use) to any property (public or private), or any requirements to conduct or incur expense for investigative, removal or remedial expenses in connection with contamination of or adverse effect on the environment, or any violation or alleged violation of any statutes, ordinances, orders, rules or regulations of any governmental entity or agency, caused or arising out of (i) a breach of this Agreement by the Customer, (ii) the failure of any warranty of the Customer to be true, accurate and complete, or (iii) any willful or negligent act or omission of the Customer, or its employees or agents in connection with the performance of this Agreement.

Force Majeure.

EQ shall not be liable for any failure to accept, receive, handle, treat, and/or dispose of Delivered Waste due to an act of God, fire, casualty, flood, war, strike, lockout, labor trouble, failure of public utilities, equipment failure, facility shutdown, injunction, accident, epidemic, riot, insurrection, destruction of operation or transportation facilities, the inability to procure materials, equipment, or sufficient personnel or energy in order to meet operational needs without the necessity of allocation, the failure or inability to obtain any governmental approvals or to meet Environmental Requirements (including, but not limited to voluntary or involuntary compliance with any act, exercise, assertion, or requirement of any governmental authority) which may temporarily or permanently prohibit operations of EQ, the Customer, or the Generator, or any other circumstances beyond the control of EQ which prevents or delays performance of any of its obligations under this Agreement.

Governing Laws

This Agreement shall in all respects be governed by and shall be construed in accordance with the laws of the State of Michigan applied to contracts executed and performed wholly within such state.

Bulk Disposal Charges

Quoted bulk disposal charges for solid materials will be billed by the cubic yard, if the waste density is less than 2,000lbs./cubic yard. If waste density is greater than 2,000 lbs./cubic yard, then bulk disposal charges will be billed by the ton, regardless of the approved container.

DEBRIS WASTE STREAMS FOR MICROENCAPSULATION

HELP US SAVE YOU TIME AND MONEY BY AVOIDING TRUCK DELAYS, ADDED HANDLING FEES OR REJECTED LOADS

You profiled a debris waste stream that will be treated by microencapsulation. Legal treatment of debris by microencapsulation requires compliance with EPA rules (40 CFR 268.2(g) and (h)):

- EPA requires debris must be a solid. Liquids may not be treated by microencapsulation.
- EPA requires debris must be greater than 60 mm.
- EPA requires debris must be one of the following: manufactured objects; plant or animal matter; natural geologic material. If waste does not fit one of these descriptions, it should not be profiled for microencapsulation.
- EPA has specifically defined the following as NOT debris so EPA will not allow to be treated by microencapsulation: lead acid batteries, cadmium batteries; radioactive lead solids; process residuals (such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues); intact containers of hazardous waste that are not ruptured and that retain at least 75% of their original volume (ruptured containers that retain < 75% of their original volume are debris and may be shipped for microencapsulation if specified in the waste profile).
- EPA does not allow non-debris to be added to debris and treated by microencapsulation even if the portion that is debris is greater than 50% of the volume.
- When debris and non-debris are co-generated inherently combined (but not intentionally mixed), the portion of waste that is debris must be greater than 50% of the volume to be treated by microencapsulation.
- Land Disposal Restriction (LDR) notification forms must indicate that the waste is to be treated to comply with 40 CFR 268.45 (alternative treatment standards for hazardous debris).

Please alert us if your debris includes oxidizers (D001), flammables (D001) or anything potentially reactive (D003) in order to ensure safe and compliant processing of your waste. If you are not sure whether your waste qualifies for microencapsulation, please contact us at 800-592-5489.

I certify that personnel directly responsible for placing waste into containers to be shipped to US Ecology Michigan for microencapsulation treatment have reviewed this form.

Honeywell	Remediation Manager	
Company	**Title**	
Eric Christodoulatos	E Christodoulatos	12/9/19
Printed Name	**Signature**	**Date**

WTS# 44545 – K142 Concrete Debris

Identifier (*approval/tracking number OR generator and waste name)*

US ECOLOGY, BELLEVILLE MICHIGAN
WAYNE DISPOSAL, INC. MID048090633
MICHIGAN DISPOSAL, INC. MID000724831
49350 NORTH I-94 SERVICE DRIVE, BELLEVILLE, MI 48111

METAL DEBRIS MANIFESTS

Trk# 99

67420

CONF# 900920

Please print or type.

DID: 73136

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	020451426 JJK

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: TONAWANDA TANK TRANSPORT SERVICE, INC. — U.S. EPA ID Number: NYD097644801

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	CM	10 tn	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information

1.) K142 DEBRIS AREA 108 (J190069MDI) ERG#171

WTS ORDER # 80432

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature: [signature] — Month: 12 Day: 06 Year: 19

TRANSPORTER INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Aneudy Casillas — Signature: [signature] — Month: 12 Day: 6 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Holt Schoch — Signature: [signature] — Month: 12 Day: 9 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

CERTIFICATE OF DISPOSAL

US ecology

This certificate is to verify the wastes specified on Manifest # 012045142GUK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et seq.

FACILITY NAME: (Please check one)
☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)
☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive Belleville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

FORM #REC-FM-029-BEL *The electronic version of this document is the controlled version. Each user is responsible for ensuring that any document being used is the current version.* 6/12/17

68560 · TNK# 99

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Please print or type. TID: 72306 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number NYD088413877	2. Page 1 of 1	3. Emergency Response Phone 800-424-9300	4. Manifest Tracking Number 019832683 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: TONAWANDA TANK TRANSPORT SERVICE, INC. U.S. EPA ID Number: NYD097644801

7. Transporter 2 Company Name: Tonawanda Tank Transport U.S. EPA ID Number: NYD097644801

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489
U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	CM	10 tn	Y	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 DEBRIS AREA 108 (J190069MDI) ERG#171

WTS ORDER # _____

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollan As Agent For Honeywell Signature: _____ Month 12 Day 23 Year 19

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Brandy Casillas Signature: _____ Month 12 Day 23 Year 19

Transporter 2 Printed/Typed Name: Monte Miles Signature: Monte Miles Month 12 Day 29 Year 19

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Adrian DiPasquale Signature: _____ Month 12 Day 30 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329
Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832683JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature: Meghan Williams

Please print or type. TID: 72306 Load # _____

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 019832684 JJK

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORPORATION, 3875 RIVER ROAD, TONAWANDA, NY 14151
Generator's Site Address (if different than mailing address):
Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: TONAWANDA TANK TRANSPORT SERVICE, INC.
U.S. EPA ID Number: NYD097644801

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: MICHIGAN DISPOSAL WASTE TREATMENT PLANT, 49350 NORTH I-94 SERVICE DRIVE, BELLEVILLE, MI 48111
U.S. EPA ID Number: MID000724831
Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	CM	Est. 10 tn	T	K142		
	2.							T
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 DEBRIS AREA 108 (1190069MDI) ERG#171
WTS ORDER # _____

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollin As Agent For Honeywell
Signature:
Month 12 Day 30 Year 19

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: DENNIS KELLOGGER
Signature:
Month 12 Day 30 Year 19
Transporter 2 Printed/Typed Name: Douglas Nelson
Signature:
Month 1 Day 8 Year 20

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
18b. Alternate Facility (or Generator) Manifest Reference Number: U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H110 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Antonio Cobson
Signature:
Month 1 Day 2 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. **DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM**

US ecology CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832684JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MIDO00724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

67720 lbs.

TNK# 99 TID: 72306

Load # ________

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number NYD088413877	2. Page 1 of 1	3. Emergency Response Phone 800-424-9300	4. Manifest Tracking Number 019832694 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: TONAWANDA TANK TRANSPORT SERVICE, INC. — U.S. EPA ID Number: NYD097644801

7. Transporter 2 Company Name: Tonawanda Tank Transport — U.S. EPA ID Number: NYD097644801

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	CM	Est 10 TON	Y	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 DEBRIS AREA 108 (J190069MDI) ERG#171

WTS ORDER # ________

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As agent for Honeywell — Signature: [signature] — Month 01 Day 02 Year 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: ________
Transporter signature (for exports only): Date leaving U.S.: ________

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Anudy Casillas — Signature: [signature] — Month 1 Day 2 Year 20
Transporter 2 Printed/Typed Name: Monte Miles — Signature: Monte Miles — Month 1 Day 15 Year 20

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Actual weight 11-ie17 Tolepar Liza [illegible] WTS BB 1-9-20
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H110	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Chris Grissom — Signature: [signature] — Month 1 Day 6 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832694 JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☐ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☒ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

57880 Tank 99 TID: 72306

Load # _____

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832686 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: TONAWANDA TANK TRANSPORT SERVICE, INC.
U.S. EPA ID Number: NYD097644801

7. Transporter 2 Company Name: Tonawanda Tank
U.S. EPA ID Number: NYD097644801

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	CM	Est. 10ths.	Y	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1) K142 DEBRIS AREA 108 (J190069MDI) ERG#171

WTS ORDER # _____

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Waller As Agent For Honeywell
Signature: [signature]
Month: 1 Day: 2 Year: 20

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Freudy Casillas
Signature: [signature]
Month: 1 Day: 2 Year: 20

Transporter 2 Printed/Typed Name: Monte Miles
Signature: [signature]
Month: 1 Day: 2 Year: 20

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Chris Grassley
Signature: [signature]
Month: 1 Day: 3 Year: 20

313 , 716 OK

Load # _____

Please print or type. TID: 72306 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832695 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: TONAWANDA TANK TRANSPORT SERVICE, INC. — U.S. EPA ID Number: NYD097644801

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	CM	est 10 Ton	Y	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 DEBRIS AREA 108 (J190069MDI) ERG#171
WTS ORDER # _____ Can # SB 1787

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — As Agent for Honeywell — Signature: [signature] — Month 01 Day 02 Year 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Anendy Casillas — Signature: [signature] — Month 1 Day 12 Year 20

Transporter 2 Printed/Typed Name: Douglas Nelson — Signature: [signature] — Month 1 Day 16 Year 20

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Actual weight 22.25 T ok per Lisa Schlenker WTS BB 1-9-20 Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H140 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Chris Collsom — Signature: [signature] — Month 1 Day 16 Year 19

TK#99 72,000

Load # _____

Please print or type. TID: 72306 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832807 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: TONAWANDA TANK TRANSPORT SERVICE, INC.
U.S. EPA ID Number: NYD097644801

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	CM	15	Y	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 DEBRIS AREA 108 (J190069MDI) ERG#171

WTS ORDER # 80432

2302

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen Agent for Honeywell
Signature:
Month: 02 Day: 03 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jeffry J Wentz
Signature:
Month: 02 Day: 03 Year: 20

Transporter 2 Printed/Typed Name: ~~Jeffry J Wentz~~ JW
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H 110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Antonio Castro
Signature:
Month: 2 Day: 10 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. **DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM**

Trk #99 57,100

Load # _____

Please print or type. TID: 72306 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832808 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: TONAWANDA TANK TRANSPORT SERVICE, INC. — U.S. EPA ID Number: NYD097644801

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	CM	15	Y	K142 T
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1.) K142 DEBRIS AREA 108 (J190069MDI) ERG#171

WTS ORDER # 80432

SB1860

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — As Agent for Honeywell — Signature: [signature] — Month 12 Day 13 Year 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jeffry J Wantz — Signature: [signature] — Month 12 Day 13 Year 20

Transporter 2 Printed/Typed Name: Monte Miles — Signature: [signature] — Month 12 Day 11 Year 2020

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Adrian D'Pascale — Signature: [signature] — Month 12 Day 12 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

65260 TAK#99

Load #

Please print or type. TID: 72306 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832812 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: TONAWANDA TANK TRANSPORT SERVICE, INC. — U.S. EPA ID Number: NYD097644801

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489
U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	CM	10	Y	K142 T
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1.) K142 DEBRIS AREA 108 (J190069MDI) ERG#171
WTS ORDER # 60432

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J Wolla — As Agent For Honeywell — Signature — Month 01 Day 29 Year 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JEFFREY T WANTZ — Signature — Month 01 Day 30 Year 24

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☒ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Walt Schoch — Signature — Month 1 Day 4 Year 25

CONCRETE DEBRIS MANIFESTS

79960 168

TID: 73411

Load # _____

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	3. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832726 JJK

5. Generator's Name and Mailing Address: TONAWANDA COKE CORPORATION, 3875 RIVER ROAD, TONAWANDA, NY 14151
Generator's Site Address (if different than mailing address)
Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: MICHIGAN DISPOSAL WASTE TREATMENT PLANT, 49350 NORTH I-94 SERVICE DRIVE, BELLEVILLE, MI 48111 — U.S. EPA ID Number: MID000724831
Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	20 tn	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 10B (1944S45WTSMDI) ERGW171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature: [signature] — Month 12 Day 13 Year 19

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jeff Cornelius — Signature: [signature] — Month 12 Day 13 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Ok to change Section 11 to 23.09 T per Lisa Schley CH 12/30/19

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Holt Schuch — Signature: [signature] — Month 12 Day 16 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832726JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)
☑ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)
☐ Wayne Disposal, Inc. (EPA I.D. # MID048090533)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

80,080 TID: 73411 Load # _____

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832727 JJK

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	20 tn	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMOI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature: [signature] — Month 12 Day 16 Year 19

INT'L
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Robert Goss — Signature: [signature] — Month 12 Day 16 Year 19
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H110 2. 3. 4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Kelly Schmidt — Signature: [signature] — Month 12 Day 17 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329
Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832727JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature:

80660

TID: 73411

1296 Load #

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832728 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	20tn	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDT) ERG#171 WTS ORDER # 81097

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature: [signature] — Month 12 Day 17 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Barry L Beegle — Signature: [signature] — Month 12 Day 17 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Actual weight 23.857 Per Lisa Schlegel WTS BB — Manifest Reference Number: 12-24-19

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Antonia Cubson — Signature: [signature] — Month 12 Day 18 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. **DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM**

US ecology CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832728 JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

US Bulk

Please print or type. TLK-162 TID: 73411 WT# 77860 Load # _____ Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800-424-9300	019832729 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	20tn	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollon — Signature: [signature] — Month 12 Day 18 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Robert Goss — Signature: [signature] — Month 12 Day 18 Year 19
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H110 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Antonio Gibson — Signature: [signature] — Month 12 Day 19 Year

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

US ecology CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 014832724WK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et seq.

FACILITY NAME: (Please check one)
☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)
☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

6/12/17

FORM #REC-FM-029-BEL

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78940 155 Load # _____

Please print or type. TID: 73411 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number NYD088413877	2. Page 1 of 1	3. Emergency Response Phone 800-424-9300	4. Manifest Tracking Number 019832730 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489
U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	23	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen AS Agent for Honeywell — Signature — Month 12 Day 23 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Michael P. Poff — Signature — Month 12 Day 23 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Antonio Wozo — Signature — Month 12 Day 23 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832730JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

Please print or type. 157

TID: 73411 78060

Load # _____

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 019832731 JJK

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORPORATION, 3875 RIVER ROAD, TONAWANDA, NY 14151
Generator's Site Address (if different than mailing address)
Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC.
U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: MICHIGAN DISPOSAL WASTE TREATMENT PLANT, 49350 NORTH I-94 SERVICE DRIVE, BELLEVILLE, MI 48111
U.S. EPA ID Number: MID000724831
Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	EST. 23	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

TRUCK 157 TRAILER 157A

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As agent for Honeywell
Signature:
Month 12 Day 23 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jay L. Fauley
Signature:
Month 12 Day 23 Year 19
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H110 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Antonio Cobson
Signature:
Month 12 Day 23 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832731 JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

195

Load # _____

Please print or type. TID: 73411 79880 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832832 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	23	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

TK 190 TR 190A

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolla — AS Agent For Honeywell — Signature: [signature] — Month 12 Day 23 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Chris Kerst — Signature: [signature] — Month 12 Day 23 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H10			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Marian DiPasquale — Signature: [signature] — Month 12 Day 23 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832832 JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☑ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

TK 192-2 18680

TID: 73411

Load # _____

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832834 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	23	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

TK 192-2 LIC AF 11349 PA TR LIC XZ 68858 PA

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen AS Agent For Honeywell — Signature: [signature] — Month 12 Day 23 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: William J. Schaffer — Signature: [signature] — Month 12 Day 23 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Antonio Gibson — Signature: [signature] — Month 12 Day 23 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

https://oldwww.usecology.com/secured/view-document/img.asp?data=176,52,60,162,26,58,250,139,96,10,107,206,132,101,169,94,220,18

US ecology

CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 01983283 4 JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

TR# 160 TID: 73411 #77,660 Load # _____

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832732 JJK

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORPORATION, 3875 RIVER ROAD, TONAWANDA, NY 14151
Generator's Site Address (if different than mailing address):
Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: MICHIGAN DISPOSAL WASTE TREATMENT PLANT, 49350 NORTH I-94 SERVICE DRIVE, BELLEVILLE, MI 48111 — U.S. EPA ID Number: MID000724831
Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	23	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097
TK: AG-83780 , TR: XCX-2942

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen AS Agent For Honeywell — Signature: [signature] — Month 12 Day 23 Year 19

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: JEFFREY HALL — Signature: [signature] — Month 12 Day 23 Year 19
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H110 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Adam DiPasquale — Signature: [signature] — Month 12 Day 23 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

COD #4

CERTIFICATE OF DISPOSAL

US ecology

This certificate is to verify the wastes specified on Manifest # 019832732 JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☑ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

7720 1/14

Load # _____

Please print or type. TID: 73411 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800-424-9300	019832733 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489
U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	23	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER# 81097

TK 174 TR174D

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Willen as Agent for Honeywell — Signature — Month 12 Day 23 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Victor L. Tracy — Signature — Month 12 Day 23 Year 19
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Brian DiPascale — Signature — Month 12 Day 23 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832733 JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☑ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

78,700 TID: 73411 1741 Load # _____

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832734 JJK

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
GENERATOR	X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	23	T	K142		T
		2.							
		3.							
		4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

TK 174-1 TR 174C

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable International and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — As Agent For Honeywell — Signature — Month 12 Day 23 Year 19

INTL
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Quentin Jones — Signature — Month 12 Day 23 Year 19
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H110 2. 3. 4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Adrian DiPascale — Signature — Month 12 Day 23 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

CERTIFICATE OF DISPOSAL

US ecology

This certificate is to verify the wastes specified on Manifest # 019832734JVK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)
☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)
☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Belfville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

FORM #REC-FM-029-BEL *The electronic version of this document is the controlled version. Each user is responsible for ensuring that any document being used is the current version.* 8/12/17

76800

TID: 73411

Load # _____

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800-424-9300	019832735 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	13	T	K142 / T
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # B1097

TK 102 TR 102A

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — As Agent for Honeywell — Signature — Month 12 Day 30 Year 19

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Andrew S Whship — Signature — Month 12 Day 30 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Antonio Gibson — Signature — Month 12 Day 30 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832735JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature: Meghan Wilkins

9260 168

TID: 73411

Load # _____

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number: NYD088413877	2. Page 1 of 1	3. Emergency Response Phone: 800-424-9300	4. Manifest Tracking Number: 019832835 JJK

5. Generator's Name and Mailing Address: TONAWANDA COKE CORPORATION, 3875 RIVER ROAD, TONAWANDA, NY 14151
Generator's Site Address (if different than mailing address):
Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: MICHIGAN DISPOSAL WASTE TREATMENT PLANT, 49350 NORTH I-94 SERVICE DRIVE, BELLEVILLE, MI 48111 — U.S. EPA ID Number: MID000724831
Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	20	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information:
1.) K142 CONCRETE DEBRIS AREA 103 (L1944545WTSMDI) ERG#171 WTS ORDER# 81097

16. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature: As Agent For Honeywell — Month 12 Day 30 Year 19

16. International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jeff Cornelia — Signature: — Month 12 Day 30 Year 19

Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator): — U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110.			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Chris Gilstad — Signature: — Month 12 Day 30 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY COPY.

IF YOU RECEIVED THIS MANIFEST, YOU HAVE RESPONSIBILITIES UNDER THE e-MANIFEST ACT. SEE INSTRUCTIONS ON REVERSE SIDE.

https://oldwww.usecology.com/secured/view-document/img.asp?data=176,52,60,162,26,58,250,139,96,10,107,206,132,110,168,94,222,30

US ecology

CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832835JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☑ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

Manifest : 019832836JJK

TK 192-2 18820

Please print or type. TID: 73411 Load # _____ Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832836 JJK

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222
Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489
U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	23	T	K142		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As Agent For Honeywell — Signature — Month 12 Day 30 Year 19

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: William J. Schaffer — Signature — Month 12 Day 30 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☒ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Chris Gelsomi — Signature — Month 12 Day 30 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA'S e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832836JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature:

St 101 76720

Load # _____

Please print or type. TID: 73411 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832736 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	22	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMOI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As Agent For Honeywell — Signature — Month 12 Day 30 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: STEPHEN M. WINSHIP — Signature — Month 12 Day 30 Year 19
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H10 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Antonio Cobson — Signature — Month 12 Day 30 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832736JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature: Megan Tillinson

76,540 #123

Load # _____

TID: 73411

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 019832737 JJK

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORPORATION, 3875 RIVER ROAD, TONAWANDA, NY 14151
Generator's Site Address (if different than mailing address)
Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC.
U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: MICHIGAN DISPOSAL WASTE TREATMENT PLANT, 49350 NORTH I-94 SERVICE DRIVE, BELLEVILLE, MI 48111
U.S. EPA ID Number: MID000724831
Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	01	DT	EST 23	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As Agent for Honeywell
Signature:
Month 12 Day 30 Year 19

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MARK W STRONG
Signature:
Month 12 Day 30 Year 19

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Antonio Gibson
Signature:
Month 12 Day 30 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832737JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature:

#176 | 75940

TID: 73411

Load # _____

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832738 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — As Agent for Honeywell — Signature: [signature] — Month 12 Day 30 Year 19

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Scott E. GAFFEN — Signature: [signature] — Month 12 Day 30 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H10			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Antonco Gibson — Signature: [signature] — Month 12 Day 30 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832738JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature: Megan Williams

77180 Truck# 197 TID: 73411 Load # _____

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800-424-9300	019832739 JJK

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORPORATION, 3875 RIVER ROAD, TONAWANDA, NY 14151 — Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: MICHIGAN DISPOSAL WASTE TREATMENT PLANT, 49350 NORTH I-94 SERVICE DRIVE, BELLEVILLE, MI 48111 — U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen as Agent for Honeywell — Signature — Month 12 Day 30 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Randy Akin — Signature — Month 12 Day 30 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Antonio Gibson — Signature — Month 12 Day 30 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832739JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature: Megan Williams

Please print or type. 77420 TID: 73411 174-1 Load # _____

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832740 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information:
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollin — Signature: [signature] — Month 12 Day 30 Year 19

INT'L

16. International Shipments ☐ Import to U.S. (As Agent for Honeywell) ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Quentin Jones — Signature: [signature] — Month 12 Day 30 Year 19
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Antonio Gibson — Signature: [signature] — Month 12 Day 30 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

#1 1276 - 7480

TID: 73411

Load # _____

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800-424-9300	019832741 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: As Agent for Honeywell Thomas J. Wollen — Signature: [signature] — Month 12 Day 30 Year 19

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: FRANK ZALOB — Signature: [signature] — Month 12 Day 30 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H10			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Patricia DiPasquale — Signature: [signature] — Month 12 Day 18 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832741JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature:

1278 76028

Load # _____

Please print or type. TID: 73411 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832742 JJK

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

	9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
GENERATOR	X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23	T	K142		T
		2.							
		3.							
		4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (LI944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollet As Agent for Honeywell — Signature — Month 12 Day 30 Year 19

INT'L
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Gregory Gibbs — Signature — Month 12 Day 30 Year 19
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H140 2. 3. 4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Adrian DiPasquale — Signature — Month 12 Day 31 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832742JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature:

17760

TID: 73411 1253 Load #

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 019832743 JJK

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORPORATION, 3875 RIVER ROAD, TONAWANDA, NY 14151
Generator's Site Address (if different than mailing address)
Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC.
U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: MICHIGAN DISPOSAL WASTE TREATMENT PLANT, 49350 NORTH I-94 SERVICE DRIVE, BELLEVILLE, MI 48111
U.S. EPA ID Number: MID000724831
Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est 23	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen For: Tonawanda Coke Signature: Month 11 Day 21 Year 19

TRANSPORTER (INTL)

16. International Shipments: Import to U.S. Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: RONALD E HARRIS Signature: Month 12 Day 2 Year 19

Transporter 2 Printed/Typed Name: Signature: Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space: Quantity Type Residue Partial Rejection Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H116 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Adnan Dlascale Signature: Month 12 Day 13 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832743JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature:

73500 US BULK # 1005

Load # _____

Please print or type. TID: 73411 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number NYD088413877	2. Page 1 of 1	3. Emergency Response Phone 800-424-9300	4. Manifest Tracking Number 019832744 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen AS Agent for Honeywell — Signature — Month 12 Day 30 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Randy M. Davison — Signature — Month 12 Day 30 Year 19
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H10			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Adrian DiRosa — Signature — Month 12 Day 31 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832744JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature:

T.R.K #160

TID:73411 #73,620

Load #

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800-424-9300	019832745 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489
U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 22	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 109 (1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — As Agent For Honeywell — Signature — Month: 1 Day: 2 Year: 20

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JEFFREY HALL — Signature — Month: 1 Day: 2 Year: 20

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Hal Schenk — Signature — Month: 1 Day: 3 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832745JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)
☑ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)
☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

177800 Truck # 197

Load # _____

Please print or type. TID: 73411 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800-424-9300	019832746 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	21 Tn	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable International and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As Agent for Honeywell — Signature: [signature] — Month: 01 Day: 02 Year: 20

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Randy Allen — Signature: [signature] — Month: 01 Day: 02 Year: 20

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Matt Schmidt — Signature: [signature] — Month: 01 Day: 13 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832746JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature:

168

TID: 73411

Load # _____

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number NYD088413877	2. Page 1 of 1	3. Emergency Response Phone 800-424-9300	4. Manifest Tracking Number 019832747 JJK

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

	9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
GENERATOR	X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23 tns	T	K142		T
		2.							
		3.							
		4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: AS AGENT For Honeywell Thomas J. Wollen — Signature — Month 10 Day 02 Year 20

INT'L
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jeff Cornelius — Signature — Month 1 Day 2 Year 20
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H110 2. 3. 4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Chris Gorsuch — Signature — Month 1 Day 3 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832747JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature:

76-82.0 #123 Load # _____

Please print or type. TID: 73411 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800-424-9300	019832748 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	01	DT	Est. 23th	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (LL944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollenhaupt AS Agent for Honeywell — Signature — Month 10 Day 02 Year 20

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MACK W STRONG — Signature — Month 01 Day 02 Year 20

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Holt Schaub — Signature — Month 1 Day 13 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832748JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature: _____

#176 [74200]

TID: 73411

Load # _____

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800-424-9300	019832749 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23 tn	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As Agent for Honeywell — Signature: [signature] — Month: 01 Day: 02 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Scott E GREEN — Signature: [signature] — Month: 01 Day: 02 Year: 20
Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H110 | 2. | 3. | 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Chris Grissim — Signature: [signature] — Month: 1 Day: 3 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832749JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature:

TK 192-2

78560

TID: 73411

Load # _____

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832750 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC.
U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23 tn	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L194454SWTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen AS Agent for Honeywell
Signature: [signature]
Month 01 Day 02 Year 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: William J. Schaffner
Signature: [signature]
Month 01 Day 02 Year 20

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Walt Schaub
Signature: [signature]
Month 1 Day 3 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832750JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature:

80760 155

Load #

Please print or type. TID: 73411 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832813 JJK

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est 21 Ton	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 109 (11944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As Agent for Honeywell — Signature: [signature] — Month: 01 Day: 02 Year: 20

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: T.D. Chavel PAOF — Signature: [signature] — Month: 01 Day: 02 Year: 20

Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☑ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Actual weight 23.43T ofajer Lisa Schlueter/WTS BB 1-6-20
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H110 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Holt Schaal — Signature: [signature] — Month: 1 Day: 3 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

CERTIFICATE OF DISPOSAL

US ecology

This certificate is to verify the wastes specified on Manifest # 019832813 JK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)
☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)
☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

Please print or type. US Bulk 162 TID: 73411 UT 79,960 Load #

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800-424-9300	019832814 JJK

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name
US BULK TRANSPORT, INC.
U.S. EPA ID Number
PAD987347515

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
U.S. EPA ID Number
MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23 tns	T	K142		
	2.							T
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097
90935,

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As Agent for Honeywell
Signature
Month 10 Day 02 Year 20

INT'L
16. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Transporter signature (for exports only): Port of entry/exit: Date leaving U.S.:

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Robert Loss
Signature
Month 10 Day 02 Year 20
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
18b. Alternate Facility (or Generator) Manifest Reference Number:
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H10 2. 3. 4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Scott Schuster
Signature
Month 11 Day 13 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832814JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature:

78280 102 Load # _____

Please print or type. TID: 73411 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800-424-9300	019832815 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489
U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	20 EST TN	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolla — As Agent for Honeywell — Signature: [signature] — Month: 01 Day: 06 Year: 20

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Andrew S Winship — Signature: [signature] — Month: 1 Day: 6 Year: 20

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Actual weight 22.70T ok per Lisa Schlenker WTS BB 1-9-20

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H10			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Adrian DiPaolo — Signature: [signature] — Month: 1 Day: 6 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832815 JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

4101 78940

Load # _____

Please print or type. TID: 73411 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800-424-9300	019832816 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23 tns	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMOI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolle, As Agent for Honeywell — Signature — Month 10 Day 06 Year 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Stephen M Winship — Signature — Month 1 Day 06 Year 20
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H10 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Adrian DiPascale — Signature: DiPascale — Month 11 Day 16 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832816 JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

76300 #123

Load # _____

Please print or type. TID: 73411 Form Approved. OMB

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832817

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23 tns	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolles As Agent For Honeywell — Signature: [signature] — Month 10 Day 06 Year 20

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter signature (for exports only): Date leaving U.S.: _____

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MARK STRONG — Signature: [signature] — Month 10 Day 06 Year 20

Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Adrian DiPasquale — Signature: [signature] — Month 1 Day 6 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832817 JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☑ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

#176 [24600]

Please print or type.

TID: 73411

Load # _____

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 019832818 JJK

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC.
U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23 tns	T	K142		
	2.							T
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolla AS Agent for Honeywell
Signature:
Month Day Year: 10 06 20

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Transporter signature (for exports only): Port of entry/exit: Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Scott E GREEN
Signature:
Month Day Year: 01 06 20
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
18b. Alternate Facility (or Generator) Manifest Reference Number:
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H110 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Adrian DiPaolo
Signature:
Month Day Year: 1 16 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832818 JJK have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

174

Load # 77920

Please print or type. TID: 73411 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832819 JJK

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489
U.S. EPA ID Number: MID000724831

	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
GENERATOR	X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	22	T	K142		T
		2.							
		3.							
		4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As Agent For Honeywell — Signature: [signature] — Month 01 Day 07 Year 20

INTL
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter signature (for exports only):

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Victor L Tracy — Signature: [signature] — Month 01 Day 07 Year 20
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year
18. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H10 2. 3. 4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Adrian D'Pascale — Signature: [signature] — Month 01 Day 08 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

US ecology

Certificate of Disposal

This certificate is to verify that the wastes specified on the following manifest numbers have been properly managed in accordance with all local, state and federal regulations.

Facility: Michigan Disposal Waste Treatment Pla
49350 North I-94 Service Drive
Belleville, Michigan 48111
Phone: 1-800-592-5489
Fax: 1-800-592-5329

Generator: TONAWANDA COKE CORPORATION (NYD 088 413 877)

Manifest
019832819JJK

I certify that the above information is true and correct to the best of my knowledge.

Authorized Signature:

174-1

TID: 73411 80,000

Load # _____

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832820 JJK

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151
Generator's Phone: 716-876-6222

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: 800-592-5489

U.S. EPA ID Number: MID000724831

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG-III (K142)	1	DT	Est. 23 tns	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSMDI) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — As Agent For Honeywell — Signature — Month 10 Day 08 Year 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export (pan U.S.) Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Gwaltin Jones — Signature — Month 1 Day 8 Year 22

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Adrian DiPascale — Signature — Month 11 Day 19 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

US ecology CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832820JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

78.800 #123

TID: 73411 Load #

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	019832821 JJK

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: 716-876-6222

6. Transporter 1 Company Name: US BULK TRANSPORT, INC. — U.S. EPA ID Number: PAD987347515

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
MICHIGAN DISPOSAL WASTE TREATMENT PLANT
49350 NORTH I-94 SERVICE DRIVE
BELLEVILLE, MI 48111

U.S. EPA ID Number: MID000724831

Facility's Phone: 800-592-5489

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (K142)	1	DT	Est. 23tns	T	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1) K142 CONCRETE DEBRIS AREA 108 (L1944545WTSA001) ERG#171 WTS ORDER # 81097

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollet — As Agent for Honeywell — Signature — Month 01 Day 08 Year 20

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:

Transporter signature (for exports only):

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MARK STRONG — Signature — Month 01 Day 08 Year 20

Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Holt Schrock — Signature — Month 01 Day 09 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Manifest # 019832821JJK

have been properly disposed of in accordance with all local, state and federal regulation.

"Disposed of" means either: 1) Burial or 2) Processed as specified in 40CFR et sea.

FACILITY NAME: (Please check one)

☒ Michigan Disposal Waste Treatment Plant (EPA I.D. # MID000724831)

☐ Wayne Disposal, Inc. (EPA I.D. # MID048090633)

ADDRESS: 49350 N. I-94 Service Drive
Bellville, Michigan 48111

PHONE NUMBER: 1-800-592-5489

FAX NUMBER: 1-800-593-5329

Authorized Signature: _____

https://oldwww.usecology.com/secured/view-document/img.asp?data=176,52,60,162,26,58,250,139,96,10,107,206,132,97,171,86,222,25

TAR AND TAR IMPACTED SOIL DISPOSAL

RSI ENVIRONMENTAL

PURIFYING THE EARTH

October 30, 2019

Mr. Michael Oliver
W.T.S., Inc.
435 N. 2nd Street
Lewiston, New York 14092

Re: Tonawanda Coke Corporation Waste Approval

Dear Mr. Oliver,

RSI Environmental is pleased to inform you that the following waste material has been approved for acceptance at the RSI facility located at 80 Rue des Melezes in Saint-Ambroise, Quebec.

K142 Solidified Coal Tar with < 2% Debris

The following approval number has been assigned to this material:

WTS-TWANDA-NY-K142-TAR-2019

Throughout this project, receiving reports will be emailed every Monday afternoon as to allow your company to track the received tonnage.

Please feel free to contact me at 603.498.1174 or via email at wmceaton@rsienvironmental.com with any questions.

Kindest regards,
RSI ENVIRONMENTAL

William C. Eaton
Director of US Operations

cc: Mark Baron – US Ecology

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD 088 413 877	1	800-424-9300	003725723 GBF

GENERATOR

5. Generator's Name and Mailing Address **TONAWANDA COKE CORP.**
(c/o; Honeywell) 301 Plainfield Rd-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number
8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302 | 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid n.o.s. (Coal Tar Solids) HC 9, PG III	0 0 1	D T		K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information ** ERG 171 **
1) EQ Northeast of Latham NY is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4)RSI Tag:
5) FedEx AS400: 67748 6) ITN#: 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name — Signature — Month Day Year

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month Day Year

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

RÉCUPÈRE SOL

Refinery Solids / Non-Soil Material Profile

Project #_____ **Schedule A**

Please forward the completed form to:	William C. Eaton	wmceaton@rsienvironmental.com	Tel : 978-692-9990
	Récupère Sol	P.O. Box 2102 Forge Village Station, MA	01886

To qualify the Material Recupere Sol must receive from the Purchaser a complete site history detailing the nature and source of the Material. Please specify herein the activities/events that led to the generation of the contamination.

A – Purchaser Name	WTS, Inc.		
Contact Person	Martin Gregg	Title	Sr. Manager
Mailing Address	435 N. 2nd Street		
City, State/Prov., Zip	Lewiston, NY 14092		
Cell Phone	716-870-6773	Phone	716-754-5400
E-mail	mgregg@wtsonline.com	Fax	

B – Generator Name	Tonawanda Coke Corp.	Generator ID #	NYD 088 413 877
Contact Person	Tom Abrams c/o Honeywell	Title	Sr. Project Manager
Mailing Address	301 Plainfield Road, Suite 330		
City, State/Prov., Zip	Syracuse, NY 13212		
Cell Phone	315-263-5109	Phone	315-552-9670
E-mail		Fax	

C – Site Name	Tonawanda Coke Corp.
Site Address	3875 River Road
City, State/Prov., Zip	Tonawanda Coke Corp.
Site Historic	See attached Environmental Site Remediation Database Search (dated 12/12/18)
Contact Person	Tom Wollen
Phone	315-400-7384
E-mail	tom.wollen@parsons.com

D – Waste Description	Coal Tar		
Physical Description	Solid coal tar		
(Waste Matrix)	coal tar >98%, debris <2%		
Waste Name / Identification	Coal Tar		
Waste Code(s)	K142		
Hazardous Constituents	See K142 Listing		
D.O.T. Shipping Name	RQ NA3077 Hazardous Waste, Solid, n.o.s., (K142) 9 PGIII		
Generation Process	removal of tar storage tanks		
Estimated Volume	1,000-1,500 tons	Packaging	dump trailer
Date of Shipment	October 2019	Frequency	1 time project

E – Sampling and Analysis	
Sampling Protocol:[A]	Number of representative samples to be taken and analyzed
Total waste quantity less than 100 tons	1 sample every 30 tons of waste (maximum 3 samples)
Total waste quantity less than 1 ,000 tons	3 samples +1 extra sample every 100 tons of waste over 100 tons
Total waste quantity less than 2 ,200 tons	12 samples +1 extra sample every 250 tons of waste over 1,000 tons
Total waste quantity over 2 ,200 tons	16 samples + 1 extra sample every 550 tons of waste over 2,200 tons
Analytical Requirements:	Supply analyses for specified parameters listed hereafter:
Granular Waste Recoverable : **(See Box F1)**	Organic compounds of concern (PCB, hydrocarbons, PCDD/PCDF, PAH...), Metal TCLP (mg/l)(RHM[B]), Grain size.
Waste for Energy Recovery : **(See Box F2)**	Calorific Value, Moisture%, Sulphur, 15 metals (mg/kg),Flash point, other compound of concern.
Supplementary analysis, if other pollutant are suspected depending of site historic :	BTEX, non-chlorinated and chlorinated aliphatic, mono and polycyclic hydrocarbons, PCBs or any biological, explosive or radioactive contamination.

RECUPERE SOL

Refinery Solids / Non-Soil Material Profile

Project #_____ **Schedule A**

F1 – Does the GRANULAR waste contain :	Yes	No	Specify (add separate sheets if needed)
Polychlorinated Biphenyls (PCBs) above 50 ppm?		✔	Waste Characterization Analysis is attached:
Volatile Organic Compounds (VOCs)?	✔		SGS Report JC89662
Petroluem Hydrocarbons above 3%?	✔		Eurofins Report J51896-1
Chlorine in excess of 1 500 ppm?		✔	Sampling performed by R.S.I.
Inorganic compounds in excess of levels **RHM** below?		✔	
More than 20% of fine particulate < 0.08mm		✔	
F2 – Does waste for ENERGY RECOVERY show :	**Yes**	**No**	**Specify (add separate sheets if needed)**
Calorific value lower than 14 000 kj/kg?		✔	
Total sulphur in excess of 1%?		✔	
Moisture level above 20%?		✔	
Polychlorinated Biphenyls (PCBs) above 50 ppm?		✔	
Flash Point lower than 61°C?		✔	
Radioactive or explosive matter?		✔	
Inorganic compounds in excess of levels **D** below?		✔	

Inorganic	D (mg/kg)	RHM TCLP (mg/l)	Inorganic	D (mg/kg)	RHM TCLP (mg/l)	Inorganic	D (mg/kg)	RHM TCLP (mg/l)
Silver (Ag)	200		Manganese (Mn)	11 000		Zinc (Zn)	7 500	
Arsenic (As)	250	5.0	Mercury (Hg)	10	0.1	Boron (B)		500
Barium (Ba)	10 000	100.0	Molybdenum (Mo)	200		Cyanides (CN-)		20
Cadmium (Cd)	100	0.5	Nickel (Ni)	2 500		Fluoride (F)		150
Chromium (Cr)	4 000	5.0	Lead (Pb)	1 000	5.0	Nitrates + Nitrites		1 000
Cobalt (Co)	1 500		Selenium (Se)	50	1.0	Nitrites		100
Copper (Cu)	2 500		Tin (Sn)	1 500		Uranium (U)		2.0

G – Physical Properties	Measurement		Comments
Estimated clay content	0	%	
Estimated sand content	0	%	
Rocks over 2 inch diameter (estimated)	0	%	
Estimated metal pieces content	<1	%	
Estimated concrete pieces content	0	%	
Estimated wood content	0	%	
Other, spécify :	0	%	
Other, spécify :	0	%	
Moisture	<1	%	

H - Certification

The Purchaser acknowledges that Recupere Sol must receive the full characterization for the Material detailed herein PRIOR to delivery at Recupere Sol facility, all in accordance with the sampling protocol and analytical requirements of Box E herein. The Purchaser further acknowledges that the information herein, including all attachments, constitute the exact and typical profile of the known and suspected parameters of the Material.

Date (Y/M/D):	2019/10/23	
Name:	Eric Christodoulatos	
Title:	Remediation Manager	
Representing:	Honeywell	Authorized Signature

Notes

A: 1 m³ of waste = approx.. 1 800 kg; 1 ton = 1 000 kg ♦ B: RHM : Quebec Regulation Respecting Hazardous Materials

E-3580

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
N Y D 0 8 8 4 1 3 8 7 7	1	800.424.9300	003725833 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) Attn: Tom Abrams
301 Plainfield Road - Suite 330
Syracuse, NY 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP.
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: M A C 3 0 0 0 0 6 0 3 8

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 1 1 6 9 0 4 5 4 7 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	0 0 1	D T	24,700 KG.	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: * ERG # 171 *
1) EQ Northeast of Latham New York is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 9828557-3 4) RSI Tag: 35580
5) FedEx AS400: 67748 6) ITN#: X20191105574760 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wilan
Signature:
Month: 11 Day: 04 Year: 19

INT'L

16. International Shipments: ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Charles Clemons
Date leaving U.S.: Nov 6 2019

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: CHARLES CLEMONS
Signature: Charles Clemons
Month: 11 Day: 4 Year: 19

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 11 Day: 06 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

E-2581 187135

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
N Y D 0 8 8 4 1 3 8 7 7	1	800.424.9300	003725831 GBF

GENERATOR

5. Generator's Name and Mailing Address: **TONAWANDA COKE CORP.**
(c/o: Honeywell) Attn: Tom Abrams
301 Plainfield Road - Suite 330
Generator's Phone: 315.263.5109 Syracuse, NY 13212

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP.
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: **GOULET TRUCKING** — U.S. EPA ID Number: M A C 3 0 0 0 0 6 0 3 8

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: **8439117 CANADA INC / RSI ENVIRONMENTAL**
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302 — U.S. EPA ID Number: 1 1 6 9 0 4 5 4 7 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	0 0 1	D T	20588-9	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information * ERG # 171 *
1) EQ Northeast of Latham New York is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 9828552-1 4) RSI Tag: 35592
5) FedEx AS400: 67748 6) ITN#: X20190055514738 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J Wollen — Signature: [signature] — Month: 11 Day: 04 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Joseph R. Bivby — Date leaving U.S.: 11/05/2019

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Joseph R. Bivby — Signature: Joseph R. Bivby — Month: 11 Day: 04 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18b

Printed/Typed Name: JEAN-MICHEL GAGNON — Signature: [signature] — Month: 11 Day: 06 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

E-3583 187134

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	N Y D 0 8 8 4 1 3 8 7 7	1	800.424,9300	003725832 GBF

GENERATOR

5. Generator's Name and Mailing Address: **TONAWANDA COKE CORP.**
(c/o: Honeywell) Attn: Tom Abrams
301 Plainfield Road - Suite 330
Generator's Phone: 315.263.5109 Syracuse, NY 13212

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP.
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: **GOULET TRUCKING** — U.S. EPA ID Number: M A C 3 0 0 0 0 6 0 3 8

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: **8439117 CANADA INC / RSI ENVIRONMENTAL**
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302 — U.S. EPA ID Number: 1 1 6 9 0 4 5 4 7 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	0 0 1	D T		K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: * ERG # 171 *
1) EQ Northeast of Latham New York is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 9828560-4 4) RSI Tag: 3559/
5) FedEx AS400: 67748 6) ITN#: X2019110551501 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature: [signature] — Month 11 Day 04 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: ~~Champlain, NY / Lacolle, QC~~
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mike Sheber — Signature: [signature] — Month 11 Day 4 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON — Signature: [signature] — Month 11 Day 06 Year 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

E-23583

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1		019443520 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-685-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E18003 3) CDN Manifest: CA59986-34) RSI Tag: 35610 5) FedEx AS400: 67748 6) ITN#: X20191105514861 **ERG 171**
WTS PO# 804190

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature — Month 11 Day 04 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.: 11-5-19

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Ron Yaroscavitch — Signature — Month 11 Day 04 Year 19
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18b
Printed/Typed Name: JEAN-MICHEL GAGNON — Signature — Month 11 Day 06 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

E-2585-

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
N Y D 0 8 8 4 1 3 8 7 7	1	800.424.9300	003725830 GBF

GENERATOR

5. Generator's Name and Mailing Address: **TONAWANDA COKE CORP.**
(c/o: Honeywell) Attn: Tom Abrams
301 Plainfield Road - Suite 330
Generator's Phone: 315.263.5109 Syracuse, NY 13212

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP.
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: **GOULET TRUCKING**
U.S. EPA ID Number: M A C 3 0 0 0 0 6 0 3 8

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: **8439117 CANADA INC / RSI ENVIRONMENTAL**
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 1 1 6 9 0 4 5 4 7 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	0 0 1	D T	21,636	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information ~~* ERG # 171 *~~
1) EQ Northeast of Latham New York is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35570
5) FedEx AS400: 67748 6) ITN#: 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J Wollen
Signature:
Month 11 Day 05 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.: 11-6-19

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Tim Harris
Signature:
Month 11 Day 05 Year 19
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN MICHEL GAGNON
Signature:
Month 11 Day 06 Year 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

E-2752

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413677	1	800.424.9300	003725840 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: COULET TRUCKING
U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
20 Rue des Melezes Saint-Ambroise, Quebec G7P 2R4
Facility's Phone: 418.695.2302
U.S. EPA ID Number: 116904567 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Pitch), HC 9, PG III	001	DT	23	T	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
** ERG # 171 **
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 003387
5) FedEx AS400: 67748 6) ITN#: X20111223212838 7) WIS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Muller as Agent for Honeywell
Signature
Month: 12 Day: 23 Year: 19

INTL

16. International Shipments
☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Patrick Gloor
Signature
Month: 12 Day: 23 Year: 19

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: DEAN MILLER GM Comm.
Signature
Month: 12 Day: 26 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2854.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	N Y D 0 8 8 4 1 3 8 7 7	1	800.424.9300	003725846 GBF

GENERATOR

5. Generator's Name and Mailing Address **TONAWANDA COKE CORP.**
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name
GOULET TRUCKING
U.S. EPA ID Number: M A C 3 0 0 0 0 6 0 3 8

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 1 1 6 9 0 4 5 4 7 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. ~~(Coal Tar Solids)~~ HC 9. PG III (Soil Impacted With Coal Tar <15% Debris)	0 0 1	CM ~~D T~~	10 EST	T ~~K~~	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
** ERG # 171 **
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 97888588-3 4) RSI Tag: 35855
5) FedEx AS400: 67748 6) ITN#: X20200216623733 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As Agent for Honeywell
Signature:
Month: 02 Day: 11 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.: 2-11-20

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jim Harris
Signature:
Month: 02 Day: 11 Year: 20
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: SEAN HIGHET CAGENT
Signature:
Month: 02 Day: ~~20~~ 12 Year: 20

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

E-2825

202113

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
N Y D 0 8 8 4 1 3 8 7 7	1	800.424.9300	003725847 GBF

GENERATOR

5. Generator's Name and Mailing Address: **TONAWANDA COKE CORP.**
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

Generator's Phone: 315.263.5109

6. Transporter 1 Company Name: **GOULET TRUCKING** 15-11
U.S. EPA ID Number: M A C 3 0 0 0 0 6 0 3 8

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 1 1 6 9 0 4 5 4 7 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (~~Coal Tar Solids~~) HC 9. PG III	0 0 1	CM DT	10 Est.	TN Y	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information ** ERG # 171 **
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 9788589-1 4) RSI Tag: 35856
5) FedEx AS400: 67748 6) ITN#: X20200212679377 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen (As agent for Honeywell) Signature: [signature] Month 02 Day 11 Year 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): [signature] Date leaving U.S.: 2/12/2020

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jeffrey M. Stowell Signature: [signature] Month 02 Day 11 Year 20
Transporter 2 Printed/Typed Name: Signature: Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number: U.S. EPA ID Number

18b. Alternate Facility (or Generator)
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON Signature: [signature] Month 02 Day 13 Year 20

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

E-2757.

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD988413877	1		019443555 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5139

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
9439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-806-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	34 Estimate	T	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Lathem, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E19003 3) CDN Manifest CF050911-2 4) RSI Tag: _____ 5) FedEx AS400: 07748 6) ITN#: X20220071464 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter. I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature: [signature] — Month / Day / Year:

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): [signature] Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Sylvain Mallet — Signature: [signature] — Month: 12 Day: 19 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month / Day / Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month / Day / Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Jean Michel Gagnon — Signature: [signature] — Month: 12 Day: 24 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-3745

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443553 JJK

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-885-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 9, PGIII	1	DT	34 TN Estimate	T	K142
	2. (Soil Impacted With Coal Tar <15% Pchs)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020987E19003 3) CDN Manifest: C/O 50 259-64 4) RSI Tag: 35804 5) FedEx AS400: 87746 6) ITN#: X20IC21836 7) ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 12 Day: 18 Year: 19

INT'L

16. International Shipments
☐ Import to U.S.
☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only):
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: KEITH DELYEA
Signature:
Month: 12 Day: 18 Year: 19

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space
☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN MICHEL GAGNON
Signature:
Month: 12 Day: 19 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2746

1358362 - 0444465

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443554 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3275 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name
Laidlaw Carriers Bulk GP Inc

U.S. EPA ID Number
MIK 621 327 675

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-668-3302

U.S. EPA ID Number
116 904 6474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., ~~(Coal Tar Solids)~~ HC 9, PGIII	1	DT	39 Tn Estimate	T	K140
	2. (Soil Impacted with Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020907E19003 3) CDN Manifest: _____ 4) RSI Tag: 35805 5) FedEx AS400: 67748 6) TN# XZ6102000590 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Waller
Signature:
Month: 12 Day: 18 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: J. LEBRETON
Signature:
Month: 12 Day: 18 Year: 19

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-LUC HEBERT
Signature:
Month: 12 Day: 20 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-3742

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD084138777	1	800.424.9300	003725839 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING — U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2B4
Facility's Phone: 418.695.3302 — U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. ~~(Coal Tar Solids)~~, NC 9, PG III (Soil Impacted with Coal Tar) < 15% Debris	001	DT	32 t.	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information — ** ERG # 171 **
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35806
5) FedEx AS400: 67748 6) ITN#: X20181201280 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolle — Signature — Month: 12 Day: 18 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): — Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MICHAEL JEPSEN — Signature — Month: 12 Day: 18 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON — Signature — Month: 12 Day: 20 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-3785

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800.424.9300	003725845 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: NAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2R4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Hazardous Substances, Solid, n.o.s. (Coal Tar Solids), 9, PG III	001	DT	32 Tn E,P	K	K142
	2. (Soil Impacted with Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export 2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35850
5) FedEx AS400: 67748 6) ITN#: X20190120372132 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollin As Agent For Honeywell
Signature
Month: 01 Day: 17 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Michael Jepsen
Signature
Month: 1 Day: 17 Year: 20

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON
Signature
Month: 01 Day: 21 Year: 20

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-3786
136928.0-044465

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443636 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-665-3302

U.S. EPA ID Number: 116 904 6474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 9, PGIII	1	DT	35 tn Estimate	T	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 023677E19003 3) CDN Manifest: CF050262-9 4) RSI Tag 35848 5) FedEx AS400: 67748 6) ITN# X20200116251232 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J Wollen (As Agent For Honeywell) — Signature — Month: 01 Day: 16 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: J. LeBreux — Signature — Month: 01 Day: 16 Year: 20

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON — Signature — Month: 01 Day: 21 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2789.

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443638 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-268-5108

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
90 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-668-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 9, PGIII	1	DT	34 tns Estimate	T	K142
	2. (Soil Impacted With Coal Tar < 15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 023877E19003 3) CDN Manifest: _____ 4) RSI Tag: 3585 1 5) FedEx AS400: 67748 6) ITN# X20200120908247 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen (Agent for Honeywell) Signature: [signature] Month: 01 Day: 20 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): [signature] Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: CARL Vowles Signature: [signature] Month: 01 Day: 20 Year: 20
Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON. Signature: [signature] Month: 01 Day: 21 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-9791 E-9791

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443637 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
9439117 Canada Inc / RSI Environmental
90 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302

U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids), HC 9, PGIII	1	DT	3T Estimate	T	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 023677E19003 3) CDN Manifest: _____ 4) RSI Tag: 35849 5) FedEx AS400: 87748 6) ITN# X20200120409301 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolle — Agent for Honeywell — Signature: [signature] — Month: 01 Day: 16 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Douglas McLean — Signature: [signature] — Month: 01 Day: 16 Year: 20

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON — Signature: [signature] — Month: 01 Day: 21 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-5792

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443639 JJK

5. Generator's Name and Mailing Address: Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address): Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 Canada Inc / RSI Environmental
60 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-885-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 9, PGIII	1	DT	35 Estimate	T	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 023877E19003 3) CDN Manifest: CF050265-2 4) RSI Tag: 35852 5) FedEx AS400: 87748 6) ITN# X20200121432417 ERG 171**

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollet (As Agent For Honeywell) Signature: [signature] Month: 01 Day: 20 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): [signature] Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: KEITH PELYEA Signature: [signature] Month: 1 Day: 20 Year: 20

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON Signature: [signature] Month: 01 Day: 21 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-3795

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD098413877	1		019443640 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5108

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
9439117 Canada Inc / RSI Environmental
90 Rue Des Meiezes, St. Ambroise, Quebec G7P 2N4
418-695-3802
Facility's Phone:
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 9, PGIII	1	DT	33tons Estimate	T	K142
	2. (Soil Impacted With Coal Tar) (< 15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 023877E19003 3) CDN Manifest: CFA5099-5 4) RSI Tag: 35953 5) FedEx AS400: 87748 6) ITN#: X20200121437 7) ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Lubben (AS AGENT FOR HONEYWELL) — Signature — Month: 01 — Day: 20 — Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. — Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): — Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Ron Yarascavitch — Signature — Month: 1 — Day: 20 — Year: 20

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: SEAN MICHAEL GAGNON — Signature — Month: 01 — Day: 20 — Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2802

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443645 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8438117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-885-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 9, PGIII	1	DT	35 Estimate	T	K142
	2. (Soil Impacted with Coal Tar < 15% Debris)					
	3. 1272305					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 023877E19003 3) CDN Manifest cFo50271-0 4) RSI Tag: 35854 5) FedEx AS400: 87748 6) ITN# X20200121478082 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen (Agent for Honeywell) Signature: [signature] Month: 01 Day: 21 Year: 20

INT'L

16. International Shipments
Transporter signature (for exports only): [signature]
☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: LAURIE HILSDEN Signature: [signature] Month: 01 Day: 21 Year: 20
Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON Signature: [signature] Month: 01 Day: 22 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2762 ~~E-3768~~

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443563 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-3109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 676

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
9439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 9, PGIII	1	DT	3 ESA 4 Estimate	T	K142
	2. (Soil Impacted with Coal Tar & Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export 2) EPA Notice 020997E18003 3) CDN Manifest: _____ 4) RSI Tag 35818 5) FedEx AS400: 67746 6) ITN# X20200108191 7) ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — As Agent For Honeywell — Signature — Month: 1 — Day: 09 — Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. — Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): — Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: KEITH OTLYKA — Signature — Month: 1 — Day: 9 — Year: 20

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

CH050130-1

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040.			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON. — Signature — Month: 01 — Day: 11 — Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2768

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443641 JJK

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name
Laidlaw Carriers Bulk GP Inc

U.S. EPA ID Number
MIK 621 327 675

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
9439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302

U.S. EPA ID Number
116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	34 (tn) Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 023077E19003 3) CDN Manifest: CF052260 4) RSI Tag: 35820 5) FedEx AS400: 67748 6) ITN# X20100810391891 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 01 Day: 09 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: RonMarascavitch
Signature:
Month: 1 Day: 9 Year: 20
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 01 Day: 11 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443642 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name
Laidlaw Carriers Bulk GP Inc

U.S. EPA ID Number
MIK 621 327 675

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302

U.S. EPA ID Number
116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	3 T Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 023077E19003 3) CDN Manifest: _____ 4) RSI Tag: 3x919 5) FedEx AS400: 67745 6) ITN# X20200108913 3 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Weller
Signature
Month: 01 Day: 09 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Sylvain Mallet
Signature
Month: 01 Day: 09 Year: 20

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Stephane Gauthier
Signature
Month: 01 Day: 13 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2770

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443643 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
9439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~), HC 9, PGIII	1	DT	34 Tons Estimate	T	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 023877E18003 3) CDN Manifest: 6050269-7 4) RSI Tag: 35941 5) FedEx AS400: 67748 6) ITN# X20201013032429 ERG 171**

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollan As Agent For Honeywell
Signature:
Month: 01 Day: 13 Year: 20

INT'L

16. International Shipments
☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Douglas McLean
Signature:
Month: 01 Day: 13 Year: 20
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 01 Day: 14 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-9772 1369276-044465

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443644 JJK

GENERATOR

5. Generator's Name and Mailing Address: Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address): Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 9439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-595-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	34 Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice D23677E19003 3) CON Manifest: CF052722 4) RSI Tag: 35842 5) FedEx AS400: 87748 6) ITN# X20201405162 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As Agent for Honeywell
Signature:
Month: 01 Day: 13 Year: 20

INT'L

16. International Shipments: ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: J. LEBRUN
Signature:
Month: 01 Day: 13 Year: 20
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 01 Day: 15 Year: 20

E-2773 195825

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone: 800.424.9300
4. Manifest Tracking Number: 003725844 GBF

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. ~~(Coal Tar Solids)~~, 9, PG III	001	DT	Est. 22 tns	K	K142
	2. (Soil Impacted with Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
** ERG # 171 **
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 3584 3
5) FedEx AS400: 67748 6) ITN#: X20050119065072 7) WIS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolin As agent for Honeywell
Signature:
Month: 01 Day: 13 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Robin Goulet
Signature:
Month: 01 Day: 13 Year: 20

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 01 Day: 15 Year: 20

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2777

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443633 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name
Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number
MIK 621 327 675

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
8436117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-595-3302
U.S. EPA ID Number
116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 9, PGIII	1	DT	34 TN Estimate	T	K142
	2. (Soil Impacted with Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 023077E19003 3) CDN Manifest: SFOS:02567 4) RSI Tag: 35845 5) FedEx AS400: 67748 6) ITN#X20200114/249/~~ERG 171~~

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen (AT AGENT FOR Honeywell)
Signature:
Month: 1 Day: 14 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only):
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: GORD EDWARDS
Signature:
Month: 01 Day: 14 Year: 20

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 01 Day: 15 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-0778.

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443631 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
315-263-5109
Generator's Phone:

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name
Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number
MIK 621 327 675

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
2435117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
418-695-3302
Facility's Phone:
U.S. EPA ID Number
116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	34 Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 023077E19003 3) CDN Manifest CFA50257-9 4) RSI Tag: 35844 5) FedEx AS400: 67748 6) ITN# X20200114098923 ERG 171**

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolle As Agent For Honeywell
Signature
Month 01 Day 14 Year 20

INT'L

16. International Shipments ☐ Import to U.S. ☑ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only):
Date leaving U.S.: 01 / 14 / 20

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Carl Vowles
Signature
Month 01 Day 14 Year 20

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON
Signature
Month 01 Day 15 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2780.

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443635 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5102

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8438117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302

U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~ HC 8, PGIII	1	DT	35 tn Estimate	T	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 023677E19003 3) CDN Manifest: C605246-1 4) RSI Tag: 35897 5) FedEx AS400: 87748 6) ITN# X20200115133130 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature: P Sagal for Honeywell — Month: 01 Day: 14 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Ron Maracavitch Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Ron Maracavitch — Signature: Ron Maracavitch — Month: 1 Day: 14 Year: 20
Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON — Signature: Jean-Michel Gagnon — Month: 01 Day: 16 Year: 20

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443634 JJK

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5108

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
9439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
418-695-3302
Facility's Phone:
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 9, PGIII	1	DT	34 tn Estimate	T	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 023677E19003 3) CON Manifest: CFO5026-3 4) RSI Tag #55846 5) FedEx AS400: 87748 6) ITN# X20151219ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen (AGENT for Honeywell) — Signature — Month: 1 Day: 14 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month — Day — Year

Transporter 2 Printed/Typed Name: Fred Van Elburg — Signature — Month: 1 Day: 14 Year: 20

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON — Signature — Month: 01 Day: 16 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-256

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800.424.9300	003725841 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: COULET TRUCKING — U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302 — U.S. EPA ID Number: 1169045474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, waste, Environmentally Hazardous Substances, Solid, n.o.s., (Coal Tar Solids) HC 9, PG III	001	DT	Est. 32 tons	K	K142
	2. (Soil Impacted With Coal-Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information — AK ERC # 171 AA
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35808
5) FedEx AS400: 67748 6) ITN#: X20200106651401 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wallen — AS AGENT FOR HONEYWELL — Signature — Month: 04 Day: 06 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☑ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.: 4/7/20

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Patrick E Root — Signature — Month: 04 Day: 06 Year: 20

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Derek Richard Glover — Signature — Month: 04 Day: 10 Year: 20

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2757

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800.424.9300	003725842 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Pitch), HC 9, PG III	001	DT	Est 20 tons	K	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
** ERG # 171 **
1) RQ Northeast of Latham, NY is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35810
5) FedEx AS400: 67748 6) ITN#: X20100767531L 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen AS AGENT FOR HONEYWELL
Signature
Month: 01 Day: 06 Year: 20

INT'L

16. International Shipments
☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only):
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Michael Sheber
Signature
Month: 1 Day: 6 Year: 20

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON
Signature
Month: 01 Day: 08 Year: 20

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2758

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443557 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5100

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name
Laidlaw Carriers Bulk GP Inc.

U.S. EPA ID Number
MIK 621 327 675

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
90 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-685-3302

U.S. EPA ID Number
116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., ~~(Coal Tar Solids)~~ HC 8, PGIII (Soil Impacted With Coal Tar < 15% Debris)	1	DT	35 tns Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020907E18003 3) CDN Manifest: 6550913-8 4) RSI Tag: 35811 5) FedEx AS400: 67748 6) ITN#: X20100107675V ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen (As agent for Honeywell) Signature: [signature] Month: 01 Day: 06 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Ron Yaracaswitch Signature: [signature] Month: 1 Day: 6 Year: 20

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: SEAN-MICHAEL GAGNON Signature: [signature] Month: 01 Day: 08 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-9759

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443556 JJK

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-6109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-595-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 9, PGIII	1	DT	34tons Estimate	T	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020897E18003 3) CDN Manifest: CFA5092-0 4) RSI Tag: 35809 5) FedEx AS400: 67748 6) ITN# X20200107675178 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — As agent for Honeywell — Signature — Month: 01 Day: 06 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: KEITH DELYEA — Signature — Month: 1 Day: 6 Year: 20

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON — Signature — Month: 01 Day: 08 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2760

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443558 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 9, PGIII	1	DT	33(ns Estimate	T	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020907E18003 3) CDN Manifest: CF05001-6 4) RSI Tag: 35812 5) FedEx AS400: 67748 6) ITN#: X20200107071839 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As agent For Honeywell
Signature:
Month: 01 Day: 07 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only):
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Gord Edwards
Signature:
Month: 01 Day: 07 Year: 20
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 01 Day: 08 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2761

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443560 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name
Laidlaw Carriers Bulk GP Inc

U.S. EPA ID Number
MIK 621 327 675

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
8430117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-668-3302

U.S. EPA ID Number
116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., ~~(Coal Tar Solids)~~ HC 8, PGIII	1	DT	34tns Estimate	T	K142
	2. (Soil Impacted With Coal Tar 215% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E18003 3) CDN Manifest: CF250196 4) RSI Tag: 35815 5) FedEx AS400: 877d9 6) ITN# X20210177226 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolle As agent for Honeywell
Signature:
Month: 01 Day: 07 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Carl Vaules
Signature:
Month: 01 Day: 07 Year: 20

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18b
Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 01 Day: 08 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-3762

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443559 JJK

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 575

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8430117 Canada Inc / RSI Environmental
90 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., ~~(Coal Tar Solids)~~ HC 9, PGIII	1	DT	34 tns Estimate	T	K142
	2. (Soil Impacted with Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E18003 3) CDN Manifest: cfo 500853 4) RSI Tag: 35814 5) FedEx AS400: 67748 6) ITN#: X20200107214 11 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen as agent for Honeywell
Signature:
Month: 01 Day: 07 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Sylvain Morel
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Sylvain Morel
Signature:
Month: 01 Day: 07 Year: 20
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 01 Day: 08 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800.424.9300	003725843 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING — U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302 — U.S. EPA ID Number: 1169045474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (~~Coal Tar Solids~~) RC 9, PG III	001	DT	Est. 31	K	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
** ERG # 171 **
1) EQ Northeast of Lathem, NY is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35813
5) FedEx AS400: 67748 6) ITN#: X20200107104694 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen (Agent for Honeywell) — Signature: [signature] — Month: 01 Day: 07 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☑ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): [signature] Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Bobby Provost — Signature: [signature] — Month: 01 Day: 07 Year: 20

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Stephane Gauthier — Signature: [signature] — Month: 01 Day: 08 Year: 20

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2764

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443561 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
8430117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~), HC 9, PGIII	1	DT	32 tns Estimate	T	K142
	2. (Soil Impacted with Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E18003 3) CDN Manifest CA5220-9 4) RSI Tag: 35816 5) FedEx AS400: 67748 6) ITN#: AES20200057467870ERG 171**

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen As agent for Honeywell
Signature:
Month: 01 Day: 07 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: CAI, LIANG CHUAN
Signature:
Month: 01 Day: 07 Year: 20
Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 01 Day: 09 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2765

Please print or type. 136 7439 - 044465 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443562 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8430117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-886-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 9, PGIII	1	DT	33 tons Estimate	T	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020907E19003 3) CDN Manifest: _____ 4) RSI Tag: 25917 5) FedEx AS400: 87743 6) ITN# X20080150736 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wellen As Agent for Honeywell — Signature — Month: 01 Day: 09 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: J. LEBRUN — Signature — Month: 01 Day: 08 Year: 20

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON — Signature — Month: 01 Day: 20 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2690 E-59 190044

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD 088 413 877	1	800-424-9300	003725716 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP
(c/o: Honeywell) 301 Plainfield Rd. Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: 8439117 CANADA INC. / RSI ENVIRONMENTAL
Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) 9, PG III	001	DT	30 t.	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information **ERG 171**
1) EQ Northeast of Lathem NY is acting as a recognized trader in order to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 31561
5) Fecs. AS400: 67748 6) IIN# X2019120409789O 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature
Month: 12 Day: 2 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Lacolle, QC / Champlain, NY
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Robb Goulet
Signature
Month: 12 Day: 2 Year: 2019

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GRENIER
Signature
Month: 12 Day: 05 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2689

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS + WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD 088 413 877	1	800-424-9300	003725715 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 CANADA INC. / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	001	DT	31	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information **ERG 171**
1) EQ Northeast of Latham NY is acting as a recognized trader in order to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35562
5) FedEx AS400: 67748 6) ITN# X20192040981 49 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Willer
Signature
Month: 12 Day: 2 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Lacolle, QC / Champlain, NY
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mike Shober
Signature
Month: 12 Day: 2 Year: 19

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: SEAN-MARC GAGNON
Signature
Month: 12 Day: 05 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2685 187960

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD 088 413 877	1	800-424-9300	003725714 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: NAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: 8439117 CANADA INC. / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	001	DT	31 1/4	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information **ERG 171**
1) EQ Northeast of Lathem NY is acting as a recognized trader in order to expedite export 2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35564
5) FedEx AS400: 67748 6) ITN# X20191203020205 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolle. Signature: [signature] Month: 12 Day: 2 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Lacolle, QC / Champlain, NY
Transporter signature (for exports only): [signature] Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JP Ivey Signature: [signature] Month: 12 Day: 02 Year: 19

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON Signature: [signature] Month: 12 Day: 09 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-3681

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443539 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
9439117 Canada Inc / RSI Environmental
90 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-595-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	34 tn Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E18003 3) CDN Manifest: CEOS0081-34) RSI Tag 35563 5) FedEx AS400: 87748 6) ITN# X20111230815 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 12 Day: 2 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only):
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: CARL VOWLES
Signature:
Month: 12 Day: 02 Year: 19

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN MICHEL GAGNON
Signature:
Month: 12 Day: 04 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2678

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443538 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-595-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	34 Estimate	T	K142		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E18003 3) CDN Manifest: CA5226J-1 4) RSI Tag: 35565 5) FedEx AS400: 87748 6) ITN# AES20181202.9777 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollet
Signature:
Month: 12 Day: 2 Year: 19

INT'L

16. International Shipments
☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: PAT FOLAN
Signature:
Month: 12 Day: 2 Year: 19
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 12 Day: 03 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2687

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD 068 413 877
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 003725718 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: NAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: 8439117 CANADA INC. / RSI ENVIRONMENTAL
80 Rue des Meleses Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, NA3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	001	DT	32	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information **ERG 171**
1) EQ Northeast of Latham NY is acting as a recognized trader in order to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35602
5) FedEx AS400: 67748 6) ITN# X20191204087657 7) WIS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 12 Day: 03 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Lacolle, QC / Champlain, NY
Transporter signature (for exports only): Date leaving U.S.: 12-4-19

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jeff Crouch
Signature:
Month: 12 Day: 3 Year: 19

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Jean Michel Gagnon
Signature:
Month: 12 Day: 05 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-3684 1351937

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443540 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5108

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150
044463

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
90 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-685-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	30 Estimate	T	K142
	2.		3			
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020987E18003 3) CDN Manifest: _____ 4) RSI Tag: 35601 5) FedEx AS400: 67748 6) ITN# X20191223061674 ERG 171**

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature — Month 12 Day 03 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: GORD EDWARDS — Signature — Month 12 Day 03 Year 19
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18e. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON. — Signature — Month 12 Day 04 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2685

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD 088 413 877	1	800-424-9300	003725717 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: NAC300006038

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
8439117 CANADA INC. / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 116904574

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. EQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	001	DT	3/TN	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information **ERG 171**
1) EQ Northeast of Latham NY is acting as a recognized trader in order to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35620
5) FedEx AS400: 67748 6) ITN# X20191203147238 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wallace
Signature:
Month: 12 Day: 03 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Lacolle, QC / Champlain, NY
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Lance Bacon
Signature:
Month: 12 Day: 03 Year: 19

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 12 Day: 04 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2695 1352636-014465

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443541 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-685-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	32 Estimate	T	K142
	2. (Soil Impacted With Coal Tar) <15% Debris					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E19003 3) CDN Manifest: _____ 4) RSI Tag 35603 5) FedEx AS400: 87748 6) ITN# X20191206241827 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature: [signature] — Month: 12 Day: 05 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): [signature] Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: PETER HEDGE — Signature: [signature] — Month: 12 Day: 05 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON — Signature: [signature] — Month: 12 Day: 09 Year: 19

E-2694

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443542 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5108

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8436117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-668-3372
U.S. EPA ID Number: 116 804 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., ~~Coal Tar Solids~~, HC 9, PGIII	1	DT	32 tn Estimate	T	K142
	2. Soil Impacted with Coal Tar Sludges					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E18003 3) CDN Manifest: CF05086L2 4) RSI Tag: 35609 5) FedEx AS400: 07748 6) ITN#: X20181206247249 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollca
Signature:
Month: 12 Day: 05 Year: 19

INT'L

16. International Shipments
Transporter signature (for exports only):
☐ Import to U.S. ☒ Export from U.S.
Port of entry/exit: Champlain, NY / Lacolle, QC
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Sylvain Malle
Signature:
Month: 12 Day: 05 Year: 19

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON.
Signature:
Month: 12 Day: 09 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2699

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443543 JJK

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
9438117 Canada Inc / RSI Environmental
90 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S. (~~Coal Tar Solids~~) HC 9, PGIII	1	DT	34 tn Estimate	T	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020987E18003 3) CDN Manifest: _____ 4) RSI Tag: 35605 5) FedEx AS400: 67748 6) ITN# X20191249887905 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

GENERATOR

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 12 Day: 09 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: PATFOLAN
Signature:
Month: 12 Day: 09 Year: 19
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 12 Day: 10 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2698 170680

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD 088 413 877	1	800-424-9300	003725719 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: OUELET TRUCKING
U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 CANADA INC. / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (~~Coal Tar Pitch~~), HC 9, PG III	001	DT	32 t.	K	K142
	2. (Soil Impacted with Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information **ERG 171**
1) EQ Northeast of Latham NY is acting as a recognized trader in order to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 5606
5) FedEx AS400: 67748 6) ITN# X20191209378795 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolley
Signature:
Month: 12 Day: 09 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Lacolle, QC / Champlain, NY
Transporter signature (for exports only): Date leaving U.S.: 12-10-19

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: J Bixby
Signature:
Month: 12 Day: 09 Year: 19

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 12 Day: 10 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2700.

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443544 JJK

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-885-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 8, PGIII	1	DT	35 Tn Estimate	T	X142
	2. (Soil Impacted with Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E18003 3) CDN Manifest: CFOS 0107-L4) RSI Tag 35607 5) FedEx AS400: 87748 6) ITN#X20191210422649 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 12 Day: 09 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Ron Yarascavitch
Signature:
Month: 12 Day: 9 Year: 19
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 12 Day: 11 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E215 E216

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD 088 413 877	1	800-424-9300	003725721 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: 8439117 CANADA INC. / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (~~Coal Tar Solids~~) HC 9, PG III (Soil Impacted With Coal Tar <15% Debris)	001	DT	32 T	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information **WERG 171**
1) EQ Northeast of Latham NY is acting as a recognized trader in order to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35609
5) FedEx AS400: 67748 6) ITN# X2019121045525O 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wallace Signature: Month 12 Day 10 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Lacolle, QC / Champlain, NY
Transporter signature (for exports only): Date leaving U.S.: 12/10/19

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Steven Poulin Signature: Month 12 Day 10 Year 19
Transporter 2 Printed/Typed Name Signature Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-LUC MAGNAN Signature: Month 12 Day 11 Year 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-3706.

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443545 JJK

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5103

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
90 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S. (Coal Tar Sealer) HC 9, PGIII	1	DT	35 tn Estimate	T	K142
	2. (Soil Impacted with Coal Tar < 15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020907E18003 3) CDN Manifest: _____ 4) RSI Tag: 35611 5) FedEx A5400: 67748 6) ITN#: X20191204524 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature: [signature] — Month: 12 Day: 10 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): [signature] Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Gard Edwards — Signature: [signature] — Month: 12 Day: 10 Year: 19
Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: SEAN-MICHEL GAGNON — Signature: [signature] — Month: 12 Day: 11 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2707. 190681

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Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS + WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD 088 413 877	1	800-424-9300	003725720 GBF

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORP
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name
GOULET TRUCKING
U.S. EPA ID Number
MAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 CANADA INC. / RSI ENVIRONMENTAL
85 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number
116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (~~Coal Tar Solids~~) RC 9, PG III (Soil Impacted With Coal Tar <15% Debris)	001	DT	32 tn	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
WWERG 171001
1) EQ Northeast of Latham NY is acting as a recognized trader in order to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag:35608
5) FedEx AS400: 67748 6) ITN# X20191210458289 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas Wollen
Signature:
Month: 12 Day: 10 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Lacolle, QC / Champlain, NY
Transporter signature (for exports only):
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Michael Sheber
Signature:
Month: 12 Day: 10 Year: 19

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: SEAN MCGOWAN
Signature:
Month: 12 Day: 11 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2708

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD 088 413 877
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 003725722 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 CANADA INC. / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: CAD 069045474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (~~Coal Tar Pitch~~), HC 9, PG III (Soil Impacted With Coal Tar <15% Debris)	001	DT	32 tn	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
ERG 171
1) EQ Northeast of Latham NY is acting as a recognized trader in order to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 3562
5) FedEx AS400: 67748 6) ITN# X20191210471863 7) WIS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wellen
Signature:
Month: 12 Day: 10 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Lacolle, QC / Champlain, NY
Transporter signature (for exports only): Charles Clemons
Date leaving U.S.: 12-11-19

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: CHARLES CLEMONS
Signature: Charles Clemons
Month: 12 Day: 10 Year: 19

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 12 Day: 11 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-3712

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD 088 413 877
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 003725723 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 CANADA INC. / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
U.S. EPA ID Number:
Facility's Phone: 418.695.3302
1 1 6 9 0 4 5 4 7 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (~~Coal Tar Solids~~) NC 9, PG III (Soil Impacted With Coal Tar <15% Debris)	001	DT	32 T	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: **ERG 171**
1) EQ Northeast of Latham NY is acting as a recognized trader in order to expedite export 2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 3563
5) FedEx AS400: 67748 6) ITN# X20191114997177 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 12 Day: 10 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Lacolle, QC / Champlain, NY
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Michael Curtis
Signature:
Month: 12 Day: 10 Year: 19

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN MARC GAGNON
Signature:
Month: 12 Day: 12 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-3714

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD086413877	1		019443546 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name
Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number
MIK 621 327 675

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number
116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., ~~(Coal Tar Solids)~~ HC 9, PGIII	1	DT	35 tn Estimate	T	K142
	2. (Soil Impacted With Coal Tar) <15% Debris					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E18003 3) CDN Manifest: F050105-0 4) RSI Tag: 3504 5) FedEx AS400: 67743 6) ITN# X20111215611 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature
Month: 12 Day: 11 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Sylvain Malo
Signature
Month: 12 Day: 11 Year: 19

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON
Signature
Month: 12 Day: 13 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-3716

Please print or type. 135-8297-044465 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443548 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Creosol~~) HC 9, PGIII	1	DT	34 t. Estimate	T	K142
	2. (Soil Impacted With Coal Tar < 15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E18003 3) CDN Manifest: _____ 4) RSI Tag: 35616 5) FedEx AS400: 67748 6) ITN# AES X20120136848322 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolla — Signature — Month: 12 Day: 12 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: LAIDLAW — Signature — Month: 12 Day: 12 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON — Signature — Month: 12 Day: 16 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2700 191961

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877 | 2. Page 1 of 1 | 3. Emergency Response Phone: 800.424.9300 | 4. Manifest Tracking Number: 003725836 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING | U.S. EPA ID Number: NAC300006038

7. Transporter 2 Company Name | U.S. EPA ID Number

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302 | U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. EQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (~~Coal Tar Solids~~) HC 9. PG III (Coal Tar Impacted Soil <5% Debris)	001	DT	32 tn	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information ** PAG # 171 **
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 3618
5) FedEx AS400: 67748 6) ITN#: X20191216757258 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen | Signature | Month: 12 | Day: 13 | Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: J. BIXBY | Signature | Month: 12 | Day: 13 | Year: 19

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN HITCHCOCK | Signature | Month: 12 | Day: 17 | Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2749 19960

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone: 800.424.9300
4. Manifest Tracking Number: 003725835 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids), HC 9, PG III (Coal Tar Impacted Soils < 1% Debris)	001	DT	32M	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: ** ERG # 171 **
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export 2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 3561 7
5) FedEx AS400: 67748 6) ITN#: X20191215805 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter. I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 12 Day: 13 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Bobby Goulet
Signature:
Month: 12 Day: 13 Year: 19
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN HICHOT Ex Gen.
Signature:
Month: 12 Day: 17 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2734

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443547 JJK

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5102

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
30 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., ~~(Coal Tar Solids)~~ HC 8, PGIII	1	DT	34tn Estimate	T	K142
	2. (Soil Impacted With Coal Tar < 15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020907E18003 3) CDN Manifest: CFOS0104-3 4) RSI Tag: 35615 5) FedEx AS400: 67748 6) ITN# X20121680193 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

GENERATOR
Generator's/Offeror's Printed/Typed Name: Thomas J Wollet
Signature:
Month: 12 Day: 16 Year: 19

INT'L
16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Shuaib Malik
Signature:
Month: 12 Day: 16 Year: 19
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 12 Day: 17 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

20X4 00566477 E-2725

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877 | 2. Page 1 of: 1 | 3. Emergency Response Phone: 800.424.9300 | 4. Manifest Tracking Number: 003725837 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: ~~COOLEY TRUCKING~~ (N) Laidlaw Carrier Bulk GP Inc | U.S. EPA ID Number: MIC621327675 (2) ~~NYC300000603~~

7. Transporter 2 Company Name | U.S. EPA ID Number

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302 | U.S. EPA ID Number: 11690454 74

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (~~Coal Tar Solids~~) HC 9, PG III (Soil Impacted With Coal Tar <15% Solids)	001	DT	32	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: ** ERG # 171 **
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export
2) EPA Notice: 020997/IIE/18/003 3) Canadian Manifest: 4) RSI Tag: ——
5) FedEx AS400: 67748 6) ITN#: X20191217832543 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Lubbe | Signature | Month 12 Day 6 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Ken Harascavitch | Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Ken Harascavitch | Signature: Ken Harascavitch | Month 12 Day 16 Year 19

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON | Signature | Month 12 Day 18 Year 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2756

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443549 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name
Laidlaw Carriers Bulk GP Inc

U.S. EPA ID Number
MIK 621 327 675

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
90 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302

U.S. EPA ID Number
116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S. (~~Coal Tar Sellas~~) HC 9, PGIII	1	DT	34 Estimate	T	K142
	2. (Soil Impacted With Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020907E18003 3) CDN Manifest ~~E05010274~~ 4) RSI Tag 35619 5) FedEx AS400: 67748 6) ITN# X20191217832149 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature — Month: 12 Day: 16 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Douglas McLean — Signature — Month: 12 Day: 16 Year: 19
Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON — Signature — Month: 12 Day: 18 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E 2758.

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Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800.424.9300	003725838 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III (Soil Impacted With Coal Tar <15% Debris)	001	DT	52 t.	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information ** ERG # 171 **
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag:
5) FedEx AS400: 67748 6) IIN#: X2019121783/580 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature
Month: 12 Day: 16 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mike Sheber
Signature
Month: 12 Day: 16 Year: 19

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON
Signature
Month: 12 Day: 18 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2732

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443550 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., ~~(Coal Tar Solids)~~ HC 9, PGIII	1	DT	34 tn Estimate	T	K142
	2. (Soil Impacted with Coal Tar <15% Debris)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E18003 3) CDN Manifest CF05010H 4) RSI Tag: 35901 5) FedEx AS400: 67748 6) ITN# X20191217B6958 ERG 171**

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 12 Day: 17 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only):
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: CARL VOWLES
Signature:
Month: Day: Year:

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 12 Day: 18 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2733

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443551 JJK

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 676

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (~~Coal Tar Solids~~) HC 8, PGIII	1	DT	34 m Estimate	T	K142
	2. (Soil Impacted With Coal Tar) <15% Debris					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020907E18003 3) CDN Manifest: CU-010047-04) RSI Tag 22802 5) FedEx AS400: 67748 6) ITN# X20121491876 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolfgang — Signature: [signature] — Month: 12 Day: 17 Year: 19

INT'L
16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): [signature] Date leaving U.S.:

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: PAT FOLAN. — Signature: [signature] — Month: 12 Day: 17 Year: 19
Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON. — Signature: [signature] — Month: 12 Day: 19 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2738

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443552 JJK

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 678

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
9439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., ~~(Coal Tar Solids)~~ HC 9, PGIII	1	DT	34 tn Estimate	T	K142
	2. (Soil Impacted With Coal Tar <1% Pebn)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020907E18003 3) CDN Manifest: CF05268-Y 4) RSI Tag: 35803 5) FedEx AS400: 87748 6) ITN#: X20051218346547 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolfe
Signature:
Month: 12 Day: 18 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only):
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Gord Edwards
Signature:
Month: 12 Day: 18 Year: 19
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 12 Day: 19 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. 20X4 0026647o

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443521 JJK

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-8109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc. — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302

U.S. EPA ID Number: 116 804 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export 2) EPA Notice 020997E18003 3) CDN Manifest CA59957-1 4) RSI Tag: 35594 5) FedEx AS400: 877a8 6) ITN# X20111142058 53 "ERG 171"

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature — Month: 11 Day: 13 Year: 19

INT'L
16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Ron Marascavitch — Signature — Month: 11 Day: 13 Year: 19
Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month — Day — Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a
Printed/Typed Name: Stephane Gauthier — Signature — Month: 11 Day: 15 Year: 19 ACC

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443522 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd. Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name
Laidlaw Carriers Bulk GP Inc

U.S. EPA ID Number
MIK 621 327 675

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
8438117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302

U.S. EPA ID Number
116 904 5474

9a HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances Solid N.O.S., (Coal Tar Solids), HC 9, PGIII	1	DT	Estimate	T	K142		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export 2) EPA Notice 020997E18003 3) CDN Manifest: CA9116-9 4) RSI Tag 35595 5) FedEx A5400: 67748 6) ITN# X20111140552 7) **ERG 171**

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolle
Signature:
Month: 11 Day: 13 Year: 19

INTL

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: DUSTY DELYEA
Signature:
Month: 11 Day: 13 Year: 19

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)

Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Stephane Gauthier
Signature:
Month: 11 Day: 15 Year: 19

WCC

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443523 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name
Landlaw Carriers Bulk GP Inc

U.S. EPA ID Number
MIK 621 327 675

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
9439117 Canada Inc / RSI Environmental
20 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302

U.S. EPA ID Number
116 904 8474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S. (Coal Tar Solids) HC 9 PGIII	1	DT	30 Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020907E19003 3) CDN Manifest CA59989-7 4) RSI Tag 35596 5) FedEx AS400: 87748 6) ITN# X20191106278 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 11 Day: 13 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: CHAMPLAIN, NY / LASSOMIA, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Sylvain Mallol
Signature:
Month: 11 Day: 13 Year: 19

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Stéphane Gauthier
Signature:
Month: 11 Day: 15 Year: 19 WOE

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

1343565-044465

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443524 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name
Laidlaw Carriers Bulk GP Inc

U.S. EPA ID Number
MIK 621 327 675

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
8438117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-696-3302

U.S. EPA ID Number
116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	30 Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020667E16003 3) CDN Manifest: CA5990-5 4) RSI Tag: 35597 5) FedEx AS400: 67748 6) ITN#: X20191104 7) ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 11 Day: 14 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: PETER Hardy
Signature:
Month: 11 Day: 14 Year: 19

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Stephane Gauthier
Signature:
Month: 11 Day: 15 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2632.

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443526 JJK

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 676

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-595-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	30 Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020907E18003 3) CDN Manifest: _____ 4) RSI Tag: 35600 5) FedEx AS400: 67748 6) ITN# X20111229354 7) ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolfe
Signature:
Month: 11 Day: 18 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only):
Date leaving U.S.: 11/19/19

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: PAT FOLAN
Signature:
Month: 11 Day: 18 Year: 19

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 11 Day: 19 Year: 19

GENERATOR

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2619

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443525 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	32 Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
ITN: X20191118272047
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020907E18003 3) CDN Manifest: CA559181-04) RSI Tag: 35598 5) FedEx AS400: 87748 6) ITN#: _____ "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 11 Day: 18 Year: 19

INT'L

16. International Shipments
☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: CARL VANCES
Signature:
Month: 11 Day: 19 Year: 19
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JEAN-MICHEL GAGNON
Signature:
Month: 11 Day: 19 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-9651

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD 088 413 877	1	800-424-9300	003725834 GBF

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORP
(c/o: Honeywell) 301 Pleinfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.262.5100

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name
GOULET TRUCKING
U.S. EPA ID Number
MAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 CANADA INC. / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number
116904574

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	001	DT	30 TN	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
ERG 171
1) EQ Northeast of Latham NY is acting as a recognized trader in order to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag:35549
5) FedEx AS400: 67748 6) ITN# X20191118277278 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wallen
Signature:
Month: 11 Day: 18 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Lacolle, QC / Champlain, NY
Transporter signature (for exports only): Charles Clemons
Date leaving U.S.: 11-19-19

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
CHARLES CLEMONS	Charles Clemons	11	18	19
Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name	Signature	Month	Day	Year
SEAN MITCHELL		11	19	19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2665

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443527 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302

U.S. EPA ID Number: 116 904 6474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	30 Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E18003 3) CDN Manifest: CA5993-9 4) RSI Tag: 35579 5) FedEx AS400: 67748 6) ITN#: X20191192876V2 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Willen — Signature: [signature] — Month: 11 Day: 18 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: CAI LIANG CHUAN — Signature: [signature] — Month: 11 Day: 18 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-LUC GAGNON — Signature: [signature] — Month: 11 Day: 21 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2624 187135

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800.424.9300	003725828 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) Attn: Tom Abrams
301 Plainfield Road - Suite 330
Syracuse, NY 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP.
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: COULAT TRUCKING — U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Meleses Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302 — U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) 9, PG III	001	DT	30	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: * ERG # 171 *
1) EQ Northeast of Latham New York is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 0035593
5) FedEx AS400: 67748 6) IIN#: X20191129355 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature — Month: 11 Day: 18 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.: 11-19-19

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: J. BIVBY — Signature — Month: 11 Day: 18 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON — Signature — Month: 11 Day: 18 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2656

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800.424.9300	003725709 GBF

GENERATOR

5. Generator's Name and Mailing Address
TONAWANDA COKE CORP.
(c/o: Honeywell) Attn: Tom Abrams
301 Plainfield Road - Suite 330
Generator's Phone: 315.263.5109 Syracuse, NY 13212

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORP.
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name
GOULET TRUCKING
U.S. EPA ID Number
MAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Meleses Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number
1 1 6 9 0 4 5 4 7 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	001	DT	30 yd	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information * ERG # 171 *
1) EQ Northeast of Latham New York is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 5571
5) FedEx AS400: 67748 6) ITN#: X20191119293861 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolle
Signature:
Month: 11 Day: 19 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Patrick Eleet
Signature:
Month: 11 Day: 19 Year: 19

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MARC GAGNON
Signature:
Month: 11 Day: 20 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2627

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800.424.9300	003725703 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) Attn: Tom Abrams
301 Plainfield Road - Suite 330
Syracuse, NY 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP.
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING — U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Meleses Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302 — U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	001	DT	30	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: * ERG # 171 *
1) EQ Northeast of Latham New York is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35578
5) FedEx AS400: 67748 6) ITN#: X20191132977 4 7) WIS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wilson — Signature — Month: 11 Day: 19 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Lance Bacon — Signature — Month: 11 Day: 19 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON — Signature — Month: 11 Day: 20 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD080413877	1		019443528 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-268-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3675 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
90 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	33 tn Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E19003 3) CDN Manifest: _____ 4) RSI Tag: 35577 5) FedEx AS400: 67748 6) ITN# X20111203794626 ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 11 Day: 19 Year: 19

INT'L

16. International Shipments
☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Douglas Mclean
Signature:
Month: 11 Day: 19 Year: 19

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Stephane Gauthier
Signature:
Month: 11 Day: 21 Year: 209

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877 | 2. Page 1 of: 1 | 3. Emergency Response Phone: 800.424.9300 | 4. Manifest Tracking Number: 003725704 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) Attn: Tom Abrams
301 Plainfield Road - Suite 330
Syracuse, NY 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP.
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING | U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name | U.S. EPA ID Number

8. Designated Facility Name and Site Address: 4439117 CANADA INC / RSI ENVIRONMENTAL
80 rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302 | U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	001	DT	3/4	K	K142
	2.					
	3.					
	4.					

* ERG # 171 *

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham New York is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35576
5) FedEx AS400: 67748 6) ITN#: X20191119347777 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen | Signature | Month: 11 | Day: 19 | Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Scott LeBlanc | Signature | Month: 11 | Day: 19 | Year: 19

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Stephane Gauthier | Signature | Month: 11 | Day: 21 | Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443529 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5108

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 575

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
8439117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	34 Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E16003 3) CDN Manifest: CA599964 4) RSI Tag: 355575 5) FedEx AS400: 67748 6) ITN# X20111214526 43 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 11 Day: 20 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Sylvain Mallet
Signature:
Month: 11 Day: 20 Year: 19

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Stéphane Gauthier
Signature:
Month: 11 Day: 22 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD088413877
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 019443534 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc
U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
9439117 Canada Inc / RSI Environmental
90 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 547A

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	34 Estimate	T	K147
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020997E18003 3) CDN Manifest: _____ 4) RSI Tag: 35574 5) FedEx A5400: 67746 6) ITN# X20191214644 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen
Signature:
Month: 11 Day: 20 Year: 19

INTL

16. International Shipments: ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Ron Yarascavitch
Signature:
Month: 11 Day: 20 Year: 19
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Stephane Gauthier
Signature:
Month: 11 Day: 22 Year: 19 WCE

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-3645

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800.424.9300	003725705 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) Attn: Tom Abrams
301 Plainfield Road - Suite 330
Generator's Phone: 315.263.5109 Syracuse, NY 13212

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP.
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING — U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302 — U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	001	DT	31 t	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
* ERG # 171 *
1) EQ Northeast of Latham New York is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 3573
5) FedEx AS400: 67748 6) ITN#: X20191122535563 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas V. Wollam — Signature — Month: 11 Day: 21 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Charles Clemons Date leaving U.S.: 11-24-19

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: CHARLES CLEMONS — Signature — Month: 11 Day: 21 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-LUC GAGNON — Signature — Month: 11 Day: 25 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2661

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800.424.9300	003725707 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) Attn: Tom Abrams
301 Plainfield Road - Suite 330
Syracuse, NY 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP.
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING — U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302 — U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA, UN3077, waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	001	DT	30	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
* ERG # 171 *
1) EQ Northeast of Latham New York is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 3572
5) FedEx AS400: 67748 6) ITN#: X20111126766 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by tha proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wolley — Signature — Month: 11 Day: 25 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.: 11-26-19

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jeff Crowe — Signature — Month: 11 Day: 25 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON. — Signature — Month: 11 Day: 26 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-9660

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD 088 413 877	1	800-424-9300	003725713 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP
(c/o: Honeywell) 301 Plainfield Rd.-Suite 330
Syracuse, New York 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING
U.S. EPA ID Number: NAC300006038

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: 8439117 CANADA INC. / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302
U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) HC 9, PG III	001	DT	31	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information **ERG 171**
1) EQ Northeast of Latham NY is acting as a recognized trader in order to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35568
5) FedEx AS400: 67748 6) ITN# X20191126716692 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Willer
Signature
Month: 11 Day: 25 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Lacolle, QC / Champlain, NY
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Michael Jepsen
Signature
Month: 11 Day: 25 Year: 19

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Sean Mitchell GM-Nav
Signature
Month: 11 Day: 25 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-26559

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1	800.424.9300	003725708 GBF

GENERATOR

5. Generator's Name and Mailing Address: TONAWANDA COKE CORP.
(c/o: Honeywell) Attn: Tom Abrams
301 Plainfield Road - Suite 330
Syracuse, NY 13212
Generator's Phone: 315.263.5109

Generator's Site Address (if different than mailing address):
TONAWANDA COKE CORP.
3875 River Road
Tonawanda, New York 14150

6. Transporter 1 Company Name: GOULET TRUCKING — U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 8439117 CANADA INC / RSI ENVIRONMENTAL
80 Rue des Melezes Saint-Ambroise, Quebec G7P 2N4
Facility's Phone: 418.695.3302 — U.S. EPA ID Number: 116904547 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3077, Waste, Environmentally Hazardous Substances, Solid, n.o.s. (Coal Tar Solids) 9, PG III	001	DT	31	K	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
* ERG # 171 *
1) EQ Northeast of Latham New York is acting as recognized trader to expedite export
2) EPA Notice: 020997/11E/18/003 3) Canadian Manifest: 4) RSI Tag: 35569
5) FedEx AS400: 67748 6) ITN#: X20111256972 7) WTS PO: 80490

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. White — Signature: [signature] — Month: 11 Day: 25 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Scott LeBlanc — Signature: [signature] — Month: 11 Day: 25 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: JEAN-MICHEL GAGNON — Signature: [signature] — Month: 11 Day: 27 Year: 19

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

E-2658.

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443536 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-263-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
6438117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-896-3302

U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	34 Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice D20097E18003 3) CDN Manifest: _____ 4) RSI Tag: 35567 5) FedEx AS400: 07748 6) ITN# X20191126720550 "ERG 171"

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Weller — Signature: [signature] — Month: 11 Day: 25 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Ken Yaracavitch — Signature: [signature] — Month: 11 Day: 25 Year: 19
Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: OCAN-MICHEL GAGNON — Signature: [signature] — Month: 11 Day: 27 Year: 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

E-2664. 1550768 044876

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD088413877	1		019443537 JJK

GENERATOR

5. Generator's Name and Mailing Address
Tonawanda Coke Corp. (C/O Honeywell)
301 Plainfield Rd., Suite 330 Syracuse, NY 13212
Generator's Phone: 315-283-5109

Generator's Site Address (if different than mailing address)
Tonawanda Coke Corp.
3875 River Road Tonawanda, NY 14150

6. Transporter 1 Company Name: Laidlaw Carriers Bulk GP Inc — U.S. EPA ID Number: MIK 621 327 675

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
9438117 Canada Inc / RSI Environmental
80 Rue Des Melezes, St. Ambroise, Quebec G7P 2N4
Facility's Phone: 418-695-3302
U.S. EPA ID Number: 116 904 5474

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, Waste Environmentally Hazardous Substances, Solid N.O.S., (Coal Tar Solids) HC 9, PGIII	1	DT	34 TN Estimate	T	K142
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) EQ Northeast of Latham, NY is acting as recognized trader to expedite export. 2) EPA Notice 020987E18003 3) CDN Manifest: _____ 4) RSI Tag 35566 5) FedEx AS400: 67748 6) ITN# X20191127805[illegible] ERG 171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen — Signature: [signature] — Month 11 Day 26 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Champlain, NY / Lacolle, QC
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Douglas McLean — Signature: [signature] — Month 11 Day 26 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: SEAN MEEHAN — Signature: [signature] — Month 11 Day 27 Year 19

MIXED WASTE (K142/ASBESTOS)

US Ecology Idaho, Inc.
P.O Box 400
20400 Lemley Road
Grand View, Idaho 83624

Phone: (800) 274 1516
(208) 834 2275
Fax: (208) 834 2997
(208) 834 2919

US Ecology Idaho

a *US Ecology Inc.* company

November 05, 2019

WASTE TECHNOLOGY SERVICES
435 NORTH 2ND STREET
LEWISTON, NY 14092

RE:
Generator : **TONAWANDA COKE CORPORATION**
Site Address : **3875 RIVER ROAD, TONAWANDA, NY 14151**
US Ecology WS # : **49345-0**
Waste Stream Name : **K142 DEBRIS WITH ASBESTOS**
Expiration Date : **10/28/2020**

Dear Brian Burns,

The above listed waste stream has been approved for acceptance at US Ecology Idaho (USEI), which is an authorized facility and has the appropriate permits necessary to handle the waste material described on the "Waste Product Questionnaire" (WPQ) as approved.

This Waste Profile is identified with a Waste Stream ID Number and is valid until the expiration date of **10/28/2020** , when annual re-characterization of the waste is required.

Shipment of the waste profiled by the above WSID constitutes acceptance of all Terms and Conditions listed as an Addendum to the Agreement/Contract. If the regulations change, or the waste stream or process generating the waste changes, it is the generator's responsibility to inform USEI by a letter or submittal of a new profile and current analysis. USEI reserves the right to request additional sampling and analysis at any time.

A. All waste material must be packaged, labeled and manifested in strict accordance with all applicable EPA and DOT requirements. The above WSID must be marked on each drum or unit. Please note that labpack shipments cannot be accepted until packing list have been reviewed and approved by USEI.

B. To schedule a delivery, please call **Sophie Livingston in the Customer Service Department at 1-800-274-1516 ext. 2310, at least 48 hours prior to your anticipated shipping date. Scheduling hours are from 7:30 a.m. to 3:30 p.m. MST, Monday through Friday**

If you have any questions or need additional information, please feel free to call the Customer Service Department at 1-800-274-1516.

Sincerely,

Tino Cereceres

TINO CERECERES
APPROVALS COORDINATOR

US ecology

Profile Tracking # _____

WASTE PROFILE FORM

For assistance in completing this document or for additional information on service offerings, please visit our website at www.usecology.com or call 800-592-5489.

US Ecology will choose the appropriate facility and method of waste management for your waste from the technologies offered at each operation.

If you wish to direct this waste to a specific facility(s) or treatment technology please indicate here:

USE Idaho
WTS#44338
(MHG)

Waste Common Name: K142 Debris With Asbestos

Section 1 - Generator & Customer Information

Generator EPA ID # NYD-088-413-877
Generator TONAWANDA COKE CORPORATION
Facility Address 3875 RIVER ROAD
City TONAWANDA State NY Zip 14151
24-hour Emergency Response Number (800) 326-1221

Mailing Address c/o Honeywell
301 Plainfield Road, Suite 330
City Syracuse State NY Zip 13212
Generator Contact Tom Abrams
Title Sr. Project Manager
Phone (315) 552-9670 Fax ( ) -
E-mail tom.abrams@parsons.com

Internal Use Only: EQ Division _____
EQ Customer No. 583
Invoicing Company WASTE TECHNOLOGY SERVICES
Address 435 NORTH 2ND STREET
City LEWISTON State NY Zip 14092
Country USA
Invoicing Contact ACCOUNTS PAYABLE
Phone (716) 754-5400 Fax (716) 754-8001

Technical Contact Martin Gregg
Phone (716) 754-5400 Fax ( ) -
Cell Phone ( ) -
E-mail _____

Section 2 - Shipping & Packaging Information

2.1) Shipping Volume & Frequency:
a) Volume of Waste to be Shipped: 5 55 Gallon Drum
b) Frequency: ● One Time ○ Month ○ Quarter ○ Year ○ Other _____

2.2) DOT Information
a) Is this a U.S. Department of Transportation (USDOT) Hazardous Material? ● Yes ○ No
b) If "Yes", indicate the proper shipping name per 49 CFR 172.101 Hazardous Materials Table:
RQ, UN3077, WASTE Environmentally hazardous substances, solid, n.o.s., 9, PGIII, (K142, Asbestos), ERG#171

Section 3 - Special Properties

3.1) Color VARIES

3.2) Odor ☑ None ☐ Ammonia ☐ Amines ☐ Mercaptans ☐ Sulfur ☐ Organic Acid ☐ Amines/Ammonia
☐ Other: _____

3.3) Consistency at 70 °F: ☑ Solid ☐ Dust/Powder ☐ Debris ☐ Sludge ☐ Liquid ☐ Gas/Aerosol ☐ Varies

3.4) What is the pH? ☐ ≤2 ☐ 2.1-4.9 ☐ 5-10 ☐ 10.1-12.4 ☐ ≥12.5 ☑ N/A

3.5) What is the flash point? ☐ <90 °F ☐ 90-139 °F ☐ 140-199 °F ☐ ≥200 °F ☑ N/A

3.6) Does this waste exhibit any of the following properties? **(check all that apply)**

☐ **None**	☐ Free Liquids	☐ Metal Fines	☐ Water Reactive	☐ Biohazard
☐ Shock Sensitive	☐ Oily Residue	☐ Dioxins	☐ Furans	☐ Aluminum
☐ Asbestos -non- friable	☑ Asbestos - friable	☐ Other Radioactive	☐ Air Reactive	☐ Isocyanates
☐ Biodegradable Sorbents	☐ Pyrophoric	☐ Reactive Sulfide	☐ Reactive Cyanide	☐ Explosives
☐ Temperature Controlled Organic Peroxide		☐ NORM	☐ TENORM	

Section 4 - Composition and Generating Process

4.1) Provide a physical and chemical composition of the waste (e.g. soil, water, PPE, debris, etc.). List the percent ranges or the concentration of each component, either estimated or known.

Asbestos Containing Material	98.	to	99.	%
Incidental tar contamination	1.	to	2.	%

4.2) Provide a description of the generating process. *Remediation & IDW Sites: please provide a site history.*

Remediation of site, removal of storage tanks.
See Eurofins report# J151896.

4.3) Are there any known previous handling or treatment issues involving this waste? ○ Yes* ● No

*If yes, describe: _____

Section 5 - Hazardous Wastes

As determined by 40 CFR, Part 261 and State Rules: **Please list applicable waste code(s):**

5.1) Is this waste exempted from RCRA? ○ Yes ● No

If Yes, please provide exemption: _____

5.2) Is this an EPA RCRA listed hazardous waste (F, K, P or U)? ● Yes ○ No K142

a) For F006-F009, F012, does this come from a generator that conducts a cyanide plating process? ○ Yes ○ No

5.3) Is this an EPA RCRA characteristic hazardous waste (D001-D043)? ○ Yes ● No

5.4) Do any State Specific Hazardous Waste Codes apply? ○ Yes ● No

If you answered 'no' to 5.2, 5.3 and 5.4, please proceed to Section 6.

5.5) EPA Source Code: G39 EPA Form Code: W002

5.6) Waste Code Determination Is Based On: ☐ Generator Knowledge ☑ Analysis ☐ MSDS

Analysis and/or MSDS may be required for review and approval for hazardous and non-hazardous waste streams.

5.7) Does this waste exceed Land Disposal Restriction levels? ● Yes ○ No

a) Is this stream a wastewater (WW) or non-wastewater (NWW)? ○ WW ● NWW

b) If this waste stream is greater than 50% soil, does it meet the alternative soil treatment standards of 40 CFR 268.49? ○ Yes ○ No

c) Does this waste contain greater than 50% debris, by volume? (Debris is greater than 2.5 inches in size.) ● Yes ○ No

d) If the debris is larger than 3 ft x 3 ft x 3 ft, please provide the approximate dimensions and weight:

5.8) If this is a characteristic hazardous waste, does it contain Underlying Hazardous Constituents? ○ Yes* ● No

*If Yes, please list: _____

For a complete list of UHC constituents, please refer to 40 CFR 268.48

Section 6 - Non-Hazardous Wastes

Please list applicable waste code(s):

6.1) Do any State Specific Non-Hazardous Waste Codes apply? ○ Yes ● No

6.2) Is this a Universal (UNIV) waste or a Recyclable Good (RG) ? ○ UNIV ○ RG ● N/A

6.3) Is this waste used oil as defined by 40 CFR Part 279? ○ Yes ● No

a) If yes, is the total halogen content of the used oil waste stream greater than 1,000 ppm? ○ Yes ○ No

b) If yes, what is the source of the halogen content?

- ○ This is a metalworking oil/fluid containing chlorinated paraffins.
- ○ This is a used oil contaminated with chlorofluorocarbons from refrigeration units.
- ○ This oil contains halogenated solvents. List specific solvents: _____
- ○ Other, describe: _____

Section 7 - TSCA Information

7.1) What is the concentration of PCBs in the waste? ☑ None ☐ 0-49 ppm ☐ 50-499 ppm ☐ 500+ ppm

7.2) Does the waste contain PCB contamination from a source with a concentration ≥ 50 ppm? ○ Yes ● No ○ Unknown

If you answered "none" or '0-49 ppm' to 7.1 and "no" to 7.2, please proceed to Section 8.

7.3) Has this waste been processed into a non-liquid form? ○ Yes* ○ No

*If yes, what was the concentration of PCBs prior to processing? ○ 0-499 ppm ○ 500+ ppm

7.4) Is this non-liquid PCB waste in the form of soil, rags, debris, or other contaminated media? ○ Yes ○ No

7.5) Are you a PCB capacitor manufacturer or a PCB equipment manufacturer? ○ Yes ○ No

7.6) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained/flushed of all PCBs and decontaminated in accordance with 40 CFR 761.60(b)? ○ Yes ○ No ○ N/A

Section 8 - Clean Air Act Information

8.1) Is this waste subject to regulation under 40 CFR, Part 264, Subpart CC (VOC > 500 ppmw)? ○ Yes ● No

8.2) Is this waste subject to regulation under 40 CFR, Part 63, Subpart DD (VOHAP > 500 ppmw)? ○ Yes ● No

8.3) Is the site, or waste, subject to any other NESHAP/MACT standard(s)? ● Yes* ○ No

*If Yes this document serves as notification that this waste contains chemicals Asbestos , required to be managed in accordance with Part ● 61 ○ 62 ○ 63 Subpart M of NESHAP/MACT standards

8.4) Does this waste stream contain Benzene? ● Yes ○ No

If you answered "no" to 8.4, please proceed to Section 9.

8.5) Does the waste stream come from a facility subject to 40 CFR 61, Subpart FF (Benzene NESHAP)? ● Yes ○ No

If Yes, please provide the SIC/NAICS code: 324199

If you answered "no" to 8.5, please proceed to Section 9.

8.6) Does your facility manage the waste subject to Benzene NESHAP in a manner other than shipping off-site? ○ Yes ● No

If Yes, please specify:

8.7) Is the generating source of this waste a facility with Total Annual Benzene (TAB) ≥10 Mg/year? ○ Yes ● No

8.8) Does the waste contain >10% water? ○ Yes ● No

8.9) What is the TAB quantity for your facility? 0 Mg/year

8.10) What is the total Benzene concentration in your waste? Percent or 2.4 ppmw

Supporting analysis must be attached. Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602 and 624.

Section 9 - Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards pertaining to the waste described herein. I authorize EQ's personnel to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's personnel to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

If I am an agent acting on behalf of the generator, I also certify that I have permission to sign any and all waste characterization paperwork on the generator's behalf and that I can produce such certification in writing upon request.

Generator Signature Eric Christodoulatos Printed Name Eric Christodoulatos

Company Honeywell Title Remediation Manager Date 10/23/2019

STANDARD TERMS AND CONDITIONS

The Agreement between the Customer and EQ - The Environmental Quality Company and/or its member companies (hereinafter "EQ") related to or associated with Delivered Waste, as herein defined, shall be governed by the following Standard Terms and Conditions in addition to the terms and conditions contained in any Waste Profile Form, Customer Approval Quote Confirmation, Generator Approval Notification, Notice of Waste Approval Expiration, and/or Credit Agreement associated with such Delivered Waste.

The Customer may use its standard forms (such as purchase orders, acknowledgments of orders, and invoices) to administer its dealings under this Agreement for convenience purposes, but all provisions thereof in conflict with these terms and conditions shall be deemed stricken.

Definitions

"Acceptable Waste" shall mean any hazardous waste, as defined under applicable State or federal law, determined by EQ as acceptable for treatment and/or disposal in accordance with this Agreement.

"Delivered Wastes" shall mean all wastes (i) which are transported, delivered, or tendered to EQ by the Customer; (ii) which the Customer has arranged for the transport, delivery or tender to EQ; or (iii)) which are transported, delivered, or tendered to EQ under a Credit Agreement between the Customer and EQ.

"Non-Conforming Wastes" shall mean wastes that (a) are not in accordance in all material respects with the warranties, descriptions, specifications or limitations stated in the Waste Profile Form and this Agreement; (b) have constituents or components of a type or concentration not specifically identified in the Waste Profile Form (i) which increase the nature or extent of the hazard and risk undertaken by EQ in treating and/or disposing of the waste, or (ii) for whose treatment and/or disposal a Waste Management Facility is not designed or permitted, or (iii) which increase the cost of treatment and/or disposal of waste beyond that specified in EQ's price quote; or (c) are not properly packaged, labeled, described, or placarded, or otherwise not in compliance with United States Department of Transportation and United States Environmental Protection Agency regulations.

Control of Operations.

EQ shall have sole control over all aspects of the operation of any treatment and/or disposal facility of EQ receiving Delivered Wastes under this Agreement (hereinafter, "Waste Management Facility"), including, without limitation, maintaining EQ's desired volume of Acceptable Wastes being delivered to any Waste Management Facility by the Customer or any other person or entity.

Identification of Waste.

For each waste material to be transported, delivered, or tendered to EQ under this Agreement, the Customer shall provide, or cause to be provided, to EQ a representative sample of the waste material and a completed Waste Profile Form containing a physical and chemical description or analysis of such waste material, which description shall conform with any and all guidelines for waste acceptance provided by EQ. On the basis of EQ's analysis of such representative sample of the waste material and such Waste Profile Form, EQ will determine whether such wastes are Acceptable Wastes. EQ does not make any guarantee that it will handle any waste material or any particular quantity or type of waste material, and EQ reserves the right to the decline to transport, treat and/or dispose of waste material. The Customer shall promptly furnish to EQ any information regarding known, suspected or planned changes in the composition of the waste material. Further, the Customer shall promptly inform EQ of any change in the characteristic or condition of the waste material which becomes known to the Customer subsequent to the date of the Waste Profile Form.

Non-Conforming Wastes.

In the event that EQ at any time discovers that any Delivered Waste is Non-Conforming Waste, EQ may reject or revoke its acceptance of the Non-Conforming Waste. The Customer shall have seven (7) days to direct an alternative lawful manner of disposition of the waste, unless it is necessary by reason of law or otherwise to move the Non-Conforming Waste prior to expiration of the seven (7) day period. If the Customer does not direct an alternative disposal, at its option, EQ may return any such Non-Conforming Wastes to the Customer, and the Customer shall pay or reimburse EQ for all costs and expenses incurred by EQ in connection with the receipt, handling, sampling, analyses, transportation and return to the Customer of such Non-Conforming Wastes. If it is impossible or impractical for EQ to return the Non-Conforming Waste to the Customer, the Customer shall reimburse EQ for all costs, of any type or nature whatsoever, incurred by EQ, solely because such Delivered Waste was Non-Conforming Waste (including, but not limited to, all costs associated with any remedial steps necessary, due to the nature of the Non-Conforming Waste, in connection with material with which the Non-Conforming Waste may have been commingled and all expenses and charges for analyzing, handling, locating, preparing for transporting, storing and disposing of any Non-Conforming Waste).

Customer Warranty - Acceptable Wastes.

All Delivered Wastes shall be Acceptable Wastes and shall conform in all material respects to the description and specifications contained in the Waste Profile Form. The information set forth in the Waste Profile Form or any manifest, placard or label associated with any Delivered Wastes, or otherwise represented by the Customer or the generator (if other than the Customer) to EQ, is and shall be true, accurate and complete as of the date of receipt of the involved waste by EQ.

Customer Warranty - Title to Wastes.

Either the Customer or the generator (if other than the Customer) shall hold clear title, free of any all liens, claims, encumbrances, and charges to Delivered Waste until such waste is accepted by EQ.

Customer Warranty - Compliance with Laws.

The Customer shall comply with all applicable federal, state and local environmental statutes, regulations, and other governmental requirements, as well as directives issued by EQ from time to time, governing the transportation, treatment and/or disposal of Acceptable Wastes, including, but not limited to, all packaging, manifesting, containerization, placarding and labeling requirements.

Customer Warranty - Updating Information.

If the Customer receives information that Delivered Waste or other hazardous waste described in the Waste Profile Form, or some component of such waste, presents or may present a hazard or risk to persons, property or the environment which was not disclosed to EQ, or if the Customer or generator (if other than the Customer) has changed the process by which such waste results, the Customer shall promptly report such information to EQ in writing.

Customer Indemnity.

The Customer shall indemnify, defend and hold harmless EQ, and its affiliated or related companies, and all of their respective present or future officers, directors, shareholders, employees and agents from and against any and all losses, damages, liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, costs and expenses (including, but not limited to, reasonable costs of defense, settlement, and reasonable attorneys' fees), which may be asserted against any or all of them by any person or any governmental agency, or which any or all of them may hereafter suffer, incur, be responsible for or pay out, as a result of or in connection with bodily injuries (including, but not limited to, death, sickness, disease and emotional or mental distress) to any person (including EQ's employees), damage (including, but not limited to, loss of use) to any property (public or private), or any requirements to conduct or incur expense for investigative, removal or remedial expenses in connection with contamination of or adverse effect on the environment, or any violation or alleged violation of any statutes, ordinances, orders, rules or regulations of any governmental entity or agency, caused or arising out of (i) a breach of this Agreement by the Customer, (ii) the failure of any warranty of the Customer to be true, accurate and complete, or (iii) any willful or negligent act or omission of the Customer, or its employees or agents in connection with the performance of this Agreement.

Force Majeure.

EQ shall not be liable for any failure to accept, receive, handle, treat, and/or dispose of Delivered Waste due to an act of God, fire, casualty, flood, war, strike, lockout, labor trouble, failure of public utilities, equipment failure, facility shutdown, injunction, accident, epidemic, riot, insurrection, destruction of operation or transportation facilities, the inability to procure materials, equipment, or sufficient personnel or energy in order to meet operational needs without the necessity of allocation, the failure or inability to obtain any governmental approvals or to meet Environmental Requirements (including, but not limited to voluntary or involuntary compliance with any act, exercise, assertion, or requirement of any governmental authority) which may temporarily or permanently prohibit operations of EQ, the Customer, or the Generator, or any other circumstances beyond the control of EQ which prevents or delays performance of any of its obligations under this Agreement.

Governing Laws

This Agreement shall in all respects be governed by and shall be construed in accordance with the laws of the State of Michigan applied to contracts executed and performed wholly within such state.

Bulk Disposal Charges

Quoted bulk disposal charges for solid materials will be billed by the cubic yard, if the waste density is less than 2,000lbs./cubic yard. If waste density is greater than 2,000 lbs./cubic yard, then bulk disposal charges will be billed by the ton, regardless of the approved container.

200106000060

DID: 73240

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD088413877	1	800-424-9300	020956149 JJK

5. Generator's Name and Mailing Address
TONAWANDA COKE CORPORATION
3875 RIVER ROAD
TONAWANDA, NY 14151

Generator's Site Address (if different than mailing address)

Generator's Phone: ~~716-876-6222~~ 315-400-7384

6. Transporter 1 Company Name: HAZMAT ENVIRONMENTAL GROUP INC. — U.S. EPA ID Number: NYD980769947

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
US ECOLOGY OF IDAHO
20400 LEMLEY ROAD
GRAND VIEW, ID 83624

U.S. EPA ID Number: IDD073114654

Facility's Phone: 800-274-1516

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (ASBESTOS) 9, PG III (K142)	9	DM	1720	P	K142		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) K142 DEBRIS/ASBESTOS (49345-0) (55 GAL) ERG#171
WTS ORDER # 81034

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas J. Wollen AS AGent for Honeywell — Signature — Month: 12 Day: 30 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: RAY USCHOLD — Signature — Month: 12 Day: 30 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Florian Schmitz — Signature — Month: 1 Day: 6 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. TRANSPORTER COPY

APPENDIX H CONVEYANCE PIPE TAR AND SOIL DISPOSAL DOCUMENTATION

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

Tonawanda Coke Corporation

For Lab Project ID

205037

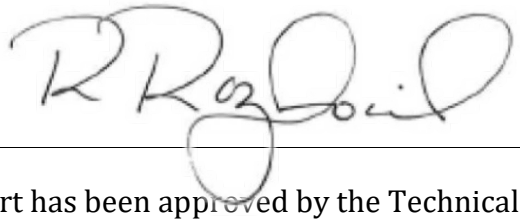
Referencing

Tonawanda Coke

Prepared

Wednesday, October 28, 2020

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.



Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 205037

Client: **Tonawanda Coke Corporation**

Project Reference: Tonawanda Coke

Sample Identifier:	Drums 1-10		
Lab Sample ID:	205037-01	**Date Sampled:**	10/20/2020
Matrix:	Solid	**Date Received:**	10/20/2020

Corrosivity as pH

Analyte	Result	Units	Qualifier	Date Analyzed
Corrosivity (as pH)	7.56 @ 24.1 C	S.U.		10/21/2020 11:12

Method Reference(s): EPA 9045D

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		10/21/2020

Method Reference(s): EPA 1030

Reactive Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Reactivity, Cyanide	<100	mg/Kg		10/23/2020

Method Reference(s): EPA 7.3.3.2
Subcontractor ELAP ID: 10709
ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Sulfide

Analyte	Result	Units	Qualifier	Date Analyzed
Reactivity, Sulfide	<100	mg/Kg		10/26/2020

Method Reference(s): EPA 7.3.4.2
Subcontractor ELAP ID: 10709
ELAP does not offer this test for approval as part of their laboratory certification program.

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 205037

Client: **Tonawanda Coke Corporation**

Project Reference: Tonawanda Coke

Sample Identifier:	Drums 1-10		
Lab Sample ID:	205037-01A	**Date Sampled:**	10/20/2020
Matrix:	TCLP Extract	**Date Received:**	10/20/2020

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		10/22/2020 18:31
2,4,5-Trichlorophenol	< 40.0	ug/L	400000		10/22/2020 18:31
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		10/22/2020 18:31
2,4-Dinitrotoluene	< 40.0	ug/L	130		10/22/2020 18:31
Cresols (as m,p,o-Cresol)	**153**	ug/L	200000		10/22/2020 18:31
Hexachlorobenzene	< 40.0	ug/L	130		10/22/2020 18:31
Hexachlorobutadiene	< 40.0	ug/L	500		10/22/2020 18:31
Hexachloroethane	< 40.0	ug/L	3000		10/22/2020 18:31
Nitrobenzene	< 40.0	ug/L	2000		10/22/2020 18:31
Pentachlorophenol	< 80.0	ug/L	100000		10/22/2020 18:31
Pyridine	< 40.0	ug/L	5000		10/22/2020 18:31

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**78.1**	54.2 - 113		10/22/2020 18:31
2-Fluorobiphenyl	**71.4**	34.3 - 96.3		10/22/2020 18:31
2-Fluorophenol	**75.7**	13.3 - 103		10/22/2020 18:31
Nitrobenzene-d5	**90.6**	50.5 - 103		10/22/2020 18:31
Phenol-d5	**70.3**	10 - 107		10/22/2020 18:31
Terphenyl-d14	**80.9**	53 - 108		10/22/2020 18:31

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 10/22/2020
Data File: B50203.D

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	<0.002	mg/L	0.2		10/23/2020

Method Reference(s): EPA 7470A
EPA 1311
Subcontractor ELAP ID: 10709

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 205037

Client: **Tonawanda Coke Corporation**

Project Reference: Tonawanda Coke

Sample Identifier:	Drums 1-10		
Lab Sample ID:	205037-01A	**Date Sampled:**	10/20/2020
Matrix:	TCLP Extract	**Date Received:**	10/20/2020

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		10/23/2020 13:22
Barium	< 0.500	mg/L	100		10/23/2020 13:22
Cadmium	< 0.0250	mg/L	1		10/23/2020 13:22
Chromium	< 0.500	mg/L	5		10/23/2020 13:22
Lead	< 0.500	mg/L	5		10/23/2020 13:22
Selenium	< 0.200	mg/L	1		10/23/2020 13:22
Silver	< 0.500	mg/L	5		10/23/2020 13:22

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 10/22/2020
Data File: 201023B

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		10/22/2020 13:40
1,2-Dichloroethane	< 20.0	ug/L	500		10/22/2020 13:40
2-Butanone	< 100	ug/L	200000		10/22/2020 13:40
Benzene	< 20.0	ug/L	500		10/22/2020 13:40
Carbon Tetrachloride	< 20.0	ug/L	500		10/22/2020 13:40
Chlorobenzene	< 20.0	ug/L	100000		10/22/2020 13:40
Chloroform	< 20.0	ug/L	6000		10/22/2020 13:40
Tetrachloroethene	< 20.0	ug/L	700		10/22/2020 13:40
Trichloroethene	< 20.0	ug/L	500		10/22/2020 13:40
Vinyl chloride	< 20.0	ug/L	200		10/22/2020 13:40

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 205037

Client: **Tonawanda Coke Corporation**

Project Reference: Tonawanda Coke

Sample Identifier:	Drums 1-10		
Lab Sample ID:	205037-01A	**Date Sampled:**	10/20/2020
Matrix:	TCLP Extract	**Date Received:**	10/20/2020

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**105**	59.4 - 149		10/22/2020	13:40
4-Bromofluorobenzene	**71.1**	49 - 138		10/22/2020	13:40
Pentafluorobenzene	**104**	90.1 - 115		10/22/2020	13:40
Toluene-D8	**84.2**	77.3 - 118		10/22/2020	13:40

Method Reference(s): EPA 8260C
EPA 1311 / 5030C

Data File: x74231.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 205037

Client: **Tonawanda Coke Corporation**

Project Reference: Tonawanda Coke

Sample Identifier:	Drum 1 Tar		
Lab Sample ID:	205037-02	**Date Sampled:**	10/20/2020
Matrix:	TCLP Extract	**Date Received:**	10/20/2020

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 1000	ug/L	7500		10/27/2020 23:19
2,4,5-Trichlorophenol	< 1000	ug/L	400000		10/27/2020 23:19
2,4,6-Trichlorophenol	< 1000	ug/L	2000		10/27/2020 23:19
2,4-Dinitrotoluene	< 40.0	ug/L	130		10/22/2020 19:01
Cresols (as m,p,o-Cresol)	**18000**	ug/L	200000		10/27/2020 23:19
Hexachlorobenzene	< 40.0	ug/L	130		10/22/2020 19:01
Hexachlorobutadiene	< 40.0	ug/L	500		10/22/2020 19:01
Hexachloroethane	< 1000	ug/L	3000		10/27/2020 23:19
Nitrobenzene	< 1000	ug/L	2000		10/27/2020 23:19
Pentachlorophenol	< 2000	ug/L	100000		10/27/2020 23:19
Pyridine	< 1000	ug/L	5000		10/27/2020 23:19

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	NC	54.2 - 113		10/27/2020 23:19
2-Fluorobiphenyl	NC	34.3 - 96.3		10/27/2020 23:19
2-Fluorophenol	NC	13.3 - 103		10/27/2020 23:19
Nitrobenzene-d5	NC	50.5 - 103		10/27/2020 23:19
Phenol-d5	NC	10 - 107		10/27/2020 23:19
Terphenyl-d14	NC	53 - 108		10/27/2020 23:19

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 10/22/2020
Data File: B50258.D
B50204.D

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 200	ug/L	700		10/22/2020 15:33
1,2-Dichloroethane	< 200	ug/L	500		10/22/2020 15:33
2-Butanone	< 1000	ug/L	200000		10/22/2020 15:33
Benzene	**12900**	ug/L	500		10/22/2020 15:33

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 205037

Client: **Tonawanda Coke Corporation**

Project Reference: Tonawanda Coke

Sample Identifier:	Drum 1 Tar		
Lab Sample ID:	205037-02	**Date Sampled:**	10/20/2020
Matrix:	TCLP Extract	**Date Received:**	10/20/2020

Carbon Tetrachloride	< 200	ug/L	500		10/22/2020	15:33
Chlorobenzene	< 200	ug/L	100000		10/22/2020	15:33
Chloroform	< 200	ug/L	6000		10/22/2020	15:33
Tetrachloroethene	< 200	ug/L	700		10/22/2020	15:33
Trichloroethene	< 200	ug/L	500		10/22/2020	15:33
Vinyl chloride	< 200	ug/L	200		10/22/2020	15:33

Surrogate	**Percent Recovery**	**Limits**	**Outliers**	**Date Analyzed**	
1,2-Dichloroethane-d4	**112**	59.4 - 149		10/22/2020	15:33
4-Bromofluorobenzene	**69.8**	49 - 138		10/22/2020	15:33
Pentafluorobenzene	**91.4**	90.1 - 115		10/22/2020	15:33
Toluene-D8	**75.6**	77.3 - 118	*	10/22/2020	15:33

Method Reference(s): EPA 8260C
EPA 1311 / 5030C

Data File: x74236.D

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified “reported as received”. Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an “A” suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

“<” = Analyzed for but not detected at or above the quantitation limit.
“E” = Result has been estimated, calibration limit exceeded.
“Z” = See case narrative.
“D” = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
“M” = Matrix spike recoveries outside QC limits. Matrix bias indicated.
“B” = Method blank contained trace levels of analyte. Refer to included method blank report.
“J” = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
“P” = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, tern or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM ENVIRONMENTAL SERVICES, INC.

CHAIN OF CUSTODY

REPORT TO:	INVOICE TO:	
CLIENT: Tonawand Coke Corp.	CLIENT: WTS, Inc.	LAB PROJECT ID: 205037
ADDRESS: 3875 River Road (Area 108)	ADDRESS: 435 N. 2nd Street	
CITY: Tonawanda, NY 14151 STATE: ZIP:	CITY: Lewiston, NY 14092 STATE: ZIP:	Quotation #:
PHONE:	PHONE: 716-870-6773	Email: mgregg@wtsonline.com
ATTN: Tom Abrams	ATTN: Martin Gregg	

PROJECT REFERENCE: Tonawanda Coke

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	TCLP Metals	TCLP Volatiles	TCLP Semi-Vol.	Ignitability	Corrosivity	Reactivity (CN/S)					REMARKS	PARADIGM LAB SAMPLE NUMBER
1	10/20/20	11:30	X		Drums 1-10 Solid	S	1	✔	✔	✔	✔	✔	✔					Please Mix Best as poss ible	01A
2	10/20/20	11:30		X	Drum 1 Tar per visual no 10/20/2020	L non aq liq Sol Lot	1		✔	✔									02A eem 10/20/20
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☒	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☐
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Other please indicate:	☐	Other please indicate:	☐	Other EDD please indicate:	☐

Sampled By — Date/Time: 10/20/20 1137

Relinquished By — Date/Time: 10/20/2020 1237

Received By — Date/Time: 10/20/2020 1537

Received @ Lab By — Date/Time: 3°C iced 10/20/2020 15:18

Total Cost:

P.I.F.

See additional page for sample conditions.

2062

PARADIGM

Chain of Custody Supplement

Client: Tonawanda Coke **Completed by:** MollyReid

Lab Project ID: 205037 **Date:** 10/20/2020

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt: Yes	No	N/A
Container Type	☐	☒	☐
Comments	Sample to large, hard to transfer to glass jar. sample rcvd in plastic Bag		
Transferred to method-compliant container	☐	☒	☐
Headspace (<1 mL)	☐	☒ TCL PVOA - 01,02	☐
Comments			
Preservation	☐	☐	☒
Comments			
Chlorine Absent (<0.10 ppm per test strip)	☐	☐	☒
Comments			
Holding Time	☒	☐	☐
Comments			
Temperature	☒	☐	☒ met
Comments	3°c iced		
Compliant Sample Quantity/Type	☒	☐	☐
Comments			

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

1 of 1

CHAIN OF CUSTODY

ADIRONDACK: ELAP ID: 10709

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO: NEC Mg	
COMPANY: Paradigm Environmental		COMPANY: Same	LAB PROJECT #: / CLIENT PROJECT #:
ADDRESS:		ADDRESS:	
CITY:	STATE: ZIP:	CITY:	STATE: ZIP:
PHONE:	FAX:	PHONE:	FAX:
PROJECT NAME/SITE NAME:	ATTN: Reporting	ATTN: Accounts Payable	TURNAROUND TIME: (WORKING DAYS) STD OTHER: ☐1 ☐2 ☐3 ☒5 ☐
	COMMENTS: Please email results to reporting@paradigmenv.com		Date Due: 10/28/2020

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER OF CONTAINERS	reactivity	Hg								REMARKS	PARADIGM LAB SAMPLE NUMBER
1	10/20/2020	1130			205037-01	Soil	1	X									Sample Spun at Paradigm	
2	↓	↓			205037-01A	Soil for extract	1		X									
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☐	N ☐
Comments:		
Preservation:	Y ☐	N ☐
Comments:		
Holding Time:	Y ☐	N ☐
Comments:		
Temperature:	Y ☐	N ☐
Comments:		

Client

Sampled By: Molly Pail — Date/Time: 10/22/2020 0830

Relinquished By: GP — Date/Time: 10/21/2020

Received By — Date/Time

Received @ Lab By — Date/Time

Total Cost:

P.I.F.

RICH GALLOWAY

PID: 82205

CONFIRMATION#9914...

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYR000024497 000244707	1	CHEMTREC 800-424-9300	020994174 JJK

GENERATOR

5. Generator's Name and Mailing Address
HONEYWELL INTERNATIONAL
15 TABOR LAND
MORRIS PLAINS, NJ 07950

JAN 20 2021

Generator's Phone: 973-455-2877 ATTN:ERIC CHRISTODULATOS

Generator's Site Address (if different than mailing address)
TONAWANDA COKE CORPORATION
SITES 108, 109, 110
3800 RIVER ROAD
TONAWANDA, NY 14150

6. Transporter 1 Company Name
HAZMAT ENVIRONMENTAL GROUP INC.

U.S. EPA ID Number
NYD980769947

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
EQ DETROIT, INC.
1923 FREDERICK
DETROIT, MI 48211

Facility's Phone: 313-347-1300

U.S. EPA ID Number
MID980991566

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1 RQ NA3077, HAZARDOUS WASTE, SOLID, N.O.S. 9, PG III (D018)	1	DM	400	P	D018		B
	2 NON-REGULATED MATERIAL	9	DM	3600	P	NONE		
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.) (K2045544WTSDET) ERG#171 2.) (K2045543WTSDET) (55 GAL)

WTS ORDER # 86478

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: As Agent for Honeywell Int'l Inc. Ronald J. Prohaska - Parsons

Signature

Month: 12 Day: 18 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: LYNN Grafton

Signature

Month: 12 Day: 18 Year: 2020

Transporter 2 Printed/Typed Name

Signature

Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☑ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

OK to update manifest per Kevin Walsh A.S. 12/22/2020

Manifest Reference Number:

18b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)

Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H110		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Kori Mobley

Signature

Month: 12 Day: 21 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

APPENDIX I PHOTO LOG

Photo Log - Site 108

Facing east - Site prep for tank removal (9-16-19).

Facing northeast - Support zone construction. Geotextile woven fabric installed below road stone (9-17-19).

Facing east - clearing brush and vegetation along main access road (9-19-19).

Facing west – Soil pile area cleared for access road construction (9-20-19).

Facing east - Berm area preconstruction. Pump house and piping are visible in the center and left of the photo (9-20-19).

Facing north - Ramp construction, geotextile fabric and aggregate used in construction of the access ramp (9-20-19).

Facing east - The completed ramp construction, geotextile fabric and aggregate were installed and compacted. Filter sock installed along the road edge on the side of the ramp. High vis fencing was installed to control access to work areas (9-24-19).

Facing south – Water treatment system is composed of 2,000 lb. carbon vessel, duel bag filter skid and pump. System is installed inside secondary containment. Photo taken from the top of the weir tank (10-3-19).

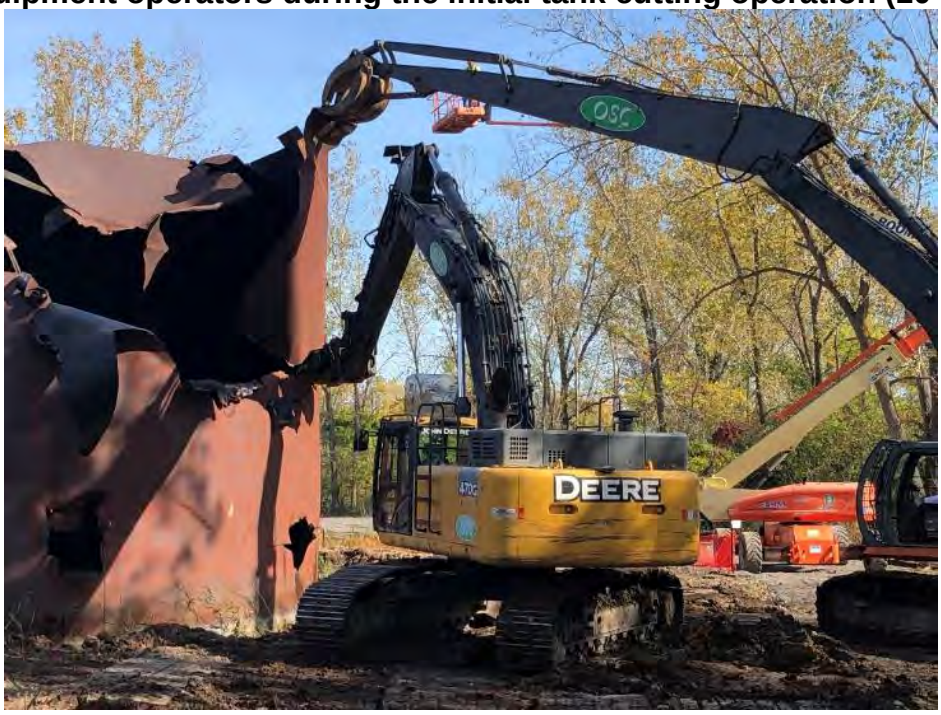
Facing east – Soil pile access road completed up to the small soil pile (soil pile 1). E-tank from previous site work in center of photo (10-8-19).

Facing east - Decontamination pad construction. Silt sock used for berm. Tank 3 visible in the background (10-8-19).

Facing northwest – Steel Decon pad on the left, equipment decon pad on the right of the photo. Composite mats and liner have been installed, temporary fence and liner utilized to collect over spray from decon (10-11-19).

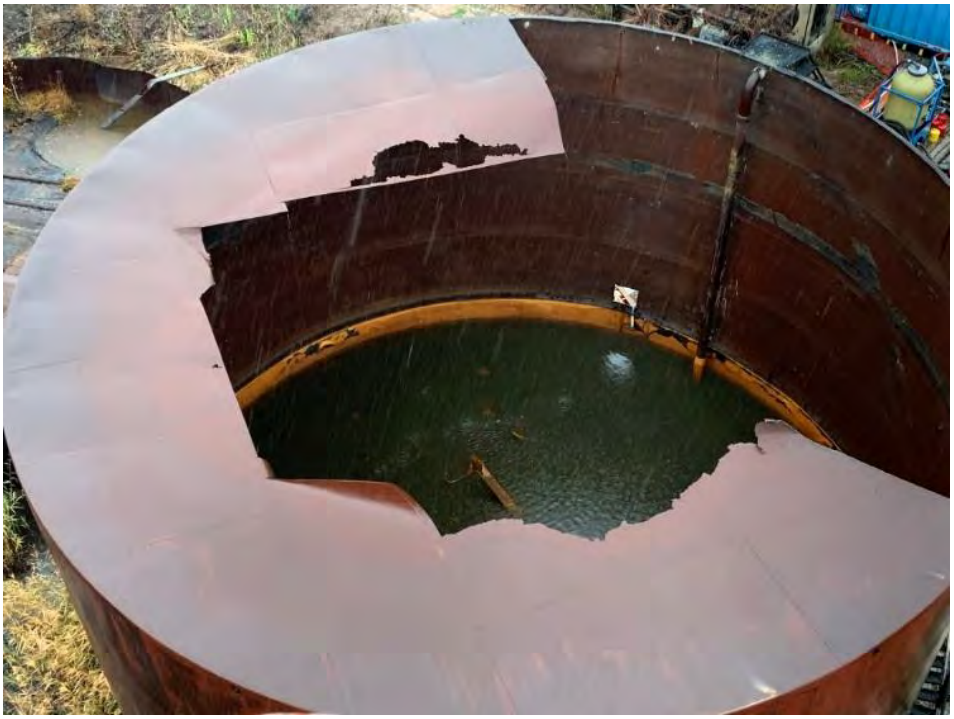
Facing northeast - Certified asbestos contractor shown removing asbestos covering from piping in between tank 1 and tank 2. GAC system and weir tank pictured in the background (10-15-19).

Facing east – Tank 3 demolition. Grapple holding the steel in place while the shear attachment cuts. The person in the manlift in the background was used as a spotter for the equipment operators during the initial tank cutting operation (10-21-19).



Facing southeast - Stabilization of the tar in tank 3. Adzorb™ is added to the tar and mixed in tank 3 until the material meets transportation requirements (10-25-19).

Facing northwest - Cutting and removal of the tank top, view looking into tank 2. Approximately 10 to 11 inches of water is visible in the tank. Note: Top of the tank was cut using a cutting torch. Sidewalls and top were removed in sections (10-31-19).



Facing south - Torch cutting and demolition of tank 2, 4th sidewall panel. Third sidewall panel is visible in the foreground. Each panel is approximately 15 ft wide by 22 ft long (11-6-19).

Facing west - Adzorb™ added to tank 2 tar for initial stabilization of the material. Final stabilization of material was conducted in tank 3 (11-8-19).

Facing northwest - Partially stabilized tar from tank 2 is placed in tank 3 for final stabilization. The 470 excavator in the background continues transfer of material to tank 3. Saw dust visible in tank 3 is used in controlling the moisture content (11-11-19).

Facing east – Excavator used to transfer stabilized tar from tank 2 to tank 3 for final stabilization. Excavator used to load out tar into trailers from tank 3. Staff in the manlift used to spot load placement in the truck bed. Berm area protected during stabilized tar transfer and loading operations (11-18-19).

Facing northwest – Excavator with grapple places sheet steel in the decon pad for cleaning. Once the steel is inspected and approved it is then folded and placed in the roll-off containers (visible outside the fence) for recycling (11-26-19).

Facing north - Piping and steel impacted with tar which could not be reasonably cleaned was placed in a contained area for loadout in sealed roll-off containers (E-tank) (11-20-19).

Facing north - Stabilized tar following mixing with Adzorb™ and saw dust. Stabilization process conducted in tank 3. Material passed paint filter test and is ready for transport off-site for thermal treatment (11-21-19).

Facing southeast – Initiate removal of steel debris from inside tank 1 and initiate stabilization of tar inside tank 1. Large diameter product piping is visible between tank 2 and tank 1 (11-21-19).

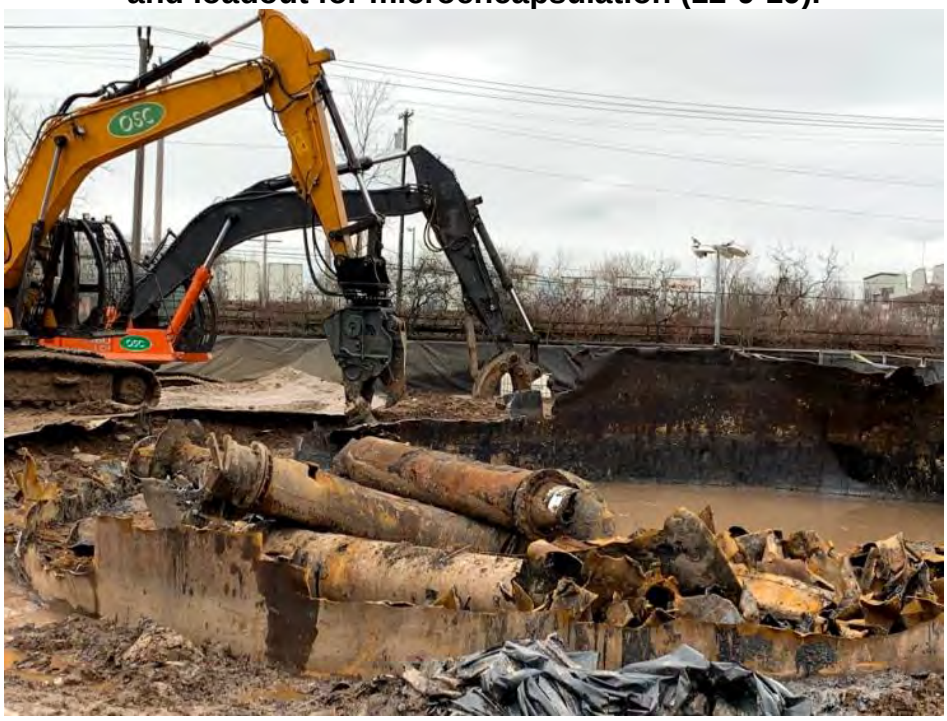
Facing west - View looking into tank 1 through sidewall. Tar stabilized material mixed with crystalline tar material. Viscous/flowable tar layer was located at the base of the tank (11-25-19).

Facing east – Load out material from tarped soil pile #2. Loaded material into tandem trucks and transported to Modern Disposal facility for final disposition (12-3-19).

Facing east - Following the removal of tar from tank 1, the sidewalls were cut with a shear and removed. The concrete pad from tank 2 was used as a stable working platform to conduct work on tank pad 1 (12-5-19).

Facing southwest – Concrete pads from Tank 1 and 2 are exposed after the removal of the steel tank bottoms. Visible on the left and center portion of the photo are stockpiles of surficial tar materials covered in plastic sheeting at the conclusion of activities (12-7-19).

Facing north - Continuing the cutting of the side walls of tank 3 into smaller pieces using the shear. Piping and steel fragments are stored inside the tank for processing and loadout for microencapsulation (12-9-19).



Facing east - An 8-inch product pipe is cut and removed from the subsurface. The end of the pipe is covered with poly sheeting, to limit the release of tar to the surface during transfer to tank 3 for processing (12-10-19).

Facing north - Concrete pad from Tank 1 is demoed with a hydraulic hammer attachment on the 460 excavator. The rebar will be removed from the concrete by using a pulverizing attachment. Fragmented concrete will be lived loaded into trucks and sent for micro-encapsulation (12-11-19).

Facing northwest - Asbestos contractor uses poly sheeting and glovebags for removal of asbestos materials from the pump house piping (12-17-19).

Facing west: Soil pile area 1 and 2 completed. Area was inspected and approved by the USEPA (1-2-20).

Facing southeast - Removal of residual concrete debris from tank pad 2 area and place in the stockpile. Removal of surficial tar impacted material from below the concrete pad. Loading of a tractor trailer with concrete debris is visible in the background (1-2-20).

Facing southeast - Surficial tar is removed from the area between berm 1 and 2 in the former vicinity of the large diameter product piping. This area required over excavation to remove the visibly impacted materials (1-2-20).

Facing north - Clay berm material from berm area 1 is used for backfilling former tank pad area 1. Demarcation layer (geotextile fabric) is laid down on inspected and approved material prior to backfilling (1-2-20).

Facing northeast - Grading and backfilling of former tank pad area 1 and 2. Surficial tar stockpile is visible on the right side of the photo, awaiting loadout (1-3-20).

Facing northeast - The open excavation under tank pad 3 is approximately 15 by 20 feet and 5-6 feet in depth. Breeze and historic fill removed to silty loam layer. Tar observed in cracks in the silty loam layer (1-9-20).

Facing north - Excavation conducted through the breeze material. Area to the north of the staff in the photo is approved and backfilled with clean material. Pocket is continuing along the northern sidewall (1-9-20)

Facing northwest - Tank 3 excavation. Tar pockets directly on the clay under the breeze (1-9-20).

Facing south - View looking down into the base of the Tank 3 excavation. Tar pockets directly on the clay under the breeze (1-9-20).

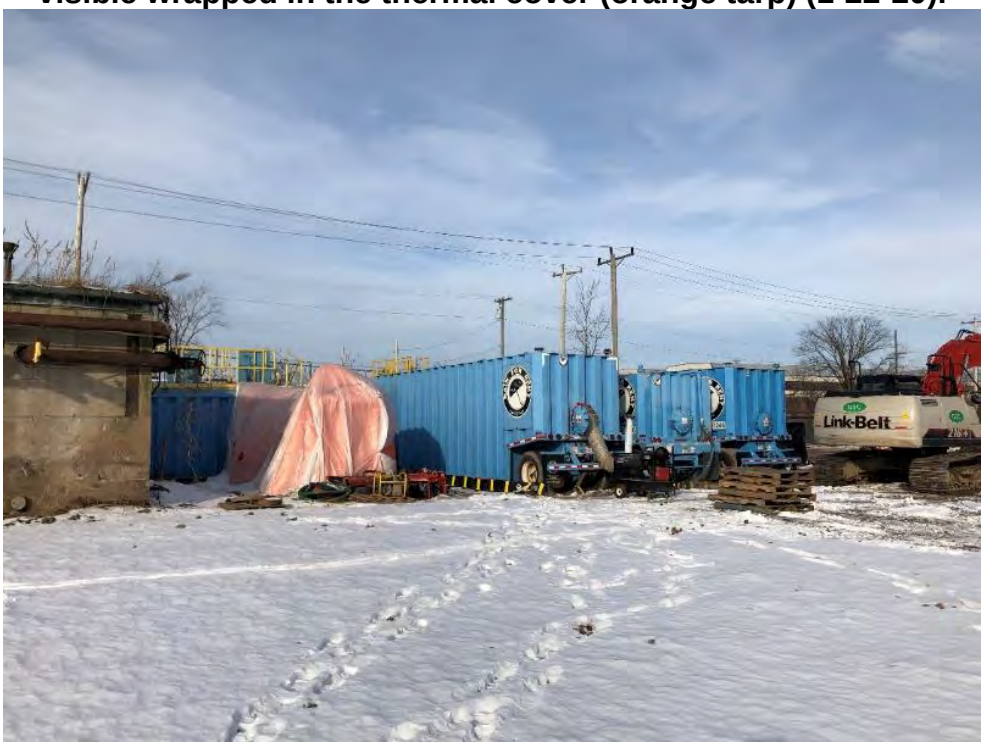
Facing northwest – Base of Tank 3 excavation; close-up of tar seams (1-9-20).

Facing northwest – Base of Tank 3 excavation and adjacent test pit (1-9-20).

Facing north –Tank 3 excavation completed; demarcation layer installed prior to backfill (1-9-20).

Facing southeast – Set up a temporary stockpile area between former tank pad 2 and 3 for surficial tar impacted soil staging (1-15-20).

Facing northeast – Three 20,000-gallon frac tanks, and the water treatment system is visible wrapped in the thermal cover (orange tarp) (1-22-20).



Facing north - Product piping cut flush to the pump house wall and capped (1-22-20).

Facing east – Final site grade former tank pad area (2-5-20).

Facing west - Final grading completed; hydroseeding starting (5-27-20).

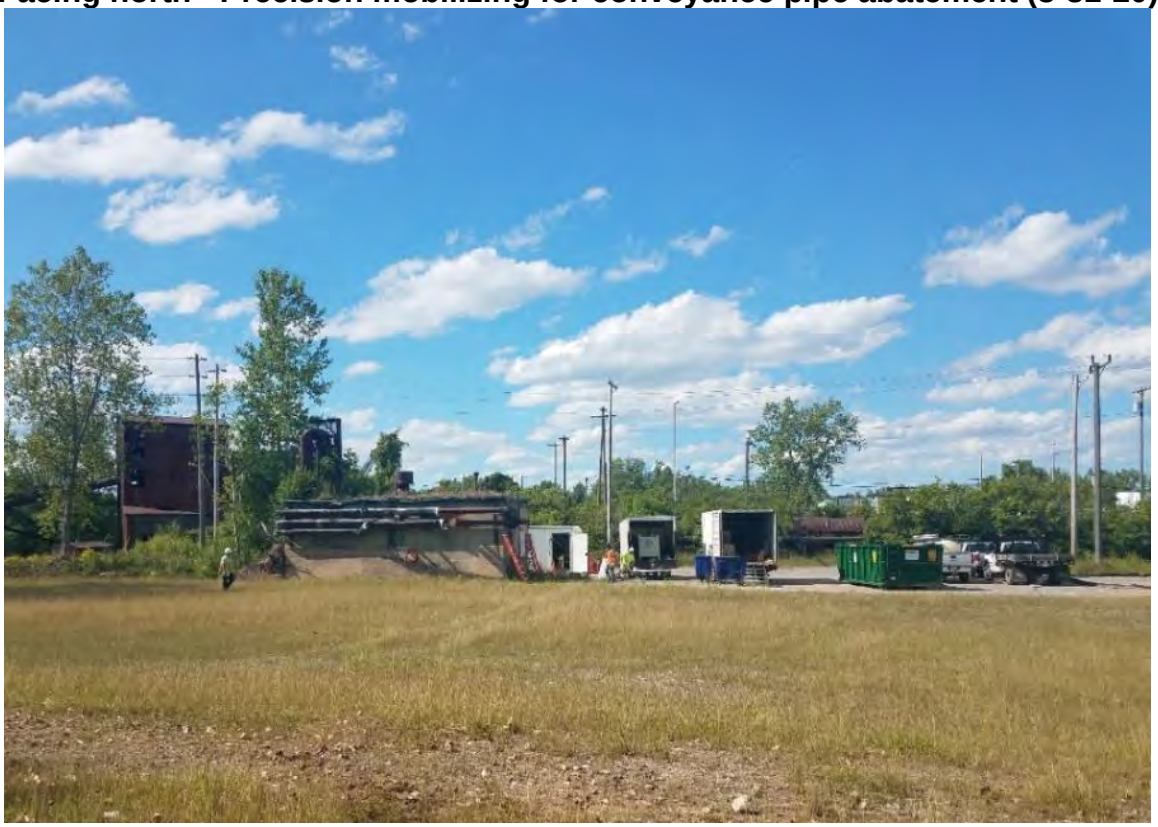
Facing west - Former tank area hydroseeded (5-27-20).

Facing west - Former soil pile area hydroseeded (5-27-20).

Facing northwest - Post restoration at former tank area (6-30-20).

Facing southwest - Post restoration at former soil pile area (7-31-20).

Facing north - Precision mobilizing for conveyance pipe abatement (8-31-20)



Facing southwest - constructing decontamination unit for pumphouse abatement (9-1-20).

Facing east - Work access cleared to north side of conveyance pipe (9-3-20)

Facing west - Pumphouse abatement in progress: loadout of asbestos waste (9-3-20).

Facing east - Workers clearing vegetation for access to elevated pipe (9-8-20).

Facing northeast - Installing critical barriers on conveyor structure as per NYSDOL variance (9-8-20).

Facing northeast - Conveyance pipe repair to prevent tar from leaking (9-9-20).

Facing northeast - Glovebag removal on elevated pipe (9-10-20).

Facing south - Glovebag removal on ground level pipe (9-10-20).

Facing east - Glovebag removal continuing on elevated pipe (9-14-20).

Facing west - Water truck used to address dusty conditions overloading air sample cassettes (9-16-20).

Facing north - Glovebag removal on insulated pipe around pumphouse (9-16-20).

Facing east - Certified Project Monitor inspecting final cleaning of elevated pipe (9-17-20).

Facing south - Glovebag removal on ground level pipe (9-17-20).

Facing northwest - Asbestos waste container pickup (9-22-20).

Facing southeast - Abated ground level pipe 9-28-20).

Facing northeast - Asbestos debris and soil removal (9-30-20).

Facing northeast - Glovebag removal (10-1-20).

Facing north - Post inspection debris and soil removal touchup (10-5-20).

Facing west - Quality Control inspection by AMD Supervisor (10-6-20).

Facing north - Post inspection touchup cleaning of pipe (10-7-20).

Facing west - Ontario Specialty Contracting removing erosion control silt sock from former soil pile area (10-7-20).

Facing south - Surficial tar and soil placed in drums for offsite disposal (10-8-20).

Facing northeast - Tunnel entrance closed off (10-9-20).

APPENDIX J INTERIM MEASURES WORK PLAN

Honeywell

Health, Safety, Environment, & Product Safety
6100 Philadelphia Pike
Claymont, DE 19703

December 3, 2018

Thomas Budroe
USEPA Facilities
Rariton Depot
2890 Woodbridge Avenue
Mail Code: MS211
Edison, NJ 08837-3679

Subject: Tonawanda Coke Corporation Site 108 Work Plan
3800 River Road
Tonawanda, NY

Dear Mr. Budroe,

In response to your draft work plan comments (emails on 11/19/18, 11/29/18, and 12/2/18 and telephone discussions on 11/21/18 and 11/30/18), attached is the Final Interim Measures Work Plan for the subject site. This work plan outlines the planned activities for mitigating near-term concerns related to the condition of the storage tank earthen berms, monitoring and management of water levels within the bermed areas through the winter, and developing plans for removal of the tank contents and tank demolition.

If you have any questions in regards to the information provided herein, feel free to contact me at 302-791-6738.

Regards,

Steve Coladonato
Honeywell

cc: Peter Lisichenko, USEPA
John Morris, Honeywell
Mark Sweitzer, Honeywell
Dale Desnoyers, Allen & Desnoyers, LLP
Tom Abrams, Parsons
Ed Glaza, Parsons
James O'Loughlin, Parsons
Jeff Poulsen, Parsons

PARSONS

Interim Measures Work Plan
Tonawanda Coke Corporation, Site 108
3800 River Road, Tonawanda, New York

This work plan presents proposed interim measures to address the aboveground storage tanks and the associated secondary containment areas at the subject site. This work plan outlines the planned activities for mitigating near-term concerns related to the condition of the secondary containment earthen berm, monitoring and management of water levels within the secondary containment through the winter, and developing plans for removal of the tank contents and tank demolition. Attachments to this plan include:

- Attachment 1 – Figures
- Attachment 2 – Surface water sampling results from 2016
- Attachment 3 – Surface water sampling results from 2018.
- Attachment 4 – Project Safety, Health and Environmental Plan
- Attachment 5 – Berm Capacity Calculations

BACKGROUND

The subject property is part of the Tonawanda Coke Corporation (TCC) plant. The plant is located at 3875 River Road in Tonawanda and Site 108 is located across the street at 3800 River Road (Figure 1). Site 108 extends from River Road to the Niagara River. The property boundaries are fenced with a locked gate.

Background information indicates the site was primarily used for main plant shipping and deliveries by way of the Niagara River, including coke, coal, and coal tar (Figure 2) (GHD 2017). Although no definitive information was identified, it appears the storage tanks were used for coal tar storage. Recent investigation plans and reports identify the contents as a saleable product.

Several rounds of investigation have been conducted at the site. Key findings relative to the storage tanks and the secondary containments are as follows:

- Storage Tanks – Each of the three tanks are about 45 feet in diameter and have concrete bases
    - Tank 1
        - Partially demolished; cut down to about 10 feet in height.
        - 4 to 5 feet of product was noted.
    - Tank 2
        - About 36 feet tall.
        - A large hole (about 12-foot by 12-foot) was noted in the top of the tank.
        - About 9 feet of product was noted in the tank.
        - One small hole was noted on the north side of the tank.
    - Tank 3
        - About 36 feet tall.
        - Several weep holes were noted in the tank walls

        - About 2 feet of product was noted in the tank.
    - Samples of product from each tank show elevated levels of semi-volatile organic compounds (SVOC's), including naphthalene, benzo compounds, pyrene, fluoranthene, and chrysene, all of which are consistent with a coal tar product (GHD 2017).
- Secondary Containment Area
    - Tank product was noted overlaying or mixed with soils within the secondary containment with a thickness up to 16 inches. Analytical results of this material were consistent with the tank contents.
    - Water samples from 2016 show standing water within the secondary containment meets surface water discharge quality criteria (only trace levels (up to 16 ppt) of alpha-BHC and gamma-BHC in one sample) (GHD, 2016). Data summary tables are presented in Attachment 2. Previous plans approved [1] by the New York State Department of Environmental Conservation (NYSDEC) allowed for direct discharge of this water to the ground surface in a manner that promotes infiltration into the surrounding soil. This was the planned approach for installation of test pits within the secondary containment areas. Upon completion of the dewatering of the secondary containments, removal of portions of the berm was planned to allow the enclosed areas to freely drain to the surrounding areas in the future, so long as the berms were not necessary for secondary containment of the tanks (GHD, 2016). This determination was to be made in consultation with the NYSDEC.

Observations during the site visit by Parsons on 11/12/18 noted the following significant changes:

- Site conditions indicate recent remedial construction activities had occurred. Most notably:
    - Several holes had been "punched" into the side walls of Tank 3 about 5 feet from the bottom of the tank.
    - Soils had been excavated from adjacent to the north side of secondary containment berms. The excavations extended into the berms.
    - A portion of the berm adjacent to the north side of Tank 2 had been mechanically breached and partially repaired.
    - Portions of the Tank 1 and 2 berms had been disturbed (see Figure 2). Disturbed areas southwest of the berm appear to be berm material relocated as part of the prior site activities.
    - Some general regrading had been done in additional areas adjacent to the berms.
    - A large soil pile with demolition debris is present about 100 feet east of the tanks.

[1] Approval based on document posting on the NYSDEC website: https://www.dec.ny.gov/chemical/49925.html

- Several soil piles and one dumpster are present along the south property line. The soil piles had remnants of plastic sheeting indicating they were covered at one time.
- Pipes which seem to have been cut from Tank 2 and poly sheeting are laying inside the containment area on the north side of Tank 2. A black material is floating on the surface of the water also on the north side of Tank 2. A pipe connected to a damaged valve on the north side of Tank 2 has been cut and a drop of black material on the lip of the pipe evidenced it may have released material into the water below.
- Two surface water sample were collected (one from each of the two bermed areas) on 11/13/18. Analytical results are presented in Attachment 3 and are consistent with the 2016 sampling. No volatile organic compounds (VOCs) were detected and phenanthrene was the only SVOC detected (0.67 ug/L in the west berm). The only other detections were low concentrations for copper (maximum of 9.6 ug/L), zinc (maximum of 18.6 ug/L), and total cyanide (maximum of 11 ug/L). All the results were below effluent limits/levels under the current TCC SPDES (NY0002399) for outfalls to the Niagara River, as well as Class A-S (Niagara River waterbody classification) drinking water standards/guidance values.

OBJECTIVE OF INTERIM MEASURES

Primary objectives of the interim measures are as follows:

1. Remove standing water within the berms to increase storage capacity through the winter, if needed.
2. Stabilize and repair the berm to match undisturbed conditions.
3. Monitor and manage water levels within the berms through the winter, if needed.
4. Re-tarp soil piles along the south property boundary.
5. Characterize tank products and prepare plans for product removal and tank demolition with the intent to initiate in the Spring of 2019.
6. Monitor Tank 2 for a potential discharge from the cut pipe/fittings on the north side of the tank.
7. Monitor cut pipes from the pumphouse to the berm area.

INTERIM MEASURES APPROACH

Berm Water Removal

The proposed path forward for water removal is as follows:

1. Collect two water samples from the eastern and three water samples from the western secondary containment area and analyze for parameters consistent with the Town of Tonawanda Wastewater Treatment Plant (WTP) requirements, including:

a. Volatile organic compounds (VOCs) – EPA Method 624

b. SVOCs – EPA Method 625

c. Priority pollutant metals, cyanide and mercury – EPA Method 200.7

d. pH – field measurement.

Samples will also be analyzed for oil and grease (SGT-HEM), ammonia nitrogen, total suspended solids, chemical oxygen demand, biochemical oxygen demand, and total phosphorus as requested by the USEPA. Sampling will be coordinated with the USEPA to allow for the opportunity to collect split samples.

2. Consistent with the water management approach outlined below, if liquid precipitation within the secondary containment is within 2 feet of the top of the berm at any location, water removal operations will be commenced. Pending analytical results, review and approval by the Town of Tonawanda wastewater treatment plant and approval from the USEPA for discharge to the Town of Tonawanda sanitary system, water will be discharged either directly to a nearby sanitary manhole along River Road or trucked to a nearby discharge point. If the results indicate the need for pretreatment, a system suitable for the purpose will be designed and a plan shall be provided to the USEPA for approval. Honeywell shall obtain a temporary discharge permit from the Town of Tonawanda and pay all necessary fees as required for discharge to the WTP. The discharge location shall be approved by the Town of Tonawanda and USEPA. Should the Town of Tonawanda not accept the discharge to the POTW, Honeywell will work with the USEPA to identify sustainable, cost-effective and environmentally protective alternatives for handling the water. If no other viable alternatives are identified, the water will be disposed offsite.

Berm Stabilization and Repair

Berm stabilization and repair will be implemented as follows:

1. Damaged berm sections will be repaired to match undisturbed sections. In general, this will involve raising the berm height in the damaged areas to about 5 feet above the base of the area inside the berms. Damaged sections of the berm were noted to be about 43 to 48 inches high during the recent site visit. It is anticipated that lower permeability material adjacent to the southwest side of tank berms (Figures 2) can be used for these repairs given the intent of the berm work is to stabilize and repair the existing berms. The material will be visually monitored as excavated. Use of the onsite material will cease if material conditions are not acceptable (e.g., gross contamination, visible contamination, presence of coal tar, etc.). Silt fencing will be installed downgradient of excavation areas.

2. Pending availability at the time of site activities, crushed stone will be imported to stabilize berm sections with the intent of creating an approximately 2-foot wide crest and appropriate outer slope angle of repose (about 2:1).

Soil Pile Tarping

The soil piles along the south property boundary noted during the 11/12/18 site visit will be re-tarped with 10-mil UV-resistant plastic sheeting, secured with soil around the perimeter and sandbags along overlaps. Silt fencing will be installed along downgradient edges of the piles. The covers and silt fencing will be inspected during the monthly berm system inspections and repaired as necessary.

Berm System Monitoring and Water Management

Monitoring and management of the berm system will consist of the following:

1. Monthly inspection and documentation of remaining free-board and berm condition.
2. Following significant storm events (in excess of 1inch occurs within a 24-hour period), monitoring of water within the bermed areas will be performed. Free-board and berm conditions will be assessed as noted above.
3. If liquid precipitation within the secondary containment comes within 2 foot of the top of the berm at any location, water removal operations will be commenced as described above (weather permitting). Based on estimated capacity calculations, maintaining a 2-foot freeboard will provide more than adequate capacity if any of the aboveground storage tanks in either bermed area were to fail. Berm capacity calculations are included in Attachment 5.

Characterization of Tank Contents

Laboratory analyses of the product in the three storage tanks will be performed to characterize the materials for sale options. An assessment by TCC indicated the material is a saleable product. It is anticipated representative product samples from the three tanks will be analyzed as summarized below.

Physical Properties Analyses	**Method**
Viscosity at standard temperature, and after heating to 105º, 150º, and 180º C	@ PTS by ASTM D445 and by PTS proprietary
Specific Gravity	@ PTS by ASTM D1481
Density	@ PTS API RP40
Interfacial / Surface Tension	@ PTS by DuNuoy Method – ASTM D971
Water loss by heating after 105º, 150º, and 180º C	@ PTS by proprietary method
BTU value	@ PTS by ASTM D240-92
Sulfur	@ PTS by ASTM 4294

Note: PTS is PTS Laboratories, Inc., a specialty analytical laboratory in Houston, TX.

In addition, asbestos sampling will be conducted on pipe insulation concurrent with the product testing. The inspection will be conducted by a NYS Department of Labor (DOL)-certified asbestos inspector.

Schedule

The anticipated schedule is as follows:

- Water sampling – week of 11/26/18 (weather permitting)
- Interim measures (pending work plan acceptance):
    - Mobilize for water removal – pending need as determined by water sample results, weather, water levels relative to berm capacity and approval for discharge to sanitary sewer
    - Mobilize for berm repair and soil pile tarping –week of 12/10/18 or 12/17/18 (weather permitting)
    - Berm Water Management – following initial water removal and berm repair
- Tank product and suspect asbestos-containing material sampling – week of 12/10/18 or 12/17/18 (pending weather conditions).
- Tank product removal and demolition plan – 2/1/19

References

GHD 2016. Confirmation Investigation Work Plan – Tonawanda Coke Corporation. Prepared by GHD, Buffalo, New York. August 18, 2016.

GHD 2017. Confirmation Investigation Report for Site 108 – Tonawanda Coke Corporation. Prepared by GHD, Buffalo, New York. Revised March 17, 2017. https://www.dec.ny.gov/docs/remediation_hudson_pdf/tc2.pdf

PARSONS

ATTACHMENT 1

FIGURES

FIGURE 1

Honeywell

TONAWANDA COKE COMPOUND
SITE 108 – 3800 RIVER RD
TONAWANDA, NEW YORK

SITE LOCATION MAP

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

FILE NAME: P:\HONEYWELL\TONAWANDA COKE\10 TECHNICAL CATEGORIES\SK001.DWG
PLOT DATE: 11/13/2018 12:55 PM PLOTTED BY: RUSSO, JILL

120 60 0 120 240

SCALE: 1"=120'

LEGEND:

BERM AREAS IDENTIFIED
FOR REPAIR/STABILIZATION

FIGURE 2

Honeywell

TONAWANDA COKE COMPOUND
SITE 108 – 3800 RIVER RD
TONAWANDA, NEW YORK

SITE PLAN

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

FILE NAME: P:\HONEYWELL\TONAWANDA COKE\10 TECHNICAL CATEGORIES\SK002.DWG
PLOT DATE: 11/14/2018 8:30 AM PLOTTED BY: RUSSO, JILL

PARSONS

ATTACHMENT 2

2016 WATER SAMPLE DATA

Table 4.1

Water Sample Results – Tank Farm Area
Tonawanda Coke Corporation
Tonawanda, NY

	Location ID:	East Bermed Location	West Bermed Location
	Sample Name:	WS-2428-052516-DT-002	WS-2428-052516-DT-001
	Sample Date:	05/25/2016	05/25/2016
Parameters	**Unit**		
Volatile Organic Compounds			
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U
1,2-Dichloroethene (total)	µg/L	10 U	10 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U
2-Chloroethyl vinyl ether	µg/L	25 U	25 U
Acrolein	µg/L	100 U	100 U
Acrylonitrile	µg/L	50 U	50 U
Benzene	µg/L	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U
Vinyl chloride	µg/L	5.0 U	5.0 U
Semivolatile Organic Compounds			
1,2,4-Trichlorobenzene	µg/L	9.6 U	9.5 U
1,2-Dichlorobenzene	µg/L	9.6 U	9.5 U
1,2-Diphenylhydrazine	µg/L	9.6 U	9.5 U
1,3-Dichlorobenzene	µg/L	9.6 U	9.5 U
1,4-Dichlorobenzene	µg/L	9.6 U	9.5 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	4.8 U	4.7 U
2,4,6-Trichlorophenol	µg/L	4.8 U	4.7 U
2,4-Dichlorophenol	µg/L	4.8 U	4.7 U
2,4-Dimethylphenol	µg/L	4.8 U	4.7 U
2,4-Dinitrophenol	µg/L	9.6 U	9.5 U
2,4-Dinitrotoluene	µg/L	9.6 U	9.5 U
2,6-Dinitrotoluene	µg/L	4.8 U	4.7 U
2-Chloronaphthalene	µg/L	4.8 U	4.7 U
2-Chlorophenol	µg/L	4.8 U	4.7 U
2-Nitrophenol	µg/L	4.8 U	4.7 U
3,3'-Dichlorobenzidine	µg/L	4.8 U	4.7 U
4,6-Dinitro-2-methylphenol	µg/L	9.6 U	9.5 U
4-Bromophenyl phenyl ether	µg/L	4.8 U	4.7 U
4-Chloro-3-methylphenol	µg/L	4.8 U	4.7 U
4-Chlorophenyl phenyl ether	µg/L	4.8 U	4.7 U
4-Nitrophenol	µg/L	14 U	14 U
Acenaphthene	µg/L	4.8 U	4.7 U
Acenaphthylene	µg/L	4.8 U	4.7 U

Table 4.1

Water Sample Results – Tank Farm Area
Tonawanda Coke Corporation
Tonawanda, NY

	Location ID:	East Bermed Location	West Bermed Location
	Sample Name:	WS-2428-052516-DT-002	WS-2428-052516-DT-001
	Sample Date:	05/25/2016	05/25/2016
Parameters	**Unit**		
Semivolatile Organic Compounds (continued)			
Anthracene	µg/L	4.8 U	4.7 U
Benzidine	µg/L	77 U	76 U
Benzo(a)anthracene	µg/L	4.8 U	4.7 U
Benzo(a)pyrene	µg/L	4.8 U	4.7 U
Benzo(b)fluoranthene	µg/L	4.8 U	4.7 U
Benzo(g,h,i)perylene	µg/L	4.8 U	4.7 U
Benzo(k)fluoranthene	µg/L	4.8 U	4.7 U
bis(2-Chloroethoxy)methane	µg/L	4.8 U	4.7 U
bis(2-Chloroethyl)ether	µg/L	4.8 U	4.7 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.6 U	9.5 U
Butyl benzylphthalate (BBP)	µg/L	4.8 U	4.7 U
Chrysene	µg/L	4.8 U	4.7 U
Di-n-butylphthalate (DBP)	µg/L	4.8 U	4.7 U
Di-n-octyl phthalate (DnOP)	µg/L	4.8 U	4.7 U
Dibenz(a,h)anthracene	µg/L	4.8 U	4.7 U
Diethyl phthalate	µg/L	4.8 U	4.7 U
Dimethyl phthalate	µg/L	4.8 U	4.7 U
Fluoranthene	µg/L	4.8 U	4.7 U
Fluorene	µg/L	4.8 U	4.7 U
Hexachlorobenzene	µg/L	4.8 U	4.7 U
Hexachlorobutadiene	µg/L	4.8 U	4.7 U
Hexachlorocyclopentadiene	µg/L	9.6 U	9.5 U
Hexachloroethane	µg/L	4.8 U	4.7 U
Indeno(1,2,3-cd)pyrene	µg/L	4.8 U	4.7 U
Isophorone	µg/L	4.8 U	4.7 U
N-Nitrosodi-n-propylamine	µg/L	4.8 U	4.7 U
N-Nitrosodimethylamine	µg/L	9.6 U	9.5 U
N-Nitrosodiphenylamine	µg/L	4.8 U	4.7 U
Naphthalene	µg/L	4.8 U	4.7 U
Nitrobenzene	µg/L	4.8 U	4.7 U
Pentachlorophenol	µg/L	9.6 U	9.5 U
Phenanthrene	µg/L	4.8 U	4.7 U
Phenol	µg/L	4.8 U	4.7 U
Pyrene	µg/L	4.8 U	4.7 U
Pesticides/PCBs			
4,4'-DDD	µg/L	0.047 U	0.049 U
4,4'-DDE	µg/L	0.047 U	0.049 U
4,4'-DDT	µg/L	0.047 U	0.049 U
Aldrin	µg/L	0.047 U	0.049 U
alpha-BHC	µg/L	0.015 JB	0.049 U
Aroclor-1016 (PCB-1016)	µg/L	0.057 U	0.057 U
Aroclor-1221 (PCB-1221)	µg/L	0.057 U	0.057 U
Aroclor-1232 (PCB-1232)	µg/L	0.057 U	0.057 U
Aroclor-1242 (PCB-1242)	µg/L	0.057 U	0.057 U
Aroclor-1248 (PCB-1248)	µg/L	0.057 U	0.057 U
Aroclor-1254 (PCB-1254)	µg/L	0.057 U	0.057 U
Aroclor-1260 (PCB-1260)	µg/L	0.057 U	0.057 U
beta-BHC	µg/L	0.047 U	0.049 U
Chlordane	µg/L	0.47 U	0.49 U
delta-BHC	µg/L	0.047 U	0.049 U
Dieldrin	µg/L	0.047 U	0.049 U
Endosulfan I	µg/L	0.047 U	0.049 U
Endosulfan II	µg/L	0.047 U	0.049 U

Table 4.1

Water Sample Results – Tank Farm Area
Tonawanda Coke Corporation
Tonawanda, NY

	Location ID:	East Bermed Location	West Bermed Location
	Sample Name:	WS-2428-052516-DT-002	WS-2428-052516-DT-001
	Sample Date:	05/25/2016	05/25/2016
Parameters	**Unit**		
Pesticides/PCBs (continued)			
Endosulfan sulfate	µg/L	0.047 U	0.049 U
Endrin	µg/L	0.047 U	0.049 U
Endrin aldehyde	µg/L	0.047 U	0.049 U
gamma-BHC (lindane)	µg/L	0.016 J	0.049 U
Heptachlor	µg/L	0.047 U	0.049 U
Heptachlor epoxide	µg/L	0.047 U	0.049 U
Toxaphene	µg/L	0.47 U	0.49 U
Metals			
Antimony	mg/L	0.020 U	0.020 U
Arsenic	mg/L	0.015 U	0.015 U
Beryllium	mg/L	0.0020 U	0.0020 U
Cadmium	mg/L	0.0020 U	0.0020 U
Chromium	mg/L	0.0040 U	0.0040 U
Copper	mg/L	0.034	0.0017 J
Lead	mg/L	0.010 U	0.010 U
Mercury	mg/L	0.00020 U	0.00020 U
Nickel	mg/L	0.010 U	0.0016 J
Selenium	mg/L	0.025 U	0.025 U
Silver	mg/L	0.0060 U	0.0060 U
Thallium	mg/L	0.020 U	0.020 U
Zinc	mg/L	0.012	0.0042 J
General Chemistry			
Cyanide (total)	mg/L	0.010 U	0.0051 J
Cyanide (free)	µg/L	5.0 U	5.0 U

Notes:

U - Not detected at the associated reporting limit.
J - Estimated Concentration.
B - Also detected in laboratory blank.

PARSONS

ATTACHMENT 3

2018 WATER SAMPLE DATA

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 480-145167-1
Client Project/Site: Area 108

For:
Parsons Corporation
40 LaRiviere Drive
Suite 350
Buffalo, New York 14202

Attn: Robert B Piurek

Authorized for release by:
11/20/2018 9:02:46 AM

John Schove, Project Manager II
(716)504-9838
john.schove@testamericainc.com

Table of Contents

Definitions/Glossary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Job ID: 480-145167-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-145167-1

Comments
No additional comments.

Receipt
The samples were received on 11/13/2018 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2º C.

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

GC/MS Semi VOA
Method(s) 625.1: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits due to poor performance. The LCS associated with batch 460-568979 had (N-Nitrosodimethylamine) outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified

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

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

General Chemistry
Method(s) Distill/CN: The reference method requires samples to be preserved to a pH>12. The following samples were received with insufficient preservation at a pH of 6.03: EAST BERM_11122018 (480-145167-1) and WEST BERM_11122018 (480-145167-2). The samples were preserved to the appropriate pH in the laboratory.

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

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

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

Detection Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Client Sample ID: EAST BERM_11122018 — Lab Sample ID: 480-145167-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	9.6	J	25.0	5.5	ug/L	1		200.7 Rev 4.4	Total Recoverable
Zinc	18.6	J	30.0	5.4	ug/L	1		200.7 Rev 4.4	Total Recoverable
Cyanide, Total	0.0035	J	0.010	0.0020	mg/L	1		335.4	Total/NA

Client Sample ID: WEST BERM_11122018 — Lab Sample ID: 480-145167-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.67	J	10	0.58	ug/L	1		625.1	Total/NA
Zinc	9.7	J	30.0	5.4	ug/L	1		200.7 Rev 4.4	Total Recoverable
Cyanide, Total	0.011		0.010	0.0020	mg/L	1		335.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: EAST BERM_11122018
Date Collected: 11/13/18 15:30
Date Received: 11/13/18 17:00

Lab Sample ID: 480-145167-1
Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/18 10:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/18/18 10:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/18/18 10:09	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/18/18 10:09	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/18/18 10:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/18/18 10:09	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/18/18 10:09	1
1,2-Dichloroethene, Total	2.0	U	2.0	0.44	ug/L			11/18/18 10:09	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/18/18 10:09	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/18/18 10:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/18/18 10:09	1
2-Chloroethyl vinyl ether	1.0	U	1.0	0.43	ug/L			11/18/18 10:09	1
Acrolein	4.0	U	4.0	1.1	ug/L			11/18/18 10:09	1
Acrylonitrile	2.0	U	2.0	0.77	ug/L			11/18/18 10:09	1
Benzene	1.0	U	1.0	0.43	ug/L			11/18/18 10:09	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/18/18 10:09	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/18/18 10:09	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/18/18 10:09	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/18/18 10:09	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/18/18 10:09	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/18 10:09	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/18/18 10:09	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/18/18 10:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/18/18 10:09	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/18/18 10:09	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/18/18 10:09	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/18/18 10:09	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/18/18 10:09	1
Toluene	1.0	U	1.0	0.38	ug/L			11/18/18 10:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/18/18 10:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/18/18 10:09	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/18/18 10:09	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/18/18 10:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*60 - 140*		*11/18/18 10:09*	*1*
4-Bromofluorobenzene	*121*		*60 - 140*		*11/18/18 10:09*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 140*		*11/18/18 10:09*	*1*
Toluene-d8 (Surr)	*103*		*60 - 140*		*11/18/18 10:09*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	2.0	U	2.0	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
1,2-Dichlorobenzene	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
1,2-Diphenylhydrazine	10	U	10	0.37	ug/L		11/16/18 09:01	11/17/18 00:38	1
1,3-Dichlorobenzene	10	U	10	2.0	ug/L		11/16/18 09:01	11/17/18 00:38	1
1,4-Dichlorobenzene	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/16/18 09:01	11/17/18 00:38	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/16/18 09:01	11/17/18 00:38	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/16/18 09:01	11/17/18 00:38	1

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Client Sample ID: EAST BERM_11122018
Date Collected: 11/13/18 15:30
Date Received: 11/13/18 17:00

Lab Sample ID: 480-145167-1
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	10	U	10	0.23	ug/L		11/16/18 09:01	11/17/18 00:38	1
2,4-Dinitrophenol	20	U	20	2.0	ug/L		11/16/18 09:01	11/17/18 00:38	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/16/18 09:01	11/17/18 00:38	1
2,6-Dinitrotoluene	2.0	U	2.0	0.53	ug/L		11/16/18 09:01	11/17/18 00:38	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/16/18 09:01	11/17/18 00:38	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/16/18 09:01	11/17/18 00:38	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/16/18 09:01	11/17/18 00:38	1
3,3'-Dichlorobenzidine	10	U	10	1.6	ug/L		11/16/18 09:01	11/17/18 00:38	1
4,6-Dinitro-2-methylphenol	20	U	20	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/16/18 09:01	11/17/18 00:38	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/16/18 09:01	11/17/18 00:38	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
4-Nitrophenol	20	U	20	0.55	ug/L		11/16/18 09:01	11/17/18 00:38	1
Acenaphthene	10	U	10	1.1	ug/L		11/16/18 09:01	11/17/18 00:38	1
Acenaphthylene	10	U	10	0.82	ug/L		11/16/18 09:01	11/17/18 00:38	1
Anthracene	10	U	10	0.63	ug/L		11/16/18 09:01	11/17/18 00:38	1
Benzidine	10	U	10	0.92	ug/L		11/16/18 09:01	11/17/18 00:38	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/16/18 09:01	11/17/18 00:38	1
Benzo[a]pyrene	1.0	U	1.0	0.68	ug/L		11/16/18 09:01	11/17/18 00:38	1
Benzo[b]fluoranthene	2.0	U	2.0	1.4	ug/L		11/16/18 09:01	11/17/18 00:38	1
Benzo[g,h,i]perylene	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/16/18 09:01	11/17/18 00:38	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/16/18 09:01	11/17/18 00:38	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/16/18 09:01	11/17/18 00:38	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.0	ug/L		11/16/18 09:01	11/17/18 00:38	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/16/18 09:01	11/17/18 00:38	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/16/18 09:01	11/17/18 00:38	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.74	ug/L		11/16/18 09:01	11/17/18 00:38	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/16/18 09:01	11/17/18 00:38	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/16/18 09:01	11/17/18 00:38	1
Di-n-butyl phthalate	10	U	10	0.75	ug/L		11/16/18 09:01	11/17/18 00:38	1
Di-n-octyl phthalate	10	U	10	1.4	ug/L		11/16/18 09:01	11/17/18 00:38	1
Fluoranthene	10	U	10	0.84	ug/L		11/16/18 09:01	11/17/18 00:38	1
Fluorene	10	U	10	0.91	ug/L		11/16/18 09:01	11/17/18 00:38	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/16/18 09:01	11/17/18 00:38	1
Hexachlorobutadiene	1.0	U	1.0	0.13	ug/L		11/16/18 09:01	11/17/18 00:38	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/16/18 09:01	11/17/18 00:38	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/16/18 09:01	11/17/18 00:38	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
Isophorone	10	U	10	0.80	ug/L		11/16/18 09:01	11/17/18 00:38	1
Naphthalene	10	U	10	1.1	ug/L		11/16/18 09:01	11/17/18 00:38	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/16/18 09:01	11/17/18 00:38	1
N-Nitrosodimethylamine	10	U *	10	0.45	ug/L		11/16/18 09:01	11/17/18 00:38	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/16/18 09:01	11/17/18 00:38	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/16/18 09:01	11/17/18 00:38	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/16/18 09:01	11/17/18 00:38	1
Phenanthrene	10	U	10	0.58	ug/L		11/16/18 09:01	11/17/18 00:38	1
Phenol	10	U	10	0.29	ug/L		11/16/18 09:01	11/17/18 00:38	1
Pyrene	10	U	10	1.6	ug/L		11/16/18 09:01	11/17/18 00:38	1

Client Sample ID: EAST BERM_11122018

Lab Sample ID: 480-145167-1

Date Collected: 11/13/18 15:30

Matrix: Water

Date Received: 11/13/18 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*80*		*14 - 149*	*11/16/18 09:01*	*11/17/18 00:38*	*1*
2-Fluorobiphenyl	*75*		*44 - 129*	*11/16/18 09:01*	*11/17/18 00:38*	*1*
2-Fluorophenol	*38*		*10 - 76*	*11/16/18 09:01*	*11/17/18 00:38*	*1*
Nitrobenzene-d5	*87*		*15 - 314*	*11/16/18 09:01*	*11/17/18 00:38*	*1*
Phenol-d5	*25*		*8 - 424*	*11/16/18 09:01*	*11/17/18 00:38*	*1*
Terphenyl-d14	*76*		*28 - 150*	*11/16/18 09:01*	*11/17/18 00:38*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	10.0	U	10.0	4.1	ug/L		11/17/18 18:00	11/18/18 13:27	1
Arsenic	5.0	U	5.0	4.2	ug/L		11/17/18 18:00	11/18/18 13:27	1
Beryllium	2.0	U	2.0	1.5	ug/L		11/17/18 18:00	11/18/18 13:27	1
Cadmium	5.0	U	5.0	2.1	ug/L		11/17/18 18:00	11/18/18 13:27	1
Chromium	10.0	U	10.0	5.9	ug/L		11/17/18 18:00	11/18/18 13:27	1
Copper	**9.6**	**J**	25.0	5.5	ug/L		11/17/18 18:00	11/18/18 13:27	1
Lead	5.0	U	5.0	3.8	ug/L		11/17/18 18:00	11/18/18 13:27	1
Nickel	40.0	U	40.0	6.3	ug/L		11/17/18 18:00	11/18/18 13:27	1
Selenium	5.0	U	5.0	4.2	ug/L		11/17/18 18:00	11/18/18 13:27	1
Silver	10.0	U	10.0	1.3	ug/L		11/17/18 18:00	11/18/18 13:27	1
Thallium	10.0	U	10.0	8.7	ug/L		11/17/18 18:00	11/18/18 13:27	1
Zinc	**18.6**	**J**	30.0	5.4	ug/L		11/17/18 18:00	11/18/18 13:27	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/16/18 12:33	11/16/18 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0035**	**J**	0.010	0.0020	mg/L		11/19/18 08:52	11/19/18 11:53	1

Client Sample ID: WEST BERM_11122018
Date Collected: 11/13/18 15:45
Date Received: 11/13/18 17:00

Lab Sample ID: 480-145167-2
Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/18 10:35	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/18/18 10:35	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/18/18 10:35	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/18/18 10:35	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/18/18 10:35	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/18/18 10:35	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/18/18 10:35	1
1,2-Dichloroethene, Total	2.0	U	2.0	0.44	ug/L			11/18/18 10:35	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/18/18 10:35	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/18/18 10:35	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/18/18 10:35	1
2-Chloroethyl vinyl ether	1.0	U	1.0	0.43	ug/L			11/18/18 10:35	1
Acrolein	4.0	U	4.0	1.1	ug/L			11/18/18 10:35	1
Acrylonitrile	2.0	U	2.0	0.77	ug/L			11/18/18 10:35	1
Benzene	1.0	U	1.0	0.43	ug/L			11/18/18 10:35	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/18/18 10:35	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/18/18 10:35	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/18/18 10:35	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/18/18 10:35	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/18/18 10:35	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/18 10:35	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/18/18 10:35	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/18/18 10:35	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/18/18 10:35	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/18/18 10:35	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/18/18 10:35	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/18/18 10:35	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/18/18 10:35	1
Toluene	1.0	U	1.0	0.38	ug/L			11/18/18 10:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/18/18 10:35	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/18/18 10:35	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/18/18 10:35	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/18/18 10:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*60 - 140*		*11/18/18 10:35*	*1*
4-Bromofluorobenzene	*116*		*60 - 140*		*11/18/18 10:35*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 140*		*11/18/18 10:35*	*1*
Toluene-d8 (Surr)	*100*		*60 - 140*		*11/18/18 10:35*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	2.0	U	2.0	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
1,2-Dichlorobenzene	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
1,2-Diphenylhydrazine	10	U	10	0.37	ug/L		11/16/18 09:01	11/17/18 00:58	1
1,3-Dichlorobenzene	10	U	10	2.0	ug/L		11/16/18 09:01	11/17/18 00:58	1
1,4-Dichlorobenzene	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/16/18 09:01	11/17/18 00:58	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/16/18 09:01	11/17/18 00:58	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/16/18 09:01	11/17/18 00:58	1

Client Sample ID: WEST BERM_11122018
Date Collected: 11/13/18 15:45
Date Received: 11/13/18 17:00

Lab Sample ID: 480-145167-2
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	10	U	10	0.23	ug/L		11/16/18 09:01	11/17/18 00:58	1
2,4-Dinitrophenol	20	U	20	2.0	ug/L		11/16/18 09:01	11/17/18 00:58	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/16/18 09:01	11/17/18 00:58	1
2,6-Dinitrotoluene	2.0	U	2.0	0.53	ug/L		11/16/18 09:01	11/17/18 00:58	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/16/18 09:01	11/17/18 00:58	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/16/18 09:01	11/17/18 00:58	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/16/18 09:01	11/17/18 00:58	1
3,3'-Dichlorobenzidine	10	U	10	1.6	ug/L		11/16/18 09:01	11/17/18 00:58	1
4,6-Dinitro-2-methylphenol	20	U	20	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/16/18 09:01	11/17/18 00:58	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/16/18 09:01	11/17/18 00:58	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
4-Nitrophenol	20	U	20	0.55	ug/L		11/16/18 09:01	11/17/18 00:58	1
Acenaphthene	10	U	10	1.1	ug/L		11/16/18 09:01	11/17/18 00:58	1
Acenaphthylene	10	U	10	0.82	ug/L		11/16/18 09:01	11/17/18 00:58	1
Anthracene	10	U	10	0.63	ug/L		11/16/18 09:01	11/17/18 00:58	1
Benzidine	10	U	10	0.92	ug/L		11/16/18 09:01	11/17/18 00:58	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/16/18 09:01	11/17/18 00:58	1
Benzo[a]pyrene	1.0	U	1.0	0.68	ug/L		11/16/18 09:01	11/17/18 00:58	1
Benzo[b]fluoranthene	2.0	U	2.0	1.4	ug/L		11/16/18 09:01	11/17/18 00:58	1
Benzo[g,h,i]perylene	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/16/18 09:01	11/17/18 00:58	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/16/18 09:01	11/17/18 00:58	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/16/18 09:01	11/17/18 00:58	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.0	ug/L		11/16/18 09:01	11/17/18 00:58	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/16/18 09:01	11/17/18 00:58	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/16/18 09:01	11/17/18 00:58	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.74	ug/L		11/16/18 09:01	11/17/18 00:58	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/16/18 09:01	11/17/18 00:58	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/16/18 09:01	11/17/18 00:58	1
Di-n-butyl phthalate	10	U	10	0.75	ug/L		11/16/18 09:01	11/17/18 00:58	1
Di-n-octyl phthalate	10	U	10	1.4	ug/L		11/16/18 09:01	11/17/18 00:58	1
Fluoranthene	10	U	10	0.84	ug/L		11/16/18 09:01	11/17/18 00:58	1
Fluorene	10	U	10	0.91	ug/L		11/16/18 09:01	11/17/18 00:58	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/16/18 09:01	11/17/18 00:58	1
Hexachlorobutadiene	1.0	U	1.0	0.13	ug/L		11/16/18 09:01	11/17/18 00:58	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/16/18 09:01	11/17/18 00:58	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/16/18 09:01	11/17/18 00:58	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
Isophorone	10	U	10	0.80	ug/L		11/16/18 09:01	11/17/18 00:58	1
Naphthalene	10	U	10	1.1	ug/L		11/16/18 09:01	11/17/18 00:58	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/16/18 09:01	11/17/18 00:58	1
N-Nitrosodimethylamine	10	U *	10	0.45	ug/L		11/16/18 09:01	11/17/18 00:58	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/16/18 09:01	11/17/18 00:58	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/16/18 09:01	11/17/18 00:58	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/16/18 09:01	11/17/18 00:58	1
Phenanthrene	**0.67**	**J**	10	0.58	ug/L		11/16/18 09:01	11/17/18 00:58	1
Phenol	10	U	10	0.29	ug/L		11/16/18 09:01	11/17/18 00:58	1
Pyrene	10	U	10	1.6	ug/L		11/16/18 09:01	11/17/18 00:58	1

Client Sample ID: WEST BERM_11122018
Date Collected: 11/13/18 15:45
Date Received: 11/13/18 17:00

Lab Sample ID: 480-145167-2
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*90*		*14 - 149*	*11/16/18 09:01*	*11/17/18 00:58*	*1*
2-Fluorobiphenyl	*92*		*44 - 129*	*11/16/18 09:01*	*11/17/18 00:58*	*1*
2-Fluorophenol	*40*		*10 - 76*	*11/16/18 09:01*	*11/17/18 00:58*	*1*
Nitrobenzene-d5	*102*		*15 - 314*	*11/16/18 09:01*	*11/17/18 00:58*	*1*
Phenol-d5	*27*		*8 - 424*	*11/16/18 09:01*	*11/17/18 00:58*	*1*
Terphenyl-d14	*95*		*28 - 150*	*11/16/18 09:01*	*11/17/18 00:58*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	10.0	U	10.0	4.1	ug/L		11/17/18 18:00	11/18/18 13:30	1
Arsenic	5.0	U	5.0	4.2	ug/L		11/17/18 18:00	11/18/18 13:30	1
Beryllium	2.0	U	2.0	1.5	ug/L		11/17/18 18:00	11/18/18 13:30	1
Cadmium	5.0	U	5.0	2.1	ug/L		11/17/18 18:00	11/18/18 13:30	1
Chromium	10.0	U	10.0	5.9	ug/L		11/17/18 18:00	11/18/18 13:30	1
Copper	25.0	U	25.0	5.5	ug/L		11/17/18 18:00	11/18/18 13:30	1
Lead	5.0	U	5.0	3.8	ug/L		11/17/18 18:00	11/18/18 13:30	1
Nickel	40.0	U	40.0	6.3	ug/L		11/17/18 18:00	11/18/18 13:30	1
Selenium	5.0	U	5.0	4.2	ug/L		11/17/18 18:00	11/18/18 13:30	1
Silver	10.0	U	10.0	1.3	ug/L		11/17/18 18:00	11/18/18 13:30	1
Thallium	10.0	U	10.0	8.7	ug/L		11/17/18 18:00	11/18/18 13:30	1
Zinc	**9.7**	**J**	30.0	5.4	ug/L		11/17/18 18:00	11/18/18 13:30	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/16/18 12:33	11/16/18 14:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.011**		0.010	0.0020	mg/L		11/19/18 08:52	11/19/18 11:54	1

Surrogate Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
480-145167-1	EAST BERM_11122018	101	121	110	103
480-145167-2	WEST BERM_11122018	103	116	110	100
LCS 460-569376/3	Lab Control Sample	101	119	108	102
MB 460-569376/8	Method Blank	105	117	111	99

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHL
Lab Sample ID	Client Sample ID	(14-149)	(44-129)	(10-76)	(15-314)	(8-424)	(28-150)
480-145167-1	EAST BERM_11122018	80	75	38	87	25	76
480-145167-2	WEST BERM_11122018	90	92	40	102	27	95
LCS 460-568979/2-A	Lab Control Sample	82	78	51	90	36	77
MB 460-568979/1-A	Method Blank	108	95	53	113	36	102

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-569376/8
Matrix: Water
Analysis Batch: 569376

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/18 08:46	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/18/18 08:46	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/18/18 08:46	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/18/18 08:46	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/18/18 08:46	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/18/18 08:46	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/18/18 08:46	1
1,2-Dichloroethene, Total	2.0	U	2.0	0.44	ug/L			11/18/18 08:46	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/18/18 08:46	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/18/18 08:46	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/18/18 08:46	1
2-Chloroethyl vinyl ether	1.0	U	1.0	0.43	ug/L			11/18/18 08:46	1
Acrolein	4.0	U	4.0	1.1	ug/L			11/18/18 08:46	1
Acrylonitrile	2.0	U	2.0	0.77	ug/L			11/18/18 08:46	1
Benzene	1.0	U	1.0	0.43	ug/L			11/18/18 08:46	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/18/18 08:46	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/18/18 08:46	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/18/18 08:46	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/18/18 08:46	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/18/18 08:46	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/18 08:46	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/18/18 08:46	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/18/18 08:46	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/18/18 08:46	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/18/18 08:46	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/18/18 08:46	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/18/18 08:46	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/18/18 08:46	1
Toluene	1.0	U	1.0	0.38	ug/L			11/18/18 08:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/18/18 08:46	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/18/18 08:46	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/18/18 08:46	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/18/18 08:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*60 - 140*		*11/18/18 08:46*	*1*
4-Bromofluorobenzene	*117*		*60 - 140*		*11/18/18 08:46*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 140*		*11/18/18 08:46*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*11/18/18 08:46*	*1*

Lab Sample ID: LCS 460-569376/3
Matrix: Water
Analysis Batch: 569376

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	20.4		ug/L		102	70 - 130
1,1,2,2-Tetrachloroethane	20.0	17.6		ug/L		88	60 - 140
1,1,2-Trichloroethane	20.0	19.1		ug/L		95	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-569376/3
Matrix: Water
Analysis Batch: 569376

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	20.0	18.0		ug/L		90	70 - 130
1,1-Dichloroethene	20.0	18.4		ug/L		92	50 - 150
1,2-Dichlorobenzene	20.0	19.5		ug/L		97	65 - 135
1,2-Dichloroethane	20.0	20.1		ug/L		101	70 - 130
1,2-Dichloropropane	20.0	18.1		ug/L		91	35 - 165
1,3-Dichlorobenzene	20.0	19.2		ug/L		96	70 - 130
1,4-Dichlorobenzene	20.0	19.4		ug/L		97	65 - 135
2-Chloroethyl vinyl ether	20.0	18.3		ug/L		91	0.1 - 225
Benzene	20.0	18.3		ug/L		91	65 - 135
Bromoform	20.0	24.0		ug/L		120	70 - 130
Bromomethane	20.0	11.5		ug/L		57	15 - 185
Carbon tetrachloride	20.0	21.9		ug/L		110	70 - 130
Chlorobenzene	20.0	19.5		ug/L		98	65 - 135
Chlorodibromomethane	20.0	22.2		ug/L		111	70 - 135
Chloroethane	20.0	20.7		ug/L		103	40 - 160
Chloroform	20.0	19.6		ug/L		98	70 - 135
Chloromethane	20.0	17.2		ug/L		86	0.1 - 205
cis-1,3-Dichloropropene	20.0	18.3		ug/L		91	25 - 175
Dichlorobromomethane	20.0	20.2		ug/L		101	65 - 135
Ethylbenzene	20.0	18.5		ug/L		92	60 - 140
Methylene Chloride	20.0	17.7		ug/L		89	60 - 140
Tetrachloroethene	20.0	23.7		ug/L		118	70 - 130
Toluene	20.0	18.9		ug/L		95	70 - 130
trans-1,2-Dichloroethene	20.0	18.8		ug/L		94	70 - 130
trans-1,3-Dichloropropene	20.0	18.6		ug/L		93	50 - 150
Trichloroethene	20.0	20.4		ug/L		102	65 - 135
Vinyl chloride	20.0	18.2		ug/L		91	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*60 - 140*
4-Bromofluorobenzene	*119*		*60 - 140*
Dibromofluoromethane (Surr)	*108*		*60 - 140*
Toluene-d8 (Surr)	*102*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-568979/1-A
Matrix: Water
Analysis Batch: 569060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	2.0	U	2.0	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
1,2-Dichlorobenzene	10	U	10	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
1,2-Diphenylhydrazine	10	U	10	0.37	ug/L		11/16/18 09:01	11/16/18 17:16	1
1,3-Dichlorobenzene	10	U	10	2.0	ug/L		11/16/18 09:01	11/16/18 17:16	1
1,4-Dichlorobenzene	10	U	10	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/16/18 09:01	11/16/18 17:16	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/16/18 09:01	11/16/18 17:16	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-568979/1-A
Matrix: Water
Analysis Batch: 569060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/16/18 09:01	11/16/18 17:16	1
2,4-Dimethylphenol	10	U	10	0.23	ug/L		11/16/18 09:01	11/16/18 17:16	1
2,4-Dinitrophenol	20	U	20	2.0	ug/L		11/16/18 09:01	11/16/18 17:16	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/16/18 09:01	11/16/18 17:16	1
2,6-Dinitrotoluene	2.0	U	2.0	0.53	ug/L		11/16/18 09:01	11/16/18 17:16	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/16/18 09:01	11/16/18 17:16	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/16/18 09:01	11/16/18 17:16	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/16/18 09:01	11/16/18 17:16	1
3,3'-Dichlorobenzidine	10	U	10	1.6	ug/L		11/16/18 09:01	11/16/18 17:16	1
4,6-Dinitro-2-methylphenol	20	U	20	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/16/18 09:01	11/16/18 17:16	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/16/18 09:01	11/16/18 17:16	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
4-Nitrophenol	20	U	20	0.55	ug/L		11/16/18 09:01	11/16/18 17:16	1
Acenaphthene	10	U	10	1.1	ug/L		11/16/18 09:01	11/16/18 17:16	1
Acenaphthylene	10	U	10	0.82	ug/L		11/16/18 09:01	11/16/18 17:16	1
Anthracene	10	U	10	0.63	ug/L		11/16/18 09:01	11/16/18 17:16	1
Benzidine	10	U	10	0.92	ug/L		11/16/18 09:01	11/16/18 17:16	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/16/18 09:01	11/16/18 17:16	1
Benzo[a]pyrene	1.0	U	1.0	0.68	ug/L		11/16/18 09:01	11/16/18 17:16	1
Benzo[b]fluoranthene	2.0	U	2.0	1.4	ug/L		11/16/18 09:01	11/16/18 17:16	1
Benzo[g,h,i]perylene	10	U	10	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/16/18 09:01	11/16/18 17:16	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/16/18 09:01	11/16/18 17:16	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/16/18 09:01	11/16/18 17:16	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.0	ug/L		11/16/18 09:01	11/16/18 17:16	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/16/18 09:01	11/16/18 17:16	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/16/18 09:01	11/16/18 17:16	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.74	ug/L		11/16/18 09:01	11/16/18 17:16	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/16/18 09:01	11/16/18 17:16	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/16/18 09:01	11/16/18 17:16	1
Di-n-butyl phthalate	10	U	10	0.75	ug/L		11/16/18 09:01	11/16/18 17:16	1
Di-n-octyl phthalate	10	U	10	1.4	ug/L		11/16/18 09:01	11/16/18 17:16	1
Fluoranthene	10	U	10	0.84	ug/L		11/16/18 09:01	11/16/18 17:16	1
Fluorene	10	U	10	0.91	ug/L		11/16/18 09:01	11/16/18 17:16	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/16/18 09:01	11/16/18 17:16	1
Hexachlorobutadiene	1.0	U	1.0	0.13	ug/L		11/16/18 09:01	11/16/18 17:16	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/16/18 09:01	11/16/18 17:16	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/16/18 09:01	11/16/18 17:16	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
Isophorone	10	U	10	0.80	ug/L		11/16/18 09:01	11/16/18 17:16	1
Naphthalene	10	U	10	1.1	ug/L		11/16/18 09:01	11/16/18 17:16	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/16/18 09:01	11/16/18 17:16	1
N-Nitrosodimethylamine	10	U	10	0.45	ug/L		11/16/18 09:01	11/16/18 17:16	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/16/18 09:01	11/16/18 17:16	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/16/18 09:01	11/16/18 17:16	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/16/18 09:01	11/16/18 17:16	1
Phenanthrene	10	U	10	0.58	ug/L		11/16/18 09:01	11/16/18 17:16	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-568979/1-A
Matrix: Water
Analysis Batch: 569060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	10	U	10	0.29	ug/L		11/16/18 09:01	11/16/18 17:16	1
Pyrene	10	U	10	1.6	ug/L		11/16/18 09:01	11/16/18 17:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*108*		*14 - 149*	*11/16/18 09:01*	*11/16/18 17:16*	*1*
2-Fluorobiphenyl	*95*		*44 - 129*	*11/16/18 09:01*	*11/16/18 17:16*	*1*
2-Fluorophenol	*53*		*10 - 76*	*11/16/18 09:01*	*11/16/18 17:16*	*1*
Nitrobenzene-d5	*113*		*15 - 314*	*11/16/18 09:01*	*11/16/18 17:16*	*1*
Phenol-d5	*36*		*8 - 424*	*11/16/18 09:01*	*11/16/18 17:16*	*1*
Terphenyl-d14	*102*		*28 - 150*	*11/16/18 09:01*	*11/16/18 17:16*	*1*

Lab Sample ID: LCS 460-568979/2-A
Matrix: Water
Analysis Batch: 569060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	80.0	54.0		ug/L		67	44 - 142
1,2-Dichlorobenzene	80.0	51.4		ug/L		64	60 - 140
1,2-Diphenylhydrazine	80.0	77.2		ug/L		96	60 - 140
1,3-Dichlorobenzene	80.0	49.1		ug/L		61	60 - 140
1,4-Dichlorobenzene	80.0	48.7		ug/L		61	60 - 140
2,2'-oxybis[1-chloropropane]	80.0	66.1		ug/L		83	36 - 166
2,4,6-Trichlorophenol	80.0	71.7		ug/L		90	37 - 144
2,4-Dichlorophenol	80.0	67.6		ug/L		85	39 - 135
2,4-Dimethylphenol	80.0	65.5		ug/L		82	32 - 120
2,4-Dinitrophenol	160	155		ug/L		97	0.1 - 191
2,4-Dinitrotoluene	80.0	67.7		ug/L		85	39 - 139
2,6-Dinitrotoluene	80.0	73.9		ug/L		92	50 - 158
2-Chloronaphthalene	80.0	64.1		ug/L		80	60 - 120
2-Chlorophenol	80.0	61.3		ug/L		77	23 - 134
2-Nitrophenol	80.0	73.7		ug/L		92	29 - 182
3,3'-Dichlorobenzidine	80.0	70.0		ug/L		88	0.1 - 262
4,6-Dinitro-2-methylphenol	160	151		ug/L		94	0.1 - 181
4-Bromophenyl phenyl ether	80.0	70.9		ug/L		89	53 - 127
4-Chloro-3-methylphenol	80.0	62.4		ug/L		78	22 - 147
4-Chlorophenyl phenyl ether	80.0	65.1		ug/L		81	25 - 158
4-Nitrophenol	160	64.7		ug/L		40	0.1 - 132
Acenaphthene	80.0	65.0		ug/L		81	47 - 135
Acenaphthylene	80.0	71.4		ug/L		89	33 - 145
Anthracene	80.0	68.9		ug/L		86	27 - 133
Benzidine	80.0	49.6		ug/L		62	60 - 140
Benzo[a]anthracene	80.0	67.6		ug/L		85	33 - 143
Benzo[a]pyrene	80.0	72.0		ug/L		90	17 - 163
Benzo[b]fluoranthene	80.0	70.0		ug/L		88	24 - 159
Benzo[g,h,i]perylene	80.0	72.7		ug/L		91	0.1 - 219
Benzo[k]fluoranthene	80.0	72.2		ug/L		90	11 - 162
Bis(2-chloroethoxy)methane	80.0	69.5		ug/L		87	33 - 184
Bis(2-chloroethyl)ether	80.0	64.0		ug/L		80	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-568979/2-A
Matrix: Water
Analysis Batch: 569060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	80.0	78.0		ug/L		98	8 - 158
Butyl benzyl phthalate	80.0	77.7		ug/L		97	0.1 - 152
Chrysene	80.0	71.5		ug/L		89	17 - 168
Dibenz(a,h)anthracene	80.0	74.9		ug/L		94	0.1 - 227
Diethyl phthalate	80.0	70.3		ug/L		88	0.1 - 120
Dimethyl phthalate	80.0	65.1		ug/L		81	0.1 - 120
Di-n-butyl phthalate	80.0	74.0		ug/L		93	1 - 120
Di-n-octyl phthalate	80.0	78.2		ug/L		98	4 - 146
Fluoranthene	80.0	68.3		ug/L		85	26 - 137
Fluorene	80.0	65.2		ug/L		81	59 - 121
Hexachlorobenzene	80.0	69.1		ug/L		86	0.1 - 152
Hexachlorobutadiene	80.0	51.2		ug/L		64	24 - 120
Hexachlorocyclopentadiene	80.0	57.8		ug/L		72	60 - 140
Hexachloroethane	80.0	47.7		ug/L		60	40 - 120
Indeno[1,2,3-cd]pyrene	80.0	72.7		ug/L		91	0.1 - 171
Isophorone	80.0	61.2		ug/L		77	21 - 196
Naphthalene	80.0	59.5		ug/L		74	21 - 133
Nitrobenzene	80.0	63.0		ug/L		79	35 - 180
N-Nitrosodimethylamine	80.0	39.4	*	ug/L		49	60 - 140
N-Nitrosodi-n-propylamine	80.0	62.2		ug/L		78	0.1 - 230
N-Nitrosodiphenylamine	80.0	71.9		ug/L		90	60 - 140
Pentachlorophenol	160	142		ug/L		89	14 - 176
Phenanthrene	80.0	68.4		ug/L		86	54 - 120
Phenol	80.0	33.1		ug/L		41	5 - 120
Pyrene	80.0	72.7		ug/L		91	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*82*		*14 - 149*
2-Fluorobiphenyl	*78*		*44 - 129*
2-Fluorophenol	*51*		*10 - 76*
Nitrobenzene-d5	*90*		*15 - 314*
Phenol-d5	*36*		*8 - 424*
Terphenyl-d14	*77*		*28 - 150*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 460-569340/1-A
Matrix: Water
Analysis Batch: 569428

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 569340

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	10.0	U	10.0	4.1	ug/L		11/17/18 18:00	11/18/18 13:08	1
Arsenic	5.0	U	5.0	4.2	ug/L		11/17/18 18:00	11/18/18 13:08	1
Beryllium	2.0	U	2.0	1.5	ug/L		11/17/18 18:00	11/18/18 13:08	1
Cadmium	5.0	U	5.0	2.1	ug/L		11/17/18 18:00	11/18/18 13:08	1
Chromium	10.0	U	10.0	5.9	ug/L		11/17/18 18:00	11/18/18 13:08	1
Copper	25.0	U	25.0	5.5	ug/L		11/17/18 18:00	11/18/18 13:08	1
Lead	5.0	U	5.0	3.8	ug/L		11/17/18 18:00	11/18/18 13:08	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 460-569340/1-A
Matrix: Water
Analysis Batch: 569428

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 569340

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	40.0	U	40.0	6.3	ug/L		11/17/18 18:00	11/18/18 13:08	1
Selenium	5.0	U	5.0	4.2	ug/L		11/17/18 18:00	11/18/18 13:08	1
Silver	10.0	U	10.0	1.3	ug/L		11/17/18 18:00	11/18/18 13:08	1
Thallium	10.0	U	10.0	8.7	ug/L		11/17/18 18:00	11/18/18 13:08	1
Zinc	30.0	U	30.0	5.4	ug/L		11/17/18 18:00	11/18/18 13:08	1

Lab Sample ID: LCS 460-569340/2-A
Matrix: Water
Analysis Batch: 569428

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 569340

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	500	468.4		ug/L		94	85 - 115
Arsenic	2000	1890		ug/L		95	85 - 115
Beryllium	50.0	47.48		ug/L		95	85 - 115
Cadmium	50.0	49.48		ug/L		99	85 - 115
Chromium	200	191.4		ug/L		96	85 - 115
Copper	250	230.9		ug/L		92	85 - 115
Lead	500	481.4		ug/L		96	85 - 115
Nickel	500	476.2		ug/L		95	85 - 115
Selenium	2000	1956		ug/L		98	85 - 115
Silver	50.0	45.24		ug/L		90	85 - 115
Thallium	2000	1970		ug/L		99	85 - 115
Zinc	500	495.2		ug/L		99	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 460-569022/1-A
Matrix: Water
Analysis Batch: 569091

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 569022

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/16/18 12:33	11/16/18 14:21	1

Lab Sample ID: LCS 460-569022/2-A
Matrix: Water
Analysis Batch: 569091

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 569022

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.871		ug/L		87	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 460-569616/1-A
Matrix: Water
Analysis Batch: 569656

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 569616

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0020	mg/L		11/19/18 08:52	11/19/18 11:27	1

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: LCS 460-569616/2-A
Matrix: Water
Analysis Batch: 569656

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 569616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.101		mg/L		101	90 - 110

QC Association Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

GC/MS VOA

Analysis Batch: 569376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	624.1	
480-145167-2	WEST BERM_11122018	Total/NA	Water	624.1	
MB 460-569376/8	Method Blank	Total/NA	Water	624.1	
LCS 460-569376/3	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 568979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	625	
480-145167-2	WEST BERM_11122018	Total/NA	Water	625	
MB 460-568979/1-A	Method Blank	Total/NA	Water	625	
LCS 460-568979/2-A	Lab Control Sample	Total/NA	Water	625	

Analysis Batch: 569060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	625.1	568979
480-145167-2	WEST BERM_11122018	Total/NA	Water	625.1	568979
MB 460-568979/1-A	Method Blank	Total/NA	Water	625.1	568979
LCS 460-568979/2-A	Lab Control Sample	Total/NA	Water	625.1	568979

Metals

Prep Batch: 569022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	245.1	
480-145167-2	WEST BERM_11122018	Total/NA	Water	245.1	
MB 460-569022/1-A	Method Blank	Total/NA	Water	245.1	
LCS 460-569022/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 569091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	245.1	569022
480-145167-2	WEST BERM_11122018	Total/NA	Water	245.1	569022
MB 460-569022/1-A	Method Blank	Total/NA	Water	245.1	569022
LCS 460-569022/2-A	Lab Control Sample	Total/NA	Water	245.1	569022

Prep Batch: 569340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total Recoverable	Water	200.7	
480-145167-2	WEST BERM_11122018	Total Recoverable	Water	200.7	
MB 460-569340/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 460-569340/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Analysis Batch: 569428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total Recoverable	Water	200.7 Rev 4.4	569340
480-145167-2	WEST BERM_11122018	Total Recoverable	Water	200.7 Rev 4.4	569340
MB 460-569340/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	569340
LCS 460-569340/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	569340

QC Association Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

General Chemistry

Prep Batch: 569616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	Distill/CN	
480-145167-2	WEST BERM_11122018	Total/NA	Water	Distill/CN	
MB 460-569616/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 460-569616/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 569656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	335.4	569616
480-145167-2	WEST BERM_11122018	Total/NA	Water	335.4	569616
MB 460-569616/1-A	Method Blank	Total/NA	Water	335.4	569616
LCS 460-569616/2-A	Lab Control Sample	Total/NA	Water	335.4	569616

Lab Chronicle

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Client Sample ID: EAST BERM_11122018

Lab Sample ID: 480-145167-1

Date Collected: 11/13/18 15:30

Matrix: Water

Date Received: 11/13/18 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	569376	11/18/18 10:09	XXC	TAL EDI
Total/NA	Prep	625			568979	11/16/18 09:01	DXB	TAL EDI
Total/NA	Analysis	625.1		1	569060	11/17/18 00:38	YAH	TAL EDI
Total Recoverable	Prep	200.7			569340	11/17/18 18:00	GAE	TAL EDI
Total Recoverable	Analysis	200.7 Rev 4.4		1	569428	11/18/18 13:27	CDC	TAL EDI
Total/NA	Prep	245.1			569022	11/16/18 12:33	RBS	TAL EDI
Total/NA	Analysis	245.1		1	569091	11/16/18 14:32	RBS	TAL EDI
Total/NA	Prep	Distill/CN			569616	11/19/18 08:52	IAA	TAL EDI
Total/NA	Analysis	335.4		1	569656	11/19/18 11:53	HTV	TAL EDI

Client Sample ID: WEST BERM_11122018

Lab Sample ID: 480-145167-2

Date Collected: 11/13/18 15:45

Matrix: Water

Date Received: 11/13/18 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	569376	11/18/18 10:35	XXC	TAL EDI
Total/NA	Prep	625			568979	11/16/18 09:01	DXB	TAL EDI
Total/NA	Analysis	625.1		1	569060	11/17/18 00:58	YAH	TAL EDI
Total Recoverable	Prep	200.7			569340	11/17/18 18:00	GAE	TAL EDI
Total Recoverable	Analysis	200.7 Rev 4.4		1	569428	11/18/18 13:30	CDC	TAL EDI
Total/NA	Prep	245.1			569022	11/16/18 12:33	RBS	TAL EDI
Total/NA	Analysis	245.1		1	569091	11/16/18 14:33	RBS	TAL EDI
Total/NA	Prep	Distill/CN			569616	11/19/18 08:52	IAA	TAL EDI
Total/NA	Analysis	335.4		1	569656	11/19/18 11:54	HTV	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-19

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11452	04-01-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	Copper
624.1		Water	1,2-Dichloroethene, Total
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
625.1	625	Water	4-Chlorophenyl phenyl ether

Method Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI
200.7 Rev 4.4	Metals (ICP)	EPA	TAL EDI
245.1	Mercury (CVAA)	EPA	TAL EDI
335.4	Cyanide, Total	MCAWW	TAL EDI
200.7	Preparation, Total Recoverable Metals	EPA	TAL EDI
245.1	Preparation, Mercury	EPA	TAL EDI
625	Liquid-Liquid Extraction	40CFR136A	TAL EDI
Distill/CN	Distillation, Cyanide	None	TAL EDI

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
None = None

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-145167-1	EAST BERM_11122018	Water	11/13/18 15:30	11/13/18 17:00
480-145167-2	WEST BERM_11122018	Water	11/13/18 15:45	11/13/18 17:00

TestAmerica Buffalo
10 Hazelwood Drive

Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Chain of Custody Record

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAm , Inc.

Client Contact	Project Manager: Jeffrey Poulsen	Site Contact: Jeffrey Poulsen	Date:	COC No: 480-145167 CO
Parsons	Tel/Fax:716-432-7685	J. Shove	Carrier:	_____ of _____ COCs
40 LaRiviere Dr, Suite 350	**Analysis Turnaround Time**			Sampler:
Buffalo, NY 14202	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
716-432-7685	TAT if different from Below _____			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Honeywell Tonawanda	☐ 1 week			
Area 108	☑ 2 days			Job / SDG No.:
4400040329 Project 48014882	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Priority Pollutant VOCs (624)	Priority Pollutant SVOCs (625)	Priority Pollutant Metals (200.7)	Mercury	Cyanide	Sample Specific Notes:
East Berm_11122018	11/12/2018	1530	G	W	6	N	N	X	X	X	X	X	
West Berm_11122018	11/12/2018	1545	G	W	6	N	N	X	X	X	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 3.2	Corr'd: _____	Therm ID No.: #1
Relinquished by:	Company: Parsons	Date/Time: 11-13-18 1100	Received by:	Company: TAB	Date/Time: 11/13/18 1700
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.11, dated 1/24/2017

11/20/2018

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 480-145167-1

Login Number: 145167
List Number: 1
Creator: Stopa, Erik S

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	PARSONS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 480-145167-1

Login Number: 145167
List Number: 2
Creator: Armbruster, Chris

List Source: TestAmerica Edison
List Creation: 11/15/18 10:44 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3°, 5.4°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

PARSONS

ATTACHMENT 4

PROJECT SAFETY, HEALTH AND ENVIRONMENTAL PLAN

Tonawanda Coke Corporation Site 108

3800 River Road
Tonawanda, New York

Project Safety, Health, and Environmental Plan

November 2018

Reporting Requirements	
All incidents/near misses	Enter into IndustrySafe within 4 hours Project Manager – T. Abrams (315) 263-5109
Worker injury or illness	Enter into IndustrySafe within 4 hours Project Manager – T. Abrams (315) 263-5109
Environmental spill/release	Enter into IndustrySafe within 4 hours Project Manager – T. Abrams (315) 263-5109
Medical (non-emergencies)	WorkCare (888) 449-7787
Site security (if applicable)	

Project Key Personnel

Company Executive responsible for Project	**Contact Information**
Pratima	Direct Line: (732) 537-3552 Cell Phone: (732) 853-4957 Email: Pratima.Poplai@parsons.com
Program Manager	**Contact Information.**
Jim O'Loughlin	Direct Line: (617) 449.1563 Cell Phone: (617) 279.3436 Email: James.O'Loughlin@parsons.com
Project Manager	**Contact Information.**
Tom Abrams	Direct Line: (315) 552-9670 Cell Phone: (315) 263-5109 Email: Tom.Abrams@parsons.com
Project Safety Manager / Field Team Leaders	**Contact Information.**
Jeff Poulsen	Direct Line: (716) 432-7685 Email: Jeffrey.Poulsen@parsons.com
Project SH&E Representative	**Contact Information**
Bill Moon	Cell Phone: (315) 323-8175 Email: William.Moon@parsons.com
Client Project Management POC	**Contact Information**
Steve Coladonato	Direct Line: (302) 791-6738 Cell Phone: (973) 216-2438 Email: Steven.Coladonato@Honeywell.com

TABLE OF CONTENTS

SECTION 1 – INTRODUCTION

1.1 PARSONS SAFETY, HEALTH & ENVIRONMENT POLICY

Exhibit P-1 – Parsons Corporate SH&E Policy

PARSONS

Corporate Safety, Health & Environment Policy Statement

As an industry-leading engineering, construction, and technical services firm, Parsons is firmly committed to maintaining a safe, healthy, and environmentally compliant workplace at all its offices and project facilities, guided by the following tenets:

- Safety, Health and Environment (SH&E) is a core value.
- Executive management will lead the SH&E process.
- SH&E will be a responsibility shared by all.
- SH&E performance will be a key business performance indicator.
- SH&E performance will be communicated openly.
- Employees will be given the knowledge and skills necessary to perform their jobs in a high-performance SH&E manner.
- We will extend our SH&E efforts beyond the workplace to include travel, homes, and communities.
- We will continually strive to improve our SH&E processes.

To meet our SH&E objectives, all employees are expected to be actively engaged with regard to SH&E issues. This requires the combined efforts of a concerned management, responsible and knowledgeable supervision, and conscientious, well-trained employees.

Parsons will meet or exceed the applicable SH&E legal and other requirements and will continuously monitor and improve operations, procedures, technologies, and programs that are conducive to maintaining a safe, healthy, and environmentally compliant workplace.

Charles L. Harrington

Chairman and Chief Executive Officer

1.2 THE PROJECT SAFETY, HEALTH, AND ENVIRONMENTAL PLAN (PSHEP)

Parsons goal is zero incidents using control measures designed to minimize or eliminate hazards to personnel, processes, equipment, the general public and the environment. This PSHEP outlines safety, health, and environment (SH&E) requirements and guidelines developed by Parsons for client-specific work. When implemented, these requirements will help protect site personnel, visitors, the public, and the environment from incidents caused due to SH&E hazards. Parsons employees should never perform a task that may endanger their own safety and health, the safety and health of coworkers or the public, or damage the environment.

This plan should be updated as conditions change or situations change, usually by addenda to the PSHEP. All Parsons and subcontractor personnel must understand and implement the PSHEP and any addenda. Parsons documents this process by having employees sign an acknowledgement form stating that they understand the PSHEP and its requirements.

1.3 SUBCONTRACTOR SAFETY, HEALTH, AND ENVIRONMENTAL PLANS (SSHEPS)

Subcontractors must establish their own safety program for their work and employees. Contract specifications require all subcontractors to accept the Parsons' PSHEP and prepare their own subcontractor safety, health, and environment plan (SSHEP) for work activities the subcontractor has responsibility for performing. The subcontractor will present the SSHEP to the Parsons' Project Manager at least 10 days before site mobilization. At a minimum, subcontractor plans must meet the requirements of this PSHEP and provide SH&E equipment and safeguards suitable for the hazards involved. This PSHEP may not cover all potential hazards on every project, and subcontractors must ensure that appropriate SH&E information is available for all of the subcontractor's project tasks.

All PSHEP requirements for Parsons' personnel (e.g., training, substance abuse screening, incident reporting, etc.) also apply to subcontractor personnel, and do not need to be repeated in the SSHEP. Since the SSHEP is part of the PSHEP, subcontractor personnel will be required to receive an Orientation that covers information from both documents, and sign off accepting the PSHEP. For this project, there **will not** be subcontractors directly hired by Parsons who will be working on site.

1.4 MANAGEMENT OF CHANGE (MOC)

Modifications may be made to this PSHEP document after discussion and approval by the Parsons GBU/Division SH&E Manager. Once the subcontractor has been determined, and as necessary, the following sections of this PSHEP will be modified:

PSHEP Section	SH&E Initials	Date	Description/Comments
4.4			Stakeholder PSHEP Alignment Meeting
4.5			Training – to be updated once project team has been determined
5.2			Subcontractor Prequalification Review
5.5			Subcontractor SSHEP
6.2			Control Measures

PSHEP Section	SH&E Initials	Date	Description/Comments
6.3			Activity Hazard Analysis
6.5			Site Inspections
7.2			ESHARP Training
Attachment 10.1.1			Training-Medical Records

SECTION 2 – SCOPE OF WORK

2.1 SCOPE OF WORK

Parsons, in its contracted role with Honeywell International Inc., will be conducting interim measures to address the aboveground storage tanks and the associated secondary containment areas at the subject site. The initial scope includes planned activities for mitigating near-term concerns related to the condition of the secondary containment earthen berm, monitoring and management of water levels within the secondary containment through the winter, and developing plans for removal of the tank contents and tank demolition. The anticipate scope is outlined below.

Berm Water Removal

The proposed path forward for water removal is as follows:

1. Collect one water sample from each secondary containment and analyze for parameters consistent with the Town of Tonawanda Water Treatment Plant requirements, including
    a. Volatile organic compounds (VOCs) – EPA Method 624
    b. SVOCs – EPA Method 625
    c. Priority pollutant metals, cyanide and mercury – EPA Method 200.7
    d. pH – field measurement.
2. As stated above, previous water sampling (2016) showed water within the secondary containment met surface water discharge quality criteria at the time of sampling. Previous plans approved [1] by the New York State Department of Environmental Conservation (NYSDEC) allowed for direct discharge of this water to the ground surface in a manner that promotes infiltration into the surrounding soil. This was the planned approach for installation of test pits within the secondary containment areas. Upon completion of the dewatering of the secondary containments, removal of portions of the berm was planned to allow the enclosed areas to freely drain to the surrounding areas in the future, so long as the berms were not necessary for secondary containment of the tanks (GHD, 2016). This determination was to be made in consultation with the NYSDEC. Therefore, if results from the samples collected above verify the water within the berms meets surface water criteria, overflow of the berms by water would not present a risk and no active water management would be required.
3. If analytical results from the water within the berms exceeds surface water criteria, the berms will be dewatered. Pending analytical results, review with the Town of Tonawanda treatment plant and approval from the USEPA for discharge to the Town of Tonawanda sanitary system, water will be discharged either directly to a nearby sanitary manhole along River Road or trucked to a nearby discharge point. If the results indicate the need for

[1] Approval based on document posting on the NYSDEC website: https://www.dec.ny.gov/chemical/49925.html

pretreatment, a system suitable for the purpose will be mobilized. The water is assumed to be non-hazardous.

Berm Stabilization and Repair

If it is determined that active management of the water within the secondary containment areas is required, as discussed above, berm stabilization and repair will be implemented as follows:

1. Damaged berm sections will be repaired to match undisturbed sections. In general, this will involve raising the berm height in the damaged areas to about 5 feet above the base of the area inside the berms. Damaged sections of the berm were noted to be about 43 to 48 inches high during the recent site visit. It is anticipated that lower permeability material adjacent to the tank farm can be used for these repairs (Figure 2).
2. Crushed stone will be imported to stabilize berm sections with the intent of creating an approximately 2-foot wide crest and appropriate outer slope angle of repose (about 2:1).

Soil Pile Tarping

The soil piles along the south property boundary noted during the 11/12/18 site visit will be re-tarped and secured with sand bags.

Berm System Monitoring and Water Management

If required based on sampling results, monitoring and management of the berm system will consist of the following:

1. Monthly inspection and documentation of remaining free-board and berm condition.
2. Post significant storm event monitoring if a liquid precipitation event in excess of 1inch occurs within a 24-hour period. Free-board and berm conditions will be assessed as noted above.
3. If liquid precipitation within the secondary containment comes within 1 foot of the top of the berm at any location, water removal operations will be commenced as described above (weather permitting).

Characterization of Tank Contents

Laboratory analyses of the product in the three storage tanks will be performed to characterize the materials for sale options. An assessment by TCC indicated the material is a saleable product. It is anticipated representative product samples from the three tanks will be analyzed as summarized below.

Physical Properties Analyses	Method
Viscosity at standard temperature, and after heating to 105º, 150º, and 180º C	@ PTS by ASTM D445 and by PTS proprietary
Specific Gravity	@ PTS by ASTM D1481
Density	@ PTS API RP40
Interfacial / Surface Tension	@ PTS by DuNuoy Method – ASTM D971
Water loss by heating after 105º, 150º, and 180º C	@ PTS by proprietary method
BTU value	@ PTS by ASTM D240-92
Sulfur	@ PTS by ASTM 4294

Note: PST is PTS Laboratories, Inc., a specialty analytical laboratory in Houston, TX.

Schedule

The anticipated schedule is as follows

- Water sampling – 11/13/18
- Pending water sample results:
  - Mobilize for water removal and berm repair – week of 11/26/18 (pending approval for discharge to sanitary sewer)
  - Berm Water Management – following initial water removal and berm repair
- Tank product sampling – week of 11/26/18
- Tank product removal and demolition plan – 2/1/19

2.2 PROJECT SAFETY, HEALTH, AND ENVIRONMENTAL PLAN APPLICATION

This PSHEP and its referenced documents apply to all locations, facilities, operations, and projects associated with contract work performed by Parsons and its subcontractors. Locations/sites covered under this contract include Tonawanda Coke Corporation Site 108 located at 3800 River Road, Tonawanda, NY.

SECTION 3 – PROJECT SH&E MANAGEMENT RESPONSIBILITIES AND AUTHORITY

3.1 SH&E RESPONSIBILITY MATRIX

Exhibit 3-1 summarizes the responsibilities of selected roles related to the primary SH&E activities identified in the PSHEP.

Exhibit 3-1 – Project Responsibility Matrix

Project Responsibility Matrix		Project												GBU							Corporate					
Phases	Work Elements	Project Manager	Safety & Health	Environmental	Construction/Site	Engineering	First Line Supervision	Facilities and Maintenance	Training	Contracts/Procurement	Security	Sustainability	Quality	President	Operations/Risk Management	Division Management	Sector Management	Safety, Health & Environment	Quality	Business Development	CEO	Operations/Risk Management	Safety, Health & Environment	Security	Workers' Compensation	Insurance
Introduction to ESHARP for Project	1. ESHARP Project Management	R	D	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P
Business Development	2. Business Development	R	P	P	P	P				P				P	P	A	P	P	P	D	P	P	P			P
Startup	3. Initial Hazard Analysis and Planning	A	R	D	D	D												P					P			
	4. Project Safety Health, and Environmental Plan (PSHEP)	A	D	D	D	D									P	P	P	R					P			
	5. Stakeholder PSHEP Alignment Meeting	A	D	D	D	D												R								
Construction and/or Field	6. Preconstruction Safety, Health & Environment Activities	A	D	P	P	P	P										P	R	P							
	7. Project/Site Orientation, Training, and Recurring Field SH&E Meetings	A	D	P	P	P	P	P										R								
	8. SH&E Committee	A	D	P	P	P	P	P										R								
	9. Meet Building Trades, Safety, Health, Environmental Regulatory Agencies, & Others	A	D		D	P												R							P	
	10. Review Contractor/Subcontractor SH&E Programs	A	D	P	P	P				P								R								
	11. Subcontractor Premobilization Meeting	A	D	P	D	P				P								R								
	12. Risk Mitigation Planning (2-week look ahead)	A	P	P	D	P												R								
	13. Activity Hazards Analysis	A	D	P	D	P	P	P										R								
	14. Project Management Site Safety, Health, & Environmental Inspections	A	D	P	D	P										P	P	R	P							
	15. Audits, Inspections, and Recordkeeping	A	D	P	D	P	P						P			P	P	R	P							
	16. Incident Management Process	A	D	P	D	P	P						P		P	P	P	R	P							P
Testing, Commissioning, Operations, and Decommissioning	17. Management Systems and Transition																									
	18. Equipment and Systems Integrity																									
	19. Operations Training and Education																									
	20. Assessments and Corrective Action																									
	21. Operations Emergency Management																									
	22. Safe and Environmentally Compliant Work Practices																									
Closeout	23. Lessons Learned and Final SH&E Report	A	D	P	D	P										P	P	R	P				P			
	24. Records Retention	A	P	P	D	P			P				P					R	P				P			

R – Responsible and accountable for ensuring the project develops and implements the work element.
D – Develops the plan, tool, training, document, or other item needed for the work element.

P – Participates by providing advice, assisting in the implementation or development, reviewing and providing comments, or otherwise supporting the development or implementation effort.
A – Approval at the management level with responsibility for the project; establishes requirements for the project or serves as sponsor for the item.

SECTION 4 – ADMINISTRATIVE PHASE

4.1 PROJECT SAFETY, HEALTH & ENVIRONMENT (SH&E) COMMITTEE

If a project has less than five (5) Parsons employees or a total of 25 Parsons and subcontractors, then the project staff will utilize information from the Parsons' office responsible for the project as a resource for SH&E committee information. The Project SH&E Representative will be responsible for obtaining and communicating information from the Parsons' Office SH&E Committee meeting minutes, with the project personnel on a monthly basis.

For this project, there **will not be** a Project SH&E Committee.

4.2 EMPLOYEE ORIENTATION

All new employees on a project, including new hires and transfers, must attend the site orientation program on their first day and sign an acknowledgment form indicating they attended and understood the orientation. Any employee who is unsure of any information presented in the orientation must request clarification. Employees who do not participate in the orientation or refuse to sign the acknowledgment cannot work on site. Site-specific safety procedures and training requirements are covered in Section 7.

4.3 AWARENESS CAMPAIGN

If a project is less than 3 months in duration or has less than five (5) Parsons employees, then the project will fall under the Parsons' office responsible for the project as a resource for SH&E awareness. The Project Manager may also provide training, presentations, or informational materials as part of the awareness campaign. This project has **less than five (5)** full time Parsons employees.

SH&E bulletin boards maintained by the Project Manager are primary information points for the project awareness campaign. Bulletin boards are to be located at **Buffalo Parsons Office.**

4.4 STAKEHOLDER PSHEP ALIGNMENT MEETING

A stakeholder alignment meeting should be held before beginning any field work.

The following representatives should attend the meeting for the field effort:

1. Honeywell – Steve Coladonato, Honeywell Project Manager
2. Parsons – Tom Abrams, Project Manager
3. Parsons – Ed Glaza, Project Technical Director
4. Parsons – Jeffrey Poulsen, Field Team Leader

Parsons will present an overview of the PSHEP and obtain stakeholders concurrence with the approach outlined in the document. The meeting should include a review of stakeholder roles and responsibilities and elements of control appropriate to project risks.

4.5 TRAINING

The project has a comprehensive SH&E training program tailored to the client requirements and scope of work. All office-based employees or field employees who spend a significant portion of their time in an office or trailer must receive specialized office training consisting of proper lifting techniques, ergonomics, housekeeping, common office hazards, waste management and office emergencies. All projects should be associated with a Parsons office, and the Office SHE Plan should be reviewed for additional information.

All personnel shall be listed in the PSHEP Training-Medical Records spreadsheet (see **Attachment 10.1.1**), which will identify the training requirements and expiration dates for applicable certifications. Safety training for project personnel will be based primarily on their work activities and corresponding exposure to hazardous substances and health hazards. The Parsons Corporate Safety and Health Manual (CSHM) and applicable sections will be used as a reference for determining the minimum training requirements based on the project scope of work.

Applicable	Corporate Safety and Health Manual Section/Topic
No	CSHM-1 Medical Qualification and Surveillance
Yes	CSHM-2 First Aid – See **Attachment 10.1.1** for a list of personnel with the current qualification; see Section 6.9 of the PSHEP for additional information on first responders.
Yes	CSHM-3 Ergonomics
No	CSHM-4 Concrete and Masonry Construction
Yes	CSHM-5 Field and Office Facilities
Yes	CSHM-6 Personal Protective Equipment
No	CSHM-7 Hearing Conservation –site personnel will not be exposed to noise at levels greater than 85 decibels over an 8 hour time period, which require annual training and audiograms.
Yes	CSHM-8 Respiratory Protection – **Attachment 10.1.1** lists all site personnel who will have medical screening and respirator fit tests to allow for upgrade to Level C PPE in the event contaminants above a permissible exposure limit (PEL) are detected based on onsite monitoring. Personnel are required to have annual training, medical clearance and a fit test in order to wear a respirator.
Yes	CSHM-9 Air Monitoring – **Table 6-1.1** identifies chemicals of concern, air monitoring equipment, action levels (based on OSHA PELs) and corresponding PPE/Action to be taken in the event of exceedances.

Yes	CSHM-10 Hazard Communication: See Section 6.2 for the chemicals to be used.
Yes	CSHM-11 Emergency Procedures
Yes	CSHM-12 Fire Protection
Yes	CSHM-13 Hazardous Waste Operations – site personnel who are listed in the PSHEP Training-Medical spreadsheet (**Attachment 10.1.1**), may be engaged in hazardous substance removal or other activities that expose or potentially expose them to hazardous substances or health hazards (such as entering an exclusion zone), which are required to receive appropriate training as required by 29 CFR 1910.120, including, but not limited to, initial 40-hour, 8-hour Supervisor and annual 8-hour refresher training.
No	CSHM-14 Process Safety Management
No	CSHM-15 Confined Space - list all site personnel in the PSHEP Training-Medical spreadsheet that will be involved with confined spaces, which will require proof of training. No entry into the tanks is planned at this time.
Yes	CSHM-16 Signs, Barricades and Traffic Control
Yes	CSHM-17 Materials Handling, Transportation, Storage and Disposal of Wastes. Investigation derived wastes will be disposed of by Honeywell. Parsons will label contents and collect samples for waste profiling. Parsons staff with the required DOT training to perform the activities are listed in **Attachment 10.1.1**. Samples being sent for analysis to determine whether they are hazardous are considered non-hazardous, but classified as "Other Regulated Material" in the Hazardous Materials Table.
Yes	CSHM-18 Walking/Working Surfaces
Yes	CSHM-19 Ladders; if needed for sampling tank product.
No	CSHM-20 Scaffolds - list all site personnel in the PSHEP Training-Medical spreadsheet that will be involved with erecting, moving, dismantling, or altering scaffolds, which are required to show a scaffold competent person certification.
No	CSHM-21 Aerial Lifts - list all site personnel in the PSHEP Training-Medical spreadsheet that will be involved with operating an aerial lift, which will require proof of training and competency.
No	CSHM-22 Fall Protection - list all site personnel in the PSHEP Training-Medical spreadsheet that will be involved with activities at heights greater than six feet, which will require proof of training.
No	CSHM-23 Lockout/Tagout (LOTO)
No	CSHM-24 Electrical
No	CSHM-25 Motor Vehicles and Equipment – No Parsons fleet vehicles will be used for this project. This project will use rental vehicles instead of Parsons company vehicles.
No	CSHM-26 Cranes, Hoists, and Lifts
No	CSHM-27 Pressure Vessels
No	CSHM-28 Welding, Cutting and Brazing

Yes	CSHM-29 Tools
No	CSHM-30 Underground Construction
No	CSHM-31 Blasting
No	CSHM-32 Demolition; demolition not part of the current scope.
Yes	CSHM-33 Excavations; site grading for berm repair.
No	CSHM-34 Steel Erection
Yes	CSHM-35 Asbestos and Lead - list all site personnel in the PSHEP Training-Medical spreadsheet that will be involved. Some damaged suspect ACM (pipe insulation) was observed during the site visit.
Yes	CSHM-36 Temperature Extremes – see Section 9.2 for mandatory information on all projects that must be reviewed prior to starting work.
No	CSHM-37 Ventilation
Yes	CSHM-38 Substance Abuse
Yes	CSHM-39 Bloodborne Pathogens - see Section 6.9 for additional information and **Attachment 10.1.1** for personnel with current training.
Yes	CSHM-40 Recordkeeping

Field-based employees and office employees who spend a significant portion of their time in the field also receive field training as described in Section 7 of this PSHEP.

For this project, the client **does not** require specific training for site personnel. However, the site manager requires a site orientation before workers enter the site for the first time.

4.6 AUDITS AND INSPECTIONS

The Project Manager must implement an audit and inspection program in conjunction with the GBU and Corporate SH&E and Quality Assurance Departments. The Project Manager conducts weekly site inspections. If the Project Manager is not on—site, the most senior person onsite person will conduct the inspection. A weekly inspection report will be complete and saved in the project files. Office work areas (including field trailers) are audited according to the corporate office audit checklist posted on ParShare (Home > Office Safety) – see Appendix.

For this project, there **will not** be a field trailer.

Additional information on audits and inspections is provided in Section 6.5 of this PSHEP.

4.7 SH&E MEETINGS

All project meetings that include five or more people must begin with a SH&E moment. The meeting chairperson may present the SH&E topic or ask for a volunteer to open the discussion. In general, these "SH&E moments" are brief, perhaps a minute or two, and should be directly relevant to the work of the day or applicable to most employees (e.g., nonwork-related injuries, waste management procedures, effects of stormwater discharges, home exposure to hazardous materials).

During weekly progress meetings, all Parsons Field Team Leaders/Supervisors or subcontractors submit written summaries of upcoming work tasks and associated risks and control measures to the Project Manager. Progress meetings discuss the risks of the upcoming work tasks and the planned mitigation measures. The weekly summaries identify upcoming mobilization or demobilization tasks, audits and inspections, competent person changes, and training requirements. Subcontractors add activities to these summaries at least two weeks in advance of the work. The Risk Mitigation Two-Week Look-Ahead Form in the Appendix (**Attachment 10.1.4**) should be used to plan mitigation strategies at weekly progress meetings.

Monthly all hands SH&E meetings are held to review critical safety procedures, discuss safety incidents, and celebrate safety milestones. The Project Manager announces the time and schedule of these meetings at least one week in advance.

4.8 REWARDS AND RECOGNITION

4.8.1 Rewards and Recognition Program

Each project with a duration of at least 6 months must follow the Rewards and Recognition Procedure for developing a "Rewards and Recognition" program to foster continuous improvement in SH&E performance. If a project is less than 6 months in duration, then the project can choose to fall under the "Rewards and Recognition" Program for the Parsons' office responsible for the project.

The "Rewards and Recognition" program for this project will be **office-**based as the current scope is less than 6 months.

4.8.1.1 Rewards and Recognition Corporate Policy Procedure

Parsons Corporate Safety Rewards and Recognition Policy recognizes Parsons employees and project teams who make a performance contribution to Parsons SH&E. This policy recognizes achievements or accomplishments that contribute to the overall SH&E objectives of the company.

This policy outlines acceptable methods of rewards and recognition and provides sample plans that focus on leading indicators rather than lagging indicators. Projects and programs are encouraged to reward their teams and individual employees with items from the Parsons Online Safety Products Store and are encouraged to base incentives on leading SH&E indicators.

4.8.1.2 Examples of Leading Indicators

Examples of leading indicators or actions to reward and recognize are as follows:

Participating in or leading a safety meeting.
Providing suggestions for improving workplace SH&E.
Serving on a SH&E committee.
Creating or revising an activity hazard analysis (AHA) worksheet.

Celebrations of achievements at a project or office level are still important. Project luncheons at milestone achievements are encouraged and are the appropriate place to recognize the collective achievements of working without incident. For additional information, please review the Rewards and Recognition Procedure.

4.9 WORK-RELATED INJURIES, MEASUREMENT AND REPORTING

4.9.1 Emergencies

4.9.1.1 WorkCare – For Domestic Use Only

For domestic project use only, Parsons and WorkCare have partnered together to promote Incident Intervention™, a resource designed to provide Parsons employees with immediate access to qualified medical clinicians who are able to provide our employees with prompt medical assessment in the event of nonlife threatening, nonmedical emergency work related injury or illness. Through this process, Parsons can leverage clinical expert resources to coordinate appropriate treatment care. WorkCare serves as a "medical advocate" for the employee, the WorkCare clinician provides responsive evaluation of the incident, assists the employee/employer in determining the most appropriate course of action, and consults with the treating physician.

4.9.1.2 Work-Related Injury Procedures

For emergencies, call 911!

For work-related injuries or illnesses that may require physician direction on appropriate treatment, Parsons employees should then promptly contact WorkCare, ideally before seeking medical care, as this will provide the greatest opportunity for appropriate intervention.

WorkCare's Incident Intervention is available 24 hours a day, 7 days a week (24/7), and 365 days per year. The contact number is **1-888-449-7787.**

If an injured employee requires medical care for a work related injury/illness, the Order for Treatment of Work-Related Injury/Illness Form MUST be sent with the injured worker and/or faxed to the occupational medicine clinic at the time of the initial evaluation. Here is the link to the document on ParShare: Order for Treatment of Work-Related Injury or Illness.

For U.S. facilities, here is the link to the document on ParShare: Order for Treatment of Work-Related Injury or Illness **(Attachment 10.1.13)**. NOTE: The Workers Compensation carrier and Policy number for each State may be different.

When contacting WorkCare, be prepared to provide the following:

Injured employee's name and Parsons ID number

Injured employee's contact number

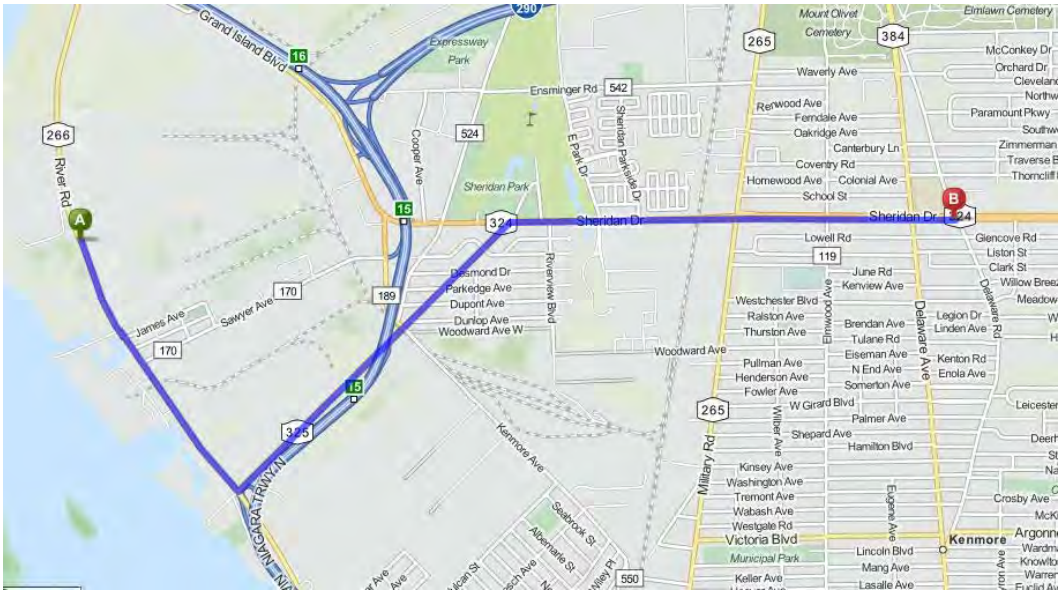
Injured employee's location (at a minimum include the city and state)

Employee's GBU and client/project name

Functional manager's name

If the WorkCare physician or nurse determines that an employee should be evaluated by a local physician, then an occupational clinic will be used whenever possible (i.e. during normal business hours). A secondary facility must be able to provide treatment during all hours of operations (i.e. hospital). The facilities are listed below:

- **Primary Facility** –
  MASH Urgent Care
  Ungent Care Center/Walk in
  1751 Sheridan Dr
  Buffalo, NY 14223
  716-844-7100



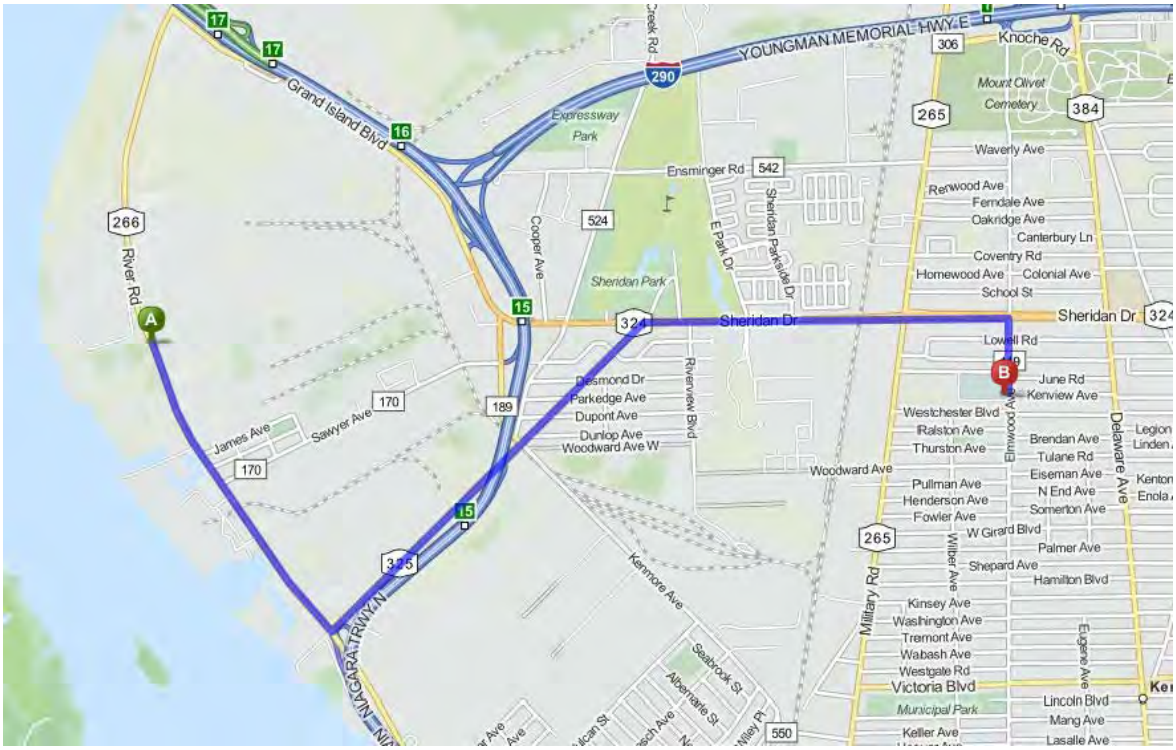
Directions to MASH Urgent Care

1. *Start out going south on River Rd/NY-266 toward James Ave*
2. *Turn left onto Sheridan Dr/NY-325*
3. *Turn right onto Kenmore Ave/County Hwy-189*
4. *Turn slight right onto Dunston Ave*
5. *Enter next roundabout and take the 2nd exit onto Kenmore Ave/County Hwy-550.*
6. *Turn left onto Military Rd/NY-265*

7. *Turn right onto Sheridan Dr/NY-324*
8. *1751 SHERIDAN DR is on the right*

10 minutes/5.7 miles

HOSPITAL
Kenmore Mercy Hospital
2950 Elmwood Ave
Kenmore, 14217
716-447-6100



Directions to Kenmore Mercy Hospitall

1. *Start out going southt on RIVER ROAD/NY-266 toward James Ave.*
2. *Turn left onto Sheridan Drive/NY-325*
3. *Turn slight right onto Grand Island Blvd/NY-324*
4. *Turn right onto Elmwood Ave/County Highway-119*
5. *2950 Elmwwod is on the right*

6 minutes/4 miles

NOTE: Transportation of an injured worker to a medical facility for non-emergency treatment must be done by at least two (2) individuals (i.e. driver and observer). If a driver is not available, then a cab service is acceptable as long as an observer is present.

4.9.2 Measurement and Compliance

To accurately measure performance and comply with corporate and regulatory requirements, Parsons and its subcontractors have an emergency communications system to contact the following onsite offices for the events listed below:

All incidents	Project Manager/Tom Abrams (315) 263-5109 Safety Manager/Bill Moon (315) 323-8175
Worker injury or exposure	Project Manager/Tom Abrams (315) 263-5109 Safety Manager/Bill Moon (315) 323-8175
Environmental release	Project Manager/Tom Abrams (315) 263-5109 Safety Manager/Bill Moon (315) 323-8175
Fires/explosions	911
Medical emergencies	911
Site/industrial security	Project Manager/Tom Abrams (315) 263-5109

The Project Manager establishes a measurement system to provide indicators of SH&E performance, including the following metrics:

Hours worked since the last recordable injury and previous record
Consecutive days without a recordable incident and previous record
Consecutive days without a days-away-from-work incident and previous record
Recordable incident rate
Days-away-from-work incident rate

These metrics are collected on a program-wide basis for the Honeywell program.

4.9.3 Incident Reporting

Employees involved in or witnessing an injury, worker exposure, environmental incident, or near miss must immediately report it to the responsible supervisor or foreman, who in turn immediately relays the report to Parsons ***Project Manager, Project Manager/Tom Abrams (315) 263-5109***, or Project SH&E Representative, ***Safety Manager, Bill Moon (315) 323-8175***. No supervisor may decline to accept or relay a report of SH&E incident or significant near miss from a subordinate.

Each Project Manager must ensure that all SH&E incidents are reported to the GBU SH&E Director and other management personnel (as required) within four hours using the Industry Safe Online SH&E Reporting System. The online SH&E reporting system includes an Incident

Investigation Form, which can only be viewed by system administrators, designated managers, and the assigned investigator. The GBU SH&E Director serves as the default investigator and may assign that role on a case-by-case basis.

Incident investigation link folder on ParShare is as follows: Incident Investigation.

Procedures for investigating workplace accidents and hazardous exposures include the following:

Emergency Response Team responds to the accident scene as soon as possible.

Report all injuries to the Parsons Workers' Compensation Claims Analyst.

Report on PWeb using the online IndustrySafe Reporting SystemIndustrySafe Reporting System.

Report to appropriate client point of contact in accordance with contractual requirements.

Interview injured workers and witnesses.

Have employee complete the Employee Accident Report and the Individual Statement Report within 24 hours. If the employee is unable to complete the statement, the functional manager must complete the form. (Note: The Individual Statement Report is also known as the Narrative Statement form.)

Report to the Division or Project SH&E Manager (or Parsons Project Manager) immediately.

Examine the workplace for factors associated with the accident/exposure.

Determine the cause of the accident/exposure.

Take corrective action to prevent the accident/exposure from recurring.

Record the findings and corrective actions taken.

The Division or Project SH&E Manager must notify the local OSHA office and/or regional, municipal and/or local regulations office in writing within 8 hours if an accident involves the death of an employee or hospitalization of three or more workers. In addition, spills/releases of reportable quantities and other reporting required by environmental regulation are the responsibility of the Project Manager.

Subcontractors must submit a monthly report of exposure hours (hours worked on the project, paid or unpaid) to the Parsons Project Manager within four (4) days after the end of each month, or as specified by the contract. The Project Manager compiles the figures and submits them via the online safety reporting system. If necessary, estimated figures are acceptable, but the reports must be filed.

4.10 INCIDENT INVESTIGATIONS

All accidents, worker over exposures, environmental incidents and significant near misses are investigated by an individual or team with training in incident investigation and root cause analysis. Subcontractors must investigate incidents involving their employees or activities and submit an investigation report to the Parsons Project Manager within 48 hours of an incident.

In Parsons, the GBU SH&E Director investigates or assigns an investigator to each significant incident. The investigator submits a final investigation report using the online safety reporting system within 72 hours of the incident. Each Project Manager maintains the investigation file.

4.11 RESPONSIBILITY/IDENTIFICATION OF KEY LINE PERSONNEL

For project responsibility and identification of key personnel

Project Key Personnel

Company Executive responsible for Project	**Contact Information**
Pratima	Direct Line: (732) 537-3552 Cell Phone: (732) 853-4957 Email: Pratima.Poplai@parsons.com
Program Manager	**Contact Information.**
Jim O'Loughlin	Direct Line: (617) 449.1563 Cell Phone: (617) 279.3436 Email: James.O'Loughlin@parsons.com
Project Manager	**Contact Information.**
Tom Abrams	Direct Line: (315) 552-9670 Cell Phone: (315) 263-5109 Email: Tom.Abrams@parsons.com
Project Safety Manager / Field Team Leaders	**Contact Information.**
Jeff Poulsen	Direct Line: (716) 432-7685 Email: Jeffrey.Poulsen@parsons.com
Project SH&E Representative	**Contact Information**
Bill Moon	Cell Phone: (315) 323-8175 Email: William.Moon@parsons.com
Client Project Management POC	**Contact Information**
Steve Coladonato	Direct Line: (302) 791-6738 Cell Phone: (973) 216-2438 Email: Steven.Coladonato@Honeywell.com

The personnel listed above have the authority and responsibility for implementing the provisions of this PSHEP.

4.12 MEDICAL REQUIREMENTS AND WORKERS' COMPENSATION

In accordance with corporate requirements, the Project SH&E Manager has established and implemented the following medical requirements for the project:

4.12.1 Functional Capacity Evaluations (FCEs)

FCEs **will not be** applicable for Parsons personnel working on this project.

4.12.2 Substance Abuse Tests

The Talent Management Department administers required substance abuse tests. For this project, the client requires the following types of drug and/or alcohol testing:

- Pre-access – Pre-access drug and alcohol testing is required for Parsons and subcontractor personnel involved in high risk activities prior to their initial assignment for fieldwork. The test result is good for one year. Persons not required to have pre-access testing include delivery vendors, escorted visitors, and similar persons who are visiting site unrestricted areas and are not performing safety sensitive activities
- Post-incident – applicable for incidents involving medical treatment or reasonable suspicion, and all accidents regarding Parsons Company or leased vehicles.
- Reasonable suspicion – NOTE: Supervisor must have training in Controlled Substance and/or Alcohol Awareness Training, and a Reasonable Suspicion form must be completed.

4.12.3 Onsite Medical Services and Panel of Physicians

The Parsons Corporate Workers' Compensation Analyst establishes medical providers for the project and selects medical facilities to treat work-related injuries and illnesses, as follows:

MASH Urgent Care
Ungent Care Center/Walk in
1751 Sheridan Dr
Buffalo, NY 14223
716-701—6331

4.12.4 Emergency Response

The project displays posters with emergency telephone numbers and locations of emergency facilities in visible locations and at selected phone locations throughout the project area (including subcontractor facilities). The following information is provided:

Hospital name, location, and number (consistent with selected medical treatment facilities)
Physician name, location, and number (consistent with selected medical treatment facilities)
Police department name, location, and number
Fire department name, location, and number
Emergency responder (for environmental spills/releases) name, location and number—if applicable to project
Emergency medical services name, location, and number

4.12.5 Workers' Compensation Program

The Corporate Risk Management Department establishes the workers' compensation carrier. If a workers compensation loss occurs, the Corporate Workers' Compensation Analyst handles all communication with the workers' compensation carrier.

This project does NOT participate in an Owner's Controlled Insurance Program (OCIP) or project-specific insurance program. The workers' compensation policy covering Parsons employees on this project is as follows:

Workers' compensation carrier –

AIG
15 Cornell Drive, 2nd Floor
Latham, NY 12110
877.640.2450
Policy Number: 0007169963

SECTION 5 – PRECONSTRUCTION PHASE

5.1 RISK ANALYSIS AND SAFETY SPECIFICATION DEVELOPMENT

Procurement procedures require that a site-specific SH&E risk analysis be conducted before issuance of construction RFPs. Using the prebid risk analysis checklist, the Project Manager leads this analysis to document existing exposures that may impact the work, surrounding facilities, equipment, workers, or the public at large. The analysis includes locating, documenting, and photographing items such as:

Overhead and underground power lines
Sewer and water utilities
Existing building interferences
Crane access ways
Traffic
Security
Fences
Water hazards
Existing geographical and environmental conditions
Confined spaces
Potential for environmental spills/releases
Wastewater discharges
Air emissions
Waste and hazardous materials management
Damage to ecological or cultural resources
Risks due to buried items
Other environmental regulatory requirements

Upon completion of the site risk analysis, high-risk activities are listed in the request for proposals (RFPs) (as applicable), and bidders must describe controls and mitigation strategies to address these activities in their proposals. The RFP should note that the list is representative and that the selected contractor must identify and control all work-related hazards, worker exposures and potential environmental incidents. The standard safety specifications are given below.

(See ESHARP Guidebook, Volume 1 – Project, Sections 3 and 12 for more information.) Attach the project's prebid risk analysis checklist and specifications.

5.2 DESIGN AND CONSTRUCTABILITY REVIEW

Periodic constructability reviews are held in accordance with the Project Management Plan. The Project SH&E Manager participates in the review to ensure that safety, health and environmental issues are adequately addressed. During the constructability review, the discussion focuses on how work is sequenced, potential interference with continuing operations, and safe and environmentally compliant work approaches. Activity Hazards Analyses (AHAs) conducted before work begins can mitigate identified/presumed risks.

Constructability reviews are scheduled as follows: Short duration project without a long-term construction phase. The team will continually evaluate hazards during the field effort but their will not be a formal design and constructability review.

5.3 PREBID MEETING

Prebid meetings are required to ensure that bidders understand the RFP. These meetings must include a discussion of safety, health and environmental performance expectations. During the prebid meeting, the Project Manager can use the Preconstruction SH&E Meeting, Site Specific SH&E Review Checklist, and Project Technical and General Conditions Specification Review (3 Sheets) (Exhibit 5-1) to review the project SH&E philosophy, principles, and Parsons requirements with prospective bidders. Although this information is included in the RFP, the meeting reinforces the message.

5.4 SUBCONTRACTOR PREQUALIFICATION REVIEW

Project procurement procedures require that all subcontractors submit prequalification documentation for evaluation. The Project Manager or Project SH&E Manager conducts the safety prequalification evaluation in accordance with the attached Parsons subcontractor prequalification process and form Subcontractor SH&E Qualifications Scorecard (Exhibit 5-2).

5.5 PRECONSTRUCTION MEETING

The Project Manager or Construction Manager holds a preconstruction meeting before the subcontractor begins work. The meeting includes subcontractor representatives, the Parsons Project Manager, the contract manager, and representatives from all construction disciplines, including safety. During the SH&E review, meeting participants review specific SH&E concerns, the prebid risk analysis, and competent person and site-specific SSHEP requirements. The Project Manager provides the SH&E Point of Contact and emergency management information. The Project Manager uses the Preconstruction SH&E Meeting, Site Specific SH&E Review Checklist, and Project Technical and General Conditions Specification Review (3 Sheets) (Exhibit 5-1) to document the meeting. *See ESHARP Guidebook, Volume 1 – Project, Section 6 for further detail.*

5.6 COMPETENT PERSON SUBMISSION REVIEW

Parsons and its subcontractors must identify the OSHA-regulated and certified competent persons for work or tasks that require this level of expertise. The supervisor of the competent person must certify the specific competencies of the named competent person in writing.

The supervisor and competent person sign and submit the Competent Person Form (Exhibit 5-3) to the Parsons Project Manager. (Note click on this link for the Subcontractor Competent Person Form.)

Exhibit 5-1 – Preconstruction SH&E Meeting, Site-Specific Review, and Project Technical General Conditions Specification Review Form

PARSONS **Preconstruction SH&E Meeting** **Site-Specific SH&E Review Checklist** **Project Technical and General Conditions Specification Review (Sheet 1 of 3)**	
Date:	
Subcontractor Representative:	
Phone:	
Project Location:	
Parsons Project Manager:	
Phone:	
Subcontractor Safety & Health Representative:	
Phone:	
Parsons Safety & Health Manager:	
Phone:	
Subcontractor Environmental Representative:	
Phone:	
Parsons Environmental Representative:	
Phone:	
This checklist supports the identification of work activities and programs in a preconstruction SH&E meeting. This list also includes items identified through the subcontractor review and high-risk activities identified through the project specification review. **High-risk activities (denoted with an asterisk) checked with a checkmark must be followed up during the construction phase with training, written plans and/or a specific Activity Hazard Analysis (AHA).** **This list should be reviewed with prospective bidders during the pre-bid meeting.** **NOTE: Use check box and add specifics and details as applicable (next to the callouts)**	
	SAFETY & HEALTH
☐	Site-Specific Safety, Health and Environmental Plans
☐	Competent/Qualified Person Documentation
☐	SH&E Audits/Inspections
☐	Subcontractor Responsibilities
☐	Site Orientation Requirements
☐	Preconstruction SH&E Meeting/Date
☐	Crane Inspection Certification
☐	Personal Protective Equipment (PPE) (Work activities or work site requires hearing protection/using respirators/special protective clothing/other)
☐	Public Exposure (Work activities or location requires special precautions to protect the public)
	CONSTRUCTION SAFETY ISSUES
☐	Steel Erection (SENRAC Requirements)
☐	Excavations/Trenching

☐	Powered Industrial Trucks, Fork Lifts
☐	Crane Work/Heavy Lifts, Rigging
☐	Work involving Hazardous Materials

Exhibit 5-1 – Subcontractor Premobilization SH&E Meeting, Site-Specific Review, and Project Technical General Conditions Specification Review Form (Contd)

PARSONS **Preconstruction SH&E Meeting** **Site-Specific SH&E Review Checklist** **Project Technical and General Conditions Specification Review (Sheet 2 of 3)**	
CONSTRUCTION SAFETY ISSUES (Contd.)	
☐	Electrical Tie-ins/Lockout – Tagout
☐	Aerial Lift Work – Scissor Lifts, Extendable Boom, etc.
☐	Underground, Caissons, Cofferdams
☐	Scaffold Erection/Work
☐	Demolition
☐	Marine Work/Live Boating
☐	Heavy Hauling
☐	Concrete
☐	Diving
☐	Work Adjacent to Production Areas
☐	Site Security/Visitor Control/Public Areas
☐	Process Safety Management (PSM)
☐	Permits (Excavations, Scaffolding, Demolition, Traffic, Confined Space, Hot Work, Line Breaking, etc.)
☐	Confined Space (Confined space entry is required)
☐	Welding and cutting (Acetylene/gas cutting, arc welding, soldering and brazing)
☐	Ladders (Portable ladder use is required)
☐	Traffic Control (Work is on or near highways, roads, or mass transit)
MEDICAL	
☐	Substance Abuse Screening
☐	Emergency Procedures
☐	Site Security
☐	Smoking Policy
☐	Medical Services Requirements
☐	Treatment Locations, Addresses, and/or Phone List
ENVIRONMENTAL	
☐	Environmental Hazards
☐	Air Pollution/Emissions and required reporting
☐	Wastewater Discharges
☐	Drinking Water
☐	Management of Hazardous Materials and Hazardous and Solid Wastes
☐	Emergency Response to Spills and Releases Environmental Assessments
☐	Protected Ecological and Cultural Resources
☐	Specific Reports on Toxic or Hazardous Chemicals Usage and Storage (Required by Environmental Regulation)

Exhibit 5-1 – Premobilization SH&E Meeting, Site-Specific Review, and Project Technical General Conditions Specification Review Form (Contd)

PARSONS

Preconstruction SH&E Meeting Form
Site-Specific SH&E Review Checklist
Project Technical and General Conditions Specification Review (Sheet 3 of 3)

	ENVIRONMENTAL (Contd)
☐	Materials to be Recycled
☐	Possibility of Buried Items Onsite (cultural artifacts, tanks, wastes, and ordinance) and what to do if encountered
☐	Environmental Regulatory Requirements
☐	Environmental Assets
☐	Resource Conservation/Sustainability

Additional Notes/Comments:

ATTENDEES

Name	Title	Company

ParShare link: Preconstruction SH&E Meeting, Site Specific SH&E Review Checklist, and Project Technical and General Conditions Specification Review (3 Sheets)

Exhibit 5-2 -Subcontractor SH&E Qualification Scorecard (3 Pages) (Page 1 of 3)

PARSONS

Subcontractor SH&E Qualification Scorecard (Page 1 of 3)

Safety and Health

1. Select the type of activity that best describes the services that your company performs:

☐ Asbestos Abatement	☐ Carpentry	☐ Concrete	☐ Consulting	☐ Demolition	☐ Earthwork
☐ Electrical	☐ Engineering	☐ Maintenance	☐ Masonry	☐ Plumbing / HVAC	☐ Roofing / Sheet Metal
☐ Surveying	☐ Steel Erection	☐ Other (Describe) _____			

2. ☐ Yes ☐ No Do you have a written safety program? If yes, provide a copy of the table of contents and a copy of your firm's policy statement.

3. ☐ Yes ☐ No Do your safety procedures comply with government agency requirements? If yes, provide name of agency/agencies. _____

4. ☐ Yes ☐ No Do you require and use site-specific safety plans?

5. ☐ Yes ☐ No Does your company have a written drug/substance abuse policy with testing?
What type? ☐ Pre-employment ☐ Post Accident ☐ Just Cause ☐ Random

6. ☐ Yes ☐ No Do you have a site orientation program for new hires?

7. ☐ Yes ☐ No If you have an orientation program for new hires, does it include subcontractors?

8. ☐ Yes ☐ No Do you require subcontractors to submit safety plans?

9. ☐ Yes ☐ No Do you hold documented site safety meetings for field supervisors?
How Often? ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Daily

10. ☐ Yes ☐ No Do you hold craft toolbox safety meetings?
How Often? ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Daily

11. ☐ Yes ☐ No Do you hold pre-task safety meetings with your employees?

12. ☐ Yes ☐ No Does your company use activity hazard analysis (AHAs), job safety analysis (JSAs), job hazard analysis (JHAs), or the like to identify and mitigate or eliminate hazards prior to performing high risk or nonroutine activities?

13. ☐ Yes ☐ No Do any of your employees wear a respirator for more than 30 days a year?

14. ☐ Yes ☐ No Does your company conduct air monitoring to determine if employees are exposed to hazardous substances or health hazards at or above the established permissible exposure limit, without regard to the use of respirators?

15. ☐ Yes ☐ No Have you been inspected by OSHA or received any OSHA citations in the past 5 years? If yes, provide an attachment describing the outcome of the inspection along with copies of citations received.
Provide a description of the actions taken to abate the citations as an attachment to this application.
Respond to any open citations shown on the OSHA website (www.osha.gov).

16. ☐ Yes ☐ No Identify below by name, phone number, and title the person in your firm directly responsible for the firm's Safety Program management and attach a copy of his or her resume to this application. _____
_____

17. How do you conduct project safety inspections, and how often are they performed?
_____
_____
How often? ☐ Other – Insurance Carrier ☐ Monthly – Not Documented ☐ Weekly – Not Documented
☐ Monthly – Documented ☐ Weekly – Documented ☐ As Required – Documented

18. Describe your firm's program to motivate, encourage, and monitor safe work performance.
_____
_____

19. ☐ Yes ☐ No What type of incident(s) is investigated to determine root cause and develop corrective actions?
☐ Injuries ☐ Equipment/Property Damage ☐ Environmental ☐ Near Misses

ParShare Link: Subcontractor SH&E Qualifications Scorecard

Exhibit 5-2 – Subcontractor SH&E Qualification Scorecard (Contd) (Page 2 of 3)

PARSONS

Subcontractor SH&E Qualification Scorecard (Page 2 of 3) (Contd)

OSHA INFORMATION

* Please use your OSHA 300 Log to fill in the number of injuries and illnesses for the last 3 years			
Year	1	2	3
Number of lost/restricted workday cases (Totals OSHA 300 Log, columns K and L).			
Number of recordable cases + without restricted activity or lost workdays (Totals OSHA 300 Log, columns I and J).			
Number of fatalities (Totals + OSHA 300 Log, column G)			
Total OSHA Log A			

Total employee hours worked in the last 3 years (do not include any nonwork time, even through paid)

Year	Hours (B)
1	
2	
3	

Recordable Injury Frequency Rate
Multiply total for each year (A) x 200,000 and divide by total employee hours for that year (B)

$$\frac{A \times 200{,}000}{B}$$

Year	Rate
1	
2	
3	

Experience Modification Rate (EMR)

Policy Year	EMR
1	
2	
3	

Are the following accident records and accident summaries kept ? How often are they recorded?

	No	Yes	Monthly	Annually
Accidents totaled for the entire company	☐	☐	_____	_____
Accidents totaled by project	☐	☐	_____	_____

	OSHA 300a injury summaries for the last 3 years should be provided with this evaluation document.
	Provide a description and root cause analysis for each fatality or lost time injury for the past 3 years.
	Provide copies of investigation reports from the last 3 injuries or Workers' Compensation claims, not including any fatality or lost time injury.

The Applicant shall maintain records of such evaluations and make them available for review and approval of Parsons representatives at all reasonable times should Applicant be awarded a contract based on this application.

ParShare link: Subcontractor SH&E Qualifications Scorecard

Exhibit 5-2 – Subcontractor SH&E Qualification Scorecard (Page 3 of 3) (Contd)

PARSONS

Subcontractor SH&E Qualification Scorecard (Page 3 of 3) (Contd)

Environmental [a]		
1.	☐ Yes ☐ No	Do you have a written environmental policy, program and personnel assigned to Environmental leadership role(s) in your corporation/company? If yes, provide a copy of the documentation and resumes for personnel leading the environmental program, and resumes for those assigned to this contract/subcontract.
2.	☐ Yes ☐ No	Is your organization ISO 14001 certified or are you compliant with this standard? If yes, provide copies of your manual, procedure or process description and any certification statements or certificates.
3.	☐ Yes ☐ No	Has your company/corporation undertaken 10 projects within the last 5 years that included environmental responsibilities in your scope of work? Provide project narratives for each of these projects, to include dates, description of environmental aspects of the projects, names of involved environmental personnel, locations, regulatory, and client points of contact for each project.
4.	☐ Yes ☐ No	Do you have any notice of violations (NOVs), incidents, releases causing environmental damage? Describe each of these NOVs, incidents, and releases.
5.	☐ Yes ☐ No	Do you have a standard policy/guidance document or manual on environmental issues? Do the supervisors and managers you are proposing have environmental training or project experience? If so, provide evidence of this in proposed resumes.
6.	☐ Yes ☐ No	Does your firm require daily or weekly inspections of your worksites which include environmental aspects of the work?
7.	☐ Yes ☐ No	Do these inspections include fuel management areas, hazardous materials storage, and other areas or issues of environmental concern? Provide any process or procedural documentation that includes specifics on these environmental aspects.

[a] Evaluation of the environmental culture and capabilities of a firm can be difficult. No single repository or source is available to indicate whether a firm has experienced previous environmental citations or fines as most of these records are developed and maintained at the regulatory agency level. The evaluation of the firm must be based upon documentation provided by the firm, to include discussions with references provided, review of state records, and contact of state regulatory personnel. A qualitative assessment of the firm's capabilities and experience should be used to provide an overall assessment of the firm's culture and possible benefit to Parsons team.

By submitting this application, the Applicant agrees to use the above criteria and this form when selecting lower tier subcontractors.

ParShare link: Subcontractor SH&E Qualifications Scorecard

Exhibit 5-3 – Competent Person Form

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Competent Person Form

Definition

A competent person is a person having the ability to recognize existing and predictable hazards and having the authority to correct them.

Responsibility

The designated competent person is responsible for recognizing and correcting SH&E risks/hazards. This person has the authority to stop work in a potential SH&E concern on the jobsite. This form must be completed by each designated competent person. *Where an employee is responsible for multiple crafts, it will be necessary to maintain additional designated competent persons and forms.* Each competent person on a Parsons project must submit this completed form to the Parsons Project Manager before beginning work on the project and must update it any time the designated representative(s) changes.

Acknowledgment

I, _____

Employee Name

have been assigned _____to be the competent person in the areas indicated and I _____ acknowledge that I have been thoroughly trained and an experienced in hazard recognition and have the authority to stop work and correct hazards in the event of a potential hazardous or imminent danger situation.

Check appropriate listed below items.

☐	Air Pollution and Emissions	☐	Environmental Assessments	☐	Mechanical Demolition
☐	Asbestos	☐	Excavations and Trenches	☐	Protected Ecological and Cultural Resources
☐	Bolting, Riveting, and Fitting	☐	Fall Protection	☐	Resource Conservation
☐	Buried Items	☐	First Aid and CPR	☐	Respiratory Protection
☐	Concrete, Forms, and Shoring	☐	Hearing Protection	☐	Rigging
☐	Cranes and Derricks	☐	Ladders	☐	Scaffolding
☐	Demolition	☐	Lead	☐	Tunnels and Shafts
☐	Drinking Water	☐	Management of Hazardous Materials and Hazardous Solid Wastes	☐	Underground Construction
☐	Electrical			☐	Wastewater
☐	Emergency Response to Spills and Releases	☐	Marine Work and Diving	☐	Welding and Cutting
		☐	Material and Personnel Hoists		
☐	Other				

ParShare link: Competent Person Form and the Subcontractor Competent Person Form

5.7 SUBCONTRACTOR SAFETY PLAN SUBMISSION REVIEW

Once the subcontractor has been selected, the subcontractor SH&E plan (SSHEP) will be posted on ParShare (PE&I Safety > Project Safety Plans > Environmental Division > and this section of the PSHEP will be updated. The Parsons Project Manager and Project SH&E Representative will review the SSHEP for adequacy in accordance with the Subcontractor SHE Plan Review

form posted on ParShare.

5.8 SH&E MEETING

Project Managers conduct the Mobilization/Kickoff SH&E Meeting on or before the first day of subcontractor mobilization in the field at each work sitethe work site. *(See ESHARP Guidebook, Volume 1 - Project, Section 11 for additional details.)* Exhibit 5-4, Subcontractor Premobilization SH&E Form, shows the checklist used for the SH&E portion of this meeting. The meeting includes a review of the prebid site/area risk analysis and a walk through of the work area to locate items on the prebid risk analysis checklist.

SECTION 6 – CONSTRUCTION PHASE

6.1 SITE RISK ANALYSIS

Before work begins, Project Managers lead a team that performs a risk analysis at each work site to identify hazards and risks that require specific control measures. Potential SH&E hazards/risks are listed below: *(Modify list as needed; see ESHARP Guidebook, Volume 1 – Project, Sections 12 and 13 for details.)*

Below is a list of potential hazards on the project.

6.1.1 General

- **Trip and Fall** – ***See AHAs prepared for this SOW***
- **On-Site Driving Hazards and Obstructions –** Drivers shall pay particular attention to avoid structures, monitoring wells, and other site infrastructure. ***See AHA's prepared for this SOW.***
- **Weather / Biological –** cold/heat related illnesses, animals, insects, poisonous plants/vegetation. ***Weather / Biological hazards addressed in related AHAs prepared for this SOW. See Section 9.2.1 and Attachment 10.1.16 for information related to heat related illnesses. See Section 6.1.3 for additional information on biological hazards.***
- **Lightning –** personnel shall stop field activities and seek shelter when lightning is seen or thunder is heard. Once 30 minutes has passed without an occurrence of thunder/lightning, work activities can resume again. ***Lightning addressed in related AHAs prepared for this SOW.***
- **Noise:** Site personnel must wear approved hearing protection when around equipment that produces sound levels in excess of 85 decibels, whenever signs indicate that hearing protection is required, and whenever voices must be raised to be heard at a distance of three feet or less.

6.1.2 Site Contaminants of Concern and Monitoring

Known and potential site COCs include volatile organic compounds (BTEX, chlorinated solvents, and metals including cyanide in the groundwater.

Activities that could result in exposure to soils or groundwater containing COCs (groundwater sampling) will be conducted in with appropriate PPE (tyvek, faceshields, rubber boots) as described in Section 6.2

Air monitoring will be conducted as described below; the air monitoring program will be revised as appropriate based on data obtained:

Water Removal and Berm Repairs: The breathing zone will be monitored as warranted during site activities using a photoionization detector approximately every 30 minutes. If COCs are detected above action levels listed in **Table 6-1.1**, engineering controls and PPE upgrades will be implemented or work will be stopped.

6.1.3 Biological Hazards

Biological hazards that may present a hazard at the site include bees and other stinging insects, poisonous plants, and ticks. Mitigation measures are as follows:

- **Ticks:** Ticks may be present. Use tick repellant and check frequently for ticks on skin and clothing. Personnel should do a thorough tick inspection at the end of the work day. If embedded (physically attached) ticks are found, this must be reported to the SSO.
- **Feral animals**: Air horns or equivalent can be carried by field personnel as a deterrent for wild dogs.
- **Poisonous plants**: Poisonous plants, such as poison ivy, poison oak or sumac may be present on-site. Inspect work areas prior to entering. Wear Tyvek coveralls and gloves to protect skin from contact with poisonous plants if present. Remove coverall and gloves from the inside out to avoid contact with potentially contaminated clothing.
- **Mosquitoes**: Mosquitoes may be present and may be carriers of malaria, yellow fever, encephalitis, West Nile Fever and other diseases. Wear mosquito repellant as necessary, especially to areas not protected by clothing. Drain pooled or standing water if possible.
- **Stinging insects**: If stung by a bee, carefully removed the stinger by gently scraping with a finger nail (do not squeeze). Wash the area with soapy water and apply a cold (ice) compress to decrease absorption and spreading of the venom. If excessive swelling or redness appears, seek immediate medical attention. (Note: Allergic reactions to bee stings can be life threatening; therefore, identify susceptible persons prior to project start-up.

6.1.4 Berm Repair and Water Removal Activities

- **Task-related hazards, to be defined once mitigation activities are further defined.**

Table 6-1.1 – Chemicals of Concern

Table 6-1.1

Properties of Potential Site Contaminants

	Chemical Name (Synonyms)	Concentration at Site	Exposure Limits	Routes Of Entry	Symptoms/Health Effects	Chemical Properties	Physical Characteristics
Benzene CAS-71-43-2	Benzene Benzol CAS-71-43-2	66 ppm	TLV: 0.5 ppm [skin] PEL: 1 ppm STEL: 2.5 ppm IDLH: 500 ppm	Inhalation Absorption (skin) Ingestion	ACUTE: Irritation to eyes, skin, respiratory tract; dizziness; headache; nausea; staggered gait; fatigue, abdominal pain. CHRONIC: Defatting of the skin, may have effects on bone marrow and immune system, decrease in blood cells. Carcinogenic to humans.	(FP) 12°F (VP) 75 mm (IP) 9.24 eV (UEL) 7.8% (LEL) 1.2%	Colorless to light-yellow liquid with an aromatic odor. Solid below 42°F.
Toluene CAS-108-88-3	Toluene Methylbenzene Toluol CAS-108-88-3	140 ppm	TLV: 20 ppm PEL: 200 ppm STEL: NE IDLH: 500 ppm	Inhalation Ingestion Absorption	ACUTE: Irritation to eyes and respiratory tract. Ingestion may cause chemical pneumonitis. Affects CNS. Unconsciousness and cardiac dysrhythmia at high level exposures. CHRONIC: Defatting of the skin. Affects CNS. Enhanced hearing damage.	(FP) 40°F (VP) 21 mm (IP) 8.82 eV (UEL) 7.1% (LEL) 1.1%	Colorless liquid with a sweet, pungent, benzene-like odor.
Ethylbenzene CAS-100-41-4	Ethylbenzene Ethylbenzol EB CAS-100-41-4	60 ppm	TLV: 20 ppm PEL: 100 ppm STEL: NE IDLH: 800 ppm	Inhalation Ingestion Skin contact Eye contact	ACUTE: Causes irritation of the eyes, skin, mucous membranes, and respiratory tract. Effects on CNS. CHRONIC: Defatting of the skin, narcosis, and coma.	(FP) 55°F (VP) 7 mm (IP) 8.76 eV (UEL) 6.7% (LEL) 0.8%	Colorless liquid with an aromatic odor.
Xylene (o;m;p isomers) CAS-106-42-3	Xylene (o;m;p isomers) CAS-106-42-3	100 ppm	TLV: 100 ppm PEL: 100 ppm STEL: 150 ppm IDLH: 900 ppm	Inhalation Absorption Ingestion	ACUTE: Irritation to eyes and respiratory tract. Ingestion may cause chemical pneumonitis. Affects CNS. CHRONIC: Defatting of the skin, lung damage resulting in chronic bronchitis. Affects CNS and blood.	(FP) 90/82/81°F (IP) 7/9/9 mm (IP) 8.56eV (UEL) 6.7% (LEL) 0.9%	Colorless liquid with an aromatic odor. (p-isomer solid <56°F).
Methylene Chloride CAS-75-09-2	Methylene Chloride DMC Dichloromethane CAS-75-09-2	2.6 ppm	TLV: 50 ppm PEL: 25 ppm STEL: NE IDLH: 2,300 ppm	Inhalation Ingestion Absorption	ACUTE: Irritation of the eyes, skin and respiratory tract. Exposure could cause lowering of consciousness and formation of carboxyhemoglobin, fatigue and unnatural drowsiness. CHRONIC: Dermatitis. May cause damage to CNS and liver. Possible human carcinogen.	(FP) NE (VP) 350 mm (IP) 11.32 eV (UEL) 23.0% (LEL) 13.0%	Colorless liquid with a chloroform-like odor. Gas above 104°F.

Notes:

FP	FP - Flash Point
IDLH	IDLH - Immediately Dangerous to Life ord Health
IP	IP - Ionization Potential
NE	NE - Not Established (Information Not Available)
NA	NA - Not Applicable
CNS	CNS - Central Nervous System
PNS	PNS - Peripheral Nervous System
ppm	ppm - parts per million
mg/m3	mg/m3 - miligrams per cubic meter
PEL	PEL - OSHA Permissible Exposure Limit
STEL	STEL - Short Term Exposure Limit
TLV	TLV - ACGIH Threshold Limit Value
VP	VP - Vapor Pressure
C	C - Ceiling Exposure Limit
[skin]	[skin] - potential for dermal absorption
mm	mm - milimeters Hg (mercury)
eV	eV - electrovolts

Table 6-1.1

Properties of Potential Site Contaminants

	Chemical Name (Synonyms)	Concentration at Site	Exposure Limits	Routes Of Entry	Symptoms/Health Effects	Chemical Properties	Physical Characteristics
Acetone CAS-67-64-1	Acetone 2-Propanone Methyl ketone Dimethyl ketone CAS-67-64-1	0.7 ppm	TLV: 500 ppm PEL:1,000 ppm STEL:750 ppm IDLH: 2,500 ppm	Inhalation Ingestion Skin contact Eye contact	ACUTE: Vapors irritating to eyes and respiratory tract. May cause headaches and dizziness, effects on CNS, liver, kidneys and gastrointestinal tract. CHRONIC: Prolonged contact causes defatting of the skin, possibly dermatitis. Substance may affect blood and bone marrow.	(FP) 0°F (VP) 180 mm (IP) 9.69 eV (UEL) 12.8% (LEL) 2.5%	Colorless liquid, with a fragrant mint-like odor.
1,2-Dichloroethylene CAS-540-59-0	cis-1,2-Dichloroethene Acetylene dichloride 1,2-Dichloroethylene CAS-540-59-0	2.7 ppm	TLV: 200 ppm PEL: 200 ppm STEL: NE IDLH: 1000 ppm	Inhalation Ingestion Skin contact Eye contact	ACUTE: Irritation of the eyes and respiratory tract. CNS depression. Exposure could cause lowering of consciousness. CHRONIC: Defatting of the skin. May cause damage to liver.	(FP) 36-39°F (VP) 180-265 mm (IP) 9.65 eV (UEL) 12.8% (LEL) 5.6%	Colorless liquid (usually a mixture of the cis and trans isomers) with a slightly acrid, chloroform-like odor.
Vinyl Chloride CAS-75-01-4	Vinyl Chloride Chloroethene VCM Chloroethylene CAS-75-01-4	2.2 ppm	TLV: 1 ppm PEL: 1 ppm STEL: NE IDLH: NE	Inhalation Skin contact Eye contact	ACUTE: Irritation to eyes. Affects CNS. May cause unconsciousness. CHRONIC: Affects liver, spleen, blood and peripheral blood vessels, tissue and bones in fingers. Human carcinogen.	(FP) NA (gas) (VP) 3.3 atm (IP) 9.99 eV (UEL) 33.0% (LEL) 3.6%	Colorless gas or liquid (<7°F) with a pleasant odor at high concentrations.
Fluoranthene (PAH)	Fluoranthene (PAH)	150 ppm	TLV: 0.2 mg/m3 PEL: 0.2 mg/m3 STEL: NE IDLH: NE	Absorption Inhalation Ingestion	ACUTE: Dermatitis and bronchitis CHRONIC: Cancer of lungs, skin, bladder and kidneys. Skin carcinogen.	(FP) NE (VP) NE (IP) NE (UEL) NE (LEL) NE	Colored needles, light yellow, fine crystals.
Chrysene CAS-65996-93-2 218-01-9	Chrysene CAS-65996-93-2 218-01-9	47 ppm	TLV: -(L) PEL: 0.2 mg/m3 benzene - soluable fraction STEL: NE IDLH: 80 mg/m3	Inhalation Skin contact Eye contact	ACUTE: Bronchitis. CHRONIC: Dermatitis, may cause damage to bladder, kidneys and lungs. Potential occupational carcinogen	(FP) Varies (VP) NE (IP) Varies (UEL) NE (LEL) NE	Black or dark brown amorphous residue. A polycyclic aromatic hydrocarbon (PAH). Pure chrysene is a colorless crystalline solid that is virtually insoluble in water. Animal Carcinogen.

Notes:

FP	FP - Flash Point
IDLH	IDLH - Immediately Dangerous to Life ord Health
IP	IP - Ionization Potential
NE	NE - Not Established (Information Not Available)
NA	NA - Not Applicable
CNS	CNS - Central Nervous System
PNS	PNS - Peripheral Nervous System
ppm	ppm - parts per million
mg/m3	mg/m3 - miligrams per cubic meter
PEL	PEL - OSHA Permissible Exposure Limit
STEL	STEL - Short Term Exposure Limit
TLV	TLV - ACGIH Threshold Limit Value
VP	VP - Vapor Pressure
C	C - Ceiling Exposure Limit
[skin]	[skin] - potential for dermal absorption
mm	mm - milimeters Hg (mercury)
eV	eV - electrovolts

Table 6-1.1

Properties of Potential Site Contaminants

	Chemical Name (Synonyms)	Concentration at Site	Exposure Limits	Routes Of Entry	Symptoms/Health Effects	Chemical Properties	Physical Characteristics
Naphthalene CAS-91-20-3	Naphthalene Naphthalin Coal tar White tar CAS-91-20-3	270 ppm	TLV: 10 ppm PEL: 10 ppm STEL: 15 ppm IDLH: 250 ppm	Inhalation Ingestion Skin contact Absorption Eye contact	ACUTE: Levels above 10 ppm may cause: Inhalation - Headache, nausea, excessive sweating and vomiting; Skin - May cause irritation and if hypersensitive to naphthalene then severe irritation may occur; Eyes - Irritation. Direct contact may cause blurring vision and damage to the cornea; Ingestion - Nausea, vomiting, abdominal pain, bladder irritation, and brown or black coloration of urine. CHRONIC: Clouding of the eyes. Chronic skin problems in cases of hypersensitivity. Liver and kidney damage.	(FP) 174°F (VP) 0.08 mm (IP) 8.12 eV (UEL) 5.9% (LEL) 0.9%	Colorless to brown solid with an odor of mothballs. Sometimes found as a crystalline white solid. Shipped as a molten solid.
Phenanthrene CAS-65996-93-2	Phenanthrene Coal tar pitch volatile CAS-65996-93-2	180 ppm	TLV: 0.2 mg/m3 PEL: 0.2 mg/m3 STEL: NE IDLH: 80 mg/m3	Inhalation Absorption Ingestion Skin/mucus membrane contact	ACUTE: Photosensitivity; nausea; headache; dizziness CHRONIC: Mutagen (may cause birth defects); eye damage. Potential occupational carcinogen.	(FP) 340 F (VP) 1 mm (IP) 7.8 eV (UEL) NE (LEL) NE	White crystalline solid with a faint aromatic odor
Pyrene (PAH) CAS-65996-93-2	Pyrene (PAH) CAS-65996-93-2	99 ppm	TLV: 0.2 mg/m3 PEL: 0.2 mg/m3 STEL: NE IDLH: NE	Absorption Inhalation	ACUTE: Dermatitis and bronchitis CHRONIC: Cancer of lungs, skin, bladder and kidneys. Skin carcinogen.	(FP) NE (VP) NE (IP) NE (UEL) NE (LEL) NE	Colorless to light yellow solid or off-white solid.
PAHs CAS-65996-93-2	Polyaromatic Hydrocarbons PAHs Coal Tar Pitch Volatiles CAS-65996-93-2	1350 ppm (Maximum cumulative concentration)	TLV: 0.2 mg/m3 PEL: 0.2 mg/m3 STEL: NE IDLH: 80 mg/m3	Inhalation Ingestion	ACUTE: Bronchitis. CHRONIC: Dermatitis, may cause damage to bladder, kidneys and lungs. Potential occupational carcinogen.	(FP) Varies (VP) NA (IP) Varies (UEL) NA (LEL) NA	Black or dark brown amorphous residue. Properties vary depending upon specific compound.

Notes:

FP	FP - Flash Point
IDLH	IDLH - Immediately Dangerous to Life ord Health
IP	IP - Ionization Potential
NE	NE - Not Established (Information Not Available)
NA	NA - Not Applicable
CNS	CNS - Central Nervous System
PNS	PNS - Peripheral Nervous System
ppm	ppm - parts per million
mg/m3	mg/m3 - miligrams per cubic meter
PEL	PEL - OSHA Permissible Exposure Limit
STEL	STEL - Short Term Exposure Limit
TLV	TLV - ACGIH Threshold Limit Value
VP	VP - Vapor Pressure
C	C - Ceiling Exposure Limit
[skin]	[skin] - potential for dermal absorption
mm	mm - milimeters Hg (mercury)
eV	eV - electrovolts

6.2 FIVE HAZARD CONTROL MEASURES – ORDER OF PRECEDENCE

Site SH&E hazards and risks are controlled using one or more of the control measures listed below in order of precedence:

- **Engineer/design to eliminate or minimize hazards.** A major component of the design phase is to select appropriate features to eliminate a hazard/risk and render it fail-safe or provide redundancy using backup components.
- **Guard the hazard.** Hazards that cannot be eliminated by design must be reduced to an acceptable risk level by guards or isolation devices that render them inactive.
- **Provide warnings.** Hazards or risks that cannot be totally eliminated by design or guarding are controlled through using a warning or alarm device.
- **Provide special procedures or training.** When design, guarding, or warnings cannot eliminate hazards/risks, subcontractors must develop procedures, training, and audits to ensure safe and environmentally compliant completion of work. Training cannot be a substitute for hazard elimination when life-threatening hazards are present.
- **Provide personal protective equipment (PPE).** To protect workers from injury, the last method in the order of precedence is the use of PPE, such as hard hats, gloves, eye protection, life jackets, and other protective equipment with the understanding that bulky, cumbersome, and heavy PPE is often discarded or not used, rendering this method ineffective without proper controls.

6.3 ACTIVITY HAZARDS ANALYSIS

Parsons and its subcontractors are required to conduct an Activity Hazards Analyses for all aspects of the work. An Activity Hazards Analyses includes the following steps:

Identify the task and break it down into steps.
Identify the hazards associated with each step.
Identify the specific hazard control measure used for each step in accordance with the order-of-precedence method of control.

Project Managers can use the following list to determine the construction Activity Hazards Analyses for various high-hazard operations and critical tasks.

Premobilization inspection. Conduct an initial site inspection for prejob planning. The inspection should cover potential exposures such as the location of electrical lines, underground utilities, nearby structures, traffic conditions, site security needs, public exposures general liability, and other potential exposures. Environmental risks should be included in this inspection (e.g., potential for wastewater discharges, adequacy of planned stormwater controls, planned hazardous materials/waste management, measures to prevent

spills/releases).

Material storage. Consider where materials and equipment will be stored on site, and labeling and signage requirements. Implement measures to protect against vandalism and theft. Also consider the hazards that may exist for workers and the environment when storing or retrieving materials.

Material handling. Consider the size and weight of loads, how equipment will be used, how equipment is set up and protected, and safety and maintenance inspections of material handling and rigging equipment. Consider to employee training in use of the equipment and ergonomic issues when engaged in manual material handling activities**.**

Personal protective equipment (PPE). Consider operations where PPE is required and the type required, e.g., eye, head, foot, respiratory, hearing and hand protection, and types of special protective clothing.

Portable hand and power tools. Evaluate tools to be used and the ways that workers can be protected from the hazards associated with their use. Consider tool maintenance requirements, electrical requirements, use of ground fault circuit interrupters, grounding, extension cords, tool inspection procedures, and employee training.

Employee training. Review the safety training needs of employees. Training should include initial site SH&E orientations and hazard communication training. Some operations (e.g., excavation, blasting, scaffold erection, tunneling, confined space, heavy equipment operations, handling hazardous materials, stormwater and wastewater management, response to spills/releases, waste management, and hazardous plant process operations) may require special training that should be checked and evaluated.

Exhibit 6-1 is an AHA Example. Exhibit 6-2 contains the AHA Template. Exhibit 6-3, SH&E Hazards Analysis Training Record, shows a training record to be completed and kept on file for each Activity Hazards Analysis. AHA's will be completed prior to start of work once mitigation activity plans are finalized.

Exhibit 6-1 – Completed AHA Example
(Sheet 1 of 5)

Activity Hazard Analysis (AHA) Example

Activity/Work Task: Entering Excavation	Overall Risk Assessment Code (RAC) (Use highest code)					M
Project Location:	**Risk Assessment Code (RAC) Matrix**					
Contract Number:	**Severity**	**Probability**				
Date Prepared (MM/DD/YY):		Frequent	Likely	Occasional	Seldom	Unlikely
Prepared by (Name/Title):	Catastrophic	E	E	H	H	M
	Critical	E	H	H	M	L
Reviewed by (Name/Title):	Marginal		M	M	L	L
Employer / GBU: Parsons	Negligible	M	L	L	L	L

Notes: (Field Notes, Review Comments, etc.)
References:

Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above).
The RAC is developed after correctly identifying all of the hazards and fully implementing all controls.

"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.

"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible

Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.

RAC Chart

E = Extremely High Risk
H = High Risk
M = Moderate Risk
L = Low Risk

Job Steps	Hazards	Controls	P	S	RAC
1. Arrival, passing near, and/or around the excavation	1.1 Absence of edge protection and warning signs.	1.1.1 Maintain a safe distance away from the edge of the excavation. 1.1.2 Ensure that the edge protection and warning will be immediately provided. 1.1.3 Ensure gangways are provided across trenches to eliminate jumping over the trench.	S	Cr	M
	1.2 Presence of tension cracks near the edge of the excavation and evidence of soil collapse.	1.2.1 Maintain a safe distance away from the edge on the excavation. 1.2.2 Ensure that no materials are placed on the excavation edge. 1.2.3 Follow warning signs onsite. 1.2.4 Check for the excavation protection; shoring, benching, and sloping in place. 1.2.5 Ensure that daily preshift inspection was made for excavation. 1.2.6 Do not enter excavation.	S	Cr	M

ParShare link to AHA Example

Exhibit 6-1 – Completed AHA Example (Sheet 2 of 5)

Activity Hazard Analysis (AHA) Example (Contd)

Activity/Work Task: Entering Excavation			**Overall Risk Assessment Code (RAC) (Use highest code)**		**M**
Project Location:			**Risk Assessment Code (RAC) Matrix**		
Job Steps (Contd)	Hazards	Controls	P	S	RAC
2 Entering the excavation	2.1 Access and Egress – Unsafe Ramp.	2.1.1 Look ahead and be aware of moving plant and vehicles. 2.1.2 Keep the hands free (not in the pocket) while walking 2.1.3 Avoid slippery surfaces (oil, water mud, stones, etc.) 2.1.4 Ensure that ramp/walkway is adequately illuminated 2.1.5 Keep scanning the floor; avoid obstacles, such as building material, cables, and tools.	S	M	L
	2.2 Access and egress – Unsafe Ladder.	2.2.1 Ensure that the top and bottom ends of the ladder are secure. 2.2.2 Make a visual inspection to ensure that the ladder is safe and sound. 2.2.3 Ensure that the ladder will extend one meter clearance on top. 2.2.4 Ensure that ladder is free from oil, grease, or mud. 2.2.5 Maintain three-point contact. 2.2.6 Check for proper angle of the ladder (4:1). 2.2.7 Do not use job made ladder unless certified. 2.2.8 Do not carry a load on a ladder. 2.2.9 Only one person at a time will use a ladder. 2.2.10 Ensure that adequately illumination is provided onsite.	S	Cr	M
	2.3 Access and egress – Unsafe Stairs.	2.3.1 Check for the proper angle of the stairs. 2.3.2 Check if the tread is anti slip. 2.3.3 Ensure that railing is in good condition. 2.3.4 Maintain 3-point contact. 2.3.5 Ensure that stairs treads is free from oil, grease or mud. 2.3.6 Ensure that adequately illumination is provided on site. 2.3.7 Ensure all stairs of 4 or more risers have a hand rail.	S	Cr	M
	2.4 Access and egress - Unsafe man basket.	2.4.1 Ensure third party certification of the man basket and crane. 2.4.2 Perform a pre-use inspection on the man basket to ensure that it is in good condition 2.4.3 Check for the safe working load (SWL) of the man basket. 2.4.4 Check for the full body harness and adequate anchor point. 2.4.5 Ensure that the crane operator and rigger are all certified.	S	Cr	M

ParShare link to AHA Example

Exhibit 6-1 – Completed AHA Example (Sheet 3 of 5)

Activity Hazard Analysis (AHA) Example (Contd)

Activity/Work Task: Entering Excavation		**Overall Risk Assessment Code (RAC) (Use highest code)**			**M**
Project Location:		**Risk Assessment Code (RAC) Matrix**			
Job Steps (Contd)	Hazards	Controls	P	S	RAC
2. Entering the excavation (Contd)	2.5 Access and egress – Steps	2.5.1 Verify the correct height of the riser (approx.11¾ inches [30 cm]). 2.5.2 Keep shoe laces tied. 2.5.3 Ensure that the adequately illumination is provided. 2.5.4 Ensure that anymore than 4 stairs has adequate handrail. 2.5.5 Ensure that each steps are free from oil, grease or mud. 2.5.6 Ensure that the steps are free from any obstruction.	S	M	L
	2.6 Soil adversely affected by heavy rain	2.6.1 Access should not be allowed in any excavation after a rain event and should be properly assessed and inspected by a competent person.	S	Cr	M
	2.7 Fumes and/or gases	2.7.1 If excavation is considered as a confined space, refer to confined space AHA controls. 2.7.2 Check if there is any activity taking place where it is coming from to produce fumes and/or gases. If so, ensure that control measures are provided. 2.7.3 Ensure that there is an adequate level of ventilation being maintained to prevent the buildup of fumes and/or gases.	S	Cr	M
3. Walking inside the excavation	3.1 Falling Materials	3.1.1 Ensure that materials are not placed on the edge. 3.1.2 Follow all mandatory signs and out of bound areas 3.1.3 Ensure that basic PPE is worn (hard hat, safety glass, safety shoes). 3.1.4 Ensure no overhanging or undermined sides. 3.1.5 Ensure that utilities passing over the excavation are properly supported. 3.1.6 No resting should be allowed inside excavations or trenches.	S	M	L
	3.2 Falls on same level	3.2.1 Use designated route and walkway. 3.2.2 Look ahead and be aware. 3.2.3 Keep hands free (not in pocket) while walking onsite. 3.2.4 Follow mandatory signs onsite. 3.2.5 Avoid grease mud water on walking surfaces where possible. 3.2.6 Avoid obstructing on walkways such as tools materials and cables.	S	M	L

ParShare link to AHA Example

Exhibit 6-1 – Completed AHA Example (Sheet 4 of 5)

Activity Hazard Analysis (AHA) Example (Contd)

Activity/Work Task: Entering Excavation			**Overall Risk Assessment Code (RAC) (Use highest code)**		**M**
Project Location:			**Risk Assessment Code (RAC) Matrix**		
Job Steps (Contd)	Hazards	Controls	P	S	RAC
	3.3 Signs of cracks or collapse on the sides of the excavation	3.3.1 Work should be stopped and adequate support system shall be installed to prevent cave-ins.	S	Cr	M
4. Walking on elevated areas of the excavation	4.1 Falls from Height	4.1.1 Ensure that edge protection is in place. 4.1.2 Follow mandatory warning signs onsite. 4.1.3 Do not approach near unprotected edges. 4.1.4 Use designated routes and walkways. 4.1.5 Do not stop on and/or over covered voids, where possible.	S	Cr	M
5. Passing a noisy area in the excavation	5.1 Noise	5.1.1 Check if the contractor has conducted noise survey. 5.1.2 Follow mandatory use of PPE.	S	M	L
6. Passing near Moving Equipment and Vehicles on or near the excavation	6.1 Moving Equipment and Vehicles	6.1.1 Wear high-visibility vest. 6.1.2 Use designated walkways. 6.1.3 Do not pass behind moving equipment and vehicles. 6.1.4 Look out for moving equipment and vehicles. 6.1.5 Make eye contact with operators or banksman.	S	Cr	M
7. Passing live utilities	7.1 Live Utilities	7.1.1 Coordinate with the contractor regarding presence of any live utilities. If so, ensure that control measures are provided. 7.1.2 Follow mandatory signs and out of bound areas.	S	Cr	M
8. Passing flooded areas	8.1 Flooding and presence of water in the excavation/trench	8.1.1 Check for the weather condition before entering the excavation Exit if heavy rain starts. 8.1.2 Ensure water intrusion is controlled by dewatering	S	M	L
9. Walking during extreme temperatures/weather conditions	9.1 Exposure to extreme temperature/adverse weather condition	9.1.1 Check for humidity and temperature outside working site. 9.1.2 Wear correct clothing and PPEs. 9.1.3 Reduce exposure. 9.1.4 Implement work rotations. 9.1.5 Stay hydrated during hot weather conditions. 9.1.6 Use skin protection like sun block, etc. during hot weather condition.	S	M	L

ParShare link to AHA Example

Exhibit 6-1 – Completed AHA Example (Sheet 5 of 5)

Activity Hazard Analysis (AHA) Example (Contd)

Activity/Work Task: Entering Excavation	Overall Risk Assessment Code (RAC) (Use highest code)	M
Project Location:	**Risk Assessment Code (RAC) Matrix**	
Equipment to be Used	Training Requirements/Competent or Qualified Personnel name(s)	Inspection Requirements
Personal Protective Equipment (PPE)	SH&E site induction Crane and man basket third party test certificate Operator, rigger, and banksman competency.	PPE should be inspected before using. Daily inspection of Excavation (Competent Person) Ladder, stairs, and access pre-use inspection.

ParShare link to AHA Example

Exhibit 6-2 – Activity Hazards Analysis Template

Activity Hazard Analysis (AHA) Template

Activity/Work Task:	Overall Risk Assessment Code (RAC) (Use highest code)					
Project Location:	**Risk Assessment Code (RAC) Matrix**					
Contract Number:	**Severity**	**Probability**				
Date Prepared (MM/DD/YY):		Frequent	Likely	Occasional	Seldom	Unlikely
Prepared by (Name/Title):	Catastrophic	**E**	**E**	**H**	**H**	**M**
	Critical	**E**	**H**	**H**	**M**	**L**
Reviewed by (Name/Title):	Marginal		**M**	**M**	**L**	**L**
Employer / GBU: Parsons	Negligible	**M**	**L**	**L**	**L**	**L**

Notes: (Field Notes, Review Comments, etc.)
References:

Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above).
The RAC is developed after correctly identifying all of the hazards and fully implementing all controls.

"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.

"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible

Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.

RAC Chart

E = Extremely High Risk
H = High Risk
M = Moderate Risk
L = Low Risk

Job Steps	Hazards	Controls	P	S	RAC

Note: This page will continue for more pages, the header will continue with subsequent entries. ParShare link: AHA Template

Exhibit 6-2 – Activity Hazards Analysis Template (Contd)

Activity Hazard Analysis (AHA) Example (Contd)

Activity/Work Task: Entering Excavation			**Overall Risk Assessment Code (RAC) (Use highest code)**		
Project Location:			**Risk Assessment Code (RAC) Matrix**		
Job Steps (Contd)	**Hazards**	**Controls**	**P**	**S**	**RAC**

Equipment to be Used	**Training Requirements/Competent or Qualified Personnel name(s)**	**Inspection Requirements**

Note: This page will continue for more pages, the header will continue with subsequent entries. ParShare link: AHA Template

Exhibit 6-3 – SH&E Activity Hazards Analysis Training Record

PARSONS SH&E Activity Hazards Analysis Training Record		
Job Number:		
AHA Number:		
Job Location		
Date:		
Name of Trainer:		
Subjects Covered:		
Training Aids Used:		

Attendees – Please Sign Name Legibly Below		

Use additional sheets if necessary.

ParShare link: SH&E Hazards Analysis Training Record

6.4 SAFETY SYSTEMS AUDIT PROTOCOL

GBU SH&E Directors use the Safety Systems Audit Protocol for field staff and subcontractors whose work requires that they be on site for more than six months. The protocol provides management with a rating that reflects the effectiveness of the SH&E Program. Appendix B1 provides the program, protocol, and methodology.

6.5 CONSTRUCTION SITE INSPECTION

The construction site inspection is a protocol designed to identify and correct unsafe acts or conditions in the scope of work conducted by either Parsons or any subcontractor. An example Project Audit and Inspection Schedule is provided as Exhibit 6-4.

Parsons Construction Manager, Field Engineer responsible for the work, or the Project Safety Manager must conduct regular construction safety inspections. The Project SH&E Manager maintains the original audit documentation on file.

The Construction Manager, Field Engineer, or SH&E Manager tours the work area and makes weekly observations and notes noncompliance on a weekly construction report. *(See ESHARP Guidebook, Volume 1 – Project, Section 15 for further details.)* Items found to be out of compliance must be assigned corrective action and tracked to completion.

6.6 WEEKLY SH&E SITE INSPECTIONS

The Project Manager or most senior onsite person conducts a weekly site walk using the Weekly SH&E Inspection Checklist (Exhibit 6-5) to identify problem areas. Items found to be out of compliance must be assigned corrective action and tracked to completion.

Exhibit 6-5 – Weekly SH&E Inspection Checklist
2 Sheets (Sheet 1 of 2)

PARSONS

Weekly SHE Inspection Checklist (Sheet 1 of 2)

	Week Ending Date:
Project Name	**Project Number:**
Nam of Audito :	**Signature:**
Check each box during your inspection or indicate N/A. Substandard conditions found must be identified on the back of this checklist.	
	El ctrical: temporary pow r, circuits marked, GFC protection, damaged co ds, cords rotected, correct outlets, and signage.
	Environmental: Air emissions controlled, hazard com program, specific MSDS sheets, fuel signage, spillage dike, dust control, HAZMAT storage, and waste disposal.
	Excavations: Guarded, Soil Condition, Trenching Controls, Blue Stake/Equivalent, Daily Inspections Subcontractor, and Proper Access.
	Fire Safety: Extinguishers; Proper Size, Numbers, Proper Locations, Hose Stations, Hot Work Permit, Fuel Storage.
	Framing Activities: Proper Positions, Monitor, Fall Protection, Housekeeping, Forklift Activity, Training, and Tool Use.
	Guarding: Floors, Walls, Windows, Leading Edge, Roof, Elevator Shafts, Open Holes, Material, Quality, and Handrail
	Housekeeping: Office, Walkways, Waste Material, Lay Down Yard, Grounds, and Subcontractor Areas, Food Debris.
	Ladders: Height, Secured Top/ Bottom, Condition, Employee Position; Three Points of Contact.
	Material Handling: Rigging, Material Condition, Training, Tasks, Proper Lifting, Wheel Barrows, Stacking/Storage.
	Medical: First Aid Kits, Numbers Posted, Address Knowledge, Nearest Emergency Assistance, CPR/First Aid Training.
	Mobile Equipment: Inspections, Condition, Backup Alarms, Leaks, Fuel Storage, Proper Parking, and Training.
	PPE: Hearing, Head, Hand, Eye, Foot, Fall, Seatbelts, Respiratory,
	Sanitary: Drinking Water, Toilets Clean and Adequate, Soap and Water for Washing
	Scaffolds: Component Damage, Footing, Secured, Guardrail, Training, Inspections, Pins & Bracing, Planking, and Ladders.
	Tools: Damage, Cords, Blades, Guards, Hoses, Handles, Switches, Training, Proper Use, Storage, Adequate.
	Training: Forklift, Man Lift, Water Truck, Orientation, Task, Hazards, Power Tools, Scaffolds, and Trenching.
	Welding: Hot Work Permit, PPE, Gas Checks, Confined Space, Tank Storage, Equipment Inspections, and Fire Protection
	Miscellaneous: Any condition or behavior not identified on this checklist.

ParShare link: Weekly SH&E Inspection Checklist

Exhibit 6-5 – Weekly SHE Inspection Checklist (Sheet 2 of 2) (Contd)

PARSONS

Weekly SHE Inspection Checklist (Sheet 2 of 2)

				Week Ending Date:	
Project Name				**Project Number:**	
Name of Auditor:				**Signature:**	
Hazard Type	1.	Improper or Inadequate Guarding		8.	Substandard Housekeeping
	2.	Improper Wiring		9.	Hazardous Environmental Cond tions
	3.	Defective Tools, Equipment, Substances		10.	Radiation Exposures
	4.	Hazardous Arrangements		11.	Congestion or Restricted Movement
	5.	Inadequate Illumination		12.	Inadequate Warning System
	6.	Inadequate Ventilation		13.	Fire & Explosive Hazard
	7.	Improper Personal Protective Equipment		14.	Other:
Basic Causes	1.	Inadequate Engineering		7.	Inadequate Leadership & Supervision
	2.	Normal Wear & Tear		8.	Physical Incapacity
	3.	Inadequate Purchasing		9.	Lack of Knowledge
	4.	Inadequate Maintenance		10.	Improper Motivation
	5.	Inadequate Work Standards		11.	Mental Incapacity
	6.	Abuse		12.	Other:
Hazard Classification	**Class A: Likelihood of Death** **Class B: Likelihood of Serious Injury** **Class C: Likelihood of Minor Injury**				

Items	**Hazard Type**	**Basic Cause**	**Hazard Class**	**Location**	**Remedial Action(s)**

Comments:

ParShare link: Weekly SH&E Inspection Checklist

6.7 SH&E ENFORCEMENT

Parsons and its subcontractors enforce all applicable SH&E requirements of regional, federal, municipal, state, local, and all other regulations; and where applicable OSHA 1910 and 1926 and Engineering Manual (EM) 385.1, where applicable. Subcontractors must also comply with and enforce Parsons site requirements.

Parsons and its subcontractors must have written progressive disciplinary systems available for review in their Human Resources departments.

6.8 NOTICE OF VIOLATION OF SAFETY AND HEALTH REGULATIONS

The project has a formal Notice of Subcontractor Violation of SH&E Regulations Program to ensure that violations are issued as the result of an immediately dangerous to life and health (IDLH) situation, respiratory airborne hazards (RDLH), and/or when the subcontractor repeatedly fails to comply with SH&E requirements. Refer to Exhibit 6-6, Notice of Subcontractor Violation of SH&E Regulations.

The Notice of Subcontractors Noncompliance to SH&E Regulations (Exhibit 6-7) documents poor performance and requires a response from subcontractor senior management. The notice contains five distinct levels of discipline, from submission of a recovery plan to contract termination.

6.9 COMPETENT FIRST AID PERSON

At least one competent person must be available at the work site at all times to render First Aid. This person must have a valid certificate in First Aid training from the United States Bureau of Mines, the Red Cross/Crescent, or equivalent and verifiable regional, municipal, or local training programs. First Aid supplies must be accessible for immediate use and in sufficient quantity to handle common First Aid incidents.

To meet this requirement, Parons has trained the following staff. At least one of these employees is on site at all times that work is performed.

Daniel Chamberland
Jeffrey Poulsen

Exhibit 6-6 – Notice of Subcontractor Violation of Safety, Health, and Environmental Regulations

PARSONS

Notice of Subcontractor Violation of Safety, Health, and Environmental Regulations

	Date:	
Contractor Name:		
Address:		
Attention:		

This letter officially notifies you that you have been found to be in violation of the following Safety, Health, and Environmental Regulations: _____
on (date) _____, by _____

Confined Space Entry	☐	Lockout/Tagout	☐	Hot Work	☐	Personal protective equipment
Knowledge of environmental requirements	☐	Awareness of warning alarms	☐	Evacuation routes	☐	Backup alarms
Assembly locations	☐	Fall Protection	☐	Scaffolding	☐	Environmental/hazardous material storage
Trenching	☐	Safe Work Practices	☐	Security Practices	☐	Spill to the environment
Waste storage or disposal	☐	Wastewater discharge	☐	Buried items	☐	Violation of environmental regulation

Other: _____

Environmental:

This/These violations occurred at the following locations: _____

At the following times and dates:

The name of the employee(s) was (were):

ParShare link: Notice of Subcontractor Violation of SH&E Regulations

Exhibit 6-7 – Notice of Subcontractor Nonconformance with Safety, Health, and Environmental Regulations

PARSONS

Notice of Noncompliance with Safety, Health and Environmental Regulations

Under conditions of this enforcement procedure check all items that apply:

☐	1.	You are being notified of this violation and should take corrective action to prevent a reoccurrence. The corrective action shall be documented to the Parsons Construction Management representative immediately.
☐	2.	You must submit a plan for compliance to your Parsons Construction Management representative and the Construction Safety Manager within two days of receipt of this letter. The compliance plan must include the means or methods of compliance and the date that the requirements for compliance will be completed. Once compliance has been achieved, a follow up letter must be sent to the Parsons Construction Management representative and Construction Safety Manager. Failure to comply will result in disciplinary action against your Company.
☐	3.	You are required to review the stated procedures with your Parsons Construction Management representative. Work may not commence on the site until the review is complete and the Subcontractor responds formally that the procedure is understood and will comply.
☐	4.	You are required to review the stated procedures with your Parsons Construction Management representative. Work may not commence on the site until the review is complete and you **must** confirm formally the disciplinary action to be taken against the supervisor and employees.
☐	5.	All work on the site will stop until the Parsons Construction Management representative reviews all the facts with the Subcontractor and determines if the contract between the parties will be terminated.

Sincerely,

Parsons Representative

cc:
Issuing Construction Manager Representative
Job File
GBU Safety Director
Project Manager

ParShare link: Notice of Subcontractors Noncompliance to SH&E Regulations

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SECTION 7 – SAFETY TRAINING

7.1 PROJECT SAFETY ORIENTATION

The Parsons Project Manager, Field Engineer, or Project Safety Manager conducts site-specific orientation for all new Parsons staff and subcontractor management personnel.

Orientation takes approximately *one hour to complete* and includes applicable owner, Parsons, and regulatory reference material, including:

ZERO INCIDENT TECHNIQUES

Consistent with Parsons corporate initiatives in safety, all managers and supervisors, including subcontractor personnel, must complete START training. Records of training completion are maintained by the Project Safety Manager and forwarded to the GBU Safety Director.

7.3 DAILY HUDDLE

Field supervisors conduct daily SH&E huddles with employees to review the day's work and to remind employees of SH&E work procedures established for the tasks at hand. SH&E huddles are informal and brief, usually 5 minutes, and all workers must participate. Supervisors should always ask whether any workers have questions before they are released for work.

Daily Planners such as Daily SH&E Planner (Exhibit 7-2) or the Take 5 Card (Exhibit 7-3) enable supervisors and employees to formally document SH&E huddle participation as well as the day's activities, associated risks, and relevant control measures The daily safety huddle must be documents using either one of these forms or an alternate means of documentation to be determined by the Project Manager. Supervisors can distribute planners during SH&E huddles. Planners engage employees and improve the effectiveness of the safety huddle meeting.

If field supervisor uses planners, employees must show the completed planner to any manager on a project for signature. This review becomes an audit of field supervisors and can be the basis of an incentive program, with signed cards being eligible for rewards.

Exhibit 7-1 – Initial Subcontractor Employee Training Acknowledgement

PARSONS

Initial Subcontractor Employee Training Acknowledgment

Name of Trainer: _____

Training Subject: _____

Training materials used: _____

Name of employee: _____

Date of hire/assignment: _____

I, xxx (name), hereby certify that I have received training as described above in the following areas:

- The potential occupational hazards in general in the work area and associated with my job assignment.
- General SH&E requirements indicate the safe work conditions, safe work practices, personal protective equipment, and environmental requirements required for my work.
- The hazards of any chemicals to which I may be exposed and my right to information contained on material safety data sheets for those chemicals, and how to understand this information.
- My right to ask questions, or provide any information to the employer on safety, health, or environment either directly or anonymously without any fear of reprisal.
- Disciplinary procedures the employer will use to enforce compliance with general safety requirements.
- I understand this training and agree to comply with general safety requirements for my work area.

_____ _____

Employee Signature Date

ParShare link: Initial Subcontractor Employee Training Acknowledgement

Exhibit 7-2 – Daily SH&E Planner (3 Pages)

PARSONS

Daily SH&E Planner (Sheet 1 of 3)

Personal Safety & Health Planner for Your Daily SH&E Huddle	
Employee Name:	**Date:**
Employee Number:	**Craft:**
Supervisor:	**Location of Work:**
Work Description:	

Employee Planning Checklist

Complete the checklist for each new work operation. Check the "YES" box for those items needed to safely perform your work. All boxes marked "YES" should be properly addressed before the work operation begins.

Employee Daily Work Area Assessment

All conditions must be satisfied in order to start or continue working. Formally check your work area at least four times a day and at the start of teach new work operation. Report all problems to your supervisor.

Employee Planning Checklist

Personal Protective Equipment	Yes	N/A
Hard Hat/Safety Glasses	☐	☐
Face Shield	☐	☐
Goggles – Cutting, Chemical, Dust	☐	☐
Hearing Protection	☐	☐
Respirator	☐	☐
Gloves – Type	☐	☐
Clothing – Type	☐	☐
Foot Protection	☐	☐
Other	☐	☐
Special Equipment	**Yes**	**N/A**
Harness/Double Lanyards/Decelerator Device	☐	☐
Life Line – Horizontal, Vertical, Retractable	☐	☐
Air Monitor	☐	☐
Tripod/Rescue Devices	☐	☐
Barricades/Flagging	☐	☐
Fire Extinguishers	☐	☐
Signs	☐	☐
Electrical Insulating Materials, Blankets, Tools, Gloves	☐	☐
Chemical/Oil Spill Kits	☐	☐
Communication Devices – Radios, Horns	☐	☐

ParShare link: Daily SH&E Planner

Exhibit 7-2 – Daily SH&E Planner (Page 2 of 3) (Contd)

PARSONS Daily SH&E Planner (Sheet 2 of 3)		
Employee Planning Checklist (Contd)		
Environmental Issues	**Yes**	**N/A**
Resource Conservation/Sustainability	☐	☐
Air Pollution/Emissions	☐	☐
Wastewater Discharges	☐	☐
Drinking Water	☐	☐
Management of Hazardous Materials and Hazardous and Solid Wastes	☐	☐
Emergency Response to Spills and Releases	☐	☐
Environmental Assessments	☐	☐
Buried Items	☐	☐
Protected Ecological and Cultural Resources	☐	☐
Specific Reports (Required by Environmental Regulation) on Toxic or Hazardous Chemicals Usage and Storage	☐	☐
Other	☐	☐
	☐	☐
	☐	☐
Work Permits	**Yes**	**N/A**
Activity Hazards Analysis	☐	☐
Trench and Excavation Notice	☐	☐
Confined Space Permit	☐	☐
Welding and Cutting Permit	☐	☐
Crane and Hoist Lift Plan	☐	☐
Crane Suspended Work Platform	☐	☐
Other	☐	☐
Tagging Procedure	**Yes**	**N/A**
Scaffolding	☐	☐
Lockout and/or Tagout	☐	☐
Other	☐	☐

ParShare link: Daily SH&E Planner

Exhibit 7-2 – Daily SH&E Planner (Page 3 of 3) (Contd)

PARSONS Daily SH&E Planner (Sheet 3 of 3)									
Employee Daily Work Area Assessment									
Times									
Initials									
								Yes	**N/A**
A means of safe access and egress is provided to my work area.								☐	☐
My work area is clean and organized.								☐	☐
I have the tools and equipment necessary to perform my work.								☐	☐
My work area has adequate lighting.								☐	☐
I know how to, and have the means available, to summon emergency assistance.								☐	☐
I have a copy of, or have been trained on, the MSDS for the hazardous material I am working with.								☐	☐
The equipment I am working on, or working in, has been properly tagged out/ locked out, cleaned, vented, and drained, as well as stored energy released as required.								☐	☐
My work operation is properly controlled so that other workers will not be adversely affected by dust, fumes, sparks, slag, welding flash, floor holes, fall hazards, falling objects, overhead loads, slippery surfaces, etc.								☐	☐
I have performed an act of safety.								☐	☐
I have the necessary training to safely perform my work.								☐	☐
I will not be handling liquid chemicals, fuels, etc. and do not need spill response equipment and supplies; or I have the materials and know how to get assistance if needed.								☐	☐
I will not be discharging any wastewater or stormwater from my work area.								☐	☐
The work I am doing is not covered by an environmental permit.								☐	☐
I do not generate any chemical wastes as part of work.								☐	☐
I have the authority to stop unsafe operations!								☐	☐
Supervisor's Safety & Health Audit									
Times:									
Initials:									
Safety, Health, and Environmental Suggestions:									

ParShare link: Daily SH&E Planner

Exhibit 7-3 – Take 5 Card

PARSONS	Safety – The first thing you do!

Date: _____

Project/Task: _____

Your Name: _____

Before you begin any new task pause for 30 seconds and ask yourself the following questions. Take corrective actions as necessary prior to beginning work.

- ☐ Do I know exactly what I am doing?
- ☐ Have I reviewed the AHA for this task?
- ☐ Do I have all the right people involved?
- ☐ Is there any potential that I or my coworkers could get hurt?
- ☐ Are there any questions I should be asking fellow employees?
- ☐ Should I talk to my supervisor?
- ☐ Have I read the Work Plan and fully understand the procedures relating to this job?
- ☐ Am I using the proper tools?
- ☐ Do I have the proper PPE?
- ☐ Will I be working as safely as I know how?
- ☐ Do I see anything that just doesn't look quite right?
- ☐ Am I in a hurry? Would I be safer if I slowed down?

Each of these questions should be answered to your full satisfaction before you proceed with the work. Remember, no job is so important that you must jeopardize your safety.

Job Hazards? (List direct hazard of job duties)

1. Hazards: _____
   Mitigation: _____
2. Hazards: _____
   Mitigation: _____
3. Hazards: _____
   Mitigation: _____

Work Area	Yes	No
Work Area Clean	☐	☐
Permits Attained	☐	☐
Standard PPE (Hard hat, vest, glasses, gloves, safety boots)	☐	☐
Additional PPE needed:		

Briefly review hazards and mitigations again after lunch.

ParShare file: Take 5 Card

7.4 WEEKLY TOOLBOX SH&E MEETINGS

Parsons and its subcontractors conduct toolbox safety meetings at the beginning of each week. These meetings include topics relevant to upcoming work and may include reviews of recent incidents. The *Project SH&E Manager* documents toolbox training content and attendance and retains all records. *(See ESHARP Guidebook Volume 1 – Project, Sections 7 and 14 for further details.)*

7.5 ACTIVITY HAZARDS ANALYSIS TRAINING

When the Activity Hazards Analysis is complete, the Parsons supervisor or subcontractor conducts a training session with all employees involved with the task. The training may be informal and at the site where the task is performed. Employees should be given an opportunity to provide input regarding task steps, hazards identified, and appropriate control measures.

The Project Safety Manager documents and maintains the Activity Hazards Analyses. *(See ESHARP Guidebook Volume 1 – Project, Section 13 for more details.)*

7.6 REGULATORY TRAINING PROGRAMS

Regional, municipal, local, and OSHA regulations require specific training in certain circumstances. Based on the scope of work, the following training topics are provided on the project:

General provisions
First Aid
Hazardous Waste Operations
Emergency response
Hazard communication

The Project Safety Manager organizes this training. Instructors are typically Parsons' SH&E experts certified in the topics they instruct. *(See ESHARP Guidelines, Volume 1 – Project, Section 9 for more details.)*

7.7 OUTREACH PROGRAMS

The project uses qualified instructors and online courses to conduct regional, municipal, and local as well as OSHA 10-/30-hour construction safety training.

7.8 SPECIALIZED TRAINING AND ORIENTATIONS

Project personnel receive specialized training on client rules and requirements as well as the unique tools, equipment, and procedures used to perform the work. The project budget includes funding for the following training:

Description	Attendees	Schedule
Client and Parsons SH&E requirements	*All workers assigned to the site*	*Site orientation and PSHEP Review*

SECTION 8 – RECORDKEEPING AND POSTING

Parsons and its subcontractors must comply with the recordkeeping requirements of the regional, municipal, local, and/or OSHA regulations, Owner, Parsons Corporation, and this PSHEP, including:

OSHA 300 and/or applicable regional, municipal, and local regulation logs
Medical treatment and followup
Cranes
Heavy equipment inspection logs
Fall protection
Training
Inspections
Audits
Others, as required

Parsons Talent Management and the Project SH&E Manager are the official recordkeepers for files relating to Parsons employees. Each subcontractor maintains its own files.

The project displays regional, municipal, local, and/or OSHA regulations posters in conspicuous places, as required by regional, municipal and local regulations, including one poster on the main bulletin board located in the Parons Buffalo office.

SECTION 9 – SAFETY AND HEALTH REQUIREMENTS

Exhibit 9-1 represents regional, municipal, local, and/or OSHA regulations, owner, and Parsons corporate regulations and requirements applicable to the project. Based on the most recent risk assessments, the Parsons Project Manager and Project Safety Manager update the listed topics periodically. Training and other requirements are updated in this PSHEP as required by changes to Exhibit 9-1, Competent Person and Activity Hazards Analysis Requirements.

Parsons and its subcontractors are individually responsible for training their respective employees and for complying with all project requirements. Failure to comply could lead to disciplinary actions against Parsons employees and subcontractors or their employees. Further guidance is available in the Parsons Corporate Safety and Health Manual; ParShare link is as follows: Corporate Safety and Health Manual.

Key Competent Person and AHS requirements for this project are highlighted in Bold.

Exhibit 9-1 – Competent Person and Activity Hazards Analysis Requirements

Safety and Health Requirement	Parsons Safety, Health, and Environmental Manual	OSHA Regulation	EM 385-1-1 Regulation	Competent/ Qualified Person	Training Required	Written Plan and AHA Required
General Safety and Health		1926.20	01.A	*Yes*	*Yes*	*Yes*
Safety Training		**1926.21**	**01.B.01**	*Yes*	*Yes*	*Yes*
Confined Spaces	15	1926.21, 1910.147	06.01	*Yes*	*Yes*	*Yes*
Confined Space Permit System	15	See above	06.01	*Yes*	*Yes*	*Yes*
First Aid and Medical	2	1926.23, 50	03.A	*Yes*	*Yes*	*Yes*
Fire Protection and Prevention	12	1926.24, 150-155, 352	09.A	*Yes*	*Yes*	*Yes*
Housekeeping	4	1926.25	14.C	*N/A*	*N/A*	*N/A*
Illumination	4	1926.26, 56	07.A	*Recommended*	*N/A*	*N/A*
Sanitation	4	1926.27, 51	02.A	*N/A*	*N/A*	*N/A*
Personal Protective Equipment	**6**	**1926.28, 95-98, 100-107**	**05.A**	*Yes*	*Yes*	*Yes*
Acceptable Certifications		1926.29		*Yes*	*Yes*	*Yes*
Incorporation by Reference		1926.31	Preamble	*N/A*	*N/A*	*N/A*
Emergency Employee Action Plans	**11**	**1926.35**	**01.E**	*Recommended*	*Yes*	*Yes*
Noise Exposure	7	1926.52	05.C	*Yes*	*Yes*	*Yes*

Safety and Health Requirement	Parsons Safety, Health, and Environmental Manual	OSHA Regulation	EM 385-1-1 Regulation	Competent/ Qualified Person	Training Required	Written Plan and AHA Required
Radiation Protection	9	1926.53, 54	06. E&F; 28.A.02	*Yes*	*Yes*	*Yes*
Gases, Vapors, Dusts and Mists	9	1926.1926.55		*Yes*	*Yes*	*Yes*
Ventilation	37	1926.57, 353		*Recommended*	*Yes*	*Yes*
Hazard Communication	**10**	**1926.59**	**1.B.06**	*Yes*	*Yes*	*Yes*
Process Safety Management	14	1926.64 1910.119		*Yes*	*Yes*	*Yes*

Exhibit 9-1 – Competent Person and Activity Hazards Analysis Requirements (Contd)

Safety and Health Requirement	Parsons Safety, Health, and Environmental Manual	OSHA Regulation	EM 385-1-1 Regulation	Competent/ Qualified Person	Training Required	Written Plan and AHA Required
Hazardous Waste Operations and Emergency Response	**13**	**1926.65 1910.120**	**28.A**	*Yes*	*Yes*	*Yes*
Accident Prevention Signs and Tags	16	1926.200	08.A	*N/A*	*N/A*	*N/A*
Signaling	16	1926.201	08.B	*Recommended*	*N/A*	*Yes*
Barricades	16	1926.202		*N/A*	*N/A*	*N/A*
Material Storage	17	1926.250	14.B	*N/A*	*Yes*	*Yes*
Rigging	26	1926.251	15.A	*Yes*	*Yes*	*Yes*
Waste Disposal		1926.252	14.D	*Yes*	*Yes*	*Yes*
Tools	29	1926.300-307	13.A	*N/A*	*N/A*	*Yes*
Gas Welding and Cutting	28	1926.350	10.A	*Recommended*	*Yes*	*Yes*
Arc Welding	28	1926.351	10.E	*Recommended*	*Yes*	*Yes*
Electrical	24	1926.400-415	11.E	*Yes*	*Yes*	*Yes*
General Electrical	24	1926.416	11.A	*Yes*	*Yes*	*Yes*
Lockout Tagout	23	1926.417, 1910.147	12.A	*Yes*	*Yes*	*Yes*
Lockout Tagout Permit System	23	See above	12.A	*Yes*	*Yes*	*Yes*
Maintenance of Electrical Equipment		1926.431	11A	*Yes*	*Yes*	*Yes*
Environmental Deterioration of Electrical Equipment	24	1926.432		*Yes*	*Yes*	*Yes*

Exhibit 9-1 – Competent Person and Activity Hazards Analysis Requirements (Contd)

Safety and Health Requirement	Parsons Safety, Health, and Environmental Manual	OSHA Regulation	EM 385-1-1 Regulation	Competent/ Qualified Person	Training Required	Written Plan and AHA Required
Batteries/Battery Charging Equipment	24	1926.441	11.E	*N/A*	*Yes*	*Yes*
Scaffolding	20	1926.450-454	22.A	*Yes*	*Yes*	*Yes*
Aerial Lifts	21	1926.453	22.J and K	*Yes*	*Yes*	*Yes*
Fall Protection	22	1926.500-503	21.A	*Yes*	*Yes*	*Yes*
Cranes, Derricks, Hoists, Elevators and Conveyors	26	1926.550	16.A	*Yes*	*Yes*	*Yes*
Motor Vehicles, Mechanized Equipment	25	1926.600-603	18.A	*Yes*	*Yes*	*Yes*
Powered Industrial Trucks (forklifts)	25	1910.178		*Yes*	*Yes*	*Yes*
Site Clearing	32	1926.604	31.A	*N/A*	*Yes*	*Yes*
Marine Operations and Equipment		1926.606	16.F	*Yes*	*Yes*	*Yes*
Excavations	33	1926.650-652	25.A	*Yes*	*Yes*	*Yes*
Excavation Permit	33	N/A	N/A	*Yes*	*Yes*	*Yes*
Concrete and Masonry Construction	4	1926.700-706	27.A	*Yes*	*Yes*	*Yes*
Steel Erection	34	1926.750-761 and SENRAC		*Yes*	*Yes*	*Yes*
Underground Construction	30	1926.800	26.A	*Yes*	*Yes*	*Yes*
Caissons		1926.801	26.H	*Yes*	*Yes*	*Yes*
Cofferdams		1926.802		*Yes*	*Yes*	*Yes*
Compressed Air	30	1926.803	26.I	*Yes*	*Yes*	*Yes*
Demolition	32	1926.850-860 inclusive	23.A	*Yes*	*Yes*	*Yes*
Power Transmission and Distribution		1926.950-960 inclusive	11.H	*Yes*	*Yes*	*Yes*
Rollover Protective Structures; Overhead Protection	25	1926.1000-1003 inclusive		*N/A*	*N/A*	*Yes*
Stairways and Ladders Scope	18	1926.1050	21.A	*N/A*	*Yes*	*Yes*
Stairway/Ladder General Requirements	18	1926.1051		*Yes*	*Yes*	*Yes*
Stairways	18	1926.1052	21.E	*Recommended*	*Yes*	*N/A*
Ladders	19	1926.1053	21.D	*Yes*	*Yes*	*Yes*
Ladder/Stair Training	19	1926.1060		*Yes*	*Yes*	*Yes*

Exhibit 9-1 – Competent Person and Activity Hazards Analysis Requirements (Contd)

Safety and Health Requirement	Parsons Safety, Health, and Environmental Manual	OSHA Regulation	EM 385-1-1 Regulation	Competent/ Qualified Person	Training Required	Written Plan and AHA Required
Diving Scope		1926.1071-1072	30.A	Yes	Yes	Yes
Dive Team Quals		1926.1076	30.A.08	Yes	Yes	Yes
Dive Safe Practices Manual		1926.1080	30.A.16	Yes	Yes	Yes
Predive Procedures		1926.1081		Yes	Yes	Yes
Procedures During Dive		1926.1082	30.A.15	Yes	Yes	Yes
Post Dive Procedures		1926.1083	30.A.22	Yes	Yes	Yes
SCUBA Diving		1926.1084	30.B	Yes	Yes	Yes
Surface-Supplied Air Diving		1926.1085	30.A.04	Yes	Yes	Yes
Mixed-gas Diving		1926.1086	30.D	Yes	Yes	Yes
Liveboating		1926.1087	30.A.05	Yes	Yes	Yes
Diving Equipment		1926.1090	30.E	Yes	Yes	Yes
Diving Recordkeeping Requirements		1926.1092	30.A.06	Yes	Yes	Yes
Internal Traffic Control	16	N/A	8.D	N/A	Yes	Yes
Traffic Movement Restriction Times	16	N/A	8.C	N/A	Yes	Yes
Line Breaking	23	1910.119 and 1926.54		Yes	Yes	Yes
Major Material Movements	17	N/A	N/A	N/A	Yes	Yes
Right-of-way Restrictions	16	N/A	N/A	N/A	Yes	Yes
Bicycles/Golf Carts		N/A	18.D	N/A	Yes	N/A
IIPP/SSPP		Cal 3203	Cal 3203	Yes	Yes	Yes

ParShare link: Competent Person and Activity Hazards Analysis Requirements

PARSONS

ATTACHMENT 5

BERM CAPACITY CALCULATIONS

Area 108

	West Containment Berm		East Berm
	Tank 1	**Tank 2**	**Tank 3**
diameter (feet) (1)	45	45	45
radius (feet)	23	23	23
surface area (sf)	1590	1590	1590
depth of contents (ft) (1)	4	11	4.5
volume of contents (gal)	**47,562**	**130,794**	**53,507**
Potential spill volume (gal) (2)	**11,890**	**95,123**	**17,836**

Berm Volume Calculations

West Containment Berm (Rectangular)			**Notes**	**East Containment Berm (Circular)**			**Notes**
Height	5	feet	(1)	Height	5	feet	(1)
Length	140	feet	(2)	Radius	30	feet	(2)
Width	70	feet					
Total Capacity	**366,520**	**gal**		Total Capacity	**105,692**	**gal**	
Freeboard capacity (3)	**146,608**	**gal**		**Freeboard capacity (3)**	**42,277**	**gal**	

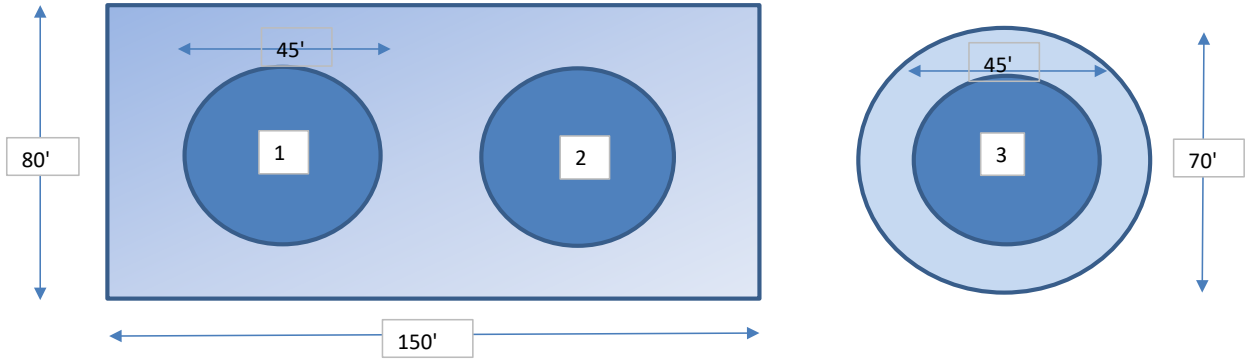
(1) Targeted repair height

(2) Site visit estimated outside dimensions minus 10-ft for berm

(3) Top 2-ft of berm height

(1) Estimated based on GHD Confirmation Investigation Report dated March 2017 and subsequent site visits.

(2) Volume of contents, above 3-ft depth



APPENDIX K TANK REMOVAL WORK PLAN

TANK REMOVAL WORK PLAN
TONAWANDA COKE CORPORATION
SITE 108
3800 RIVER ROAD
TONAWANDA, NEW YORK

Prepared For:

Honeywell

115 Tabor Road
Morris Plains, NJ 07950

Prepared By:

PARSONS

301 Plainfield Road, Suite 350
Syracuse, New York 13212

August 2019

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CAMP	Community Air Monitoring Plan
CFR	Code of Federal Regulations
ft.	foot/feet
GAC	granulated activated carbon
HASP	health and safety plan
HAZWOPER	Hazardous Waste Operations and Emergency Response Standard
HDPE	high-density polyethylene
ICR	Industrial Code Rule
LDR	Land Disposal Restrictions
LLDPE	linear low-density polyethylene
NCP	National Contingency Plan
NYCRR	New York Codes Rules and Regulations
NYSDOH	New York State Department of Health
NYSDOL	New York State Department of Labor
OSC	On-site coordinator
OSHA	Occupational Safety and Health Administration
PID	photo-ionization detectors
PM	particulate matter
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
SACM	suspect asbestos containing material
SHSO	site health and safety officer
SVOC	semivolatile organic compound
TCC	Tonawanda Coke Corporation
TCLP	toxicity characteristic leaching procedure
ug/m^3	micrograms per cubic meter
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

1.0 INTRODUCTION

This work plan presents proposed activities to remove three aboveground storage tanks and their remaining contents (tar and water) at Site 108 of the Tonawanda Coke Corporation (TCC) property in Tonawanda, NY. Planned activities include construction preparation, the removal of the tar and water, removal of the tanks, removal of surface tar from the berms and within the secondary containment areas, a survey to determine the presence and assess condition of all asbestos insulation present on-site by a certified Asbestos Inspector/Management Planner[1] and submittal of a report and work plan summarizing findings and asbestos abatement[2] recommendations, removal of the soil piles staged on-site from previous cleanup actions and site restoration upon completion of the work, as detailed below.

Procedures have also been developed to protect the health and safety of on-site personnel and ensure that further contamination will not occur as a result of this project (Parsons' Site Health and Safety Plan (HASP), Appendix A; Ontario Specialty Corporation's HASP, Appendix H). Air monitoring will be conducted in accordance with Section 3.4 and the Community Air Monitoring Plan (CAMP) provided as Appendix B. A Quality Assurance Project Plan will be submitted to EPA for review prior to collecting samples for analysis.

2.0 BACKGROUND

The subject property is part of the TCC plant. The main plant is located at 3875 River Road in Tonawanda, NY. Site 108 is located across the street at 3800 River Road (Figure 1). Site 108 extends from River Road to the Niagara River. Site access is restricted with a locked gate on the property boundary along River Road. There is a perimeter containment berm around the three tanks (Figure 2).

Background information indicates the site was primarily used for main plant shipping and deliveries by way of the Niagara River, including coke, coal, and coal tar (GHD 2017). Based on available information, it is understood that the three tanks were used for storage of coal tar produced from the coking operations.

Several rounds of investigation have been conducted at the site. Key findings relative to the storage tanks are as follows (GHD 2017):

- Storage Tanks – Each of the three tanks is about 45 feet (ft.) in diameter and has a concrete base.
    - Tank 1
        - Partially demolished; cut down to about 10 ft. in height
        - 4 to 5 ft. of waste coal tar was noted inside
    - Tank 2
        - About 36 ft. in height

[1] 12 NYCRR 56 defines a Management Planner is defined as "Any person who assesses the hazard posed by the presence of asbestos or asbestos containing material and/or who recommends appropriate response actions and a schedule for such response actions…"

[2] 12 NYCRR 56 defines abatement as "Any portion of an asbestos project that includes procedures to control fiber release from asbestos containing material. This includes removal, encapsulation, enclosure, repair, or handling of asbestos material that may result in the release of asbestos fiber."

    - A large hole, about 12-ft. by 12-ft., exists in the top of the tank
    - About 9 ft. of waste coal tar was noted in the tank
    - About 3.5 ft. of water is present on top of the tar
    - One small hole was noted on the north side of the tank
  - Tank 3
    - About 36 ft. in height
    - Several weep holes were noted in the tank walls
    - About 2 ft. of waste coal tar was noted in the tank
  - Samples of tar from each tank show elevated levels of semivolatile organic compounds (SVOCs), including naphthalene, benzo compounds, pyrene, fluoranthene, and chrysene, all of which are consistent with a coal tar product (GHD 2017).

- There is tar present in most areas within the bermed areas. The thickness of the soft tar layer within the bermed area is up to 16 inches. Three samples of the tar were collected from within the bermed area and analyzed for SVOCs. The results matched the SVOC concentrations found in the tanks.

Observations during a site visit by Parsons for Honeywell on November 12, 2018 indicated that recent remedial construction activities had occurred, most notably:

- Several holes had been created in the side walls of Tank 3 approximately 5 ft. from the bottom of the tank.
- A portion of the berm adjacent to the north side of Tank 2 had been mechanically breached and partially repaired.
- Portions of the berm adjacent to Tanks 1 and 2 had been disturbed. Disturbed areas southwest of the berm appeared to be berm material relocated as part of the prior site activities.
- Pipes which appear to have been cut from Tank 2 and poly sheeting were laying inside the secondary containment area on the north side of Tank 2. A black material was noted to be floating on the surface of the water on the north side of Tank 2 as well. A pipe connecting to a damaged valve on the north side of Tank 2 has been cut and a drop of black material on the lip of the pipe evidenced it may have released material into the water below.

To address potential short-term concerns raised by USEPA based on site conditions, Honeywell implemented interim measures per a USEPA-approved workplan (Parsons 2018) which included repairs to the perimeter berms, covering of two onsite soil piles, and related activities. Repair of the berms was completed in February 2019. In addition, site conditions and water levels within the secondary containment areas are now monitored monthly and after significant precipitation events. If water levels within the secondary containment comes within two feet of the top of the berm at any location, water will be removed and managed as discussed in Section 4.3.

Tank content samples were collected by Parsons for Honeywell on April 11, 2019, including one tar sample from Tank 1 (west tank) and one tar sample from Tank 3 (east tank). The tar in Tank 2 was not accessible for sampling. A second round of tar samples (Tanks 1 and 2) were collected on June 6, 2019 as the laboratory was unable to run TCLP on the initial samples collected in April.

Table 1 presents tar sample results, including results from a 2016 sampling effort by GHD (GHD 2017) and TCLP testing results. Benzene exceeds TCLP hazardous waste criteria (D018) in both tar samples.

Laboratory results are included in Appendix C. One water sample (water on top of the tar) was collected from Tank 2 and analyzed. There was insufficient water in Tanks 1 and 3 for sampling. Table 2 presents the water sample results from Tank 2. The laboratory report from the April 2019 sampling is included as Appendix C. Table 3 presents previously submitted water sample results from the secondary containment stormwater. Table 4 presents a summary of the waste coal tar fluid properties (viscosity, density, and specific gravity) results and Table 5 presents a summary of moisture loss test results for the tar. Waste coal tar BTU and sulfur results were as follows:

Tank	BTU/lb.	Sulfur (mg/Kg)
Tank 1	13,700	1,410
Tank 3	16,000	3,150

3.0 TANK REMOVAL AND ASSOCIATED ACTIVITIES

This section details the activities associated with the removal of tar and water from the tanks and the subsequent demolition of the tanks. Work on the project will be completed by a qualified contractor. Specific activities to be completed include:

- Site control
- Mobilization and site preparation
- Temporary soil erosion and stormwater controls
- Air monitoring
- A site survey to identify and assess asbestos present on site and submittal of a report with findings and abatement recommendations
- Removal of piping and ancillary equipment within the secondary containment area and associated piping containing hazardous substances up to the point of the pump house
- Removal of tar and water from the tanks and tank demolition
- Removal of surface coal tar waste and other coal tar waste encountered during the work from within the secondary containment areas
- Removal of two soil piles staged on site remaining from previous cleanup actions (covered tarps adjacent to the south fence line)

Each of these activities are discussed below.

3.1 SITE CONTROL

The project area will be made secure from access by unauthorized personnel by use of the gate off River Road. The gate will be kept closed at all times. The gate shall be locked at the conclusion of work each day. Only authorized vehicles and personnel will be allowed into the project area. Site orientation, including review of the project HASP as appropriate, will be required for all site workers and visitors. All employees, subcontractors and visitors will be required to sign in and out before entering/leaving the site. This practice is important for the safety and security of the site and will be strictly adhered to by all parties. Any individual or party entering the site will be presented with, and required to sign, the HASP. By signing,

they agree that they understand the procedures, hazards and policies that must be followed on-site. Vehicular traffic will be limited to the designated roads and parking areas. Access to the controlled work zone will only be granted when approved by the Site Superintendent/Site Health and Safety Officer (SHSO). At the end of each work day, the contractor will account for all personnel, secure all portable equipment in designated areas and stage heavy equipment and tools in a safe, centralized location. Work zone control will be accomplished using appropriate barriers (barrier tape, concrete barriers, fencing, cones, rope, etc.). Honeywell and its contractors will be responsible for site security during site operations.

3.2 MOBILIZATION AND SITE PREPARATION

Mobilization and site preparation activities will include:

- Mobilization and establishment of work zone demarcation
- Installation of traffic signage
- Dust and emission controls
- Construction of temporary roads and ramps for access
- Construction of erosion and sediment control
- Construction of temporary waste staging/decontamination pad

Equipment and materials involved in the removal of tar and water, tank cleaning and tank removal activities will be mobilized and staged in the vicinity of the project area. Mobilization tasks include the following:

- Equipment Delivery – Equipment delivered to the site will be fit for duty and will have all applicable safety guards in place.
- Temporary Facilities – A crew trailer will be furnished and installed, along with a generator for power.
- Photo Documentation – Preconstruction pictures will be taken to document existing conditions at the site as well as public roadways adjacent to the site to be used during the performance of remediation activities.

The following equipment is planned for the project:

- 400 and 300 Series excavators
- Shear and grapple attachments for excavators
- Manlifts
- Steam generators & pressure washer
- Generator(s)
- Frac tank
- Weir tank
- Front end loader
- Pumps
- Granulated activated carbon (GAC) water treatment system
- Skid steer
- Office trailer
- Support trailer with small tools

Figure 2 presents the planned site layout, including work and support zones, temporary roads, and erosion and sediment controls. All adjacent utility services and overhead lines will be delineated and protected, including components not scheduled for removal. The following work/support zones will be established.

Zone	Use	Setup Details
Work Zone	Tank demolition and tar removal	Demarcated to control access
Decontamination Pad	Final cleaning of scrap metal and staging of scrap metal that will be shipped as hazardous debris.	75'x75'; bermed area with 20-mil poly overlain by composite mats to protect poly lining. A 6-foot tall temporary chain-link fence will be installed around a portion of the perimeter of the decontamination pad, with 6- mil poly sheeting secured to the chain-link fence to capture fugitive spray. The bottom of the 6-mil poly sheeting will terminate within the decontamination pad.
Equipment Decontamination Pad	Cleaning of equipment prior to exiting the work area.	30'x15', bermed area with 20-mil poly overlain by composite mats to protect poly lining. The equipment decontamination pad will be constructed as described above for the decontamination pad.
Staging Area	Delivery and staging of supplies and temporary holding for cleaned scrap metal	Gravel pad (portions of the construction access road); approximately 10,000 SF.
Support Zone	Vehicle parking, crew trailer, porta jons and handwash stations.	Gravel as needed.

The decontamination pads will be used for the removal of residual contaminated material from equipment and materials prior to leaving the site. The areas will be equipped with a pressure washer or similar appropriate equipment and sloped to drain water for pumping. The pads will be constructed as follows (Appendix D presents a figure detailing the decontamination pad construction):

- Base: concrete screenings or sand above adequate subbase layer
- Intermediate layer: 8 – 10 ounce geotextile fabric
- Liner: 20 millimeter linear low-density polyethylene (LLDPE) or high-density polyethylene (HDPE) single piece liner with no seams
- Side berms: sand/stone, hay bales or concrete jersey barriers
- Interior liner protection: composite mats

Imported materials will be tested and approved in accordance with NYSDEC DER-10 5.4(e). Decontamination water will be treated through a weir tank and GAC system prior to discharge to a frac

tank. The stored water shall be sampled and analyzed to determine if it meets discharge permit requirements prior to discharge to the Town of Tonawanda sanitary system. The water will be tested in accordance with Section 4.3. For water that does not meet discharge permit requirements, the media will be sent to Heritage Thermal Services.

Competent secondary containment berms are present around the tanks. These berms will be preserved until removal of the tank contents is complete. The berms will be expanded as necessary to form a work platform if necessary for access.

Any existing water within the secondary containment areas will be removed prior to construction. Water management will be conducted as detailed in Section 4.3.

3.3 TEMPORARY SOIL EROSION AND STORMWATER CONTROLS

Prior to the start of the tank removal activities, temporary erosion control and stormwater management structures will be installed throughout the project area as necessary to control surface water and minimize the potential for erosion. The existing berms and tank shells will be used to contain tank contents and other residual tar during project activities. Figure 2 shows the planned layout for stormwater and erosion control features, including the following, as necessary:

- Silt fence or socks around the perimeter of the work area
- Temporary check dams, diversion ditches, and hay bales to divert surface water flow around the work area as needed

Daily Inspections of these controls will be performed as a part of the site maintenance activities and required corrections and adjustments/modifications will be made in a timely manner.

3.4 AIR MONITORING

In accordance with NYSDOH requirements, demolition, tar removal, soil pile loadout and other intrusive activities at the site will be continuously monitored for volatile organic compounds (VOCs) and particulates (i.e., dust) at locations downwind and upwind of the perimeter of the work area. This monitoring will be conducted in accordance with the CAMP provided as Appendix B. The purpose of the air monitoring program is to ensure that the community and general public are not exposed to hazardous constituents at levels above accepted regulatory limits.

Dust will be monitored to document that concentrations at the work zone perimeter remain below site-specific action levels established for this stage of the project. The NYSDOH has established action levels for particulates at 150 micrograms per cubic meter ($\mu g/m^3$) above background levels. If the action level is exceeded for a 15-minute period, the work will be stopped and additional dust suppression measures (such as increasing the use of water or reducing equipment speeds) will be implemented. The dust monitoring will use real-time monitors capable of measuring dust less than 10 micrometers (PM-10) and capable of integrating PM-10 concentrations over a period of 15 minutes. Equipment will alert technicians immediately if dust exceeds the action level.

Air monitoring for VOCs will also be conducted in accordance with the CAMP to document total VOC concentrations at the work zone perimeter do not exceed action levels. VOC monitoring equipment will consist of photo-ionization detectors (PIDs) that will measure total VOC concentrations continually during all construction activities. The equipment will log data real time and send alarms to alert the technician if action levels are reached. The NYSDOH has established action levels for VOCs at 5 parts per million (ppm) above background levels. To provide additional assurance, the equipment will be set at a lower site-specific alert level of 1 ppm above background above background for the 15-minute average. If the air monitors detect VOC concentrations exceeding the site-specific level, the source of the emissions will be investigated and evaluated. If a reading of 5 ppm above background for the 15-minute average is reached or exceeded, work will be stopped until corrective measures are implemented. Rusmar spray foam (AC 667SE; Safety Data Sheet included in Appendix E) or equivalent and a pneumatic foam generating unit (self-contained trailer unit) will be maintained onsite during construction activities in the event air emissions cannot be controlled by other means. The foam can be applied to form a barrier between the waste coal tar or impacted media and the atmosphere to provide an immediate and effective barrier to minimize emissions.

The air monitoring will be conducted by way of upwind and downwind stations using a MiniRAE 3000 (10.6 bulb), or equivalent for total VOCs and a DustTrak2 Desktop Monitor 8530, or equivalent, for monitoring dust. The monitoring equipment will be setup in weather-proof cases with telemetric capabilities for email and text notifications to the construction manager, site superintendent and safety officer. An UltraRAE 3000 (9.8 eV bulb) will also be maintained on site for periodic monitoring of benzene levels.

Air monitoring will also be conducted during the project as necessary to ensure that work does not expose on-site personnel to potentially harmful contaminants. Controls will be put in place to limit exposure to dust and emissions. Personal air monitoring will be conducted as necessary.

3.5 PIPING AND ANCILLARY EQUIPMENT REMOVAL

Certain pipe insulation was sampled on February 28, 2019 and found to contain asbestos. Results of the asbestos inspection are presented in Appendix F. Additional surveying of all remaining Suspected Asbestos Containing Material (SACM) on-site shall be conducted to determine the presence of all asbestos insulation on-site. SACM shall be confirmed through sampling and polarized light microscopy ("PLM") and transmission electron microscopy ("TEM") analysis as necessary[3]. All asbestos identified in this survey shall be assessed for abatement needs with findings and recommendations presented in a report and abatement workplan. The work plan will include a schedule for implementing the asbestos abatement recommendations.

[3] TEM is only necessary for non-friable organically bound (NOB) samples such as tar coatings, roofing materials, mastic, glue, and floor tiles, that are non-detect for asbestos when analyzed by PLM and/or the NYSDOH ELAP Gravimetric Reduction Method (NYS DOH ELAP Manual Item 198.1).

Under this workplan, asbestos removal procedures such as glove bags will be used to remove the asbestos insulation from the pipes located between the pumphouse and the storage tanks. Asbestos removal will be conducted in accordance with New York State Department of Labor (NYSDOL) Industrial Code Rule (ICR)- 56 by a NYSDOL-licensed asbestos abatement contractor using NYSDOL-certified workers. Project and air monitoring will be conducted as necessary by a NYSDOL-certified project monitor/air sampling technician. Asbestos waste will be appropriately bagged, labeled, transported and disposed at a USEPA approved landfill in compliance with USEPA's Offsite Rule and in compliance with New York Codes Rules and Regulations (NYCRR), Part 364 and Part 360. Asbestos waste will be staged in a lockable trailer or lockable hardtop dumpster at the end of each shift. Asbestos waste may stay in a lockable trailer or lockable hard top dumpster until filled, but in no instance longer than ten (10) calendar days after completion of abatement work. Waste transport trailers and dumpsters used to transport asbestos waste, shall be hard topped, lockable and lined with two (2) layers of six (6) mil fire-retardant polyethylene. Prior to transport from the work site, all waste trailers and dumpsters shall be sealed to ensure air, dust and watertight integrity, utilizing six (6) mil plastic, duct tape and expandable foam sealant as necessary. Prior to removal of the tanks, piping and ancillary equipment within the secondary containment area or otherwise inhibiting access to the tanks will be disconnected or cut. All piping containing hazardous substances in the secondary containment area and up to the point of the pump house shall be drained and removed. Pipe and equipment removal will be done using a combination of cutting and mechanical shearing. Contaminated piping and ancillary equipment will be wrapped in 6 mil poly and transported to the decontamination area for cleaning, as necessary for scrap recycling. Cleaning of the pipe will be done as described in Section 4.2. The waste coal tar will be collected and handled in accordance with Section 4.1.

3.6 TAR AND WATER REMOVAL AND TANK DEMOLITION

As discussed in Section 4.1, the waste coal tar will be managed as a listed waste (K142). Based on preliminary evaluations, it is anticipated the tar will be stabilized *in situ* prior to removal from the tanks through the use of a stabilization agent such as cement kiln dust, Portland cement or other applicable substances. If subsequent evaluations, including subsequent discussions with disposal and recycling facilities, determine an alternative removal approach, such as heating and pumping, is more appropriate, details will be provided to USEPA for approval prior to implementation. Work will be conducted using equipment listed in Section 3.2. Work crews, the designated on-site Health and Safety Officer and supervisors will have Occupational Safety and Health Administration (OSHA) 40-Hour Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) training. The designated Health and Safety Officer will be onsite during construction.

Removal will begin with the demolition and removal of the top portion of the tanks. To decrease the potential hazards associated with the tar remaining in the tanks, the demolition will utilize cold cut and mechanical shear procedures. The tanks will be demolished from the top down to about two to three feet above the current tar levels. Any water overlaying the waste coal tar shall be removed and managed as described in Section 4.3. The remaining bottom portion of the tanks will be left in place and utilized as a mixing basin to stabilize the tar. Cut tank sections will be inspected for residuals. Sections of steel with no visual evidence of waste coal tar residual (e.g., tank sections with no visual indication of waste coal tar contact) will be transported to the staging area for scrap recycling. Pieces with residual tar will be

transported to the decontamination pad by way of direct placement, wrapping and transport, or use of an off-road truck.

Prior to stabilization, water remaining in the tanks will be removed by pumping and managed in accordance with Section 4.3. Tank 2 shall be the first tank cut and drained of water so that a waste coal tar sample can be collected for analysis with a one week, or shorter, turnaround time. The stabilization agent will be added in an adequate quantity to ensure that the mixed material passes the paint filter test before removal from the site. Paint filter testing will be done in the field in accordance with SW-846 Test Method 9095B. Load-out and off-site disposal of the stabilized tar will begin following stabilization of the waste coal tar in the tanks. The stabilized waste coal tar will be placed directly into lined and covered transport containers. The container types will depend on the transport vendor and may vary based on container availability. Plastic sheeting will be placed under and around the transportation containers to capture any waste material dropping from the bucket during movement between the tanks and the container. It is anticipated final removal of the waste coal tar from each tank will involve exposing heating coils inside the tanks. Heating coil pipe removal will be done using hand cutting tools and/or mechanical shear cutting to remove the pipes. As these pipes are removed, they will be wrapped and transported to the decontamination pad for cleaning. Residual water in the heating pipes will be handled in accordance with Section 4.3. After completion of waste coal tar removal from the tanks, the bottom portion of the tank walls will be cleaned to the extent practical prior to cutting by way of scraping and/or pressure washing. Depending on how well the final tank sections can be cleaned they will either be placed in the staging area (debris free) or brought to the decontamination pad for additional cleaning as discussed in Section 4.2. Wash water used to clean the tanks will be managed in accordance with Section 4.3.

Scrap metal from demolition will be further downsized as necessary and processed for off-site recycling or disposal in accordance with Section 4.2.

Following the completion of tank removal work, the berms and secondary containment areas soil will be investigated, in conjunction with USEPA, to determine the extent of required surface tar removal. Surface tar within the areas will be removed and placed directly in containers similar to the way the waste coal tar will be handled for offsite disposal shipment.

4.0 MATERIAL MANAGEMENT

This section details the activities surrounding the management of materials generated during the removal of the tanks. Any material generated will be managed in compliance with all applicable regulations and which limits environmental impacts. Applicable hazardous and non-hazardous waste manifests will accompany all materials from the site to their destination. A detailed description of the management of site materials is provided below, including:

- Waste Coal Tar
- Metal and concrete
- Water
- Soil

4.1 COAL TAR REUSE/DISPOSAL

As discussed in Section 2, preliminary testing of tank contents was conducted, and tar sample results received to date are summarized in Table 1. An assessment of re-use, recycling, and disposal options were conducted as follows:

Vendor	Role	Findings
Coopers Creek Chemical Corp	Manufacturer of disinfectants, asphalt coatings, waterproofing materials	Previous buyer of TCC coal tar. No interest in aged and weathered material.
Heritage Environmental Services	Waste transport and disposal broker	Operates hazardous waste incinerator, has arrangements with cement kilns, and owns rail cars.
Sumpter Transportation Corp	Tank content removal, waste transport and disposal broker	Has arrangements with cement kilns and proprietary tank extraction procedures.
Horizon Environment, Inc. (Canada)	Thermal desorption facility	Not allowed under permit
Earth Watch Waste Systems	Waste transport and disposal	**Response pending**
WTS	Waste transport and disposal	**Response pending**

The estimated volume of waste coal tar is 200,000 gallons. Based on findings to date, recycling options are limited to hazardous secondary materials for energy recovery at Resource Conservation and Recovery Act (RCRA) permitted waste incineration facilities or at RCRA permitted cement kilns.

Under this scenario, the materials would likely be shipped to one of the following facilities as a listed (K142) , as described further below. However, these facilities have load and debris content limitations that will likely limit the amount of materials shipped to them.

- Green America Recycling, Hannibal, MO – USEPA ID#: MOD 054 018 288
- Greencastle WDF, Greencastle, IN – USEPA ID#: IND 006 419 212

Analytical results show the material is characteristic hazardous waste for benzene (D018).

Due to the accumulation of waste coal tar residue in the storage tanks, all material in the tanks will be managed as K142 listed waste under RCRA. The contaminated water and soil in the eastern and western secondary containment areas will also be classified as listed K142 waste. Water contained within all tanks will be classified as listed K142 waste.

All other waste coal tar material and contaminated media addressed under this Work Plan must be evaluated to determine whether the waste exhibits one or more characteristics of a hazardous waste.

An alternative and more likely disposal approach for a majority of the waste coal tar would be to transport the material to the following facilities for incineration, given the load and debris limitations associated with use as a fuel:

- RSI Environmental, Saint-Ambroise, Quebec, Canada; Quebec Permit # 1169045474. Bill Eaton at 978.692.9990.
- Heritage Thermal Services, 1250 St. George Street, East Liverpool, OH – USEPA ID#: OHD 980 613 541.Carrie Beringer at 330.386.2196.

Transport of waste material will be by way of truck with all loads adequately covered and sealed. Any changes to these disposal plans will be reviewed with USEPA in advance.

4.2 METAL AND CONCRETE

The tanks and pipes will be cut into manageable sized pieces and inspected. Debris-free sections will be placed in the staging area for recycling. Sections with visible waste coal tar impact will be transferred directly to the decontamination area for cleaning by way of pressure washing to the extent practical. Cleaned steel will then be moved to the staging area. Cleaned steel in the staging area will be shipped to one or more of the following recycling facilities:

- Metalico Buffalo, 127 Filmore Ave., Buffalo, NY. Eric Walton at 716.823.3788.
- Niagara Metals, 4861 Packard Road, Niagara Falls, NY. Todd Levin at 716.282.6200.
- Diamond Hurwitz Scrap, 267 Marilla St., Buffalo, NY. Stuart Blair at 716.823.2863.

If tank and pipe sections cannot be reasonably cleaned, use of an alternate treatment (e.g., macro encapsulation) covered under the Alternative Treatment Standards (40 CFR 268.45) will be reviewed with the USEPA.

We anticipate the tanks are sitting on top of concrete pads. Once the tank demolition is complete, the concrete pads will be demolished and inspected. If the concrete is visually clean the concrete will be placed in the staging area for transport to the following facility for disposal as non-hazardous waste:

- Swift River Associates, River Road, Tonawanda, NY. Tom Bieter at 716.875.6168.

If visual evidence of waste coal tar impacts is observed, the impacted concrete sections will be cleaned and placed in a lined and covered roll-off container and sampled for RCRA hazardous waste characteristics testing as necessary. All debris (steel, concrete, etc.) processing shall meet the requirements of 40 CFR 268.45 Treatment Standards for Hazardous Debris and 268.45(d) for treatment residuals, as applicable for disposal, unless the hazardous debris meets an exclusion or exemption such as 261.4(a)(13) (excluded scrap metal being recycled), in which case it would not be subject to 40 CFR part 26. Where applicable, if the hazardous debris is not impacted by K142 waste and tests as a characteristic hazardous waste and meets Land Disposal Restrictions (LDR) the material will be disposed at the following subtitle C landfill:

- Heritage Environmental Service' Roachdale, IN, Landfill USEPA ID#: IND 980 503 890. Craig Hogarth at 317.486.2783.

In regard to non-K142 listed waste debris, if the analytical results show the material is not a characteristic hazardous waste, the material may be landfilled at a Subtitle D landfill.

4.3 WATER

Pending approval from the USEPA for discharge to the Town of Tonawanda sanitary system (permit included in Appendix G), water from within the containment areas will be pumped to a weir tank and a GAC treatment system and subsequently to a nearby sanitary manhole along River Road on the Niagara River World property as per the current easement agreement.

Water is also present within the tanks. As discussed in Section 2, one sample was collected from water within Tank 2 in April 2019 (insufficient water was available in the other two tanks for sampling). As shown in Table 2, there are low levels of impact from the waste coal tar demonstrating the water may be acceptable for discharge to the POTW. Contaminated water will also be generated during tank and equipment cleaning and decontamination. Contaminated water from these sources will be pumped through a weir tank and a GAC treatment system and then to frac tanks and sampled/analyzed for potential discharge to the POTW. Sample analysis will include as necessary (consistent with the Interim Measures Work Plan):

- VOCs – EPA Method 624.1
- SVOCs – EPA Method 625.1
- Priority pollutant metals – EPA Method 200.7
- pH – field measurement.
- Cyanide – EPA Method 335.4
- Mercury – EPA Method 245.1
- Oil and Grease (1664B)

All sample results and the final proposed management approach will be provided to USEPA for approval prior to implementation and a modified permit application will be submitted to the Town for approval. Water that does not meet discharge permit requirements will be transported and disposed at Heritage Thermal Services. Spent GAC will be returned to the vendor for reactivation or disposal. Characterization and disposal will be reviewed with and approved by the EPA in advance.

4.4 BERM AREA SOILS

As discussed in Section 3.6, following the completion of tank removal work, the berms and secondary containment areas soil will be investigated, in conjunction with USEPA, to determine the extent of required surface tar removal. Surface tar within the areas will be removed and placed directly in containers consistent with procedures outlined in Section 4.1.

4.5 SOIL PILES

As discussed in Section 2, two soil piles were generated from previous site activities and covered by Honeywell earlier this year. The smaller pile is about 100 cubic yards and the larger pile is about 2,500 cubic yards. Waste characterization sampling will be conducted during construction activities to assess disposal requirements. The piles will be temporarily uncovered and sampled using a backhoe or excavator. The sampling effort will be coordinated with the USEPA. Representative samples will be collected and submitted for the following analysis:

- TCLP
    - VOCs
    - SVOCs
    - RCRA 8 metals
    - Pesticides/Herbicides

- Total PCBs
- Reactive Sulfide & Reactive Cyanide
- Ignitability/Flashpoint
- pH
- % Solids

Results and disposal plans will be reviewed with and approved by the USEPA.

5.0 SITE RESTORATION AND REPAIRS

This section details the efforts that will be made to restore the areas of the site that were impacted by the work. A description of the elements of the site restoration plan is provided below, which includes:

- Material Staging and Decontamination Area
- Grading and Seeding
- Erosion and Stormwater Controls
- Demobilization

5.1 MATERIAL STAGING AND DECONTAMINATION AREA

Upon completion of work, equipment used within the work zone will be decontaminated and the staging, decontamination, and support areas will be visually inspected, deconstructed and cleaned as necessary. Water handling equipment will be emptied and cleaned prior to demobilization. Dismantling of the decontamination pad will be as follows:

- Composite mats will be cleaned and returned to the vendor.
- The liner material will be cleaned by pressure washing and disposed at a subtitle D landfill.
- The underlying geotextile fabric and berm material will be inspected and if determined to be clean disposed at a subtitle D landfill. Contaminated materials shall either be cleaned or disposed of at a USEPA approved subtitle C disposal facility.

The weir and frac tanks, piping and GAC system will be flushed and cleaned prior to return to the vendors. The cleaning process will progress through the system from “dirty” to “clean” with a final flushing with clean water to the POTW. Residual sludges and debris will be containerized and characterized for offsite disposal. Results will be reviewed with the USEPA for disposal approval.

5.2 GRADING AND SEEDING

After removal of surface tar from the berms and within the secondary containment areas and impacted concrete a separation geotextile will be installed over the tank area footprint and the remaining berms containing uncontaminated soil will be deconstructed and used for grading of the tank area footprint. Grading will be mounded to facilitate shedding of water radially from the former tank area footprint. This will prevent ponding of water in this area. Seeding will be done in disturbed areas to establish erosion control. Starter fertilizer shall either be a component of the seed mix or added separately. The intent of

seeding will be for soil stabilization, as future site activities are anticipated. Therefore, a standard erosion control cover mix will be used with a mix of perennial and annual ryegrass. The specific seed type will be submitted as a pre-work submittal. Seeding rate will be as specified by the manufacturer (typically 50 lbs./acre). Seeded areas will be inspected weekly and watered as necessary until seedlings have established. Additional seeding will be done as necessary.

5.3 EROSION AND STORMWATER CONTROL

Temporary stormwater and erosion controls will be removed once vegetation in disturbed areas have established.

5.4 DEMOBILIZATION

At the conclusion of work, all personnel, equipment, supplies and materials will be demobilized from the site leaving it in an orderly condition. Gravel applied to some work areas may remain in place if approved by USEPA. All temporary signage will also be removed. A final inspection will be conducted to confirm that demobilization has been completed in a satisfactory manner.

6.0 REPORTING

All site activities will be documented appropriately. This will include the following information daily during site activities:

- On-site personnel
- Date of work
- Photo documentation of material and on-site activities
- Quantities of materials transported off site
- Issues or concerns

Monthly reports will be issued upon work plan approval until covered work is completed. Weekly reports will be issued during site activities. The weekly reports will describe significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems. Reporting shall meet the requirement of the Administrative Settlement Agreement and Order on Consent for a Removal Action, Index No. CERCLA-02-2019-2006, Paragraph 27.Following completion of the project's activities, a final report will be prepared consistent with the requirements set forth in Section 300.165 of the National Contingency Plan (NCP) entitled "On-site Coordinator (OSC) Reports" and will include the following information:

- Certification by a licensed professional engineer that the on-site activity was performed in accordance with the work plan
- A summary of the activities conducted at the site
- A summary of the management of all materials generated during the tank removal process

The final report will also include a listing of quantities and types of materials removed off-site and handled on-site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (e.g., manifests and permits). The final report shall meet the requirement of the Administrative Settlement Agreement and Order on Consent for a Removal Action, Index No.CERCLA-02-2019-2006, Paragraph 28.

7.0 SCHEDULE

Figure 3 presents the anticipated construction schedule. Note the following:

- Mobilization will start within 14 days of Work Plan approval, pending acceptance of waste profiles at the designated disposal facilities.
- Post-construction seeding will be monitored on a weekly basis and watered as necessary. Once established erosion control features will be removed.
- The draft Final Report will be issued to USEPA within 45 days of construction completion.

8.0 REFERENCES

GHD. 2017. Confirmation Investigation Report for Site 108 – Tonawanda Coke Corporation. Prepared by GHD, Buffalo, New York. Revised March 17, 2017. https://www.dec.ny.gov/docs/remediation_hudson_pdf/tc2.pdf

Neu-Velle. 2019. Site 108 Remediation Activities Summary Report. Prepared by Neu-Velle. March 2019.

Parsons. 2018. Interim Measures Work Plan Tonawanda Coke Corporation Site 108. Prepared by Parsons for Honeywell International. December 3, 2018.

FIGURES

FIGURE 1

Honeywell

TONAWANDA COKE CORPORATION
SITE 108 – 3800 RIVER RD
TONAWANDA, NEW YORK

SITE LOCATION MAP

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 • 315-451-9560

FILE NAME: P:\HONEYWELL\TONAWANDA COKE\10 TECHNICAL CATEGORIES\SK001.DWG
PLOT DATE: 11/13/2018 12:55 PM PLOTTED BY: RUSSO, JILL

EQUIPMENT DECONTAMINATION AREA

METAL WASH/
DECONTAMINATION PAD

FRAC TANK STAGING AREA

SUPPORT ZONE

EROSION/SEDIMENT CONTROL

RIVER ROAD

1

2

3

WORK/HOT ZONE

LOCATION OF SOIL PILES
THAT WERE TARPED

STONE CONSTRUCTION
ACCESS ROAD/STAGING
AREA

SITE 108
BOUNDARY

120 60 0 120 240

SCALE: 1"=120'

FIGURE 2

Honeywell

TONAWANDA COKE CORPORATION
SITE 108 – 3800 RIVER RD
TONAWANDA, NEW YORK

SITE OVERVIEW

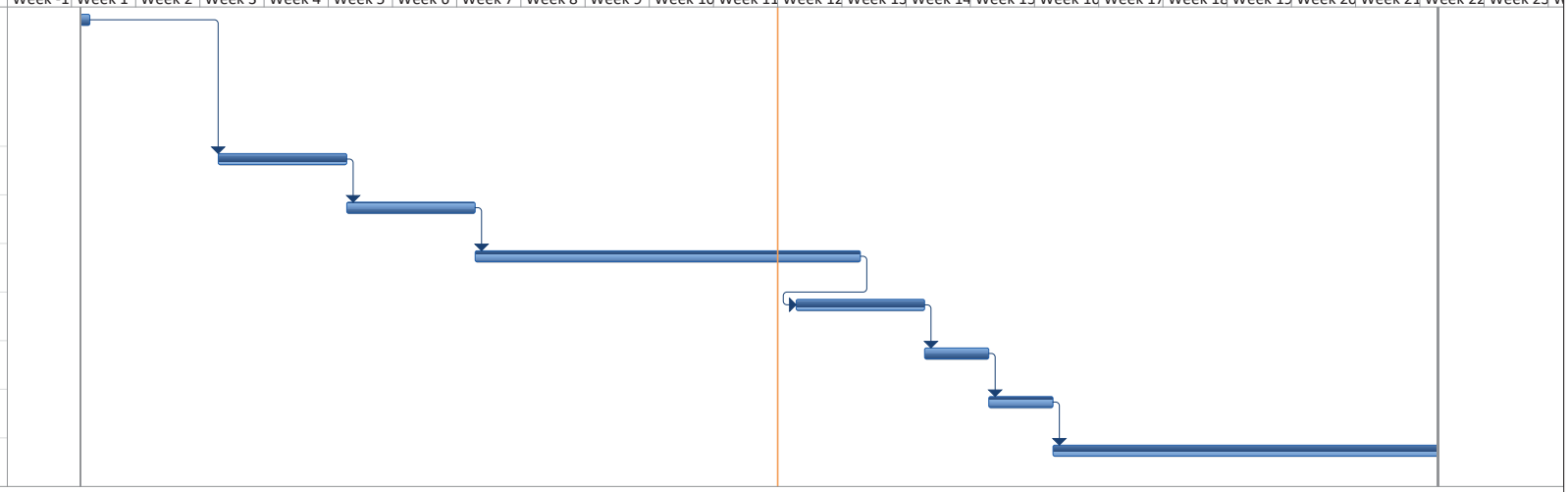
PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 • 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\451470 - TONAWANDA COKE SITE 108\10.0 TECHNICAL CATEGORIES\10.6 CAD\TANK REMOVAL\451470_TC_NO-LABELS.DWG
PLOT DATE: 8/19/2019 9:11 PM PLOTTED BY: GOLDTHWAIT, JAMES

Figure 3
Tonawanda Coke Site 108 Tank Demolition Schedule

ID	Task Name	Duration
1	Work Plan Approval/Waste Profile Acceptance by Disposal Facilities	1 day
2	Mobilization	10 days
3	Site Preperation	10 days
4	Tank Demo/Tar Removal	30 days
5	Soil Piles	10 days
6	Site Restoration	5 days
7	Demobilization	5 days
8	Final Report	30 days



Project: Tank Demolition Schedul
Date: Sun 8/18/19

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

TABLES

TABLE 1
COAL TAR SAMPLE RESULTS

Honeywell - Tonawanda Coke Site 108 Tank Tar Data			Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	TANK 1 TANK 1-09152016 9/15/2016	TANK 1 TANK 1-04112019 480-151896-4 - 480-151896-1 WASTE 4/11/2019	TANK 2 TANK 2-09152016 9/15/2016	TANK 3 TANK 3-09152016 9/15/2016	TANK 3 TANK 3-04112019 480-151896-5 - 480-151896-1 SOLID 4/11/2019	TANK 1 Tank 1 TAR JC89622-1 - SOLID 6/6/2019	TANK 3 Tank 3 TAR JC89622-2 - SOLID 6/6/2019
CAS NO.	COMPOUND	TCLP Criteria	UNITS:							
	VOLATILES									
71-55-6	1,1,1-Trichloroethane (TCA)		mg/kg		10 U			5 U		
79-34-5	1,1,2,2-Tetrachloroethane		mg/kg		10 U			5 U		
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane		mg/kg		10 U			5 U		
79-00-5	1,1,2-Trichloroethane		mg/kg		10 U			5 U		
75-34-3	1,1-Dichloroethane		mg/kg		10 U			5 U		
75-35-4	1,1-Dichloroethene		mg/kg		10 U			5 U		
120-82-1	1,2,4-Trichlorobenzene		mg/kg		10 U			5 U		
96-12-8	1,2-Dibromo-3-Chloropropane		mg/kg		10 U			5 U		
106-93-4	1,2-Dibromoethane		mg/kg		10 U			5 U		
95-50-1	1,2-Dichlorobenzene		mg/kg		10 U			5 U		
107-06-2	1,2-Dichloroethane		mg/kg		10 U			5 U		
78-87-5	1,2-Dichloropropane		mg/kg		10 U			5 U		
541-73-1	1,3-Dichlorobenzene		mg/kg		10 U			5 U		
106-46-7	1,4-Dichlorobenzene		mg/kg		10 U			5 U		
591-78-6	2-Hexanone		mg/kg		50 U			25 U		
67-64-1	Acetone		mg/kg		50 U			25 U		
71-43-2	Benzene		mg/kg		120			12		
75-27-4	Bromodichloromethane		mg/kg		10 U			5 U		
75-25-2	Bromoform		mg/kg		10 U			5 U		
74-83-9	Bromomethane		mg/kg		10 U			5 U		
75-15-0	Carbon Disulfide		mg/kg		10 U			5 U		
56-23-5	Carbon Tetrachloride		mg/kg		10 U			5 U		
108-90-7	Chlorobenzene		mg/kg		10 U			5 U		
75-00-3	Chloroethane		mg/kg		10 U			5 U		
67-66-3	Chloroform		mg/kg		10 U			5 U		
74-87-3	Chloromethane		mg/kg		10 U			5 U		
156-59-2	Cis-1,2-Dichloroethylene		mg/kg		10 U			5 U		
10061-01-5	Cis-1,3-Dichloropropene		mg/kg		10 U			5 U		
110-82-7	Cyclohexane		mg/kg		10 U			5 U		
124-48-1	Dibromochloromethane		mg/kg		10 U			5 U		
75-71-8	Dichlorodifluoromethane		mg/kg		10 U			5 U		
100-41-4	Ethylbenzene		mg/kg		10 U			5 U		
98-82-8	Isopropylbenzene (Cumene)		mg/kg		10 U			5 U		
79-20-9	Methyl Acetate		mg/kg		50 U			25 U		
78-93-3	Methyl Ethyl Ketone (2-Butanone)		mg/kg		50 U			25 U		
108-10-1	Methyl Isobutyl Ketone		mg/kg		50 U			25 U		
108-87-2	Methylcyclohexane		mg/kg		10 U			5 U		
75-09-2	Methylene Chloride		mg/kg		10 U			5 U		
100-42-5	Styrene		mg/kg		7.8 J			1.6 J		
1634-04-4	Tert-Butyl Methyl Ether		mg/kg		10 U			5 U		
127-18-4	Tetrachloroethylene (PCE)		mg/kg		10 U			5 U		
108-88-3	Toluene		mg/kg		64			6.2		
156-60-5	Trans-1,2-Dichloroethene		mg/kg		10 U			5 U		
10061-02-6	Trans-1,3-Dichloropropene		mg/kg		10 U			5 U		
79-01-6	Trichloroethylene (TCE)		mg/kg		10 U			5 U		
75-69-4	Trichlorofluoromethane		mg/kg		10 U			5 U		
75-01-4	Vinyl Chloride		mg/kg		10 U			5 U		
1330-20-7	Xylenes		mg/kg		41			4.2 J		

TABLE 1
COAL TAR SAMPLE RESULTS

Honeywell - Tonawanda Coke Site 108 Tank Tar Data			Location ID:	TANK 1	TANK 1	TANK 2	TANK 3	TANK 3	TANK 1	TANK 3
			Sample ID:	TANK 1-09152016	TANK 1-04112019	TANK 2-09152016	TANK 3-09152016	TANK 3-04112019	Tank 1 TAR	Tank 3 TAR
			Lab Sample Id:		480-151896-4			480-151896-5	JC89622-1	JC89622-2
			Depth:		-			-	-	-
			Source:							
			SDG:		480-151896-1			480-151896-1		
		TCLP	Matrix:		WASTE			SOLID	SOLID	SOLID
		Criteria	Sampled:	9/15/2016	4/11/2019	9/15/2016	9/15/2016	4/11/2019	6/6/2019	6/6/2019
			Validated:							
CAS NO.	COMPOUND		UNITS:							
	SEMIVOLATILES									
39638-32-9	2,2-Oxybis(2-Chloropropane)		mg/kg	130 U	360 U,*	1.8 U	89 U	850 U,*		
95-95-4	2,4,5-Trichlorophenol		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
88-06-2	2,4,6-Trichlorophenol		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
120-83-2	2,4-Dichlorophenol		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
105-67-9	2,4-Dimethylphenol		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
51-28-5	2,4-Dinitrophenol		mg/kg	250 U	3600 U	3.5 U	170 U	8300 U		
121-14-2	2,4-Dinitrotoluene		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
606-20-2	2,6-Dinitrotoluene		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
91-58-7	2-Chloronaphthalene		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
95-57-8	2-Chlorophenol		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
91-57-6	2-Methylnaphthalene		mg/kg	6400	4700	12	620	700 J		
95-48-7	2-Methylphenol (O-Cresol)		mg/kg	320	250 J	8.5	89 U	850 U		
88-74-4	2-Nitroaniline		mg/kg	250 U	710 U,*	3.5 U	170 U	1700 U,*		
88-75-5	2-Nitrophenol		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
91-94-1	3,3'-Dichlorobenzidine		mg/kg	130 U	710 U	3.5 U	1700 U	1700 U		
108-39-4	3-Methylphenol		mg/kg		900			220 J		
99-09-2	3-Nitroaniline		mg/kg	250 U	710 U	3.5 U	170 U	1700 U		
534-52-1	4,6-Dinitro-2-Methylphenol		mg/kg	250 U	710 U,*	3.5 U	170 U	1700 U,*		
101-55-3	4-Bromophenyl Phenyl Ether		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
59-50-7	4-Chloro-3-Methylphenol		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
106-47-8	4-Chloroaniline		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
7005-72-3	4-Chlorophenyl Phenyl Ether		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
106-44-5	4-Methylphenol (P-Cresol)		mg/kg	990	900	28	170 U	220 J		
100-01-6	4-Nitroaniline		mg/kg	250 U	710 U	3.5 U	170 U	1700 U		
100-02-7	4-Nitrophenol		mg/kg	250 U	710 U	3.5 U	170 U	1700 U		
83-32-9	Acenaphthene		mg/kg	880	870	1.8 U	160	190 J		
208-96-8	Acenaphthylene		mg/kg	4400	3500	15	770	1000		
98-86-2	Acetophenone		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
120-12-7	Anthracene		mg/kg	8300	3900	1.4	1300	1500		
1912-24-9	Atrazine		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
100-52-7	Benzaldehyde		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
56-55-3	Benzo(A)Anthracene		mg/kg	14000	6900	26	1200	1300		
50-32-8	Benzo(A)Pyrene		mg/kg	8800	6000	29	970	1000		
205-99-2	Benzo(B)Fluoranthene		mg/kg	9400	8000	38	1200	1100		
191-24-2	Benzo(G,H,I)Perylene		mg/kg	4800	4100	20	450	620 J		
207-08-9	Benzo(K)Fluoranthene		mg/kg	7400	3500	15	520	710 J		
85-68-7	Benzyl Butyl Phthalate		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
92-52-4	Biphenyl (Diphenyl)		mg/kg	1300	1100	3.5	170	240 J		
111-91-1	Bis(2-Chloroethoxy) Methane		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
111-44-4	Bis(2-Chloroethyl) Ether		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
117-81-7	Bis(2-Ethylhexyl) Phthalate		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
105-60-2	Caprolactam		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
86-74-8	Carbazole		mg/kg	5400	3600	29	800	1000		
218-01-9	Chrysene		mg/kg	49000	8000	1100	1100	1200		
53-70-3	Dibenz(A,H)Anthracene		mg/kg	130 U	1200	1.8 U	89 U	850 U		
132-64-9	Dibenzofuran		mg/kg	5600	4400	14	1000	1100		
84-66-2	Diethyl Phthalate		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
131-11-3	Dimethyl Phthalate		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
84-74-2	Di-N-Butyl Phthalate		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
117-84-0	Di-N-Octylphthalate		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
206-44-0	Fluoranthene		mg/kg	21000	17000	81	3900	3500		
86-73-7	Fluorene		mg/kg	9400	7600	23	1700	1800		
118-74-1	Hexachlorobenzene		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
87-68-3	Hexachlorobutadiene		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
77-47-4	Hexachlorocyclopentadiene		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
67-72-1	Hexachloroethane		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
193-39-5	Indeno(1,2,3-C,D)Pyrene		mg/kg	4600	3800	18	450	570 J		
78-59-1	Isophorone		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
91-20-3	Naphthalene		mg/kg	56000	49000	160	5900	5600		
98-95-3	Nitrobenzene		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
621-64-7	N-Nitrosodi-N-Propylamine		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
86-30-6	N-Nitrosodiphenylamine		mg/kg	130 U	360 U	1.8 U	89 U	850 U		
87-86-5	Pentachlorophenol		mg/kg	250 U	710 U	3.5 U	170 U	1700 U		
85-01-8	Phenanthrene		mg/kg	30000	26000	100	5900	6600		
108-95-2	Phenol		mg/kg	1100	950	79	89 U	850 U		

TABLE 1
COAL TAR SAMPLE RESULTS

Honeywell - Tonawanda Coke Site 108 Tank Tar Data			Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	TANK 1 TANK 1-09152016 9/15/2016	TANK 1 TANK 1-04112019 480-151896-4 - 480-151896-1 WASTE 4/11/2019	TANK 2 TANK 2-09152016 9/15/2016	TANK 3 TANK 3-09152016 9/15/2016	TANK 3 TANK 3-04112019 480-151896-5 - 480-151896-1 SOLID 4/11/2019	TANK 1 Tank 1 TAR JC89622-1 - SOLID 6/6/2019	TANK 3 Tank 3 TAR JC89622-2 - SOLID 6/6/2019
CAS NO.	COMPOUND	TCLP Criteria	UNITS:							
129-00-0	Pyrene		mg/kg	15000	14000	60	2700	2800		
110-86-1	Pyridine		mg/kg		710 U			1700 U		

TABLE 1
COAL TAR SAMPLE RESULTS

Honeywell - Tonawanda Coke Site 108 Tank Tar Data			Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	TANK 1 TANK 1-09152016 SOLID 9/15/2016	TANK 1 TANK 1-04112019 480-151896-4 - 480-151896-1 WASTE 4/11/2019	TANK 2 TANK 2-09152016 SOLID 9/15/2016	TANK 3 TANK 3-09152016 SOLID 9/15/2016	TANK 3 TANK 3-04112019 480-151896-5 - 480-151896-1 SOLID 4/11/2019	TANK 1 Tank 1 TAR JC89622-1 - SOLID 6/6/2019	TANK 3 Tank 3 TAR JC89622-2 - SOLID 6/6/2019
CAS NO.	COMPOUND	TCLP Criteria	UNITS:							
	PESTICIDES									
12789-03-6	Chlordane (Technical)		mg/kg		91 U			140 U		
72-20-8	Endrin		mg/kg		9.1 U			14 U		
58-89-9	Gamma Bhc (Lindane)		mg/kg		9.1 U			14 U		
76-44-8	Heptachlor		mg/kg		9.1 U			14 U		
1024-57-3	Heptachlor Epoxide		mg/kg		9.1 U			14 U		
72-43-5	Methoxychlor		mg/kg		9.1 U			14 U		
8001-35-2	Toxaphene		mg/kg		91 U			140 U		
	PCBS									
12674-11-2	PCB-1016 (Aroclor 1016)		mg/kg		3.8 U			6.7 U		
11104-28-2	PCB-1221 (Aroclor 1221)		mg/kg		3.8 U			6.7 U		
11141-16-5	PCB-1232 (Aroclor 1232)		mg/kg		3.8 U			6.7 U		
53469-21-9	PCB-1242 (Aroclor 1242)		mg/kg		3.8 U			6.7 U		
12672-29-6	PCB-1248 (Aroclor 1248)		mg/kg		3.8 U			6.7 U		
11097-69-1	PCB-1254 (Aroclor 1254)		mg/kg		3.8 U			6.7 U		
11096-82-5	PCB-1260 (Aroclor 1260)		mg/kg		3.8 U			6.7 U		
	HERBICIDES									
93-72-1	Silvex (2,4,5-TP)		mg/kg		0.58 U			0.59 U		
94-75-7	2,4-D (Dichlorophenoxyacetic Acid)		mg/kg		2.3 U			2.4 U		
93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-		mg/kg		0.58 U			0.59 U		
	INORGANICS									
7429-90-5	Aluminum		mg/kg		637			4.9 J		
7440-36-0	Antimony		mg/kg		15.6 U			15.4 U		
7440-38-2	Arsenic		mg/kg		4.2			2.1 U		
7440-39-3	Barium		mg/kg		6.4			0.51 U		
7440-41-7	Beryllium		mg/kg		0.063 J			0.21 U		
7440-43-9	Cadmium		mg/kg		2.3			0.21 U		
7440-70-2	Calcium		mg/kg		377 B			15.7 J,B		
7440-47-3	Chromium, Total		mg/kg		1.6 B			0.49 J,B		
7440-48-4	Cobalt		mg/kg		0.48 J			0.51 U		
7440-50-8	Copper		mg/kg		3			0.34 J		
7439-89-6	Iron		mg/kg		2530			15		
7439-92-1	Lead		mg/kg		73.5			1 U		
7439-95-4	Magnesium		mg/kg		99 B			2.8 J,B		
7439-96-5	Manganese		mg/kg		9.4 B			0.14 J,B		
7439-97-6	Mercury		mg/kg		0.14			0.02 U		
7440-02-0	Nickel		mg/kg		1.4 J			5.1		
7440-09-5	Potassium		mg/kg		81.8			30.8 U		
7782-49-2	Selenium		mg/kg		2.7 J			4.1 U		
7440-22-4	Silver		mg/kg		0.62 U			0.62 U		
7440-23-5	Sodium		mg/kg		184			47.4 J,B,^		
7440-28-0	Thallium		mg/kg		4.1 J			6.2 U		
7440-62-2	Vanadium		mg/kg		1.4			29.8		
7440-66-6	Zinc		mg/kg		106			2.1 U		
	OTHER									
FLASHPT	Flash Point		deg F		> 176			> 176		
PH	pH		S.U.		7.7 HF			6.1 HF		
TEMP	Temperature for sample or purge water		deg C		21.1 HF			21.4 HF		
	WASTE CHARACTERISTICS									
REAC-CN	Cyanide, Reactive		mg/kg		10 U			10 U		
REAC-S	Sulfide, Reactive		mg/kg		10 U			10 U		
TX	TOTAL HALIDES (TX)		mg/kg		1130			86 J		
	VOLATILES									
75-34-3	1,1-Dichloroethane	0.5	mg/L						0.05 U	0.0050 U
75-35-4	1,1-Dichloroethene	0.7	mg/L						0.05 U	0.0050 U
106-46-7	1,4-Dichlorobenzene	7.5	mg/L						0.05 U	0.0050 U
71-43-2	Benzene	0.5	mg/L						7.74	0.91
56-23-5	Carbon Tetrachloride	0.5	mg/L						0.05 U	0.0050 U
108-90-7	Chlorobenzene	100	mg/L						0.05 U	0.0050 U
67-66-3	Chloroform	6	mg/L						0.05 U	0.0050 U
78-93-3	Methyl Ethyl Ketone (2-Butanone)	200	mg/L						1.0 U	0.10 U
127-18-4	Tetrachloroethylene (PCE)	0.7	mg/L						0.05 U	0.0050 U
79-01-6	Trichloroethylene (TCE)	0.5	mg/L						0.05 U	0.0050 U
75-01-4	Vinyl Chloride	0.2	mg/L						0.05 U	0.0050 U
	SEMIVOLATILES									
95-95-4	2,4,5-Trichlorophenol	400	mg/L						0.050 U	0.050 U

TABLE 1
COAL TAR SAMPLE RESULTS

Honeywell - Tonawanda Coke Site 108 Tank Tar Data			Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	TANK 1 TANK 1-09152016 9/15/2016	TANK 1 TANK 1-04112019 480-151896-4 - 480-151896-1 WASTE 4/11/2019	TANK 2 TANK 2-09152016 9/15/2016	TANK 3 TANK 3-09152016 9/15/2016	TANK 3 TANK 3-04112019 480-151896-5 - 480-151896-1 SOLID 4/11/2019	TANK 1 Tank 1 TAR JC89622-1 - SOLID 6/6/2019	TANK 3 Tank 3 TAR JC89622-2 - SOLID 6/6/2019
CAS NO.	COMPOUND	TCLP Criteria	UNITS:							
88-06-2	2,4,6-Trichlorophenol	2	mg/L						0.050 U	0.050 U
121-14-2	2,4-Dinitrotoluene	0.13	mg/L						0.020 U	0.020 U
95-48-7	2-Methylphenol (O-Cresol)	200	mg/L						0.738	0.161
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol (P-Cresol)								0.261	0.374
118-74-1	Hexachlorobenzene	0.13	mg/L						0.020 U	0.020 U
87-68-3	Hexachlorobutadiene	0.5	mg/L						0.010 U	0.010 U
67-72-1	Hexachloroethane	3	mg/L						0.050 U	0.050 U
98-95-3	Nitrobenzene	2	mg/L						0.020 U	0.020 U
87-86-5	Pentachlorophenol	100	mg/L						0.10 U	0.10 U
110-86-1	Pyridine	5	mg/L						0.020 U	0.020 U
	PESTICIDES									
12789-03-6	Chlordane (Technical)	0.03	mg/L						0.0033 U	0.0033 U
72-20-8	Endrin	0.02	mg/L						0.000067 U	0.000067 U
58-89-9	Gamma Bhc (Lindane)	0.4	mg/L						0.000067 U	0.000067 U
76-44-8	Heptachlor	0.008	mg/L						0.000067 U	0.000067 U
72-43-5	Methoxychlor	10	mg/L						0.00013 U	0.00013 U
8001-35-2	Toxaphene	0.5	mg/L						0.0017 U	0.0017 U
	HERBICIDES									
93-72-1	Silvex (2,4,5-TP)	1	mg/L						0.0012 U	0.0012 U
94-75-7	2,4-D (Dichlorophenoxyacetic Acid)	10	mg/L						0.0042 U	0.0042 U
	INORGANICS									
7440-38-2	Arsenic	5	mg/L						0.5 U	0.5 U
7440-39-3	Barium	100	mg/L						1.0 U	1.0 U
7440-43-9	Cadmium	1	mg/L						0.02 U	0.02 U
7440-47-3	Chromium, Total	5	mg/L						0.05 U	0.05 U
7439-92-1	Lead	5	mg/L						0.5 U	0.5 U
7439-97-6	Mercury	0.2	mg/L						0.0002 U	0.0002 U
7782-49-2	Selenium	1	mg/L						0.5 U	0.5 U
7440-22-4	Silver	5	mg/L						0.05 U	0.05 U

TABLE 2
TANK 2 WATER SAMPLE RESULTS

Honeywell - Tonawanda Coke Site 108 Tank Waste Data April 2019 SDG: 480-151896-1		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	TANK 2 TANK 2-04112019 480-151896-3 480-151896-1 WATER 4/11/2019
CAS NO.	COMPOUND	UNITS:	
	VOLATILES		
71-55-6	1,1,1-Trichloroethane (TCA)	mg/L	0.005 U
79-34-5	1,1,2,2-Tetrachloroethane	mg/L	0.005 U
79-00-5	1,1,2-Trichloroethane	mg/L	0.005 U
75-34-3	1,1-Dichloroethane	mg/L	0.005 U
75-35-4	1,1-Dichloroethene	mg/L	0.005 U
120-82-1	1,2,4-Trichlorobenzene	mg/L	0.0095 U
95-50-1	1,2-Dichlorobenzene	mg/L	0.005 U
107-06-2	1,2-Dichloroethane	mg/L	0.005 U
78-87-5	1,2-Dichloropropane	mg/L	0.005 U
541-73-1	1,3-Dichlorobenzene	mg/L	0.005 U
106-46-7	1,4-Dichlorobenzene	mg/L	0.005 U
110-75-8	2-Chloroethyl Vinyl Ether	mg/L	0.025 U
107-02-8	Acrolein	mg/L	0.1 U
107-13-1	Acrylonitrile	mg/L	0.05 U
71-43-2	Benzene	mg/L	0.0038 J
75-27-4	Bromodichloromethane	mg/L	0.005 U
75-25-2	Bromoform	mg/L	0.005 U
74-83-9	Bromomethane	mg/L	0.005 U
56-23-5	Carbon Tetrachloride	mg/L	0.005 U
108-90-7	Chlorobenzene	mg/L	0.005 U
75-00-3	Chloroethane	mg/L	0.005 U
67-66-3	Chloroform	mg/L	0.005 U
74-87-3	Chloromethane	mg/L	0.005 U
10061-01-5	Cis-1,3-Dichloropropene	mg/L	0.005 U
124-48-1	Dibromochloromethane	mg/L	0.005 U
540-59-0	Dichloroethylenes	mg/L	0.01 U
100-41-4	Ethylbenzene	mg/L	0.005 U
75-09-2	Methylene Chloride	mg/L	0.005 U
127-18-4	Tetrachloroethylene (PCE)	mg/L	0.005 U
108-88-3	Toluene	mg/L	0.0016 J
156-60-5	Trans-1,2-Dichloroethene	mg/L	0.005 U
10061-02-6	Trans-1,3-Dichloropropene	mg/L	0.005 U
79-01-6	Trichloroethylene (TCE)	mg/L	0.005 U
75-01-4	Vinyl Chloride	mg/L	0.005 U
179601-23-1	m-Xylene & p-Xylene	mg/L	0.010 U
95-47-6	o-Xylene	mg/L	0.005 U
	SEMIVOLATILES		
88-06-2	2,4,6-Trichlorophenol	mg/L	0.0048 U
120-83-2	2,4-Dichlorophenol	mg/L	0.0048 U
105-67-9	2,4-Dimethylphenol	mg/L	0.0018 J
51-28-5	2,4-Dinitrophenol	mg/L	0.0095 U
121-14-2	2,4-Dinitrotoluene	mg/L	0.0095 U
606-20-2	2,6-Dinitrotoluene	mg/L	0.0048 U

TABLE 2
TANK 2 WATER SAMPLE RESULTS

Honeywell - Tonawanda Coke Site 108 Tank Waste Data April 2019 SDG: 480-151896-1		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	TANK 2 TANK 2-04112019 480-151896-3 480-151896-1 WATER 4/11/2019
CAS NO.	COMPOUND	UNITS:	
91-58-7	2-Chloronaphthalene	mg/L	0.0048 U
95-57-8	2-Chlorophenol	mg/L	0.0048 U
88-75-5	2-Nitrophenol	mg/L	0.0048 U
91-94-1	3,3'-Dichlorobenzidine	mg/L	0.0048 U
534-52-1	4,6-Dinitro-2-Methylphenol	mg/L	0.0095 U
101-55-3	4-Bromophenyl Phenyl Ether	mg/L	0.0048 U
59-50-7	4-Chloro-3-Methylphenol	mg/L	0.0048 U
7005-72-3	4-Chlorophenyl Phenyl Ether	mg/L	0.0048 U
100-02-7	4-Nitrophenol	mg/L	0.014 U
83-32-9	Acenaphthene	mg/L	0.0048 U
208-96-8	Acenaphthylene	mg/L	0.0048 U
120-12-7	Anthracene	mg/L	0.0048 U
56-55-3	Benzo(A)Anthracene	mg/L	0.0048 U
50-32-8	Benzo(A)Pyrene	mg/L	0.0048 U
205-99-2	Benzo(B)Fluoranthene	mg/L	0.0048 U
191-24-2	Benzo(G,H,I)Perylene	mg/L	0.0048 U
207-08-9	Benzo(K)Fluoranthene	mg/L	0.0048 U
85-68-7	Benzyl Butyl Phthalate	mg/L	0.0048 U
111-91-1	Bis(2-Chloroethoxy) Methane	mg/L	0.0048 U
111-44-4	Bis(2-Chloroethyl) Ether	mg/L	0.0048 U
108-60-1	Bis(2-Chloroisopropyl) Ether	mg/L	0.0048 U
117-81-7	Bis(2-Ethylhexyl) Phthalate	mg/L	0.0095 U
218-01-9	Chrysene	mg/L	0.0048 U
53-70-3	Dibenz(A,H)Anthracene	mg/L	0.0048 U
84-66-2	Diethyl Phthalate	mg/L	0.0048 U
131-11-3	Dimethyl Phthalate	mg/L	0.0048 U
84-74-2	Di-N-Butyl Phthalate	mg/L	0.0048 U
117-84-0	Di-N-Octylphthalate	mg/L	0.0048 U
206-44-0	Fluoranthene	mg/L	0.0017 J
86-73-7	Fluorene	mg/L	0.001 J
118-74-1	Hexachlorobenzene	mg/L	0.0048 U
87-68-3	Hexachlorobutadiene	mg/L	0.0048 U
77-47-4	Hexachlorocyclopentadiene	mg/L	0.0095 U
67-72-1	Hexachloroethane	mg/L	0.0048 U
193-39-5	Indeno(1,2,3-C,D)Pyrene	mg/L	0.0048 U
78-59-1	Isophorone	mg/L	0.0048 U
91-20-3	Naphthalene	mg/L	0.0048 U
98-95-3	Nitrobenzene	mg/L	0.0048 U
62-75-9	N-Nitrosodimethylamine	mg/L	0.0095 U
621-64-7	N-Nitrosodi-N-Propylamine	mg/L	0.0048 U
86-30-6	N-Nitrosodiphenylamine	mg/L	0.0048 U
87-86-5	Pentachlorophenol	mg/L	0.0095 U
85-01-8	Phenanthrene	mg/L	0.0048 U
108-95-2	Phenol	mg/L	0.013

TABLE 2
TANK 2 WATER SAMPLE RESULTS

Honeywell - Tonawanda Coke Site 108 Tank Waste Data April 2019 SDG: 480-151896-1		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	TANK 2 TANK 2-04112019 480-151896-3 480-151896-1 WATER 4/11/2019
CAS NO.	COMPOUND	UNITS:	
129-00-0	Pyrene	mg/L	0.0048 U
	PCBS		
12674-11-2	PCB-1016 (Aroclor 1016)	mg/L	0.000057 U
11104-28-2	PCB-1221 (Aroclor 1221)	mg/L	0.000057 U
11141-16-5	PCB-1232 (Aroclor 1232)	mg/L	0.000057 U
53469-21-9	PCB-1242 (Aroclor 1242)	mg/L	0.000057 U
12672-29-6	PCB-1248 (Aroclor 1248)	mg/L	0.000057 U
11097-69-1	PCB-1254 (Aroclor 1254)	mg/L	0.000057 U
11096-82-5	PCB-1260 (Aroclor 1260)	mg/L	0.000057 U
37324-23-5	PCB-1262 (Aroclor 1262)	mg/L	0.000057 U
11100-14-4	PCB-1268 (Aroclor 1268)	mg/L	0.000057 U
1336-36-3	Polychlorinated Biphenyl (PCBs)	mg/L	0.000057 U
	INORGANICS		
7440-36-0	Antimony	mg/L	0.02 U
7440-38-2	Arsenic	mg/L	0.015 U
7440-41-7	Beryllium	mg/L	0.002 U
7440-43-9	Cadmium	mg/L	0.002 U
7440-47-3	Chromium, Total	mg/L	0.004 U
7440-50-8	Copper	mg/L	0.01 U
7439-92-1	Lead	mg/L	0.01 U
7439-97-6	Mercury	mg/L	0.0002 U
7440-02-0	Nickel	mg/L	0.0014 J
7782-49-2	Selenium	mg/L	0.025 U
7440-22-4	Silver	mg/L	0.006 U
7440-28-0	Thallium	mg/L	0.02 U
7440-66-6	Zinc	mg/L	0.0024 J
57-12-5	Cyanide	mg/L	0.008 J,*
	OTHER		
122-66-7	1,2-Diphenylhydrazine	mg/L	0.0095 U
92-87-5	Benzidine	mg/L	0.076 U

TABLE 3
BERM WATER ANALYTICAL

ANALYTE	UNITS	480-145167-1 EASTBERM 11/13/2018	480-145712-1 EASTBERM-1 11/26/2018	480-145712-2 EASTBERM-2 11/26/2018	480-145167-2 WESTBERM 11/13/2018	480-145712-3 WESTBERM1 11/26/2018	480-145712-4 WESTBERM-2 11/26/2018	480-145712-5 WESTBERM-3 11/26/2018
VOLATILE ORGANIC COMPOUNDS								
1,1,1-Trichloroethane	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
1,1,2-Trichloroethane	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
1,1-Dichloroethane	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
1,1-Dichloroethene	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
1,2-Dichlorobenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
1,2-Dichloroethane	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
1,2-Dichloroethene, Total	ug/L	2.0 U	10 U	NA	2.0 U	10 U	40 U	40 U
1,2-Dichloropropane	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
1,3-Dichlorobenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
1,4-Dichlorobenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
2-Chloroethyl vinyl ether	ug/L	1.0 U	25 U	NA	1.0 U	25 U	100 U	100 U
Acrolein	ug/L	4.0 U	100 U	NA	4.0 U	100 U	400 U	400 U
Acrylonitrile	ug/L	2.0 U	50 U	NA	2.0 U	50 U	200 U	200 U
Benzene	ug/L	1.0 U	5.0 U	NA	1.0 U	1.8 J	20 U	20 U
Bromoform	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
Bromomethane	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
Carbon tetrachloride	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
Chlorobenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
Chlorodibromomethane	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
Chloroethane	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
Chloroform	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
Chloromethane	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
cis-1,3-Dichloropropene	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
Dichlorobromomethane	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
Ethylbenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
Methylene Chloride	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	3.3 J	3.9 J
Tetrachloroethene	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
Toluene	ug/L	1.0 U	5.0 U	NA	1.0 U	1.7 J	20 U	20 U
trans-1,2-Dichloroethene	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
trans-1,3-Dichloropropene	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
Trichloroethene	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
Vinyl chloride	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	20 U	20 U
m-Xylene & p-Xylene	ug/L	NA	10 U	NA	NA	1.3 J	40 U	40 U
o-Xylene	ug/L	NA	5.0 U	NA	NA	0.71 J	20 U	20 U
SEMI VOLATILE ORGANIC COMPOUNDS								
1,2,4-Trichlorobenzene	ug/L	2.0 U	10 U	10 U	2.0 U	10 U	10 U	2000 U
1,2-Dichlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	2000 U
1,2-Diphenylhydrazine	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	2000 U
1,3-Dichlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	2000 U

TABLE 3
BERM WATER ANALYTICAL

ANALYTE	UNITS	480-145167-1 EASTBERM 11/13/2018	480-145712-1 EASTBERM-1 11/26/2018	480-145712-2 EASTBERM-2 11/26/2018	480-145167-2 WESTBERM 11/13/2018	480-145712-3 WESTBERM1 11/26/2018	480-145712-4 WESTBERM-2 11/26/2018	480-145712-5 WESTBERM-3 11/26/2018
1,4-Dichlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	2000 U
2,2'-oxybis[1-chloropropane]	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
2,4,6-Trichlorophenol	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
2,4-Dichlorophenol	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
2,4-Dimethylphenol	ug/L	10 U	5.0 U	5.0 U	10 U	2.0 J	5.0 U	1000 U
2,4-Dinitrophenol	ug/L	20 U	10 U	10 U	20 U	10 U	10 U	2000 U
2,4-Dinitrotoluene	ug/L	2.0 U	10 U	10 U	2.0 U	10 U	10 U	2000 U
2,6-Dinitrotoluene	ug/L	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	1000 U
2-Chloronaphthalene	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
2-Chlorophenol	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
2-Nitrophenol	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
3,3'-Dichlorobenzidine	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	10 U	10 U	20 U	10 U	10 U	2000 U
4-Bromophenyl phenyl ether	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
4-Chloro-3-methylphenol	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
4-Chlorophenyl phenyl ether	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
4-Nitrophenol	ug/L	20 U	15 U	15 U	20 U	15 U	15 U	3000 U
Acenaphthene	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
Acenaphthylene	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
Anthracene	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
Benzidine	ug/L	10 U	80 U	80 U	10 U	80 U	80 U	16000 U
Benzo[a]anthracene	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.1 J	5.0 U	250 J
Benzo[a]pyrene	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	1000 U
Benzo[b]fluoranthene	ug/L	2.0 U	5.0 U	5.0 U	2.0 U	1.4 J	5.0 U	1000 U
Benzo[g,h,i]perylene	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
Benzo[k]fluoranthene	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	1000 U
Bis(2-chloroethoxy)methane	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
Bis(2-chloroethyl)ether	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	1000 U
Bis(2-ethylhexyl) phthalate	ug/L	2.0 U	10 U	10 U	2.0 U	10 U	10 U	2000 U
Butyl benzyl phthalate	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
Chrysene	ug/L	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	250 J
Dibenz(a,h)anthracene	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	1000 U
Diethyl phthalate	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
Dimethyl phthalate	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
Di-n-butyl phthalate	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
Di-n-octyl phthalate	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
Fluoranthene	ug/L	10 U	5.0 U	5.0 U	10 U	4.6 J	5.0 U	700 J
Fluorene	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	250 J
Hexachlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	1000 U
Hexachlorobutadiene	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	1000 U
Hexachlorocyclopentadiene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	2000 U
Hexachloroethane	ug/L	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	1000 U

TABLE 3
BERM WATER ANALYTICAL

ANALYTE	UNITS	480-145167-1 EASTBERM 11/13/2018	480-145712-1 EASTBERM-1 11/26/2018	480-145712-2 EASTBERM-2 11/26/2018	480-145167-2 WESTBERM 11/13/2018	480-145712-3 WESTBERM1 11/26/2018	480-145712-4 WESTBERM-2 11/26/2018	480-145712-5 WESTBERM-3 11/26/2018
Indeno[1,2,3-cd]pyrene	ug/L	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	1000 U
Isophorone	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
Naphthalene	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	960 J
Nitrobenzene	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	1000 U
N-Nitrosodimethylamine	ug/L	10 U *	10 U	10 U	10 U *	10 U	10 U	2000 U
N-Nitrosodi-n-propylamine	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	1000 U
N-Nitrosodiphenylamine	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
Pentachlorophenol	ug/L	20 U	10 U	10 U	20 U	10 U	10 U	2000 U
Phenanthrene	ug/L	10 U	5.0 U	5.0 U	0.67 J	5.0 U	1.5 J	1100
Phenol	ug/L	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	1000 U
Pyrene	ug/L	10 U	5.0 U	5.0 U	10 U	3.6 J	5.0 U	550 J
METALS								
Antimony	mg/L	0.010 U	0.020 U	NA	0.010 U	0.020 U	0.020 U	0.020 U
Arsenic	mg/L	0.005 U	0.015 U	NA	0.005 U	0.015 U	0.015 U	0.015 U
Beryllium	mg/L	0.002 U	0.0020 U	NA	0.002 U	0.0020 U	0.0020 U	0.0020 U
Cadmium	mg/L	0.005 U	0.0020 U	NA	0.005 U	0.0020 U	0.0020 U	0.0020 U
Chromium	mg/L	0.010 U	0.0053	NA	0.010 U	0.0040 U	0.0040 U	0.0018 J
Copper	mg/L	0.0096 J	0.0033 J	NA	0.025 U	0.010 U	0.0023 J	0.0028 J
Lead	mg/L	0.005 U	0.0033 J	NA	0.005 U	0.010 U	0.010 U	0.010 U
Mercury	mg/L	0.0002 U	0.00020 U	NA	0.0002 U	0.00020 U	0.00020 U	0.00020 U
Nickel	mg/L	0.040 U	0.0030 J	NA	0.040 U	0.0016 J	0.0018 J	0.0029 J
Selenium	mg/L	0.005 U	0.025 U	NA	0.005 U	0.025 U	0.025 U	0.025 U
Silver	mg/L	0.010 U	0.0060 U	NA	0.010 U	0.0060 U	0.0060 U	0.0060 U
Thallium	mg/L	0.010 U	0.020 U	NA	0.010 U	0.020 U	0.020 U	0.020 U
Zinc	mg/L	0.0186 J	0.018 B	NA	0.0097 J	0.013 B	0.015 B	0.017 B
GENERAL CHEMISTRY								
Biochemical Oxygen Demand	mg/L		3.8	NA		3.6 b	2.8	2.6
Cyanide, Total	mg/L	0.0035 J	0.0064 J	NA	0.011	0.010 U	0.011	0.011
Oil & Grease	mg/L		3.6 J	4.3 J B		8.7 B	2.4 J B	2.4 J B
Ammonia	mg/L		0.090 B	NA		2.5	0.30 B	0.37 B
Total Phosphorus	mg/L		0.0055 J	NA		0.013	0.010 U	0.011
Total Suspended Solids	mg/L		18.0	13.6		6.8	15.6	16.4

NOTES:

b: results was detected in the unseeded control blank

B: compound was found in the blank and sample

J: results is less than the RDL but greater than or equal to the MDL and the concentrationis an approximate value

U: indicates the analyte was analyzed for but not detected

NA: insufficient volume was provided and the analysis was not completed

TABLE 4
VISCOSITY, DENSITY, and SPECIFIC GRAVITY DATA
(METHODOLOGY: ASTM D445, ASTM D1481, API RP40)

Project Name: TCC Area 108 Tanks
PTS File No: 49052
Client: Parsons
Report Date: 05/31/19

SAMPLE ID	MATRIX	TEMPERATURE, °F	SPECIFIC GRAVITY	DENSITY, g/cc	VISCOSITY	
					centistokes	centipoise
*Tank 1_04112019	DNAPL	70	1.3155	1.3152	*	*
		100	1.3112	1.3021	*	*
		130	1.3087	1.2904	*	*
*Tank 1_04112019	DNAPL	105	1.3015	1.3013	*	*
		150	1.2889	1.2799	*	*
		180	1.2634	1.2457	*	*
Tank 3_04112019	DNAPL	70	0.9800	0.9798	200000.00	195958.07
		100	0.9806	0.9738	3921.39	3818.54
		130	0.9706	0.9638	776.34	748.26
Tank 3_04112019	DNAPL	105	0.9722	0.9720	2664.37	2589.73
		150	0.9629	0.9562	336.70	321.94
		180	0.9594	0.9459	151.19	143.01

***Tank 1_04112019 coal tar was too thick that we couldn't get it flow through available viscosimeters.**
(Only Density & Specific gravity measurements were done).

INTERFACIAL / SURFACE TENSION DATA
(METHODOLOGY: DuNuoy Method - ASTM D971)

Project Name: TCC Area 108 Tanks
Project No:

PHASE PAIR		TEMPERATURE,	INTERFACIAL TENSION,
SAMPLE ID / PHASE	SAMPLE ID / PHASE	°F	Dynes/centimeter
Houston_Tap Water	Air	74.0	71.1
Tank 3_04112019_DNAPL	Air	81.0	34.0
Houston_Tap Water	Tank 3_04112019_DNAPL	77.0	43.9

QUALITY CONTROL DATA

Date:	05/10/19
FLUID TYPE:	Cannon® CVS S3
TEMPERATURE, °F:	70
DENSITY, MEASURED:	0.8616
DENSITY, PUBLISHED:	0.8615
RPD:	0.01
VISCOSITY, MEASURED:	4.50
VISCOSITY, PUBLISHED:	4.47
RPD:	0.59

CVS Lot #: 17301

CVS = Certified Viscosity Standard

TABLE 5
WATER /MOISTURE LOSS OF TAR SAND BY MASS
(Methodology: ASTM D 2216)

Project Name: TCC Area 108 Tanks
Project No:
PTS File No: 49052
Client: Parsons
Report Date: 05/31/19

SAMPLE ID.	Depth, ft	Temp °F	ANALYSIS DATE	ANALYSIS TIME	MATRIX	TARE WEIGHT, grams	WET SAMPLE + TARE WT., grams	DRY SAMPLE + TARE WT., grams	Moisture Loss by weight grams	MOISTURE CONTENT, % dry weight
Tank 1_04112019	N/A	105	20190507	1030	Coal Tar	76.13	125.94	125.38	0.56	1.1
	N/A	150	20190508	1000	Coal Tar	76.13	125.94	124.77	1.17	2.4
	N/A	180	20190514	1447	Coal Tar	76.13	125.94	122.65	3.29	7.1
Tank 3_04112019	N/A	105	20190507	1030	Coal Tar	75.45	138.94	138.78	0.21	0.3
	N/A	150	20190508	1000	Coal Tar	75.45	138.94	138.02	0.97	1.5
	N/A	180	20190514	1447	Coal Tar	75.45	138.94	134.70	4.29	7.2

APPENDIX A

PROJECT SAFETY, HEALTH AND ENVIRONMENTAL PLAN

TONAWANDA COKE SITE 108
PROJECT SAFETY, HEALTH, AND ENVIRONMENTAL PLAN
TONAWANDA, NEW YORK

Prepared For:

Honeywell

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Prepared By:

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LIST OF ATTACHMENTS

LIST OF ACRONYMS

AED	Automated External Defibrillator
AHA	Activity Hazard Analysis
BBO	Behavior Based Observation
CPR	Cardiopulmonary Resuscitation
CRZ	Contamination Reduction Zone
CSE	Contractor Safety Evaluation
EBS	Employee Based Safety
ERT	Emergency Response Team
ESHARP	Environment, Safety, Health and Risk Management Program
EZ	Exclusion Zone
ft.	Feet
GFCI	ground fault circuit interrupters
HAZWOPER	Hazardous Waste Operations and Emergency Response
IMA	Industrial Medical Associates
JSA	Job Safety Analysis
LHA	Labor Harmony Agreement
LOTO	Lockout/Tagout
MOC	Management of Change
MRO	Medical Review Officer
NYDOT	New York Department of Transportation
OM&M	Operation, Maintenance, and Monitoring
OSHA	Occupational Health and Safety Administration
PFD	Personal Flotation Device
PM	Project Manager
PPE	Personal Protective Equipment
PrM	Program Manager
PSHEP	Project Safety, Health, and Environmental Plan
PrSM	Program Safety Manager
RFP	Request for Proposal
SDS	Safety Data Sheets
SH&E	Safety, Health and Environment
SOW	Scope of Work
SSHEP	Subcontractor Safety, Health, and Environment Plan
SSO	Site Safety Officer
TCC	Tonawanda Coke Corporation
UV	Ultraviolet Radiation
USEPA	United States Environmental Protection Agency

SECTION 1

INTRODUCTION

This Project Safety, Health, and Environmental Plan (PSHEP) has been prepared for the Honeywell field operations at Tonawanda Coke Site 108 located at 3800 River Road, Tonawanda, New York. This PSHEP covers construction management for tank product removal and demolition of onsite aboveground tanks and is intended to be amended as needed to address subsequent site activities. Subcontractor construction activities will be covered by their own Subcontractor Safety, Health, and Environment Plan (SSHEP).

During field activities, Parsons' staff and its subcontractors may be exposed to hazards associated with the scope of work (SOW) activities. Employees will be required to use personal protective equipment (PPE) suitable for the task at hand. Upgrades to PPE will be implemented as necessary.

Field staff may also be exposed to other hazards that are encountered during field activities including slips, trip, and falls; working in proximity to heavy equipment, winches, suspended loads, hazardous energy sources, traffic hazards, and automobile use. Depending on the time of season, field staff may be exposed to biological hazards such as insect bites, stings, ticks, and snakes. Meteorological hazards such as lightning, wind, rain, and ultraviolet radiation may also be present. This PSHEP addresses the various hazards that may be encountered during completion of the SOW.

This PSHEP is based upon the Hazardous Waste Operations and Emergency Response (HAZWOPER) standard, The Parsons Environment, Safety, Health, and Risk Management Program (ESHARP) Manual, Version 7.0 , April 2017, and the Parsons Corporate Safety and Health Manual. The Parsons Corporate Safety, Health, and Environment (SH&E) Policy is provided in Exhibit 1-1. Honeywell safety requirements have also been incorporated.

1.1 PARSONS SAFETY, HEALTH & ENVIRONMENT POLICY

Exhibit 1-1 – Parsons Corporate SH&E Policy

PARSONS

Corporate Safety, Health & Environment Policy Statement

As an industry-leading engineering, construction, and technical services firm, Parsons is firmly committed to maintaining a safe, healthy, and environmentally compliant workplace at all its offices and project facilities. We have adopted the following code of ethics:

- We will hold Safety, Health and Environment (SH&E) as our highest core value.
- Executive management will lead the SH&E improvement process.
- SH&E will be a responsibility shared by everyone in our organization.
- SH&E performance will be a key indicator of our organizational excellence and will be incorporated into our business processes.
- We will communicate SH&E performance openly with employees.
- Employees will be given the knowledge and skills necessary to perform their jobs in a SH&E compliant manner.
- We will extend our SH&E efforts beyond the workplace to include travel, homes, and communities.
- We will continually strive to improve our SH&E processes.

To meet our SH&E objectives, all employees are expected to be actively engaged with regard to SH&E issues. This requires the combined efforts of a concerned management, responsible and knowledgeable supervision, and conscientious, well-trained employees.

Parsons will meet or exceed the applicable SH&E legal and other requirements and will continuously monitor and improve operations, procedures, technologies, and programs that are conducive to maintaining a safe, healthy, and environmentally compliant workplace.

Charles L. Harrington

Chairman and Chief Executive Officer

1.2 THE PROJECT SAFETY, HEALTH, AND ENVIRONMENT PLAN

Parsons' goal is zero accidents using control measures designed to minimize or eliminate hazards to personnel, process, equipment, the general public and the environment. This PSHEP outlines SH&E requirements and guidelines developed by Parsons for project work. When implemented, these requirements will help protect site personnel, visitors, the public, and the environment from exposure from incidents caused due to SH&E hazards. Parsons employees should never perform a task that may endanger their own safety and health, the safety and health of coworkers or the public, or damage the environment.

This plan should be updated as conditions or situations change, usually by addenda to the PSHEP. All Parsons and subcontractor personnel must understand and implement the PSHEP and any addenda. Parsons documents this process by having employees sign an acknowledgement form stating that they understand the PSHEP and its requirements.

1.3 SUBCONTRACTOR SAFETY, HEALTH, AND ENVIRONMENT PLANS (SSHEPs)

Subcontractors must establish a safety program for their work and employees. Contract specifications require all subcontractors to accept the Parsons' PSHEP and prepare their own SSHEP for work activities the subcontractor has responsibility for performing. The subcontractor will present the SSHEP to the Parsons' Project and Safety Managers at least 10 business days before site mobilization. At a minimum, subcontractor plans must meet the requirements of this PSHEP and provide SH&E equipment and safeguards suitable for the hazards involved. This PSHEP may not cover all potential hazards on every project, and subcontractors must ensure that appropriate SH&E information is available for all of the subcontractor's project tasks.

All PSHEP requirements for Parsons' personnel (e.g., training, substance abuse screening, and incident reporting, etc.) also apply to subcontractor personnel and will be included in the SSHEP, if applicable.

If the subcontractor is performing activities that require specialized training (i.e., confined space entry, excavation/trenching, scaffold use, HAZWOPER, etc.), copies of training certifications must be provided for applicable employees AND the supervisor. Refer to Section 5 for more details on SSHEP requirements and Safety Evaluation information.

For these projects, there will be subcontractors directly hired by Parsons. Each contractor hired by Parsons, regardless of whether they are performing intrusive work activities, must complete the Parsons Online Contractor Safety Evaluation (CSE) Program and maintain a subscription with a satisfactory rating in the Honeywell ISNetwork system before being eligible to work for Parsons. Detailed information concerning the Parsons CSE Program is covered in Section 5.4.

Below are the names of subcontractors and the work activities each will be performing as part of the Honeywell – Tonawanda Coke Site 108.

SUBCONTRACTOR	CONSTRUCTION ACTIVITIES
Ontario Specialty Contracting (anticipated)	Tank demolition and product removal

1.4 MANAGEMENT OF CHANGE (MOC)

An important aspect of project management that is equally important to safety management is the process for Management of Change (MOC). In accordance with Parsons' ESHARP requirements, field modifications may be made to this document after discussion and approval by the Parsons Honeywell Program Safety Manager. Make note of any pertinent notations in the comment section below (insert additional rows as necessary).

Requirements for MOC include:

- Documentation of the proposed change, including identification of affected documents and the changed conditions
- Independent design review of potential safety, health, and environmental impacts
- Identification of modified or new hazards as a result of change
- Resolution of safety, health, and environmental concerns generated during all stages of the review
- Approval and authorization of the change
- Communication (and training, if needed) of the change to affected personnel

PSHEP Section	SSO Initials	Date	Comments

SECTION 2

SCOPE OF WORK

Parsons, in its contracted role with Honeywell International Inc., will be conducting interim measures to address the aboveground storage tanks and the associated secondary containment areas at the subject site. The initial scope includes removal of three aboveground storage tanks and their remaining contents (tar and water) at Site 108 of the Tonawanda Coke Corporation (TCC) property in Tonawanda, NY. The anticipate scope is outlined below.

Piping and Ancillary Equipment Removal

Prior to removal of the tanks, piping and ancillary equipment associated with the tanks will be disconnected and removed to the extent necessary to facilitate tank removal. The pipe insulation was sampled on February 28, 2019 and found to contain asbestos. Asbestos removal procedures such as glove bags will be used to remove the asbestos insulation from the pipes, or the pipes will be cut in sections with the insulation intact. Pipe and equipment removal will be done using a combination of cutting and mechanical shearing. Contaminated piping and ancillary equipment will be wrapped in 6 mil poly and transported to the decontamination area for cleaning , as necessary. All non-contaminated piping and ancillary equipment removed will also be taken to the decontamination facility before transport off-site for disposal or salvage. Remaining piping will be inspected and the ends blind flanged if tar is present in the pipes.

Tar and Water Removal and Tank Demolition

Based on preliminary evaluations, it is anticipated the tar will be stabilized *in situ* prior to removal from the tanks through the use of a stabilization agent such as wood chips/saw dust, lime kiln dust, cement kiln dust, or other applicable substances. This assumption forms the basis for the removal plan detailed below. If subsequent evaluations, including review of tank content testing results (anticipated mid-May) and subsequent discussions with disposal and recycling facilities, determine an alternative removal approach, such as heating and pumping, is more appropriate, details will be provided to United States Environmental Protection Agency (USEPA) for approval prior to implementation.

Removal will begin with the demolition and removal of the top portion of the tanks. To decrease the hazards associated with the tar remaining in the tanks, the demolition will utilize cold cut and mechanical shear procedures. The tanks will be demolished from the top down to about two to three feet above the current tar levels. The remaining bottom portion of the tanks will be left in place and utilized as a mixing basin to stabilize the tar.

Prior to stabilization, water remaining in the tanks will be removed and managed as discussed below. The stabilization agent will then be added in an adequate quantity to ensure that the mixed material passes the paint filter test before removal from the site. Load-out and off-site disposal of the stabilized tar will begin following stabilization of tar from the first tank. After completion of stabilized tar removal from the tanks, the bottom portion of the tank walls will be demolished.

Scrap metal from demolition be further downsized and processed for off-site recycling or disposal as discussed below.

Tar Reuse/Disposal

Prior to offsite reuse or disposal, the tar in the tanks will be undergo laboratory analysis to determine the most appropriate management approach. Samples of the remaining tar in the tanks were collected on April 11, 2019. The results of this testing and the proposed material management approach will be provided to USEPA for approval prior to mobilization to the site.

Tank Metal Management

The tanks will be cut into manageable sized pieces and moved to the decontamination area. If the metal can be successfully decontaminated, it will be collected in the staging area post-decontamination in preparation for off-site removal to a salvage facility. If it determined that decontamination is not practical, the metal materials will be managed for disposal at an appropriate disposal facility.

Water Management

Site conditions and water levels within the berms are monitored monthly and after significant precipitation events. If water levels within the secondary containment comes within two feet of the top of the berm at any location, water removal will be implemented. As specified in the Interim Measures Work Plan, pending analytical results, review and approval by the Town of Tonawanda wastewater treatment plant and approval from the USEPA for discharge to the Town of Tonawanda sanitary system if water removal from within the berms is required, it will be discharged either directly to a nearby sanitary manhole along River Road or trucked to a nearby discharge point. In anticipation of the need for water removal, Honeywell has sampled water from within the berms and based on those results and discussions with the Town of Tonawanda, it is anticipated that discharge of this water to the sanitary sewer system will be acceptable.

Water is also present within the tanks. Samples of the water in the tanks were collected on April 11, 2019. The results of this testing and the proposed water management approach will be provided to USEPA for approval prior to mobilization to the site. This water is presumably contaminated due to being in direct contact with tar. Contaminated water will also be generated during tank and equipment decontamination. Contaminated water from these sources will be containerized as necessary and sampled for potential discharge to the sanitary sewers. If sampling indicates discharge to the sanitary sewers is not appropriate, it will be pretreated as necessary prior to discharge to the sanitary sewers or disposed of off site. All sample results and the proposed management approach will be provided to USEPA for approval prior to implementation.

2.1 POTENTIAL HAZARDS

Electrical

Overhead power lines, downed electrical wires, and buried cables all pose a danger of shock or electrocution if contacted or severed during site operations. A minimum distance of 10 feet (ft.) will be present between overhead wires and equipment. This distance will vary according to voltage, the greater the voltage, the greater the clearance between any part of the equipment and

the power line. A spotter will be utilized to maintain a safe distance between equipment and overhead wires. Overhead electrical power lines will be considered energized unless the person owning such line, or operating officials of the electrical utility supplying the line assures that it is not energized, and it has been visibly grounded. Only the utility company is authorized to de-energize, insulate, or handle the lines. No one else may attempt these operations.

Electrical equipment used on-site may also pose a hazard to workers. Whenever possible, contractors will use low-voltage equipment with ground-fault interrupters and watertight, corrosion-resistant connecting cables to help minimize this hazard. All electrical wiring and equipment will be intrinsically safe for use in potentially explosive environments and atmospheres. Ground-fault circuit interrupters are standard for use at the site.

In addition, lightning is a hazard during outdoor operations, particularly for workers handling metal containers or equipment and working on a water craft on the Lake. In the event of an electrical storm, all operations will cease for the duration of the storm.

Heavy Equipment/Vehicle Traffic

Some Operation, Maintenance, and Monitoring (OM&M) activities take place in close proximity to construction activities and heavy equipment. Workers should not take any action unless they have made eye contact with the operator and clearly communicated their intentions. In addition, all equipment and vehicles must be equipped with back-up alarms, which are checked daily and if not operating properly, removed from service and repaired immediately. Truck traffic will be controlled by a flagger/spotter, as required.

Material Handling

Various materials and equipment may be handled manually during project operations. Care should be taken when lifting and handling heavy or bulky items to avoid back injuries. The following fundamentals address the proper lifting techniques that are essential in preventing back injuries include but are not limited to:

- The size, shape, and weight of the object to be lifted must first be considered. Multiple employees or the use of mechanical lifting devices are required for heavy objects.
- The anticipated path to be taken by the lifter should be considered for the presence of slip, trip, and fall hazards prior to lifting any object.
- The feet will be placed far enough apart for good balance and stability (typically shoulder width).
- The worker will get as close to the load as possible. The legs will be bent at the knees.
- The back will be kept as straight as possible and abdominal muscles should be tightened.
- Twisting motions should be avoided.
- A worker will never carry a load that cannot be seen over or around.

When placing an object down, the stance and position are identical to that for lifting. The legs are bent at the knees and the object lowered. When two or more workers are required to handle the same object, workers will coordinate the effort so that the load is lifted uniformly and that the

weight is equally divided between the individuals carrying the load. When carrying the object, each worker, if possible, will face the direction in which the object is being carried.

In handling bulky or heavy items, the following guidelines will be followed to avoid injury to the hands and fingers:

- A firm grip on the object is essential; leather gloves will be used if necessary.
- The hands and object will be free of oil, grease, and water which might prevent a firm grip and the fingers will be kept away from any points that could cause them to be pinched or crushed, especially when setting the object down.
- The item will be inspected for metal slivers, jagged edges, burrs, and rough or slippery surfaces prior to being lifted.

Hand and Power Tools

Hand and power tools are used for various site activities. Procedures for using hand and power tools are as follows:

- Persons using power tools will be trained in their use.
- Ground Fault Circuit Interrupters must be used for all electrical tools unless built in to the providing generator.
- Only tools in good condition will be used.
- Tools will be kept clean.
- Guards and shields will be kept on all tools.
- Air couplings will be secured.
- Non-sparking tools will be used in hazardous areas.
- Proper eye protection is critical when using power tools. At a minimum, safety glasses will be required during site operations. Where appropriate, full-face shields will be utilized in addition to the glasses.

Chemical Hazards

Operational chemicals may be brought to the project site for use in activities supporting the OM&M activities. These chemicals are used for fuels in operating heavy equipment, glues for welding pipes, herbicides for invasive species management etc. The use of operational chemicals is regulated by Occupational Health and Safety Administration (OSHA) under the Hazard Communication Standard (29 CFR 1910.1200). Safety Data Sheets (SDS) for operational chemicals must be kept on-site. An inventory list of the anticipated operational chemicals (Hazardous Chemical Inventory List) for use at the site will be maintained at the site and updated as new material is received.

In addition to potential chemical hazards involved with removing of the coal tar, site background indicates the site has been impacted with coal and coal tar wastes including benzene, toluene, ethylbenzene, total xylenes (BTEX), and polycyclic aromatic hydrocarbons (PAHs). Potential chemicals of concern (COCs) identified for the site are listed below. Exhibit 2-1 presents additional details on these COCs.

- Benzene
- Toluene
- Ethylbenzene
- Xylenes
- Methylene Chloride
- 1,2-Dichloroethene
- 2-Methylnaphthalene
- Anthracene
- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Chrysene
- Fluoranthene
- Fluorene
- Naphthalene
- Phenanthrene
- Pyrene
- Dibenzofuran

2.2 PROJECT SAFETY, HEALTH AND ENVIRONMENT PLAN APPLICATION

This PSHEP and referenced documents applies to all locations, facilities, operations, and projects associated with the scope of work to be performed by Parsons and its subcontractors. The provisions of this plan are mandatory for all Parsons personnel engaged in activities consistent with the scope of work. Subcontractors working for Parsons must prepare and administer a plan with equivalent requirements unless otherwise specified. All Parsons and Parsons' contract personnel who engage in project activities must be familiar with this plan and comply with its requirements.

EXHIBIT 2-1
CHEMICAL PROPERTIES OF CONCERN

Chemical of Concern	*Soil or Coal Tar (mg/kg)*	*Monitoring Equipment*	*Action Levels*	*Routes of Exposure[7]*
Benzene	*0-500 in soil* *Component of waste product in tank*	*Solid Sorbent Tube* *Or* *PID with 10.6 eV bulb*	**OSHA:** PEL = 1 ppm **ACGIH:** TLV/TWA =10 ppm **NIOSH:** IDLH = 3000 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact
Toluene	*0-500 in soil* *Component of waste product in tank*	*Solid Sorbent Tube* *Or* *PID with 10.6 eV bulb*	**OSHA:** PEL = 200 ppm C=300 ACGIH: TLV/TWA = 20 ppm NIOSH: IDLH = 800 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact
Ethylbenzene	*0-500 in soil* *Component of waste product in tank*	*Solid Sorbent Tube* *Or PID with 11.7eV bulb*	**OSHA:** PEL = 100 ppm ACGIH: TLV/TWA = 100 ppm NIOSH: IDLH = 800 ppm	inhalation, ingestion, skin and/or eye contact
Xylenes	*0-500 in soil* *Component of waste product in tank*	*Solid Sorbent Tube* *Or* *PID with 10.6 eV bulb*	**OSHA:** PEL = 100 ppm ACGIH: TLV/TWA = 100 ppm NIOSH: IDLH = 900 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact
Methylene Chloride	*0-500 in soil* *Component of waste product in tank*	*PID with 11.7eV* *bulb*	**OSHA:** PEL = 25 ppm **ACGIH:** TLV/TWA =50 ppm **NIOSH:** IDLH = 5,000 ppm TLV-STEL = 125 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact

1-2 Dichlorethene (and isomers)	*0-500 in soil Component of waste product in tank*	*PID with 11.7eV bulb*	**OSHA:** PEL = 200 ppm ACGIH: TLV/TWA = 200 ppm NIOSH: IDLH = 1000 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact
2-Methylnapthalene	*0-500 in soil Component of waste product in tank*	*Solid Sorbent Tube Or PID with 11.7eV bulb*	**OSHA:** PEL = 10 ppm ACGIH: TLV/TWA = 0.5 ppm NIOSH: IDLH = **NA**	inhalation, ingestion, skin and/or eye contact
Polyaromatic Hydrocarbons (PAHs/petroleum pitch) (covers PAH related analytes listed above)	*0-500 in soil Component of waste product in tank*	*Semi-volatile Sorbent tubes with pre-filter PID with 10.6 eV bulb*	**OSHA:** PEL = 0.2 mg/M3 ACGIH: TLV/TWA = 0.2 Mg/M3 IDLH = 80 mg/M3 (CA)	inhalation, ingestion, skin and/or eye contact
Dibenzofuran	*0-500 in soil Component of waste product in tank*	*NA – solid*	**NA**	May cause, eye, skin and lung irritation

Notes:

1. *Soil analytical data based on GHD Confirmation Investigation Report dated (revised) March 17, 2017)*
2. *OSHA PELs as published in the NIOSH Pocket Guide*
3. *TWA = time weighted average*
4. *mg/m3 = milligrams of contaminant per cubic meter of air*
5. *ppm = parts of contaminant per million parts of air*
6. *ACGIH TLV = American Conference of Government Industrial Hygienist Threshold Limit Value*
7. *Source: NIOSH Pocket Guide to Chemical Hazards*

SECTION 3

PROJECT SH&E SAFETY MANAGEMENT RESPONSIBILITIES AND AUTHORITY

3.1 SAFETY, HEALTH AND ENVIRONMENT (SH&E) RESPONSIBILITY MATRIX

Exhibit 3-1 summarizes the responsibilities of selected roles related to the primary SH&E activities identified in the PSHEP.

EXHIBIT 3-1
ROLES AND RESPONSIBILITIES

Project Responsibility Matrix		Project												BU							Corporate					
Phases	Work Elements	Project Manager	Safety & Health	Environmental	Construction/Site Management	Engineering	First Line Supervision	Facilities and Maintenance	Training	Contracts/Procurement	Security	Sustainability	Quality	President	Operations/Risk Management	Division Management	Sector Management	Safety, Health & Environment	Quality	Business Development	CEO	Operations/Risk Management	Safety, Health & Environment	Security	Workers' Compensation	Insurance
Introduction to ESHARP for Project	1. ESHARP Project Management	R	D	D	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P
Business Development	2. Business Development	R	P	P	P	P				P				P	P	A	P	P	P	D	P	P	P	P		P
Startup	3. Initial Hazard Analysis and Planning	A	R	D	P	P					D							P					P	P		
	4. Project Safety Health, and Environmental Plan (PSHEP)	A	D	D	P										P	P	P	R					P	P		
	5. Stakeholder PSHEP Alignment Meeting	A	D	D	P													R								
Construction and/or Field	6. Preconstruction Safety, Health & Environment Activities	A	D	D	P		P						P				P	R	P					P		
	7. Project/Site Orientation, Training, and Recurring Field SH&E Meetings	A	D	D	P		P	P	P									R						P		
	8. SH&E Committee	A	D	D	P		P	P			P							R						P		
	9. Meet Building Trades, Safety, Health, Environmental Regulatory Agencies, & Others	A	D	D	P													R						P	P	
	10. Review Contractor/Subcontractor SH&E Programs	A	D	D	P					P								R						P		
	11. Subcontractor Premobilization Meeting	A	D	D	P	P				P	P							R						P		
	12. Risk Mitigation Planning (2-week look ahead)	A	D	D	R													D						P		
	13. Activity Hazards Analysis	A	D	D	P	P	P	P										R						P		
	14. Project Management Site Safety, Health, & Environmental Inspections	A	D	D	P											P	P	R	P					P		
	15. Audits, Inspections, and Recordkeeping	A	D	D	P		P						P			P	P	R	P					P		
	16. Incident Management Process	A	D	D	P		P						P		P	P	P	R	P					P		P

EXHIBIT 3-1
ROLES AND RESPONSIBILITIES (CONTINUED)

Project Responsibility Matrix		Project												BU							Corporate					
Phases	Work Elements	Project Manager	Safety & Health	Environmental	Construction/Site Management	Engineering	First Line Supervision	Facilities and Maintenance	Training	Contracts/Procurement	Security	Sustainability	Quality	President	Operations/Risk Management	Division Management	Sector Management	Safety, Health & Environment	Quality	Business Development	CEO	Operations/Risk Management	Safety, Health & Environment	Security	Workers' Compensation	Insurance
Testing, Commissioning, Operations, and Decommissioning	17. Management Systems and Transition	A	R	R	D	P	P	P	P		P	P	P	P	P	P	P	P	P		P	P	P	P		P
	18. Equipment and Systems Integrity	A	P	P	R	P	P	D	P				P					P	P				P			
	19. Operations Training and Education	A	D	D	P	P	P	P	P		P		P					R					P			
	20. Assessments and Corrective Action	A	D	D	P	P	P	P	P		P		P					R					P			
	21. Operations Emergency Management	A	P	P	P	P	P	P	P	P	D		P					R					P	P		
	22. Safe and Environmentally Compliant Work Practices	A	D	D	P	R	R	P	P									P					P			
Closeout	23. Lessons Learned and Final SH&E Report	A	D	D	P											P	P	R	P				P			
	24. Records Retention	A	P	P					P		D		P					R	P				P			

R – Responsible and accountable for ensuring the project develops and implements the work element.
D – Develops the plan, tool, training, document, or other item needed for the work element.
P – Participates by providing advice, assisting in the implementation or development, reviewing and providing comments, or otherwise supporting the development or implementation effort.
A – Approval at the management level with responsibility for the project; establishes requirements for the project or serves as sponsor for the item.

SECTION 4

ADMINISTRATIVE PHASE

4.1 PROJECT SAFETY, HEALTH & ENVIRONMENT (SH&E) COMMITTEE

The project must have a SH&E Committee if more than five full-time Parsons employees or when 25 or more Parsons and subcontractor employees are assigned to the project. Based on the anticipated SOW for calendar year 2019, a project safety committee is not expected.

4.2 PROJECT (EMPLOYEE) ORIENTATION

The project has a comprehensive employee orientation program. The SH&E personnel help to develop applicable SH&E sections of the orientation and meet with new employees to review site procedures and requirements (Exhibit 4-1). Topics covered in the PSHEP orientation include:

- PSHEP overview
- Project rules and disciplinary policies
- Reporting emergencies, incidents and unsafe conditions
- Near miss reporting
- Hazard communication
- Emergency/evacuation plans
- WorkCare
- Spill/release reporting and response actions
- Waste management
- Stormwater and wastewater management
- Scope of work
- Names of personnel responsible for site safety and health
- Communication protocol/suggestion box
- Safety, health, environment and other hazards at the site
- Review of all activities on-site and related Activity Hazard Analysis (AHAs)
- Proper use of PPE
- Work practices by which a worker can minimize risk from hazards
- Safe use of engineering controls and equipment on-site
- Acute effects of compounds at the site
- Decontamination procedures
- Other applicable environmental issues and regulatory requirements
- Stop Work Authority
- Biological hazards training

All personnel, including subcontractors, new hires, transfers, union workers and visitors on a project must attend the site orientation program on their first day and sign an acknowledgement form indicating they attended, received and understood the orientation. Any individual who is unsure of any information presented in the orientation must request clarification. Individuals who do not participate in the orientation or refuse to sign the acknowledgment when requested will not be granted access to the site. The Field Safety Manager will provide employees with Orientation.

4.3 AWARENESS CAMPAIGN

The project has an awareness program consistent with the Parsons SH&E awareness campaign in its various elements (e.g., signs, posters, banners, and focus briefings). This program promotes worker awareness of SH&E goals and daily risks, hazards, and exposures in the field. In addition to topics selected by Corporate Safety each month, the project will supplement the awareness program with information specifically applicable to the SOW. The Project Safety Representative may also provide training, presentations, or informational materials as part of the awareness campaign.

The SH&E bulletin board maintained by the Project Safety Manager (PrSM)/Site Safety Officer (SSO) is the primary information point for the project awareness campaign. Bulletin boards will be set up in field trailers as appropriate. The PrSM/SSOs may also provide training, presentations, or informational materials as part of the awareness campaign.

4.4 STAKEHOLDER PROJECT SAFETY PLAN ALIGNMENT MEETING

A stakeholder PHESP alignment meeting will be held before beginning any field work. The meeting allows Parsons to focus and coordinate efforts, obtain input for improvements and gain concurrence from all stakeholders for execution of the PSHEP. The following representatives should be in attendance for the PSHEP alignment meeting:

- Honeywell – Richard Galloway
- Parsons – Tom Abrams, PrM
- Parsons - Bill Moon, PrSM
- OSC Project Manager – TBD
- OSC CM/Superintendent – TBD

Parsons should present the PSHEP and obtain stakeholders concurrence with the approach outlined in the plan. The meeting should include a review of stakeholder roles and responsibilities and elements of control appropriate to the project risks.

4.5 TRAINING

The project will develop an SH&E training program tailored to the SOW. All employees receive a general project orientation as outlined in Section 4.2 upon assignment to the project. All office-based employees, field employees and new hires who spend a significant portion of their time in an office or field trailer shall receive a specialized office training including the following topics as appropriate:

- Proper lifting techniques
- Biological hazards (ticks, bees, poison ivy, etc.)

- Ergonomics
- Housekeeping
- Common office hazards and environmental risks (if any)
- Waste management
- Office procedures
- Evacuation/Drills/Emergencies
- Other relevant topics

Field-based employees and office employees who spend a significant portion of their time in the field also receive field training as appropriate and as described in Section 7 of this PSHEP including the following topics:

- PPE
- Defensive driving
- Lifting
- Back safety
- Cardiopulmonary resuscitation (CPR)/first aid/automated external defibrillator (AED) and blood borne pathogens
- Electrical safety
- Overhead hazards
- Emergency response
- Fire Prevention
- Housekeeping
- Hand tools/Power tools
- Hazard communication: Identifying the Danger
- Honeywell accident/incident reporting procedures
- Parsons accident/incident reporting procedures

They may also receive the following training as applicable to a specific task:

- Lockout/Tagout (LOTO)
- Stairs / ladders

All personnel engaged in hazardous substance removal or other activities that expose or potentially expose them to hazardous substances or health hazards shall receive appropriate training as required by 29 CFR 1910.120, including, but not limited to, initial 40-hour, 8-hour Supervisor and annual 8-hour refresher training.

4.6 AUDITS AND INSPECTIONS

The SH&E manager has implemented an audit and inspection program in conjunction with the Corporate SH&E Departments. The Project Manager (PM), or their designee, in accordance with Section 6.5 conducts weekly site inspections. Additional inspections will also be completed when a significant task is being performed (e.g., soil/sediment sample collection, sample surface

water collection, major restoration efforts by subcontractor, etc.). If the PM is not on-site, the most senior person on-site will conduct the inspection. Inspections and audits are intended to identify unsafe behaviors or conditions and implement corrective actions before an incident occurs. Completed inspections will be saved in the project files. Additional information on audits and inspections during construction is detailed in Section 6.5 of this PSHEP. All noted deficiencies and corrective actions will be tracked with the use of a tracking log. The PrSM will evaluate inspection and audit results and provide a summary to the Safety Steering Committee. When appropriate, Safety Bulletins will be issued to convey safety lessons from near misses or incidents that are applicable to our own circumstances for the purpose of continuous improvement. In accordance with the Parsons' safety protocol, safety inspections and audits are required to be performed in the manner and frequency described below.

4.6.1 Periodic Safety Audits

Projects will be selected at the discretion of the SH&E Manager for periodic project audits. These audits will generally be more comprehensive in nature and will include a documentation review as well as a site walk-through. Completed inspections will be sent to the safety Director and will be summarized in the next Monthly Safety Report. The Safety Director will forward inspection results to the Safety Manager so that corrective actions can be tracked to conclusion.

4.6.2 Corrective Actions

Deficiencies identified by audits and inspections will be logged in a deficiency tracking log. Any deficiencies that cannot be immediately corrected must be assigned to a specific individual with a reasonable completion date. The Safety Manager or the designated SSO will track corrective actions, verify their closure, and update the Corrective Action Tracking Log or equivalent. Findings of a severe nature or that indicate a declining site safety trend may warrant notification of subcontractor's senior management. Ongoing failure to implement safety requirements as by applicable regulations, the contract, and may be considered a breach of contract and result in the subcontractor's removal from the project.

The PrSM has implemented an audit and inspection program in conjunction with the corporate safety and quality assurance departments. The PM, together with the Field Team Leader or the SSO, will conduct a safety inspection each month. Office work areas (including trailers) are audited according to the corporate office audit standards.

4.6.3 Employee Based Inspections (EBS)(Observations)

This project will utilize the EBS system for field inspections and observations by conducting periodic Behavior Based Observation (BBOs). BBOs are about conducting worker observations, providing positive reinforcement for **significantly important behaviors** that are correct and consistent with company work standards, and constructively identifying and eliminating deviations from these work standards.

Observations shall be recorded electronically in the field typically by management personnel utilizing IndustrySafe® proprietary software located on the PWEB. Unsafe acts or situations shall be immediately corrected, if possible. Items which cannot be corrected shall be logged as incomplete within the system for corrective action tracking. Data shall be uploaded to a central database maintained by IndustrySafe®. IndustrySafe® has set up a database specifically for this

project where inspections, trends and collected data can be reviewed by the entire project management team.

Personnel responsible to perform employee observations typically shall consist of project management staff. For this project, the personnel performing observations shall include the following:

- PM
- SSO
- Field Team Leader

A metric of 1 inspection or observation per week has been established by the Program Safety Director. Due to the effectiveness of an unscheduled random inspection model, as well as project management scheduling, these inspections may or may not be performed in any given week or performed above the quota during higher risk activities. The PSM shall be responsible for stewardship of this inspection program.

4.7 SH&E MEETINGS

All project meetings that include five or more people must begin with a SH&E moment. The meeting chairperson may present the SH&E topic or ask for a volunteer to open the discussion. In general, these "SH&E moments" are brief, perhaps a minute or two, and should be directly relevant to the work of the day or applicable to most employees (e.g., non-work-related injuries, waste management procedures, effects of stormwater discharges, home exposure to hazards materials, etc.). Monthly all hands SH&E meetings are held to review critical safety procedures, discuss safety incidents, and celebrate safety milestones. The PM announces the time and schedule of these meetings at least one week in advance.

Daily toolbox safety meetings are held with all personnel at the beginning of each shift to review current site conditions, incidents, or injuries from the previous shift activities, safe or at-risk observations from the previous shift, activities planned for the current shift, anticipated hazards, engineering controls, work practices, PPE to protect against hazards, and any additional safety topic or comments. Toolbox safety meetings shall be documented and signed by all individuals accessing the site using a Safety Meeting Sign-In Sheet.

4.8 REWARDS AND RECOGNITION

4.8.1 Rewards and Recognition Program

At Parsons we expect every employee to work safe. We do offer incentives for those who proactively go the extra yard, or mile, to make Parsons an even safer place to work. Our incentive program is project-based but similar across all Parsons' projects.

Things that we want to incentivize (and why):

1) **Near-Miss Reporting** (The root cause of a near miss is generally identical to the root cause of a "hit". If we report near-misses, find their root causes and actually fix them we have lowered the potential for having an incident.) Employees who submit near-misses may be eligible to receive a Red Safety Token that can be exchanged for items. (Red Tokens are a Corporate way of giving thanks for safety efforts.)

2) **Good or Great Ideas that make the job safer** or **Significant Safety Observations** (Many employee ideas go unrecognized because we never hear about them.) Please let your PM/Superintendent or SSO know what your idea is to make Parsons a safer place to work. Employees who submit ideas that are implemented (as determined by the Project Safety Committee or, the PM/SSO) or make significant observations (saw a hazardous condition and reported it; made an adjustment to a task to make it safer, etc.) that the site leadership team can act upon, may receive Red Safety Tokens that can be exchanged for items as determined by the Rewards and Recognition Committee.
3) **Employees that go the extra yard to improve the safety program** (Our program only gets better if all members of the team understand and contribute to our zero injury goals.) Emergency Response Team (ERT) Members, Employee Based Safety (Industry Safe) volunteers, safety committee members, those who contribute to AHA development and others, may be eligible to receive a Safety Token.
4) **Sustained, high performance by a site team/project** (No one gets hurt!) Teams, projects or, even the entire portfolio who maintain a high level of safety consciousness as exhibited by a high level of near-miss reporting, overall safety culture, quality H&S observations, etc., can be recognized by virtue of a safety breakfast/lunch or, Honeywell/Parsons recognition token gift.

SSOs will work with their PMs to determine the rewards and recognition program appropriate for the project and will be responsible for local administration of this program. They are also responsible for inter-portfolio sharing of the near-misses reported as well as the great ideas that are surfaced. PMs will budget for this recognition program. Charges will go to project/program overhead. Employees who receive tokens will be tracked for audit purposes. SSOs will collect red tokens when awarding gifts.

4.9 MEASUREMENT AND REPORTING

Complete incident reporting guidelines are provided as Exhibit 4-2 of this section.

4.9.1 Emergencies

For emergencies, call 911!

4.9.1.1 Emergency Response Team – Not Used

4.9.1.2 WorkCare

Parsons and WorkCare have partnered together to promote Incident Intervention™, a resource designed to provide Parsons' employees with immediate access to qualified medical clinicians who are able to provide our employees with prompt medical assessment in the event of non-life threatening, non-medical emergency work related injury or illness. Each of Parsons' subcontractors is required by contract to participate in this program. Through this process, Parsons can leverage clinical expert resources to coordinate appropriate treatment care. WorkCare serves as a "medical advocate" for the employee, the WorkCare clinician provides responsive evaluation of the incident, assists the employee/employer in determining the most appropriate course of action, and consults with the treating physician.

4.9.1.3 Work-Related Injury Procedures

For Emergencies

If there is a life threatening or significant medical event (e.g., not breathing, no heartbeat, unconscious, open wound, amputation, obviously broken arm or leg, etc.), then the first employee on the scene should:

1. Call for help
2. Call 911
3. Begin first aid/CPR if trained

For Non-Emergency, Non-Life-Threatening Work-Related Injury or Illness

Upon notification of a non-life-threatening illness or injury event the **Field Team Leader** will:

1. Make sure that 1st Aid/CPR trained employees are on scene and assisting the injured.
2. Make sure that any ancillary work ceases to make scene safe for responders.
3. Contact the SSO; For anything beyond a minor band-aid case the SSO will confer with Bill Moon (315-323-8175) to determine if WorkCare shall be called.
4. If determined, contact WorkCare and allow the injured employee to speak with a WorkCare doctor or nurse.
5. Follow WorkCare guidelines; Drive the employee to the clinic if directed and stay with him/her until the visit is concluded.
6. Provide the employee with "Questions to Consider Asking Your Doctor During a Clinic Visit."
7. Provide the employee with "Memo to Treating Medical Professional" prior to the employee going into the exam room.
8. Participate in the incident investigation process upon return to the site.

To coordinate the WorkCare triage process, it is imperative that Parsons' employees report all work-related injuries immediately to their supervisors.

For work-related injuries or illnesses that may require physician direction on appropriate treatment, Parsons' employees should then promptly contact WorkCare, ideally before seeking medical care, as this will provide the greatest opportunity for appropriate intervention.

If an injured employee requires medical care for a work-related injury/illness, the Order for Treatment of Work-Related Injury/Illness Form MUST be sent with the injured worker and/or faxed to the occupational medicine clinic at the time of the initial evaluation. See Exhibit 4-3.

WorkCare's Incident Intervention is available 24/7 and 365 days per year.

WorkCare contact number is 1-888-449-7787.

Be prepared to provide the following:

- Injured worker's name
- Injured worker's contact number
- Injured worker's location (at a minimum include the city and state)

- Employee ID number
- Employee's Market
- Employee's project or office location
- Functional manager's name

Near-Miss Reporting

In an effort to streamline near-miss reporting, especially for employees conducting fieldwork who do not have real-time web access, will contact the PM or the Safety Manager for assistance. All entries will be saved as initial and can be accessed by the caller when they return to their computers. Entry into the database does not relieve the caller from the responsibility of following through with the near-miss investigation or of notifying other employees in the office or project team of the occurrence.

Callers will be prompted to provide the following information:

- Name and phone number
- Date of near-miss
- Location
- Project number (if applicable)
- Brief description of what happened
- What you think happened if this situation resulted in injury or damage
- Any other information you think may be important

The intent of this service is to enable employees to phone in near-misses immediately and have events entered into the Parsons Industry Safe database. As we all know, the expectation is that immediately after having a near-miss, Stop Work Authority will be used to ensure the area is safe and determine what changes must be made before it is safe to proceed.

4.9.2 Measurement and Compliance

The PM and PrSM establish and post a measurement system to provide indicators of safety performance, including the following metrics for the project:

- Project start date
- Days without a recordable injury
- Date of last OSHA recordable injury (if applicable)
- Percent of safe observations from each monthly audit

Subcontractors must submit a monthly report of incidents, exposure hours (hours worked on the project, paid or unpaid) to the Parsons PM within three (3) days after the end of each month. The PM compiles the figures and submits them to the PrM (or via the online safety reporting system if instructed by the PrM) by the first Friday of each month; where necessary, estimated figures are acceptable. If a project involves air monitoring or personnel wearing any type of respirator, a monthly Field Project Report is also completed and submitted to the SH&E Director by the 3rd calendar day after the end of each month.

To accurately measure performance and comply with corporate and regulatory requirements, Parsons and its subcontractors have an emergency communications system to contact the following onsite offices for the events listed below:

All incidents	*(Program Manager) Tom Abrams (315-552-9670)*
Worker injury or exposure	*(Program Safety Manager) Bill Moon (315-323-8175)*
Hazardous material/contaminant releases	*Site Emergency Response Lead (315-715-1800)*
Fires/explosions	*Fire (911)*
Medical emergencies	*First Aid/Medical (911)*

This notification information should be provided to site workers in either posters or individual wallet cards that can be distributed to site workers. In addition, this information should be prominently displayed in the PSHEP (e.g., on the back of the plan cover).

The SH&E Manager has established a measurement system to provide indicators of SH&E performance, including the following metrics:

- Consecutive days without a recordable incident
- Consecutive days without a days-away-from-work incident
- Recordable incident rate
- Days-away-from-work incident rate
- Contaminant exposures monitored and over exposures documented
- Environmental citations from regulatory agencies
- Total number of environmental spills and/or releases recorded
- Environmental spills and/or releases requiring reporting (e.g., Reportable Quantities)
- Number of monthly audit findings by type (i.e., safety, health and environmental)

4.9.3 Incident Reporting

Employees involved in or witnessing an injury, worker exposure, environmental incident, or near miss must immediately report it to the responsible Field Team Leader, who in turn immediately relays the report to Parsons Project SSO. No Field Team Leader may decline to accept or relay a report of SH&E incident or significant near miss from a subordinate.

The PM must ensure that all SH&E incidents are reported to the SH&E and other management personnel (as required) within four hours. The Project SSO (who has been trained on Parsons' reporting requirements and Online Safety Reporting System) prepares and submits SH&E reports. The PrSM sends reports to the required management personnel and validates that client reporting requirements are also met.

The PrSM must notify the local OSHA office and/or regional, municipal and/or local regulations office in writing within 8 hours if an accident involves any work-related fatalities within eight hours of the event and all work-related in-patient hospitalizations, as well as amputations and losses of an eye, to OSHA within 24 hours of the event. In addition, spills/releases

of reportable quantities and other reporting required by environmental regulation are the responsibility of the PrSM.

The PM and Safety Director must be notified by the SHSO of any incident as soon as it is safe to do so but within the notification guidelines identified in the following table. After notification, written incident reports must be submitted by the SHSO to the Safety Director in accordance with the time frames shown in the Attachment B. The Safety Director's delegate shall then enter incidents into the Honeywell Event Reporting System within the applicable time frames which can be found in Attachment B of this PSHEP. If the Safety Director is unavailable, then the Safety Manager shall assume or delegate Safety Director's responsibilities in an effort to support timely incident reporting and follow-up.

For a complete listing of Tier 1, 2, and 3 examples see Attachment B.

Monthly Statistics Summary Reports

Root causes must be identified, and corrective actions implemented. The Safety Manager can assist project SSOs in reviewing and tracking incident reports as well as following up on completion of corrective actions. The SSO shall update the Safety Manager as corrective actions are implemented and completed. The Safety Manager will track and verify completion of corrective actions on the Corrective Action Tracking Log or equivalent.

The Safety Director will summarize incidents on the next monthly Safety Report following the incident. The timeliness of incident reporting and any significant "Lessons Learned" will be included in the summary.

A Honeywell Notification/Activation Decision Table is also presented in Attachment B.

In addition to the Honeywell incident notification requirements, Parsons' employees involved in or witnessing an incident or near-miss incident must immediately report it to the responsible SSO, who in turn immediately relays the report to Parsons PM. Near-miss incidents that could cause significant injury or loss of life must be immediately reported, in the same manner as an actual incident. No supervisor may decline to accept or relay a report of injury or significant near-miss incident from a subordinate.

The PM must ensure that all incidents are reported to the Safety Manager and other management personnel (as required) within four hours. The PM (who has been trained on Parsons' reporting requirements and Online Safety Reporting System) then prepares and submits the incident information.

The Program Safety Manager, or their designee, must notify the local OSHA office immediately if an accident involves the death of an employee or hospitalization of three or more workers.

Subcontractors must submit a monthly report of exposure hours (hours worked on the project, paid or unpaid) to the Parsons PM within four days after the end of each month, or as specified by the contract. The PM compiles the figures and submits them via the online safety reporting system by the first Friday of each month. If necessary, estimated figures are acceptable, but the reports must be filed.

4.10 INCIDENT INVESTIGATIONS

All accidents, worker over exposures, environmental incidents and significant near misses are investigated by an individual or team with training in incident investigation and root cause analysis. Subcontractors must investigate incidents involving their employees or activities and submit an investigation report to the Parsons PM within 48 hours of an incident.

In Parsons, the PrSM investigates or assigns an investigator to each significant incident. The investigator submits a final investigation report using the online safety reporting system within 72 hours of the incident. The Project SSO maintains the investigation file.

4.11 RESPONSIBILITY/IDENTIFICATION OF KEY LINE PERSONNEL

For project responsibility and identification of key personnel.

Project Key Personnel

Project Office:	Syracuse, New York	
Address:	301 Plainfield Road, Suite 350 Syracuse, NY 13212	
Telephone 315-451-9560	Fax 315-451-9570	Email
Company Executive responsible for project		Contact No.
Pratima Poplai		Direct Line: (732) 537-3552 Cell Phone: (732) 853-4957 Email: Pratima.Poplai@parsons.com
Market SH&E Director		Contact No.
Jason Townsell		Cell: (562) 565-3491 Jason.Townsell@parsons.com
Site Project Managers		Contact No.
Tom Abrams		Direct Line: +1(315)552-9670 Cell: 315-263-5109 Tom.Abrams@parsons.com
Program Safety Manager (PrSM)		Contact No.
Bill Moon		Cell Phone: 315-323-8175 William.moon@parsons.com
Site Safety Officer (SSO)		Contact No.
TBD		Cell Phone:
Client Project Management POC		**Contact Information**
Steve Coladonato		Direct Line: (302) 791-6738 Cell Phone: (973) 216-2438 Email: Steven.Coladonato@Honeywell.com

The personnel listed above have the authority and responsibility for implementing the provisions of this project.

4.12 MEDICAL REQUIREMENTS AND WORKERS' COMPENSATION

In accordance with corporate requirements, the SH&E Manager has established and implemented the following medical requirements for the project:

4.12.1 Substance Abuse Tests

Honeywell and Parsons are committed to maintaining a safe and healthy work environment for its employees, its subcontractors and the community. Honeywell and, Parsons recognize that on-the-job, as well as off-the-job, use of drugs and consumption of alcohol can have a negative impact on job performance, endanger individual safety, the safety of co-workers, and the community. Contractor crews are covered by the drug and alcohol policies of their employers.

NOTE: Parsons Employees and subcontractors are subject to additional post accident drug testing requirements that include (but are not limited to) company vehicles and high-risk power tools. Refer to Parsons Employment Standards Rev 3, Appendix 4 –Substance Abuse.

Policy

In an effort to establish a substance abuse-free workplace and with an understanding that *subcontractors* often perform *Safety-Sensitive Activities*, Honeywell and Parsons require *subcontractors* to have a Drug-Free Workplace Policy that meets or exceeds this policy when working on Honeywell projects and/or property. See Exhibit 4-4 for Parsons Corporate Substance Abuse Policy.

Pre-Access

The PM shall require project personnel to have pre-access drug and alcohol screening within **two weeks** prior to the commencement of field work.

- Pre-access testing is not necessary if subcontractors have been off-site **≤30 days**.
- Short-term subcontractors needed to provide emergency response support or unscheduled repairs to critical on-site equipment may be exempted from pre-access testing if approved by the Portfolio Safety Manager or Market SH&E Director.
- The PM will document approved exemptions in pre-work planning documents associated with unscheduled repairs of critical equipment.
- Exemptions may be extended for a maximum of **three days** after which time exempted subcontractors must tested for drugs and alcohol.

Reasonable Suspicion

Reasonable suspicion testing may be triggered by direct observations of employee behavior or drug-related paraphernalia. Site personnel who have been observed using alcohol or controlled substances on site or during breaks at off-site locations after which they will return to work will be requested to take an alcohol or drug test. Reasonable suspicion includes possession (on person or in vehicles) of alcohol or controlled substances on site as well as paraphernalia that suggest drug use. Site personnel who exhibit signs, symptoms, or behaviors of drug or alcohol use as interpreted by a reasonable person will also be requested to take a drug and/or alcohol test. Reasonable suspicion drug testing must be conducted **as soon as feasible not to exceed four hours**.

Post-Accident

Honeywell reserves the right to drug and/or alcohol test Parsons or subcontractor personnel involved in an accident. Honeywell requires Parsons or subcontractor personnel to submit to an alcohol test within 2 hours and to a drug test within 32 hours after an accident. If the alcohol test is not collected within 8 hours and the drug test within 32 hours after an accident, then the Safety Director will cease efforts to have the tests collected and document the reason for failing to collect these tests. Failure to cooperate with drug and alcohol testing procedures may result in disciplinary action up to and including removal from site for a minimum of one year.

Project Drug & Alcohol Screen

The Safety Director may select specific projects for drug and/or alcohol testing at his discretion. Project personnel will either be randomly selected from the total project personnel, or on smaller projects, all project personnel will be tested. Parsons engineering and construction management personnel routinely working on-site shall not be excluded from testing.

Commercial Motor Vehicle Drivers

Project personnel who operate commercial motor vehicles will be required to participate in periodic and random drug and alcohol testing by their employers in accordance with the Federal Department of Transportation regulations. Evidence of such participation shall be provided upon request.

Drug & Alcohol Testing Procedures

When required by this program, Parsons' employees and subcontractors will report to Well Now Urgent Care drug collection facilities. Well Now drug collection facilities are located at 961 Sheridan Drive, Buffalo (716.844.7100). Drug test results from non-Well Now drug collection facilities may be acceptable if collection and analysis of samples is otherwise equal to those outlined in this document. The Safety Director/Manager shall make the final determination if drug test results collected at non-Well Now facilities are acceptable.

After-Hours Testing (Post-Accident & Reasonable Suspicion)

Well Now Urgent Care provides post-accident testing. All post-accident testing is conducted at their Tonawanda clinic location. Health & Safety and the appropriate Talent Management/Human Resources representatives should be notified as soon as feasible following an employee being sent for testing. After hours testing of subcontractor personnel does not require notification of Parsons Talent Management/Human Resources. Well Now Urgent Care's address in Tonawanda is as follows:

1751 Sheridan Drive
Tonawanda, NY 14223
716.541.0234

Normal Business Hours: 8:00am – 8:00pm. 7 days a week

- Notify the PM, Health & Safety and the appropriate Talent Management/Human Resources representative as soon as feasible.
- For subcontractor personnel, notify Health & Safety as soon as feasible.

Confidentiality of Test Results

Test results will be maintained in accordance with applicable law in a confidential file of medical information. Subcontractors will be copied on drug and alcohol results for their personnel. The Safety Director/Manager will retain and secure subcontractor drug and alcohol test results as necessary to support a policy of prohibiting such individuals from being assigned to another project within the next year AND before a negative drug and alcohol test is provided.

Positive Test Results

A positive drug test result will be confirmed by a Medical Review Officer (MRO) responsible for reviewing test results and procedures. A positive alcohol test result will indicate blood-alcohol levels **greater than or equal to 0.04** and will also be confirmed with a second alcohol test and MRO review. Detectable alcohol **less than 0.04** will be considered a negative result and the individual will not be classified as intoxicated or otherwise under the influence. Individuals with blood-alcohol levels **less than 0.04** may be permitted to return to normal work duties including safety-sensitive activities. However, commercial drivers with blood alcohol between **0.04 and 0.02** must be removed from safety-sensitive activities that are specifically related to the operation of commercial vehicles for **24 hours** as required by Federal Department of Transportation (DOT) regulations. After 24 hours, normal driving duties may be resumed.

Any person who does not provide an acceptable urine sample after 3 hours or does not otherwise cooperate with testing procedures, will be classified as a refusal. Refusals will be treated as a positive result for purposes of follow-up and disciplinary action.

Testing positive or refusing a request for a drug and alcohol test may result in disciplinary action, up to being immediately removed from the project and not be permitted to work on another project for one year. A negative drug and alcohol test are also required prior to being reassigned to an project. The Safety Director will track drug and alcohol testing results.

4.12.2 On-Site Medical Services and Panel of Physicians

The Parsons Corporate Workers' Compensation Analyst establishes medical providers for the project and selects medical facilities to treat work-related injuries and illnesses, as follows:

Emergency Medical Services

- **Location**: Kenmore Mercy Hospital, 2950 Elmwood Avenue, Kenmore, NY 14217
- **Phone**: General Phone: 716.447.6100
- **Hours of Operation**: 24 hours
- **Directions**: See Exhibit 4-5

Non-Emergency Medical Services

- **Location**: Well Now Urgent Care, 1751 Sheridan Drive, Buffalo, NY 14223
- **Phone**: 716.844-7100
- **Directions:** See Exhibit 4-5.

WorkCare Information

- See Exhibit 4-6 for WorkCare forms

NOTE: Transportation to a medical facility for non-emergencies must be done by at least two (2) individuals (i.e., driver and observer).

4.12.3 Emergency Response

The project displays posters with emergency telephone numbers and locations of emergency facilities in visible locations and at selected phone locations throughout the project area (including subcontractor facilities). The following information is provided:

Emergency Contacts	Phone Number
Ambulance (Onondaga Fire Control)	**911**
Fire Department	**911**
State Police (NYS)	**911**
Parsons Contract Physician (WorkCare)	888.449.7787
Poison Control Center	800.252.5655
Well Now Urgent Care	716.844.7100

4.12.4 Workers' Compensation Program

The Corporate Risk Management Department establishes the workers' compensation carrier. If a workers' compensation loss occurs, the Corporate Workers' Compensation Analyst handles all communication with the workers' compensation carrier.

This project does NOT participate in an Owner's Controlled Insurance Program or project-specific insurance program. The workers' compensation policy covering Parsons Employees on this project is as follows:

AIG
15 Cornell Drive, 2nd Floor
Latham, NY 12110
877.640.2450
Policy Number: 0007169963

4.12.5 Medical Monitoring

Potential health hazards and potential exposures associated with these projects are zero to minimal and will not require medical monitoring. If new tasks are identified, health hazards and potential exposure will be re-evaluated and medical monitoring may be implemented, if warranted.

EXHIBIT 4-1
SITE-SPECIFIC PROJECT SAFETY PLAN ORIENTATION

Project Name: Tonawanda Coke Site 108

Project Location: 3800 River Road, Tonawanda, New York

Names of Personnel Responsible for Site Safety and Health:

- Program/Project Manager (PrM)- Tom Abrams (315) 741-3716 (cell)
- Program Safety Manager – Bill Moon (315) 323-8715 (cell)
- SSHO - TBD

Site specific safety plan orientation must be conducted with all new site workers prior to beginning any work. The orientation shall be conducted by any of the above-mentioned responsible personnel or their designees. Orientation shall consist of a review of the Parsons Safety Plan and site-specific AHAs.

Emergencies - Call 911 and/or your Supervisor for emergencies. In the event of an evacuation, the assembly points will be determined, located, and shown at the initial site task(s) Safety meeting, and again located and shown when the site tasks are to commence at other locations. Evacuation protocols and procedures will be discussed at these Safety meetings. The sound for an evacuation is three short fog horn blasts.

Incidents - Report all incidents that result in personal injury, property damage, or environmental release and near-miss incidents to your Supervisor and the SSO. Near-miss incidents COULD HAVE been an incident but did not because of a slight change in conditions or luck. However, they have the same causal factors as an incident, so it is just as important to investigate them for identifying solutions to prevent recurrence and share lessons learned. Both incidents and near misses will be reported according to both Honeywell and Parsons procedural protocol.

Workcare - Workcare will be utilized for Parsons Employees and provides 24-hour 7 day a week on-call medical professionals to answer any medical-related questions. These medical professionals also help provide injury assessment and guidance, treatment options, have access to advanced medical personnel, and will assist with suspected work-related injuries.

WORKCARE – 1 (888) 449-7787

Open Door - The management team is committed to an open-door policy and all will make themselves available to any team member at any time for any real or suspected Health, Safety or Environmental concern. Employees should attempt to utilize first line supervisors and the chain of command; however, employees are not prohibited from contacting any management team member should they believe concerns are not or will not be addressed and may do so without fear of retribution.

Communications - For Media Inquiries direct questions to Victoria Strietfeld (Honeywell) 973.455.5281.

Personal Protective Equipment (PPE)

Minimum PPE:

- Safety glasses with side shields (tinted safety glasses are not permitted during overcast weather, after sundown or inside buildings)
- Honeywell hard hat (hard hats do not have to be worn during routine site inspections on remediated sites with no construction activities taking place)
- Steel or composite toe work boots
- Long pants
- Minimum of short sleeve shirt (no tank tops or sleeves cut off)
- High visibility vest or T-shirt
- Hand protection (task specific – refer to appropriate AHAs)

Additional PPE requirements may include:

- Dust mask when the potential for elevated dust generation is a concern.
- Hearing protection – When working in an area where decibel level exceeds 85 for an 8-hour period.
- PFD (Personal Floatation Device) - To be implemented in areas with water greater than knee deep. When PFD is worn, all connections must be affixed.

Additional Site-Specific Health and Safety Hazards

Identify all activities on-site as being dangerous and having a possibility for an accident. Review with the worker the activities he/she is here to perform. Then, identify all possible hazards and safeguards for those activities. Next, have worker review all AHAs associated with those activities.

Physical Hazards

Slips trips and falls - Site conditions contain multiple walking hazards.

Manual Handling - Hazards presented by manual handling of material, tools or equipment. Individual lifting limits are capped at 50 lbs./person. For repetitive tasks, the NIOSH lifting equation is to be used. Employ the use of mechanical lifting devices or assistance when and wherever feasible.

BIOLOGICAL HAZARDS

Insects - Bees, ticks, mosquitoes, spiders and other insects may be encountered on-site. Notify your supervisor and any SHSO if you possess a known allergy and have been prescribed a personal emergency injection device. You will be required to carry with you any emergency allergic reaction mitigation devices while you will perform work on-site.

Plants - Poison ivy/sumac/oak may exist on-site in wooded areas.

Wildlife - Native wildlife may be encountered onsite such as raccoons, squirrels, opossums, snakes, rats, bats, frogs, mice, deer, coyote, fox, minx, rabbits, turkey, geese and birds, as well as other native species. Animal dens may present physical hazards.

Site Access Control –Personnel reporting to the site must park in the designated parking areas. Only vehicles approved by the SSO may enter the work zone. Site speed limits in any work zone will be set and discussed at the site(s) initial safety meetings.

Cell Phone Usage – Parsons' policy is no cell phone usage while operating a vehicle or equipment, this includes no hands-free devices.

Training – Site-specific training (PSHEP review and sign off). Copies of the PSHEP and SDS are available to all personnel. Daily safety meetings shall be documented and reviewed by all personnel working at the site. Prior to entering a work site, site workers must report to either the site PM/Field Team Leader/PrSM with valid documentation of the following:

- ✱ Negative drug test and alcohol documentation required annually and random for all personnel active on Honeywell projects

HAZCOM - General Hazard Communication training is provided by your employer. Specific chemicals have been previously covered in this orientation. Site Specific HAZCOM elements are listed below:

SDS Sheets - The SDS Master book is kept in the Team site vehicle. Any chemical brought onsite should be accompanied by the appropriate SDS sheet, sheets should be provided to safety prior to use so an evaluation on any new material can be conducted.

Appropriate PPE - PPE identified on an SDS must be used. If you are unaware of what PPE to use or need any specialized equipment, please inform your supervisor.

Specific Hazards in your Work Area - The sediment material is dynamic and nature with regard to hazards. Hazards specific to your work area will be communicated through your supervision, task specific AHAs, job safety analysis (JSA), and Take 5 Cards.

Gases, Vapors and Fumes - Gases, vapors and fumes may be released from a variety of processes, including:

- Using internal combustion engines
- Fueling vehicles or equipment

Mobile equipment – Use horns to alert others. Mirrors and back-up/travel alarm must be functional on all equipment and vehicles driving on-site. Use a spotter when backing vehicles with blind spots and/or around equipment (i.e., pipe lines, electrical boxes, etc.).

Work permits – It is not anticipated that tasks will require any additional permits. Permit requirements will be evaluated for any new tasks that are identified.

Decontamination - The SSO will determine the proper procedures for personal and equipment decontamination based on the work activities.

Proper Hygiene – Wash hands and face before eating, drinking, and smoking.

GENERAL SAFETY REQUIREMENTS, SITE SAFETY RULES

1. All site personnel must attend each shift's Daily Safety Meeting.
2. Report all incidents (any unplanned or unexpected event that results in personal injury, property damage or environmental release) and "near-miss reports" to your Supervisor or the SHSO. Near-miss incidents COULD HAVE been an incident but didn't because of a slight change in conditions or luck. However, they have the same causal factors as an incident, so it is just as important to investigate them for identifying solutions to prevent recurrence and share lessons learned.
3. Any individual taking prescribed or over the counter medication that may impair their ability work shall inform the site HSO. The HSO will review the matter with the appropriate personnel to determine if the employee can perform his/her work duties safely while taking the medication.
4. The personal protective equipment specified by the SHSO and in the HASP shall be worn by all site personnel. This includes Level D PPE which must be worn at all times in active work areas. Hardhats are not required for routine monitoring tasks in areas where not construction activities are taking place.
5. Respirators shall not be worn when conditions prevent a good face seal. Such conditions may be a growth of beard, sideburns, a skull cap that projects under the facepiece, or temple pieces on glasses. This regulation does not ban facial hair on respirator users, per se, from the workplace. However, when a respirator must be worn to protect employees from airborne contaminants, it has to fit correctly, and this will require the wearer's face to be clean-shaven where the respirator seals against it.
6. All personnel must sign the site log when entering and leaving the site property.
7. Personnel must follow proper decontamination procedures during and at the end of the work shift.
8. Eating, drinking, chewing tobacco or gum, smoking and any other practice that may increase the possibility of hand-to-mouth contact is prohibited in the Exclusion Zone (EZ) or the hot portion of the Contamination Reduction Zone (CRZ).
9. All signs and delineation shall be followed. Such signs and delineations shall not be removed except as authorized by the SHSO.
10. No one shall enter a permit required confined space without a permit, and Confined Space Entry Permits shall be implemented as issued.
11. All personnel must follow Hot Work Permits as issued.
12. All personnel must use the Buddy System in the Exclusion Zone.
13. All personnel must follow the work-rest regimens and other practices as required by the Heat Stress Program.

14. All personnel must follow lockout / tag-out procedures when working on equipment involving moving parts or hazardous energy sources.
15. No person shall operate equipment unless properly trained and authorized.
16. No one may enter an excavation greater than 4ft. deep unless authorized by the Competent Person.
17. Excavations must be sloped or shored properly. Safe means of access and egress from excavations must be maintained.
18. Ladders and scaffolds shall be solidly constructed, in good working condition and inspected prior to use. No one may use defective ladders or scaffolds.
19. Fall protection or fall arrest systems must be in place when working at elevations greater than 6 ft. from temporary working surfaces and more than 4 ft. from fixed platforms.
20. Safety harnesses and lanyards must be approved by the responsible party. The user must inspect the equipment prior to use. No defective personal fall protection equipment shall be used. Preloaded personal fall protection which has been involved in an incident must be recertified prior to re-use.
21. Hand and portable power tools must be inspected prior to use. Defective tools and equipment shall not be used.
22. Ground fault circuit interrupters (GFCI)s shall be used for cord and plug equipment used outdoors or in damp locations. Electrical cords shall be kept out of walkways and puddles unless protected and rated for the service.
23. Improper use, mishandling or tampering with health and safety equipment and samples is prohibited.
24. Horseplay of any kind is prohibited.
25. Possession or use of alcoholic beverages, controlled substances or firearms on any site is forbidden.
26. Use of cell-phones or personal electronic devices is prohibited while performing any work onsite, including the operation of any mobile equipment or motor vehicle.
27. All personnel shall be familiar with the Site Emergency Evacuation Procedures.

DISCIPLINARY PROCEDURES TO ENFORCE COMPLIANCE

General - All project personnel covered by this document are subject to disciplinary action, up to and including termination, for failure to comply with its applicable requirements. Management reserves the right to discharge or remove an employee from the project immediately for offenses that are grossly severe in nature. All project management personnel are responsible for enforcing safety requirements. Subcontractors must implement equivalent disciplinary action programs.

Non-compliance - For minor safety related infractions, as determined by project management personnel, such as failure to wear eye protection, personnel generally will be reminded of site policy verbally and given ample opportunity to comply or for retraining.

Documentation - More severe or repeat offenses may be reported immediately to an individual's supervisor, who will initiate disciplinary action in accordance with each company's policies. Subcontractors may receive notices of violation with additional requirements for compliance.

Continued Repeat Offense - Willful continued failure to comply will result in removal from the site permanently.

RIGHT TO ASK QUESTIONS, REPORT INFORMATION

Media and Local Questions asked of you - The proper response to all questions relating to the site or any work happening on-site is, "I'm not the right person to answer your question." Please refer any visitor to Parsons Site Management personnel.

Reporting and Questions from you - All site workers possess the right to ask questions of, and report information to Parsons.

EMPLOYEE USE OF MEDICATION

Prescription - Any individual taking prescription or over the counter medication which could cause adverse side effects while working, as indicated by their healthcare professional or medication warning label, shall inform the site SSO or Talent Management prior to using such medication. The SO will review the matter with the project Talent Management Lead to determine if the employee can perform his/her work duties safely while taking the medication. We reserve the right, if necessary, to have a 3rd party licensed healthcare professional determine if the use of the medication by the employee will affect the employee's work performance or the health & safety of others".*

* Craft union represented employees should refer to the project Labor Harmony Agreement for additional specific details on these requirements.

STOP WORK AUTHORITY

Right, Obligation and Responsibility - Stop Work Authority establishes the 'authority and obligation' of any individual to suspend a single work task or group operation when the control of HSE risk is not clearly established or understood. In general terms, the stop work authority process involves a stop, notify, correct and resume approach for the resolution of a perceived unsafe condition, act, error, omission, or lack of understanding that could result in an undesirable event.

EXHIBIT 4-2
INCIDENT REPORTING

Employees involved in or witnessing an incident or near-miss incident must immediately report it to the responsible SSO/Field Team Leader, who in turn immediately relays the report to the Parsons PM, and the appropriate subcontractor representatives, per Incident Reporting Requirements included in Attachment A. Near-miss incidents that could cause significant injury or loss of life must also be immediately reported in the same manner. No supervisor may decline to accept or relay a report of injury or significant near-miss incident from a subordinate. The PrSM will report near misses to Honeywell representatives, per Event Reporting Requirements in Appendix B.

Parsons requires that all incidents/accidents be reported within **four hours** to the Market SH&E Director (Jason Townsell Mobile (562) 565-3491] by the Parsons PrM, Tom Abrams (315) 552-9670; Mobile: (315) 263-5109 and PrSM Bill Moon (315) 323-8175. The Industrial Safety Manager is responsible for notifying the Corporate Workers' Compensation Analyst.

Parsons also requires that the PM and/or PrSM report an incident that results in a lost workday case or any fatality, injury of a private citizen, property loss, or damage in excess of $50,000, or catastrophes require **immediate** notification of the Market SH&E Director (Jason Townsell Mobile (562) 565-3491] The Industrial Safety Manager or Corporate Safety Manager must report any work-related fatalities within eight hours of the event and all work-related in-patient hospitalizations, as well as amputations and losses of an eye, to OSHA within 24 hours of the event.

Bill Moon, PrSM (315) 323-8175 (cell) is available for assistance in addressing documentation and notification. The PM or SSO (who has been trained on Parsons' reporting requirements and Online Safety Reporting System) then prepares and submits the incident information.

INCIDENT INVESTIGATIONS

All incidents and significant near-miss incidents are investigated by an individual or team with training in accident investigation and root cause analysis. Personal injuries involving medical treatment and incidents resulting in more than $1,000 damage will be verbally reported and submitted on the PWeb using the On-Line Safety Reporting System at https://pwebtools.parsons.com/safety/IncidentSelect.aspx within **4 hours**. Additionally, an Incident Investigation Report will be completed to identify root causes and corrective actions to prevent recurrence. Subcontractors must investigate incidents involving their employees or activities and submit an investigation report to the Parsons PM within **48 hours** of an incident. The Parsons Industrial Safety Manager will investigate or assign an investigator to each significant incident. The investigator will submit a final investigation report using the Online Safety Reporting System within **72 hours** of the incident. The PrSM maintains the investigation file. Instructions for entering incidents into the On-Line Safety Reporting System, Parsons Incident/Accident Report Form, Parsons Near Miss Report Form, and Parsons Wallet Card-Incident Reporting Guidelines are located in Attachment A of this report.

EXHIBIT 4-3
ORDER FOR WORK RELATED INJURY/ILLNESS EVAL/TREATMENT

_____ _____ of Parsons
(Employee Name) (Occupation)

is authorized to go to _____ for the following service(s):
(Name of Medical Provider)

Treatment for a Work-Related Injury/Illness for Date of Injury: _____.

In the event the above medical provider determines this injury or condition NOT TO BE WORK RELATED, the employee and Parsons understand that this employee may then be referred by the above medical provider to his/her personal medical doctor.

Employer Information:	Parsons 100 West Walnut Street Pasadena, CA 91124
Workers' compensation carrier:	AIG
Policy No.:	0007169963
Adjusting Office and Telephone No.:	15 Cornell Drive, 2nd Floor Latham, NY 12110 (877) 640-2450

Comments to Provider: Parsons attempts to provide any modified, alternate, light duty recommended._____

_____

_____ _____ _____
Authorized Employer Signature Print Name Date

_____ _____
Phone Number Fax Number

Disability slips and return-to-work notifications: Immediately fax to Parsons ***and*** provide copy to employee at conclusion of every evaluation/treatment.

Attention Emergency Department: After acute care, please refer patient back to a _____ for follow-up treatment.

(Medical provider—to be completed by Parsons—where permitted by law.)

EXHIBIT 4-4
PARSONS CORPORATION SUBSTANCE ABUSE POLICY

STATEMENT OF POLICY:

Parsons expects all employees to report to work in a fit condition in order to perform their duties at the utmost levels of safety and efficiency. To that end, Parsons expressly prohibits the unlawful manufacture, distribution, dispensing, possession, use, or sale of a controlled substance or alcohol on its premises at any time. Employees are prohibited from being at work under the influence of these substances. Parsons will reasonably accommodate the efforts of an employee to obtain medical treatment for substance abuse and to return to employment thereafter. However, no provisions of this policy will contravene the provision of the Employee Personal Conduct Policy or preclude the corporation from terminating an employee in accordance with this policy.

Parsons has an obligation to safeguard the privacy rights of all employees; however, it is also committed to provide a healthy and safe work environment for all employees and to take reasonable steps to safeguard the health and safety of others and protect the environment in conducting its business.

Safety and Environmental Provisions

In some instances employees may be required to undergo random toxicological tests to ensure their continuing fitness for duty to comply with contract mandated requirements or government regulations, or if performing work at locations where the nature of their duties is such that there is the potential for serious physical injury to themselves, to others, or the general public, or potential for significant damage to property or the environment.

Assignment of employees to such job sites will be done on a voluntary basis. Employees who refuse to participate in the random testing program and whose job duties would normally expose them to random testing will be considered for placement in other positions not requiring random testing. Every reasonable effort will be made to accommodate such transfers; however, if suitable work for which the employee is qualified is not available, the employee will be subject to termination. A positive test result will lead to immediate removal from the site, in addition to either corrective action in accordance with this policy or the employee's termination in accordance with the Employee Personal Conduct Policy.

Searches are another means of protecting the safety of individuals and property at those locations where the nature of the work has the potential for serious injury or damage. Reasonable searches may be conducted of individuals, their personal vehicles, effects, and other areas under the individual's control while at such work sites or engaged in Parsons business at such sites.

Employees will not be detained or searched without their consent. An employee's cooperation in a search at such work sites is a condition of employment. The employee will be required to sign an Acknowledgment and Consent for Random Toxicological Tests and Searches form. Such testing will be performed by the company using qualified contracted agents, or trained employees.

SUBSTANCE ABUSE TESTING - EMPLOYMENT OFFER

No candidate for employment will be subjected to substance abuse testing prior to the receipt of an offer of employment. Offers of employment, regardless of employment category, must contain a contingency regarding satisfactory completion of substance abuse testing. Failure to submit to or pass an examination will result in immediate disqualification from consideration for placement.

EMPLOYEE PERSONAL CONDUCT

All employees are expected to conduct themselves in a manner that ensures a positive, safe and efficient work environment while at Parsons. Improper conduct may be considered either a "General Offense" or a "Major Offense" and may result in disciplinary action, or in appropriate cases, termination. Termination is generally the result of the commission of a major offense, or where previous efforts to bring about correction have failed in terms of major or general offenses.

Employee Personal Conduct Policy

RESPONSIBILITIES:

The immediate supervisor monitors employee behavior and performance and is alert to problems arising from an employee's behavior or performance.

Human Resources ensures consistent and uniform application of this policy and, when required, interfaces with supervisor and employee to evaluate performance and behavior.

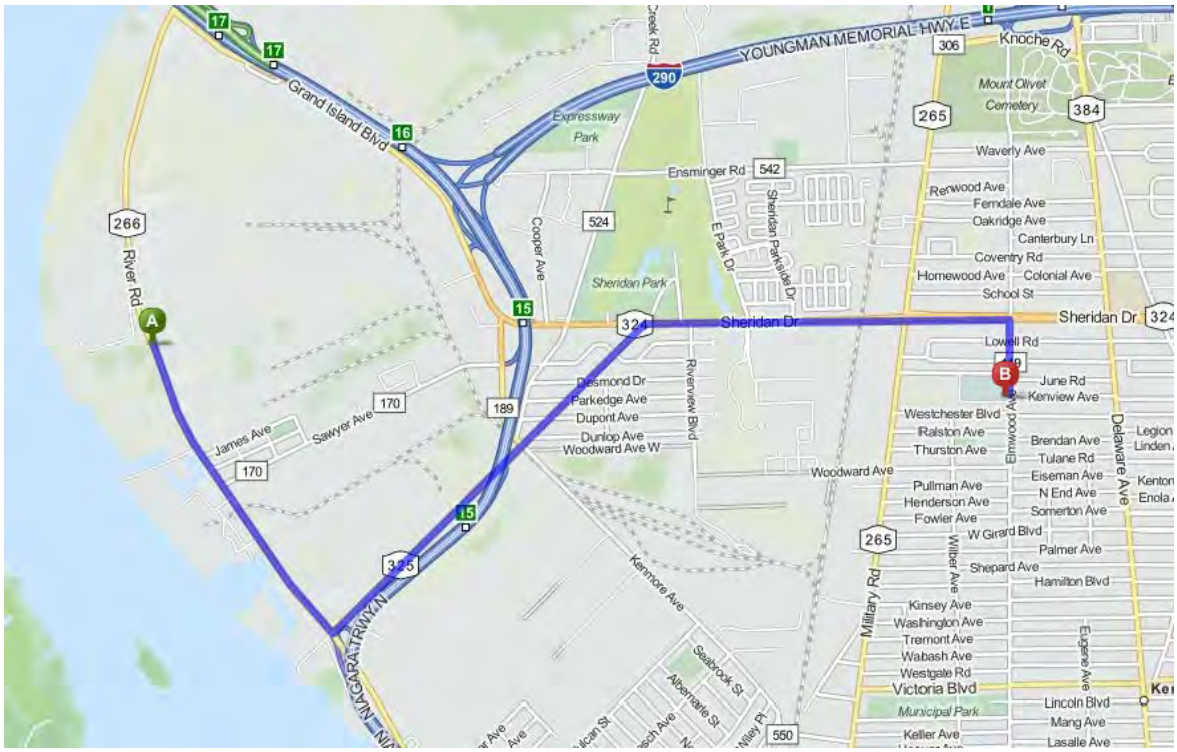
REFERENCES:

Employee Personal Conduct Policy

APPROVED: ***David R. Goodrich*** ***DATE:*** ***5/30/03***

EXHIBIT 4-5
ROUTE TO HOSPITAL

Kenmore Mercy Hospital
2950 Elmwood Ave
Kenmore, 14217
716-447-6100



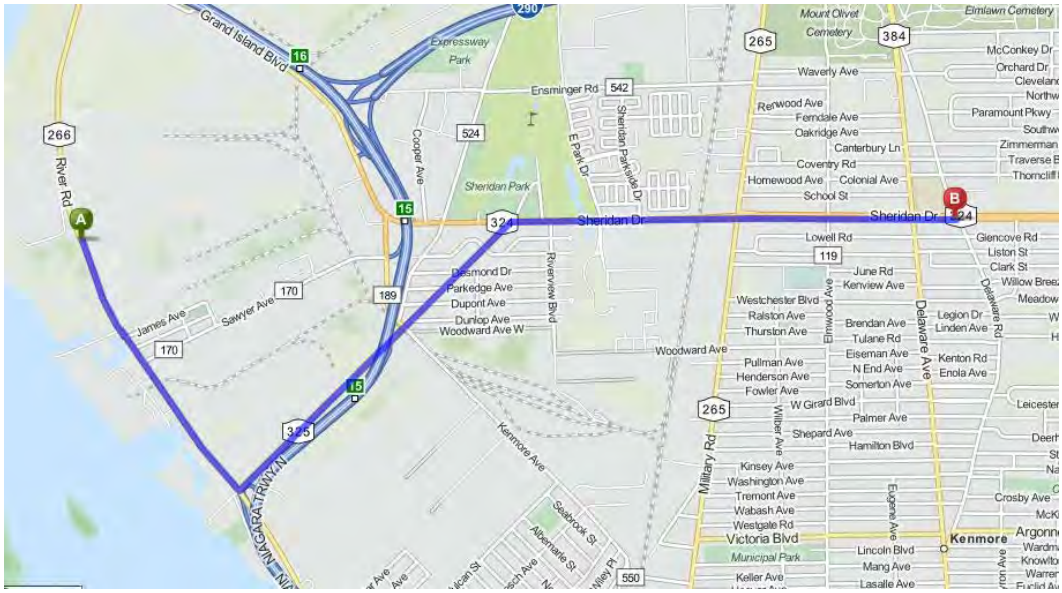
Directions to Kenmore Mercy Hospital

6 minutes/4 miles

1. *Start out going south on RIVER ROAD/NY-266 toward James Ave.*
2. *Turn left onto Sheridan Drive/NY-325*
3. *Turn slight right onto Grand Island Blvd/NY-324*
4. *Turn right onto Elmwood Ave/County Highway-119*
5. *2950 Elmwood is on the right*

NOTE: Transportation of an injured worker to a medical facility for non-emergency treatment must be done by at least two (2) individuals (i.e., driver and observer). If a driver is not available, then a cab service is acceptable as long as an observer is present.

Well Now Urgent Care
1751 Sheridan Dr
Buffalo, NY 14223
716-844-7100



Directions to Urgent Care

10 minutes/5.7 miles

1. *Start out going south on River Rd/NY-266 toward James Ave*
2. *Turn left onto Sheridan Dr/NY-325*
3. *Turn right onto Kenmore Ave/County Hwy-189*
4. *Turn slight right onto Dunston Ave*
5. *Enter next roundabout and take the 2nd exit onto Kenmore Ave/County Hwy-550.*
6. *Turn left onto Military Rd/NY-265*
7. *Turn right onto Sheridan Dr/NY-324*
8. *1751 SHERIDAN DR is on the right*

EXHIBIT 4-6
WORKCARE ASSESSMENT

Post-Injury Guidelines

If there is a Life-Threatening or significant medical event e.g. (not breathing, no heartbeat, unconscious, open wound, amputation, obviously broken arm or leg, etc.) then the first employee on the scene should:

1) Call for help
2) Call 911
3) Begin first aid/CPR if trained

Upon notification of a medical emergency the Field Team Leader will:

1) Make sure that 1st Aid/CPR trained employees are on scene and assisting the injured.
2) Make sure that any ancillary work ceases to make scene safe for responders.
3) Make sure that an employee is sent to the gate or entrance area to meet first responders and bring them to the injury scene.
4) Contact the Site Safety Officer.

Upon notification of a medical emergency the **Site Safety Officer** will:

1) Notify the Emergency Response Team if required.
2) Move to the injury scene with required first aid materials and direct the response.
3) Assist the first responders with any necessary decontamination or SDS' as needed.

If there is a non-life-threatening illness or injury event e.g. (stain or sprain, stiff back, minor laceration, sore muscle, bruised toe/finger, etc.) then the first employee on the scene should:

1) Call for help
2) Begin first aid if trained

Upon notification of a non-life-threatening illness or injury event the Field Team Leader will:

1) Make sure that 1st Aid/CPR trained employees are on scene and assisting the injured
2) Make sure that any ancillary work ceases to make scene safe for responders.
3) Contact the Site Safety Officer
4) Contact WorkCare and allow the injured employee to speak with a WorkCare doctor or nurse
5) Follow WorkCare guidelines; Drive the employee to the clinic if directed and stay with him/her until the visit is concluded
6) Provide the employee with "Questions to Consider Asking Your Doctor During a Clinic Visit"
7) Provide the employee with "Memo to Treating Medical Professional" prior to the employee going into the exam room.
8) Participate in the incident investigation process upon return to the site.

Upon notification of a medical emergency the **Site Safety Officer** will:

1) Notify the Shift Emergency Response Team Lead and the contractor CM/PM
2) Move to the injury scene with required first aid materials and direct the response
3) Assist the Field Team Leader in contacting WorkCare at (888) 449-7787

SECTION 5

PRE-CONSTRUCTION PHASE

5.1 RISK ANALYSIS AND SAFETY SPECIFICATION DEVELOPMENT

Procurement procedures require that a site-specific SH&E risk analysis be conducted before issuance of construction Request for Proposals (RFPs). Using the pre-bid risk analysis checklist, the PM leads this analysis to document existing exposures that may impact the work, surrounding facilities, equipment, workers, or the public at large. The analysis includes locating, documenting, and photographing items such as:

- Overhead and underground power lines
- Sewer and water utilities
- Traffic
- Security
- Fences
- Water hazards
- Existing geographical and environmental conditions
- Damage to ecological or cultural resources
- Risks due to buried items
- Other environmental regulatory requirements

Upon completion of the site risk analysis, high-risk activities are listed in the RFPs (as applicable), and bidders must describe controls and mitigation strategies to address these activities in their proposals. The RFP should note that the list is representative and that the selected contractor must identify and control all work-related hazards, worker exposures and potential environmental incidents. The standard safety specifications are given below.

- Preconstruction SH&E Meeting, Site Specific SH&E Review Checklist, and Project Technical and General Conditions Specification Review - Exhibit 5-1
- Pre-Field Work Safety Meeting Checklist - Exhibit 5-2
- Mobilization/Kick-Off Safety Meeting Checklist - Exhibit 5-3

5.2 PREBID MEETING

Pre-bid meetings are required to ensure that bidders understand the RFP. These meetings must include a discussion of safety, health and environmental performance expectations. During the pre-bid meeting, the PM can use the Preconstruction SH&E Meeting, Site Specific SH&E Review Checklist, and Project Technical and General Conditions Specification Review (3 Sheets) (Exhibit 5-1) to review the project SH&E philosophy, principles, and Parsons requirements with prospective bidders. Although this information is included in the RFP, the meeting reinforces the message.

5.3 SUBCONTRACTOR PREQUALIFICATION REVIEW

Project procurement procedures require that all subcontractors submit prequalification documentation for evaluation. The PM or PrSM conducts the safety prequalification evaluation in accordance with the online CSE system. Subcontractors are required to provide safety information to complete their CSE on an annual basis. The provided information is reviewed by a safety manager and the subcontractor receives a safety grade. A "C" or "D" grade may require additional mitigation measures to allow the subcontractor to work on-site.

5.4 PRE-CONSTRUCTION MEETING

The PM holds a pre-construction meeting before the subcontractor begins work. The meeting includes subcontractor representatives, the Parsons PM, the contract manager, and representatives from all construction disciplines, including safety. During the SH&E review, meeting participants review specific SH&E concerns, the pre-bid risk analysis, and competent person and site-specific SSHEP requirements. The PM provides the SH&E Point of Contact and emergency management information. The PM uses the Preconstruction SH&E Meeting, Site Specific SH&E Review Checklist, and Project Technical and General Conditions Specification Review (3 Sheets) (Exhibit 5-1) to document the meeting. *See ESHARP Guidebook, Volume 1 – Project, Section 6 for further detail.*

5.5 COMPETENT PERSON SUBMISSION REVIEW

Parsons and its subcontractors must identify the OSHA-regulated and certified competent persons for work or tasks that require this level of expertise. The supervisor of the competent person must certify the specific competencies of the named competent person in writing.

The supervisor and competent person sign and submit the Competent Person Form (Exhibit 9-1) to the Parsons PM. (Note click on this link for the Subcontractor Competent Person Form.

5.6 SUBCONTRACTOR SAFETY PLAN SUBMISSION REVIEW

5.6.1 Site-Specific Subcontractor Safety, Health, and Environmental Plans (SSHEP)

At least 10 days before work begins, each subcontractor must submit two copies of its SH&E program to the Parsons PM for review. The PM and PrSM review the plan to ensure that it meets Parsons' requirements.

If a contractor needs assistance developing a SSHEP, the PrSM can provide an electronic copy of a Model SSHEP (Appendix A2).

The subcontractor safety plan must address the following elements:

- Responsibilities
- SH&E compliance
- Communication
- Hazard Assessment
- Hazard Correction

- Risk of environmental incident
- Environmental controls
- Engineering controls
- Control measures to prevent environmental incident
- Incident investigation
- Training and instruction
- Recordkeeping
- The plan must include all applicable requirements of Parsons PSHEP, OSHA CFR 1910/1926 and applicable federal, regional, state, municipal, and/or local environmental regulation scope of work evaluation describing sequence of work and associated hazardous or environmentally risky activities
- AHA including evaluation of environmental risks
- Site employee SH&E orientation program to address location-specific issues
- Site-specific Emergency Action Plan that includes a list of key management personnel and contact information (home, office, project site, and cellular telephone numbers).
- Site-specific Medical Emergency Plan that lists qualified First Aid personnel by name and includes copies of their current certificates
- List of key line management personnel, by name and position, who will enforce the plan
- List of key competent or qualified personnel by name and copy of current documentation identifying specific certified competency (e.g., scaffolding, excavations, fall protection)
- A written progressive disciplinary program for violations of SH&E procedures
- Trenching and Shoring Plan (if applicable)
- 100% Fall Protection Plan (if applicable)
- Waste and hazardous material management (if applicable)
- Control measures for storm water and other wastewater discharges (if applicable)
- Identification of risks and control measures for activities that could involve environmental spills/releases
- Measures to address any other environmental regulatory requirements
- Contractor task hazard and risk planning
- Subcontractor weekly SH&E planning submission
- Contractor daily task SH&E planning

5.7 PRE-MOBILIZATION SH&E MEETING

Project Managers, or their designee, conduct the Premobilization SH&E Meeting on or before the first day of subcontractor mobilization in the field at the work site. *(See ESHARP Guidebook, Volume 1 - Project, Section 11 for additional details.)* Exhibit 5-2, Subcontractor Premobilization Safety Meeting, shows the checklist used for the SH&E portion of this meeting. The meeting includes a review of the pre-bid site/area risk analysis and a walk through of the work area to locate items on the Pre-Bid Risk Analysis Checklist.

EXHIBIT 5-1
PRECONSTRUCTION SH&E MEETING
SITE-SPECIFIC SH&E REVIEW CHECKLIST
PROJECT TECHNICAL AND GENERAL CONDITIONS SPECIFICATION REVIEW
(SHEET 1 OF 3)

Date:	
Subcontractor Representative:	
Phone:	
Project Location:	
Parsons Project Manager:	
Phone:	
Subcontractor Safety & Health Representative:	
Phone:	
Parsons Safety & Health Manager:	
Phone:	
Subcontractor Environmental Representative:	
Phone:	
Parsons Environmental Representative:	
Phone:	
This checklist supports the identification of work activities and programs in a preconstruction SH&E meeting. This list also includes items identified through the subcontractor review and high-risk activities identified through the project specification review. High-risk activities (denoted with an asterisk) checked with a checkmark must be followed up during the construction phase with training, written plans and/or a specific Activity Hazard Analysis (AHA). This list should be reviewed with prospective bidders during the pre-bid meeting. NOTE: Use check box and add specifics and details as applicable (next to the callouts)	
SAFETY & HEALTH\	
☐	Site-Specific Safety, Health and Environmental Plans
☐	Competent/Qualified Person Documentation
☐	SH&E Audits/Inspections
☐	Subcontractor Responsibilities
☐	Site Orientation Requirements
☐	Preconstruction SH&E Meeting/Date
☐	Crane Inspection Certification
☐	Personal Protective Equipment (PPE) (Work activities or work site requires hearing protection/using respirators/special protective clothing/other)
☐	Public Exposure (Work activities or location requires special precautions to protect the public)
CONSTRUCTION SAFETY ISSUES	

EXHIBIT 5-1
PRECONSTRUCTION SH&E MEETING FORM
SITE-SPECIFIC SH&E REVIEW CHECKLIST
PROJECT TECHNICAL AND GENERAL CONDITIONS SPECIFICATION REVIEW
(SHEET 2 OF 3)

CONSTRUCTION SAFETY ISSUES (Contd.)	
☐	Steel Erection (SENRAC Requirements)
☐	Excavations/Trenching
☐	Powered Industrial Trucks, Fork Lifts
☐	Crane Work/Heavy Lifts, Rigging
☐	Work involving Hazardous Materials
☐	Electrical Tie-ins/Lockout – Tagout
☐	Aerial Lift Work – Scissor Lifts, Extendable Boom, etc.
☐	Underground, Caissons, Cofferdams
☐	Scaffold Erection/Work
☐	Demolition
☐	Marine Work/Live Boating
☐	Heavy Hauling
☐	Concrete
☐	Diving
☐	Work Adjacent to Production Areas
☐	Site Security/Visitor Control/Public Areas
☐	Process Safety Management
☐	Permits (Excavations, Scaffolding, Demolition, Traffic, Confined Space, Hot Work, Line Breaking, etc.)
☐	Confined Space (Confined space entry is required)
☐	Welding and cutting (Acetylene/gas cutting, arc welding, soldering and brazing)
☐	Ladders (Portable ladder use is required)
☐	Traffic Control (Work is on or near highways, roads, or mass transit)
MEDICAL	
☐	Substance Abuse Screening
☐	Emergency Procedures
☐	Site Security
☐	Smoking Policy
☐	Medical Services Requirements
☐	Treatment Locations, Addresses, and/or Phone List
ENVIRONMENTAL	
☐	Environmental Hazards
☐	Air Pollution/Emissions and required reporting
☐	Wastewater Discharges
☐	Drinking Water
☐	Management of Hazardous Materials and Hazardous and Solid Wastes
☐	Emergency Response to Spills and Releases Environmental Assessments
☐	Protected Ecological and Cultural Resources
☐	Specific Reports on Toxic or Hazardous Chemicals Usage and Storage (Required by Environmental Regulation)

EXHIBIT 5-1
PRECONSTRUCTION SH&E MEETING FORM
SITE-SPECIFIC SH&E REVIEW CHECKLIST
PROJECT TECHNICAL AND GENERAL CONDITIONS SPECIFICATION REVIEW
(SHEET 3 OF 3)

	ENVIRONMENTAL (Contd.)
☐	Materials to be Recycled
☐	Possibility of Buried Items Onsite (cultural artifacts, tanks, wastes, and ordinance) and what to do if encountered
☐	Environmental Regulatory Requirements
☐	Environmental Assets
☐	Resource Conservation/Sustainability
☐	Insects
☐	Plants
☐	Wildlife
☐	Medical Waste and Other Biohazards

Additional Notes/Comments:

ATTENDEES

Name	Title	Company

EXHIBIT 5-2
STANDARD PRE-FIELD WORK SAFETY MEETING CHECKLIST

Date:		Project/Location:	
Subcontractor Representative:		Parsons Project Manager:	
Phone:		Phone:	
Subcontractor Safety Rep:		Parsons Safety Manager:	
Phone:		Phone:	

The following items were identified and reviewed with the subcontractor.

Health & Safety		Medical	
Site-Specific Safety Plans/Model Program		Substance Abuse Screening	
Competent/Qualified Person Documentation		Emergency Procedures	
Safety Audits/Inspections		Site Security	
Subcontractor Responsibilities		Smoking Policy	
Site Orientation Requirements		Medical Services Requirements	
Mobilization/Kickoff Safety Meeting/Date		Treatment Locations/Addresses/Phone List	
Crane Inspection Certification		Other	
Personal Protective Equipment (PPE)			
Environmental Hazards			
Other			

Additional Notes/Comments:

EXHIBIT 5-3
MOBILIZATION/KICK-OFF SAFETY MEETING

PROJECT INFORMATION			
Project Name:		Meeting Date:	
Project Location:		Project Number:	
Scope of Work Covered In This Meeting			

MEETING ATTENDANCE			
Name (print)	Signature	Title or Project Role	Company

1. Honeywell Safety Vision – Review and reaffirm vision and beliefs as outlined in Section 1.0 of the HSP^2 program.
2. Project Safety Goals and Objectives
   - Total Incident Rate (TIR) target of _____
   - Lost Workday Incident Rate (LWIR) target of 0.0
3. Scope Of Work and Highly Hazardous Activities - Review key safety issues associated with highly hazardous activities.
   - Line breaking (process piping LOTO)
   - Work that may disrupt or damage existing piping, vents, drains (LOTO).
   - Any work on equipment that requires LOTO.
   - Major excavations (>5' deep or potential for damage to underground utilities)
   - Roof activities
   - Elevated work >6' that will not be done from manlifts or scaffolds
   - Hazardous painting or coating (epoxy paints, electro-static painting, cocooning, etc.)
   - Structural steel erection
   - Use of ladders above 24 feet.
   - Confined Space Entry (permit-required)
   - Any work within 20' of overhead power lines
   - Critical Crane Picks (>80% of rated capacity, multiple cranes on a single pick, near power lines, picks over occupied buildings, and picks of long-lead or specialized equipment.)
   - Other:
4. Honeywell Specification 01620 - Verify that copies were received by subcontractors and address any questions.
5. Incident Reporting Requirements
6. Drug & Alcohol Testing Requirements
7. Commitment to Light Duty work and the location of Industrial Medical Associates (IMA)
8. Safety Planning Requirements - Review the development and use of Project Safety, Health, and Environmental Plans (PSHEPs) and Job Safety Analyses (JSAs).
9. Safety Meetings - Review requirements related to daily safety meetings and Weekly Toolbox Safety Meetings. Review the use of daily Pre-Task Planners
10. Roles and Responsibilities
11. Other Site-Specific Safety Issues

SECTION 6

FIELD OPERATIONS

6.1 SITE RISK ANALYSIS

Before work begins, PMs lead a team that performs a risk analysis at each work site to identify hazards and risks that require specific control measures. During the weekly action item meeting, the project team discusses upcoming work tasks and associated risks and control measures. The weekly action item list generated during this meeting identify upcoming mobilization or demobilizations tasks, audits and inspections, competent person changes, training and new activities requiring an AHA. The project team and subcontractors also submit a Two-Week Look Ahead each week to identify upcoming tasks and assess if the new activities require a new or revised AHA.

As a part of the site risk analysis process, a risk register was developed, identifying potential hazards and evaluating the associated risks. This centralized, continually updated document also contains a list of controls to be implemented to reduce the risk of planned activities to an acceptable level. The project-specific risk register is included as Attachment G.

6.1.1 Chemical Hazards

Activities are being completed on sites where remedial construction activities have been completed or where contaminant concentrations are below remedial criteria. Risk of exposure to site workers is zero to minimal.

6.1.2 Physical Hazards

Physical hazards that may be encountered during the construction activities include, but are not limited to heat stress, cold-related illness, ultra-violet radiation, biological, and noise hazards.

Heat Induced Illness – Heat Stress:

The use of protective equipment may create heat stress. Monitoring of personnel wearing personal protective clothing should commence when the ambient temperature is 70 degrees Fahrenheit (°F) or above. Table 6.1 presents the suggested frequency for such monitoring. Table 6.2 presents the apparent temperature for given humidity and ambient temperature readings in shade. Monitoring frequency should increase as ambient temperature increases or as slow recovery rates are observed. Heat stress monitoring should be performed by a person with a current first aid certification who is trained to recognize heat stress symptoms. For monitoring the body's recuperative abilities to excess heat, one or more of the following techniques will be used. Other methods for determining heat stress monitoring, such as the wet bulb globe temperature Index from American Conference of Governmental Industrial Hygienist Threshold Limit Values Booklet can be used.

To monitor the worker, measure:

- Heart rate. Count the radial pulse during a 30-second period as early as possible in the rest period.

  - If the heart rate exceeds 100 beats per minute at the beginning of the rest period, shorten the next work cycle by one-third and keep the rest period the same.
  - If the heart rate still exceeds 100 beats per minute at the next rest period, shorten the following work cycle by one-third.
- Oral temperature. Use a clinical thermometer (3 minutes under the tongue) or similar device to measure the oral temperature at the end of the work period (before drinking).
  - If oral temperature exceeds 99.6°F (37.6 degrees Celsius (°C)), shorten the next work cycle by one-third without changing the rest period.
  - If oral temperature still exceeds 99.6°F (37.6°C) at the beginning of the next rest period, shorten the following cycle by one-third.
  - Do not permit a worker to wear a semi-permeable or impermeable garment when oral temperature exceeds 100.6°F (38.1°C).

Prevention of Heat Stress - Proper training and preventative measures will aid in averting loss of worker productivity and serious illness. Heat stress prevention is particularly important because once a person suffers from heat stroke or heat exhaustion, that person may be predisposed to additional heat related illness. To avoid heat stress the following steps should be taken:

- Adjust work schedules.
  - Modify work/rest schedules according to monitoring requirements.
  - Mandate work slowdowns as needed.
  - Perform work during cooler hours of the day, if possible, or at night if adequate lighting can be provided.
- Provide shelter (air-conditioned, if possible) or shaded areas to protect personnel during rest periods.
- Maintain worker's body fluids at normal levels. This is necessary to ensure that the cardiovascular system functions adequately. Daily fluid intake must approximately equal the amount of water lost in sweat, i.e., 8 fluid ounces (0.23 liters) of water must be ingested for approximately every 8 ounces (0.23 kilograms) of weight lost. The normal thirst mechanism is not sensitive enough to ensure that enough water will be ingested to replace lost sweat. When heavy sweating occurs, encourage the worker to drink more. The following strategies may be useful:
  - Maintain water temperature 50° to 60°F (10° to 16.6°C).
  - Provide small disposal cups that hold about four ounces (0.1 liter).
  - Have workers drink 16 ounces (0.5 liters) of fluid (preferably water) before beginning work.
  - Urge workers to drink a cup or two every 15 to 20 minutes, or at each monitoring break. A total of 1 to 1.6 gallons (4 to 6 liters) of fluid per day are recommended, but more may be necessary to maintain body weight.
- The best prevention method for heat induced illnesses is to train personnel to recognize the symptoms. Avoid extended site tours when temperature and relative humidity are

high. Perform site tour during cooler hours of the day if possible. Go to air-conditioned building or shaded area during periods of rest (field support trailer).

Cold-Related Illness:

If work on this project is conducted during the winter months, thermal injury due to cold exposure can become a problem for field personnel. Systemic cold exposure is referred to as hypothermia. Local cold exposure is generally called frostbite.

Hypothermia - Hypothermia is defined as a decrease in the patient core temperature below 96^{o}F. The body temperature is normally maintained by a combination of central (brain and spinal cord) and peripheral (skin and muscle) activity. Interference with any of these mechanisms can result in hypothermia, even in the absence of what normally is considered a "cold" ambient temperature. Symptoms of hypothermia include: shivering, apathy, listlessness, sleepiness, and unconsciousness.

Frostbite - Frostbite is both a general and medical term given to areas of local cold injury. Unlike systemic hypothermia, frostbite rarely occurs unless the ambient temperatures are less than freezing and usually less than 20^{o}F. Symptoms of frostbite are: a sudden blanching or whitening of the skin; the skin has a waxy or white appearance and is firm to the touch; tissues are cold, pale, and solid.

Working on Water in Cold Weather - If air temperature is below 50 deg F and water temperature is below 50 deg F, either Mustang suits, exposure suit, wet suit, or other type of survival suit is required for small craft (16 ft. and below) or craft with no side rails in lieu of PFDs.

Prevention of Cold-Related Illness - To prevent cold-related illness:

- Educate workers to recognize the symptoms of frostbite and hypothermia
- Identify and limit known risk factors
- Implement the requirement for wear of the full-body marine exposure suits for all Parsons and subcontractor personnel for on the lake boating operations during cold weather months
- Assure the availability of enclosed, heated environment on or adjacent to the site
- Assure the availability of dry changes of clothing
- Assure the availability of warm drinks
- Allow employees to take a warming break if they are shivering

Any person developing moderate hypothermia (a core temperature of 92^{o}F) cannot return to work for 48 hours.

Ultraviolet Radiation:

The sun emits ultraviolet radiation (UV) as heat and light. The skin's natural defense mechanisms attempt to reject the UV by distributing melanin pigmentation where needed. However, overexposure to direct sunlight can cause inflammation or blistering of the skin (sunburn). The use of sunscreen, long sleeve shirts, and wide brim hats can help prevent sunburn.

Chronic exposure to UV radiation is known to cause skin cancer. In case of sunburn, do not apply burn ointment, cold cream, or butter to relieve pain. Use a dry dressing and get medical attention for severe, extensive sunburns. Also watch for dehydration. If a person is dehydrated, try and keep their fluid volume at their normal level.

Electrocution:

All heavy equipment will be kept a safe distance from live sources of electricity. All subsurface and overhead electrical sources and lines will be identified before ground disturbance activities commence. Where possible and/or practical, electric lines and sources will be deactivated or insulated before ground disturbance activities commence. Personnel should remain at a safe distance from equipment when not performing work to prevent the risk of injury from electrical arcing when high-voltage surges and spikes cause arcing in electronic circuits.

Ground fault circuit interrupters will be utilized on electrical equipment, where applicable, and extension cords will be inspected for splices, taps, and breaks in its outer cover insulation. If splices, taps, or breaks are noted on an extension cord, it shall not be used and it will either be removed from the site or cut up and rendered unusable.

Noise:

Noise is generated during construction activities in such operations as transportation of materials and operation of heavy construction equipment. Hearing protection will be worn by personnel to protection against the effects of hazardous noise exposure whenever sound-pressure levels exceed 85 dB(A) steady-state expressed as a time-weighted average. Personnel operating or working around heavy equipment should wear hearing protection.

Vehicle Traffic:

Vehicle traffic may include cars, trucks, and heavy equipment operated by contractors, subcontractors, or visitors to the site. Drivers should approach building corners with extreme caution as many of the buildings have blind corners making it extremely difficult to see intersection traffic. All heavy equipment should have a back-up alarm or drivers should honk to signal when they are backing up or when approaching blind corners. The speed limit at the site is 5 miles per hour on the causeway and 10 miles per hour everywhere else on-site.

Drivers are not permitted to use any communications device (e.g., cell phone) while driving. The driver and all passengers must use seatbelts in all moving vehicles at all times. A vehicle inspection of the tires, lights, horn, wipers, and backup alarm should be completed each day.

Project activities include installing road-side safety barriers along select public roadways. Road-side safety barrier work shall be completed by a New York Department of Transportation (NYSDOT) registered contractor. NYSDOT specified traffic control safety protocols will be implemented in association with all works performed within NYSDOT alignment property.

6.1.3 Biological Hazards

Biological hazards can result from encounters with mammals, insects, snakes, spiders, ticks, plants, parasites, and pathogens. Mammals can bite or scratch when cornered or surprised. The bite or scratch can result in local infection or infection with systemic pathogens or parasites. Insect and spider bites can result in severe allergic reactions in sensitive individuals. Exposure to poison

ivy, poison oak, or poison sumac results in skin rash. Ticks carry a number of serious diseases. Dead animals, organic wastes, and contaminated soil and water can harbor parasites and pathogens. Spent needles and/or syringes could be infected with potential blood or other infectious materials that could carry serious diseases.

Poison Ivy:

Some of the most common and severe allergic reactions result from contact with poison ivy, poison oak, or poison sumac. Contact with the poisonous sap of these plants produces a severe rash characterized by redness, blisters, swelling, and intense burning, and itching. The victim also may develop a high fever and may be very ill. Ordinarily, the rash begins within a few hours after exposure, but it may be delayed for 24 to 48 hours.

Ticks:

Ticks are common during the spring and summer throughout the work area when off any paved area. Two types of ticks may be encountered: the dog tick and the deer tick. The dog tick is the larger, more common tick. After biting, the dog tick will remain attached to the victim until engorged with blood. Dog ticks may transmit Rocky Mountain spotted fever and other diseases. The deer tick is much smaller, ranging from poppy seed to grape seed size, and does not remain attached to the skin for very long after biting. Deer ticks can transmit Lyme disease, which can have serious, long-term health effects if left untreated. Lyme disease is often characterized by a bulls-eye type rash; light in the center with an outer red area. Flu-like symptoms may also occur. These signs may occur at different times and the rash may not appear. If you discover any bites on the skin, wash the affected area and seek medical attention if a rash or flu-like symptoms appear.

Bees, Wasps, Hornets, and Other Insects:

Symptoms of an insect bite are normally a sharp, immediate pain in the body part bitten. Report any significant bite immediately. Poisonous insects and insect-like creatures that may be encountered around the work areas include the following:

- Bees (honeybees, bumble bees, sweat bees, wasps, and hornets)
- Caterpillars
- Beetles/Bugs
- Mosquitoes

Spiders:

The two poisonous spiders that may be encountered during the construction project are the Brown Recluse and the Black Widow. The Brown Recluse is up to one inch long with a violin or "fiddle" shaped mark on the top of the head. The Black Widow is a smaller, bulbous black spider with a red hourglass-shaped mark on the underside.

Reactions to a Brown Recluse spider bite include mild to severe pain within two to eight hours and a star shaped area around the bite within three to four days. Significant tissue death and loss accompanies a Brown Recluse spider bite. Reactions to a Black Widow spider include intense pain at the site of the bite after approximately 15 to 60 minutes, followed by profuse sweating, rigid

abdominal muscles, muscle spasms, breathing difficulty, slurred speech, poor coordination, dilated pupils, and generalized swelling of face and extremities.

Persons that have been bitten by a Brown Recluse or Black Widow spider should be immediately transported to a hospital. The spider should be collected (if possible) for confirmation of the species.

Personnel will be alert to the potential for spider bites. Spiders sometimes establish residence in stored clothing and PPE. It is advisable for personnel to inspect clothing and PPE for spiders prior to donning.

Blood Borne Pathogens:

Blood borne pathogens enter the human body and blood circulation system through punctures, cuts or abrasions of the skin or mucous membranes. They are not transmitted through ingestion (swallowing), through the lungs (breathing), or by contact with whole, healthy skin. However, under the principle of universal precautions, all blood should be considered infectious, and all skin and mucous membranes should be considered to have possible points of entry for pathogens. See Attachment F for further details regarding BBPs site requirements, exposure prevention, vaccination, exposure incident reporting, exposure incident response, training and documentation.

6.1.4 Environmental Hazards

Slip, Trip, and Fall Hazards:

The site may contain slip, trip, and fall hazards for site workers, such as:

- Wet and slippery surfaces
- Holes, pits, tree roots, or ditches
- Slippery surfaces
- Steep grades
- Uneven grades
- Sharp objects, such as nails, metal shards, needles and broken glass

Site inspections are required to be performed in the manner and frequency described in Section 4.6. The Exhibit 6-1 checklist can be used as site inspection form to document safe work areas and walkways and general housekeeping. This inspection can be used to identify hazards that can contribute to tripping hazards.

Thunderstorm Hazards:

During the course of field operations, severe weather may be encountered, including thunderstorms, lightning, rainstorms, and other unsafe weather conditions (i.e., high winds and tornadoes). Criteria indicating that severe weather conditions may exist include:

- High winds (greater than 40 miles per hour – depending on the tree cover and other site specific conditions)
- Tornado watch or warning in place for the area including the site
- Visible lightning

- Extreme temperatures (e.g., greater than 100 degrees F)
- Heavy rainfall that makes footing treacherous and visibility difficult

If severe weather is approaching, personnel will secure the location, secure the equipment, stop all work activities and go to a designated safe location. The SSO and CM will determine if weather conditions allow for restart of work activities. Monitor weather radio and if possible monitor weather radar via internet.

All water activities will cease during a thunder or lightning storm. All personnel must get off the water as quickly and safety as possible. All activities will cease for 30 minutes after the last thunder or lightening.

If weather conditions allow for restart of work activities, a visual inspection will be performed to check for damage or hazards caused by the storm. If damage is noted, activities will be evaluated and corrective actions to fix, repair or eliminate the hazard will be completed prior to start of any activities.

6.1.5 Fire Hazards

Although fires and explosions may arise spontaneously, they are more commonly the result of carelessness during the conduct of site activities, such as moving drums, mixing/bulking of site chemicals and during refueling of heavy or hand held equipment. Some potential causes of explosions and fires include:

- Mixing of incompatible chemicals, which cause reactions that spontaneously ignite due to the production of both flammable vapors and heat
- Ignition of explosive or flammable chemical gases or vapors by external ignition sources
- Ignition of materials due to oxygen enrichment
- Agitation of shock or friction-sensitive compounds
- Sudden release of materials under pressure

Working On or Near Water

During the course of the project a major amount of the work will be conducted on or around water. Any work conducted within 6 ft. of the water's edge will require workers to wear a Coast Guard approved PFD. Prior to commencement of any activities on the water, watercraft will be inspected, radio communication with shore personnel will be established, rescue procedures reviewed, and Coast Guard approved PFDs issued to workers. All equipment and operating personnel will meet or exceed U.S. Coast Guard requirements for safety. Prior to performing work on the water, a float plan and applicable AHAs will be completed and reviewed by boating personnel.

6.2 FIVE HAZARD CONTROL MEASURES – ORDER OF PRECEDENCE

Site SH&E hazards and risks are controlled using one or more of the control measures listed below in order of precedence:

- Engineer/design to eliminate or minimize hazards. A major component of the design phase is to select appropriate features to eliminate a hazard/risk and render it fail-safe or provide redundancy using backup components.
- Guard the hazard. Hazards that cannot be eliminated by design must be reduced to an acceptable risk level by guards or isolation devices that render them inactive.
- Provide warnings. Hazards or risks that cannot be totally eliminated by design or guarding are controlled through using a warning or alarm device.
- Provide special procedures or training. When design, guarding, or warnings cannot eliminate hazards/risks, subcontractors must develop procedures, training, and audits to ensure safe and environmentally compliant completion of work. Training cannot be a substitute for hazard elimination when life-threatening hazards are present.
- Provide PPE. To protect workers from injury, the last method in the order of precedence is the use of PPE, such as hard hats, gloves, eye protection, life jackets, and other protective equipment with the understanding that bulky, cumbersome, and heavy PPE is often discarded or not used, rendering this method ineffective without proper controls.

6.3 ACTIVITY HAZARDS ANALYSIS

Parsons and its subcontractors are required to conduct an AHA for all aspects of the work. An AHA includes the following steps:

- Identify the task and break it down into steps.
- Identify the hazards associated with each step.
- Identify the specific hazard control measure used for each step in accordance with the order-of-precedence method of control.

PMs can use the following list to determine the construction/operations AHAs for various high-hazard operations and critical tasks.

- Premobilization inspection. Conduct an initial site inspection for pre-job planning. The inspection should cover potential exposures such as the location of electrical lines, underground utilities, nearby structures, traffic conditions, site security needs, public exposures general liability, and other potential exposures. Environmental risks should be included in this inspection (e.g., potential for wastewater discharges, adequacy of planned storm water controls, planned hazardous materials/waste management, measures to prevent spills/releases).
- Water, wastewater, and marine work. Analyze work adjacent to, in, or over water (including lakes, canals, dams, treatment plants, water tanks, clarifiers, and reservoirs).
- Traffic controls. Internal traffic control plans should include ways to restrict the number of vehicles on-site, the flow of vehicles through the site, haul roads, speed controls,

subcontractor employee parking areas, merging of site traffic with local vehicle traffic, pedestrian controls in traffic zones, access by emergency vehicles and operator controls. Plan traffic controls for delivery of equipment or materials and equipment operations. Control measures include warning signs, flagmen, traffic stoppage and control, and unloading procedures.

- Material storage. Consider where materials and equipment will be stored on-site, and labeling and signage requirements. Implement measures to protect against vandalism and theft. Also consider the hazards that may exist for workers and the environment when storing or retrieving materials.
- Material handling. Consider the size and weight of loads, how equipment will be used, how equipment is set up and protected, and safety and maintenance inspections of material handling and rigging equipment. Consider to employee training in use of the equipment and ergonomic issues when engaged in manual material handling activities.
- Heavy equipment controls. Evaluate the use of heavy equipment in operations such as site clearing, grading, excavation, or lifting. Controls should include equipment alarms, use of qualified operators, pre-use inspections, and OSHA, regional, municipal, and local regulatory requirements.
- Fall protection. Use fall protection when employees are working above the normal work surface level. Consider how and where ladders, scaffolding, work platforms, or lifts (including scissors lifts or bucket lifts), roofing work, and leading edges are used. Evaluate protective measures such as Fall Protection Plans, use of personal fall arrest systems, and work surfaces for slip and fall hazards and protection.
- Consider operations where PPE is required and the type required, e.g., eye, head, foot, respiratory, hearing and hand protection, and types of special protective clothing.
- Portable hand and power tools. Evaluate tools to be used and the ways that workers can be protected from the hazards associated with their use. Consider tool maintenance requirements, electrical requirements, use of ground fault circuit interrupters, grounding, extension cords, tool inspection procedures, and employee training.
- Employee training. Review the safety training needs of employees. Training should include initial site SH&E orientations and hazard communication training. Some operations (e.g., excavation, blasting, scaffold erection, tunneling, confined space, heavy equipment operations, handling hazardous materials, storm water and waste water management, response to spills/releases, waste management, and hazardous plant process operations) may require special training that should be checked and evaluated.
- Mechanical, electrical, and piping. Evaluate all work associated with the installation, repair and maintenance of mechanical, piping and electrical work for interferences, lockout/tagout, line break procedures, and applicable customer requirements.

Exhibit 6-2 is an AHA Example. Exhibit 6-3 contains the AHA Template.

6.4 OM&M SITE INSPECTION

As discussed in Section 4.6, the PM, or their designee conducts weekly site inspections. Additional inspections will also be completed when a significant task is being performed (e.g.,

soil/sediment sample collection, sample surface water collection, major restoration efforts by subcontractor, etc. If the PM is not on-site, the most senior person on-site will conduct the inspection. An example site inspection checklist is provided as Exhibit 6-1. Site inspections are a protocol designed to identify and correct unsafe acts or conditions in the scope of work conducted by either Parsons or any subcontractor. The PrSM maintains the original audit documentation on file and forwards results of the audit to the SH&E Manager.

6.5 SH&E ENFORCEMENT

Parsons and its subcontractors enforce all applicable SH&E requirements of regional, federal, municipal, state, local and all other regulation; where applicable by OSHA 1910 and 1926 and Engineering Manual EM 381.1, where applicable. In addition, subcontractors must comply with and enforce Parsons' site requirements.

Parsons and its subcontractors have written progressive disciplinary systems available for review in their Human Resources departments.

6.6 NOTICE OF VIOLATION OF SAFETY AND HEALTH REGULATIONS

The project has a formal notice of Subcontractor Violation of SH&E Regulations Program (Exhibit 6-4) to ensure that violations are issued as the result of an immediately dangerous to life and health situation, respiratory airborne hazards), and/or when the subcontractor repeatedly fails to comply with SH&E requirements. The Notice of Subcontractors Noncompliance to SH&E Regulations (Exhibit 6-5) documents poor performance and requires a response from subcontractor senior management. The notice contains five distinct levels of discipline, from submission of a recovery plan to contract termination.

6.7 COMPETENT FIRST AID PERSON

At least one competent person must be available at the work site at all times to render first aid. This person must have a valid certificate in first aid training from the United States Bureau of Mines, the Red Cross/Crescent, or equivalent and verifiable regional, municipal, or local training programs. First aid supplies must be accessible for immediate use and in sufficient quantity to handle common first aid incidents.

The response time and distance to the nearest clinic, hospital, or physician identified in Section 4.11.3 has been determined to be 10 minutes. Based on the activities provided in the SOW (Section 2.1) and the list of AHA included in Section 6.3, the project has the potential to have an accident involving suffocation, severe bleeding, or other life threatening or permanently disabling injury or illness. Due to the aforementioned potential hazards and to meet this requirement, the project will require at least one individual on-site to be CPR/first aid trained. This person can be the SSO for the site provided that the field team informs the SSO where they will be working onsite and when they enter and leave the site. Copies of valid training certificates will be retained by the SSO prior to starting work. The employee(s) listed below are assigned to the project on a full-time basis and will have a valid certificate in first aid, CPR/AED, and blood-borne pathogens:

Name	Job Title	First Aid	CPR/AED	Blood-borne Pathogens
Bill Moon	PrSM	1/16/21	1/16/21	-
TBD				
				-

6.8 COMMUNITY AIR MONITORING PLAN

A community air monitoring program is to be determined for this project.

TABLE 6.1

SUGGESTED FREQUENCY OF PHYSIOLOGICAL MONITORING FOR FIT AND ACCLIMATED WORKERS

ADJUSTED TEMPERATURE[b]	NORMAL WORK ENSEMBLE[c]	IMPERMEABLE ENSEMBLE
90°F (32.2°C) or above	After each 45 minutes of work	After each 15 minutes of work
87.5°-90°F (30.8°-32.2°C)	After each 60 minutes of work	After each 30 minutes of work
82.5°-87.5°F (28.1°-28.1°C)	After each 90 minutes of work	After each 60 minutes of work
77.5°-82.5°F (25.3°-28.1°C)	After each 120 minutes of work	After each 90 minutes of work
72.5°-77.5°F (22.5°-25.3°C)	After each 150 minutes of work	After each 120 minutes of work

[a] For work levels of 250 kilocalories/hour.

[b] Calculate the adjusted air temperature (T adj) by using this equation: T adj °F = T °F + (13 x % sunshine). Measure air temperature (T) with a standard mercury-in-glass thermometer, with the bulb shielded from radiant heat. Estimate percent sunshine by judging what percent time the sun is not covered by clouds that are thick enough to produce a shadow. (100% sunshine = no cloud cover and a sharp, distinct shadow; 0% sunshine = no shadows.), or use Figure A-9.1 Heat Index, or Figure A-9.2 Heat Stress Calculator.

[c] A normal work ensemble consists of cotton coveralls or other cotton clothing with long sleeves and pants.

TABLE 6.2

HEAT INDEX

	ENVIRONMENTAL TERMPERATURE (Fahrenheit)										
	70	**75**	**80**	**85**	**90**	**95**	**100**	**105**	**110**	**115**	**120**
RELATIVE HUMIDITY											
0%	64	69	73	78	83	87	91	95	99	103	107
10%	65	70	75	80	85	90	95	100	105	111	116
20%	66	72	77	82	87	93	99	105	112	120	**130**
30%	67	73	78	84	90	96	104	113	123	**135**	**148**
40%	68	74	79	86	93	101	110	123	**137**	**151**	
50%	69	75	81	88	96	107	120	**135**	**150**		
60%	70	76	82	90	100	114	**132**	**149**			
70%	70	77	85	93	106	124	**144**				
80%	71	78	86	97	113	**136**					
90%	71	79	88	102	122						
100%	72	80	91	108							

*Combined Index of Heat and Humidity...what it "feels like" to the body
Source: National Oceanic and Atmospheric Administration

How to use Heat Index:

1. Across top locate Environmental Temperature
2. Down left side locate Relative Humidity
3. Follow across and down to find Apparent Temperature
4. Determine Heat Stress Risk on chart at right

Apparent Temperature	Heat Stress Risk with Physical Activity and/or Prolonged Exposure
90-105	Heat Cramps or Heat Exhaustion Possible
105-130	Heat Cramps or Heat Exhaustion Likely, Heat Stroke Possible
>130	Heat Stroke Highly Likely

Note: Exposure to full sunshine can increase Heat Index values by up to 1 degrees

EXHIBIT 6-1
SH&E Inspection Checklist (Sheet 1 of 2)

Project Name:	Date/Time:
Project Number:	Signature:

Observation Details – Provide a description of the task observed including items such as: titles and company of observees, work activities, site/traffic conditions and weather as well as general positive comments observed during the observation.

Check the appropriate box during your inspection or indicate N/A. Add observations in the comments section for Safe and At-Risk items. At-Risk items must have a comment to describe what was observed.

1 - Observation - PPE	Safe	At Risk	Comments
1. Fall protection utilized per AHA requirements			
2. Hearing protection worn per AHA requirements			
3. Hand protection worn per AHA requirements			
4. Eye/Face protection worn per AHA requirements			
5. Foot protection worn per AHA requirements			
6. Respiratory protection worn per AHA requirements			
7. Head protection worn per AHA requirements			
8. Reflective vest, clothing etc. worn per AHA requirements			
9. PPE inspected and in good condition			
2 - Observation – Body Use and Positioning	**Safe**	**At Risk**	**Comments**
10. Uses proper Lifting/Carrying/Pushing Safety in Motion Techniques			
11. Faces machine or ladder and maintains 3 point contact when mounting and dismounting			
12. Keeping hand and body parts away from pinch points			
13. Body parts and body out of line of fire			
3 - Observation – Work Environment	**Safe**	**At Risk**	**Comments**
14. Work areas and pathways clear of slip and trip hazards; uneven surfaces addressed			
15. Site free from obstructions and housekeeping maintained			

Exhibit 6-1
SH&E Inspection Checklist (Sheet 2 of 2)

16. Work zone defined and/or secured			
17. Maintains adequate lighting and illumination			
18. Wastes properly stored, secured and disposed of			
19. Decontamination techniques performed per AHA and task requirements			
4 - Observation – Operating Procedures	Safe	At Risk	Comments
20. Take 5/Job Plan/Pre Job Inspection Performed			
21. Held and documented toolbox safety meeting			
22. Reviewed, modified as needed and signed AHA			
23. Permits complete and present at job site			
24. Interfaces with other personnel effectively			
25. Identified and documented subsurface structures and utilities using Pre Drill/Subsurface Checklist			
Observation – Tools and Equipment	Safe	At Risk	Comments
26. Inspects tools and equipment			
27. Chose the right tool for the job			
28. Uses tools only for their intended purpose			
29. Air monitoring equipment is in use and calibrated			
30. Vehicle and equipment parked to allow for first move forward/backed in when possible/chocks in use/GOAL performed/Parking Brake set			

Corrective Actions and Root Cause Analysis				
Root Cause	1.	Lack of skill or knowledge	5.	Lack of or inadequate procedures
	2.	Done it that way before and no incident occurred	6.	Inadequate communication of expectations
	3.	Supervisor allowed questionable behavior to occur	7.	Inadequate tools or equipment
	4.	Following JSA takes more time or effort		

At Risk Items (IndSafe Problem Description)	Root Cause Number (IndSafe Comments)	Solution (IndSafe Recommendation)	Responsible Party	Target Completion Date	Actual Completion Date

EXHIBIT 6-2
COMPLETED ACTIVITY HAZARDS ANALYSIS EXAMPLE
PAGE 1 OF 3

Activity/Work Task: Entering Excavation	Overall Risk Assessment Code (RAC) (Use highest code)					**M**
Project Location:	**Risk Assessment Code (RAC) Matrix**					
Contract Number:	**Severity**	**Probability**				
Date Prepared (MM/DD/YY):		Frequent	Likely	Occasional	Seldom	Unlikely
Prepared by (Name/Title):	Catastrophic	**E**	**E**	**H**	**H**	**M**
	Critical	**E**	**H**	**H**	**M**	**L**
Reviewed by (Name/Title):	Marginal		**M**	**M**	**L**	**L**
Employer / BU: Parsons	Negligible	**M**	**L**	**L**	**L**	**L**

Notes: (Field Notes, Review Comments, etc.)
References:

Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above).
The RAC is developed after correctly identifying all of the hazards and fully implementing all controls.

"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.

"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible

Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.

RAC Chart

E = Extremely High Risk
H = High Risk
M = Moderate Risk
L = Low Risk

Job Steps	Hazards	Controls	P	S	RAC
1. Arrival, passing near, and/or around the excavation	1.1 Absence of edge protection and warning signs.	1.1.1 Maintain a safe distance away from the edge of the excavation. 1.1.2 Ensure that the edge protection and warning will be immediately provided. 1.1.3 Ensure gangways are provided across trenches to eliminate jumping over the trench.	S	Cr	M
	1.2 Presence of tension cracks near the edge of the excavation and evidence of soil collapse.	1.2.1 Maintain a safe distance away from the edge on the excavation. 1.2.2 Ensure that no materials are placed on the excavation edge. 1.2.3 Follow warning signs onsite.	S	Cr	M

EXHIBIT 6-2
COMPLETED ACTIVITY HAZARDS ANALYSIS EXAMPLE
PAGE 2 OF 3

Activity/Work Task: Entering Excavation		**Overall Risk Assessment Code (RAC) (Use highest code)**			**M**
Project Location:		**Risk Assessment Code (RAC) Matrix**			
Job Steps (Cont'd)	Hazards	Controls	P	S	RAC
2. Entering the excavation	2.1 Access and Egress – Unsafe Ramp.	2.1.1 Look ahead and be aware of moving plant and vehicles. 2.1.2 Keep the hands free (not in the pocket) while walking 2.1.3 Avoid slippery surfaces (oil, water mud, stones, etc.) 2.1.4 Ensure that ramp/walkway is adequately illuminated. 2.1.5 Keep scanning the floor; avoid obstacles, such as building material, cables, and tools.	S	M	L
	2.2 Access and egress – Unsafe Ladder.	2.2.1 Ensure that the top and bottom ends of the ladder are secure. 2.2.2 Make a visual inspection to ensure that the ladder is safe and sound. 2.2.3 Ensure that the ladder will extend one meter clearance on top. 2.2.4 Ensure that ladder is free from oil, grease, or mud. 2.2.5 Maintain three-point contact. 2.2.6 Check for proper angle of the ladder (4:1). 2.2.7 Do not use job made ladder unless certified. 2.2.8 Do not carry a load on a ladder. 2.2.9 Only one person at a time will use a ladder. 2.2.10 Ensure that adequately illumination is provided onsite.	S	Cr	M
	2.3 Access and egress – Unsafe Stairs.	2.3.1 Check for the proper angle of the stairs. 2.3.2 Check if the tread is anti slip. 2.3.3 Ensure that railing is in good condition. 2.3.4 Maintain 3-point contact. 2.3.5 Ensure that stairs treads is free from oil, grease or mud. 2.3.6 Ensure that adequately illumination is provided on site. 2.3.7 Ensure all stairs of 4 or more risers have a hand rail.	S	Cr	M
	2.4 Access and egress - Unsafe man basket.	2.4.1 Ensure third party certification of the man basket and crane. 2.4.2 Perform a pre-use inspection on the man basket to ensure that it is in good condition 2.4.3 Check for the safe working load (SWL) of the man basket. 2.4.4 Check for the full body harness and adequate anchor point 2.4.5 Ensure that the crane operator and rigger are all certified.	S	Cr	M

EXHIBIT 6-2
COMPLETED ACTIVITY HAZARDS ANALYSIS EXAMPLE
PAGE 3 OF 3

Activity/Work Task: Entering Excavation		**Overall Risk Assessment Code (RAC) (Use highest code)**			**M**
Project Location:		**Risk Assessment Code (RAC) Matrix**			
Job Steps (Cont'd)	Hazards	Controls	P	S	RAC
3. Walking inside the excavation	3.1 Falling Materials	3.1.1 Ensure that materials are not placed on the edge. 3.1.2 Follow all mandatory signs and out of bound areas 3.1.3 Ensure that basic PPE is worn (hard hat, safety glass, safety shoes). 3.1.4 Ensure no overhanging or undermined sides.	S	M	L
	3.2 Falls on same level	3.2.1 Use designated route and walkway. 3.2.2 Look ahead and be aware. 3.2.3 Keep hands free (not in pocket) while walking onsite. 3.2.4 Follow mandatory signs onsite.	S	M	L
	3.3 Signs of cracks or collapse on the sides of the excavation	3.3.1 Work should be stopped and adequate support system shall be installed to prevent cave-ins.	S	Cr	M
4. Walking on elevated areas of the excavation	4.1 Falls from Height	4.1.1 Ensure that edge protection is in place. 4.1.2 Follow mandatory warning signs onsite. 4.1.3 Do not approach near unprotected edges. 4.1.4 Use designated routes and walkways. 4.1.5 Do not stop on and/or over covered voids, where possible.	S	Cr	M
5. Passing a noisy area in the excavation	5.1 Noise	5.1.1 Check if the contractor has conducted noise survey. 5.1.2 Follow mandatory use of PPE.	S	M	L
6. Passing near Moving Equipment and Vehicles on or near the excavation	6.1 Moving Equipment and Vehicles	6.1.1 Wear high-visibility vest. 6.1.2 Use designated walkways. 6.1.3 Do not pass behind moving equipment and vehicles.	S	Cr	M
7. Passing live utilities	7.1 Live Utilities	7.1.1 Coordinate with the contractor regarding presence of any live utilities. If so, ensure that control measures are provided. 7.1.2 Follow mandatory signs and out of bound areas.	S	Cr	M
8. Passing flooded areas	8.1 Flooding and presence of water in the excavation/trench	8.1.1 Check for the weather condition before entering the excavation. Exit if heavy rain starts. 8.1.2 Ensure water intrusion is controlled by dewatering	S	M	L

EXHIBIT 6-3 ACTIVITY HAZARDS ANALYSIS TEMPLATE
PAGE 1 OF 2

Activity/Work Task:	Overall Risk Assessment Code (RAC) (Use highest code)					
Project Location:	**Risk Assessment Code (RAC) Matrix**					
Contract Number:	**Severity**	**Probability**				
Date Prepared (MM/DD/YY):		Frequent	Likely	Occasional	Seldom	Unlikely
Prepared by (Name/Title):	Catastrophic	**E**	**E**	**H**	**H**	**M**
	Critical	**E**	**H**	**H**	**M**	**L**
Reviewed by (Name/Title):	Marginal		**M**	**M**	**L**	**L**
Employer / BU: Parsons	Negligible	**M**	**L**	**L**	**L**	**L**

Notes: (Field Notes, Review Comments, etc.)
References:

Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above).
The RAC is developed after correctly identifying all of the hazards and fully implementing all controls.

"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.

"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible

Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.

RAC Chart

E = Extremely High Risk
H = High Risk
M = Moderate Risk
L = Low Risk

Job Steps	Hazards	Controls	P	S	RAC

EXHIBIT 6-3 ACTIVITY HAZARDS ANALYSIS TEMPLATE
PAGE 2 OF 2

Activity/Work Task: Entering Excavation	**Overall Risk Assessment Code (RAC) (Use highest code)**	
Project Location:	**Risk Assessment Code (RAC) Matrix**	

Job Steps (Cont'd)	Hazards	Controls	P	S	RAC

Equipment to be Used	Training Requirements/Competent or Qualified Personnel name(s)	Inspection Requirements

EXHIBIT 6-4
NOTICE OF SUBCONTRACTOR VIOLATION OF SH&E REGULATIONS

Date:		
Contractor Name:		
Address:		
Attention:		

This letter officially notifies you that you have been found to be in violation of the following Safety, Health, and Environmental Regulations: _____
on (date) _____, by _____

Confined Space Entry	☐	Lockout/Tagout	☐	Hot Work	☐	Personal protective equipment
Knowledge of environmental requirements	☐	Awareness of warning alarms	☐	Evacuation routes	☐	Backup alarms
Assembly locations	☐	Fall Protection	☐	Scaffolding	☐	Environmental/hazardous material storage
Trenching	☐	Safe Work Practices	☐	Security Practices	☐	Spill to the environment
Waste storage or disposal	☐	Wastewater discharge	☐	Buried items	☐	Violation of environmental regulation

Other: _____

Environmental:

This/These violations occurred at the following locations: _____

At the following times and dates:

The name of the employee(s) was (were):

Pweb link: Notice of Subcontractor Violation

EXHIBIT 6-5
NOTICE OF NONCOMPLIANCE WITH SH&E REGULATIONS

Under conditions of this enforcement procedure check all items that apply:

☐	1.	You are being notified of this violation and should take corrective action to prevent a reoccurrence. The corrective action shall be documented to the Parsons Construction Management representative immediately.
☐	2.	You must submit a plan for compliance to your Parsons Construction Management representative and the Construction Safety Manager within two days of receipt of this letter. The compliance plan must include the means or methods of compliance and the date that the requirements for compliance will be completed. Once compliance has been achieved, a follow up letter must be sent to the Parsons Construction Management representative and Construction Safety Manager. Failure to comply will result in disciplinary action against your Company.
☐	3.	You are required to review the stated procedures with your Parsons Construction Management representative. Work may not commence on the site until the review is complete and the Subcontractor responds formally that the procedure is understood and will comply.
☐	4.	You are required to review the stated procedures with your Parsons Construction Management representative. Work may not commence on the site until the review is complete and you must confirm formally the disciplinary action to be taken against the supervisor and employees.
☐	5.	All work on the site will stop until the Parsons Construction Management representative reviews all the facts with the Subcontractor and determines if the contract between the parties will be terminated.

Sincerely,

Parsons Representative

cc:
Issuing Construction Manager Representative
Job File
BU Safety Director
PM

Pweb link: Notice of Subcontractor Noncompliance

SECTION 7

SAFETY TRAINING

7.1 PROJECT SAFETY ORIENTATION

The Parsons PM, Project Engineer, or SSO conducts the site-specific orientation for all new Parsons' staff and subcontractor management personnel.

The Orientation takes approximately two hours to complete and includes applicable owner, Parsons, and regulatory reference material, including:

- Owner – SH&E requirements
  - Applicable regional, municipal, and local regulations and if applicable and in the United States or its territories OSHA 1910 General Industry and 1926 Construction Regulations and
- Parsons applicable requirements, including items covered in Section 4.2
- Subcontractor requirements

All visitors must receive a brief orientation as described in Section 4.2, and be escorted by the PM, Project Engineer, SSO, or a designee familiar with the potential hazards on the project.

Subcontractors must conduct similar orientations for their staff and craft employees and must document all orientations using the Subcontractor Employee Training Acknowledgement Form (Exhibit 7-1) and Subcontractor Competent Persons Form (Exhibit 7-2). The project Talent Manager maintains orientation documents and acknowledgement forms.

7.2 ZERO INCIDENT TECHNIQUES / START TRAINING

Consistent with Parsons corporate initiatives in safety, all managers and supervisors, including subcontractor personnel, must complete START training. Records of training completion are maintained by the SSO and forwarded to the Market SH&E Director.

7.3 DAILY TOOLBOX SH&E MEETINGS

Parsons and its subcontractors conduct toolbox safety meetings at the beginning of day when field work is occurring. These meetings include topics relevant to upcoming work, review of applicable AHAs, remind employees of SH&E work procedures established for the tasks, and may include reviews of recent incidents. The toolbox training content and attendance is documented and retained (Exhibit 7.3). Supervisors should always ask whether any workers have questions before they are released for work

7.4 ACTIVITY HAZARD ANALYSIS TRAINING

When the activity hazards analysis is complete, the Parsons supervisor or subcontractor conducts a training session with all employees involved with the analyzed task. The training may be informal and at the site where the task is performed. Employees should be given an opportunity to provide input regarding task steps, hazards identified, and appropriate control measures.

7.5 REGULATORY TRAINING PROGRAMS

Regional, municipal, local, and OSHA regulations require specific training in certain circumstances. Based on the SOW and meetings with regulatory officials, the following training topics are provided on the project:

- Hazard Communication – as per 29 CFR 1910.1200
- CPR/AED/First aid – provided to personnel based on project activities identified in the Scope of Work (i.e., life threatening) and EMS response time (i.e., less than 15 minutes). See Section 6.9.
- Emergency response – only applicable to workers engaged in emergency response as per 29 CFR 1910.120(q).
- Fire Protection

If needed, the following training topics may be provided on the project as applicable:

- General – all workers engaged in activities which are potentially exposed to hazardous substances and health hazards must be trained to meet 1910.120(e)(1). Annual 8-hour refresher training as per 29 CFR 1910.120(e)(3) is required for workers and supervisors must be trained to meet 29 CFR 1910.120(e)(4).
- Respiratory protection – as per 29 CFR 1910.134. Medical qualification by a physician is required to wear a respirator. Annual fit testing and training is also required.
- Excavation/trenching – as per 29 CFR 1926.651.
- Respiratory protection
- Lockout/Tagout (LOTO)
- Power operated hand tools

The PM determines the necessary training and coordinates the training with the Parsons' SH&E experts certified in the topics they instruct.

7.6 SPECIALIZED TRAINING AND ORIENTATIONS.

Project personnel receive specialized training on client rules and requirements as well as the unique tools, equipment, and procedures used to perform the work. The project budget includes funding for the following training:

Description	Attendees	Schedule
General rules and safety requirements	All workers assigned to the site	Half-hour training session, provided to new employee on the first day of work at the site.
Honeywell Contractor Safety Handbook (Attachment E)	All workers assigned to the site	Handbook should be provided for review during site orientation training.
Additional To Be Determined		

EXHIBIT 7-1
INITIAL SUBCONTRACTOR EMPLOYEE TRAINING ACKNOWLEDGEMENT

Name of Trainer: _____

Training Subject: _____

Training materials used: _____

Name of employee: _____

Date of hire/assignment: _____

I, _____, hereby certify that I have received training as described above in the following areas:

- Names of personnel responsible for site safety and health.
- Safety, health or other hazards at the site.
- The proper use of personal protective equipment.
- The potential occupational hazards in general in the work area and associated with my job assignment.
- Work practices by which a worker can minimize risks from hazards.
- Safe use of engineering controls and equipment on the site.
- Acute effects of compounds on the site.
- Decontamination procedures.
- General safety requirements indicate the safe work conditions, safe work practices and personal protective equipment required for my work.
- The hazards of any chemicals to which I may be exposed and my right to information contained on material safety data sheets for those chemicals, and how to understand this information.
- My right to ask questions, or provide any information to the employer on safety either directly or anonymously without any fear of reprisal.
- Disciplinary procedures the employer will use to enforce compliance with general safety requirements.

I understand this training and agree to comply with general safety requirements for my work area.

_____ _____

Employee Signature Date

EXHIBIT 7-2
SUBCONTRACTOR COMPETENT PERSON FORM

Definition

A competent person is a person having the ability to recognize existing and predictable hazards and having the authority to correct them.

Responsibility

The designated subcontractor competent person is responsible for recognizing and correcting safety risks/hazards. This person has the authority to stop work in a potential safety concern on the jobsite. This Subcontractor Manager and competent person are considered the contacts for Parsons projects.

This form must be completed by each subcontractor's manager and the subcontractor's designated competent persons. *Where a subcontractor is responsible for multiple crafts, it will be necessary to maintain additional designated competent persons and forms.* Each subcontractor on a Parsons project must submit this completed form to the Parsons Project Manager before beginning work on the project and must update it any time the designated representative(s) changes.

Acknowledgment

I,_____ representing, _____
Subcontractor Manager Subcontractor Company Name

have assigned _____ to be the competent person in the areas indicated and I _____ acknowledge that this individual has been thoroughly trained and is experienced in hazard recognition and has the authority to stop work and correct hazards in the event of a potential hazardous or imminent danger situation.

_____ _____
Subcontractor Manager (Signature) Date

I, _____ acknowledge that I have been thoroughly trained and have the experience
Competent Person (Signature)

to perform the duties as the _____competent person in the areas marked below and
Subcontractor Company Name

I understand that I have the responsibility and authority to correct hazards and to stop work in the event of a potential hazardous or imminent danger situation.

_____ Asbestos	_____ Hearing Protection	_____ Welding/Cutting
_____ Respiratory Protection	_____ Scaffolding	_____ Rigging
_____ Cranes/Derricks	_____ Electrical	_____ Lead
_____ Fall Protection	_____ Ladders	_____ Excavations/Trenches
_____ Demolition	_____ Tunnels/Shafts	_____ First Aid/CPR
_____ Underground Const.	_____ Material/Personnel Hoists	_____ Concrete/Forms/Shoring
_____ Marine Work/Diving	_____ Bolting/Riveting/Fitting	_____ Mechanical Demolition

Exhibit 7-3
Safety Meeting Sign-In Sheet

Safety Meeting Presenter: _____ Date: _____

Current Weather Conditions:

Temperature (^{o}F) = _____ Wind Direction = _____ Wind Speed = _____

Clear – Sunny – Cloudy – Rain – Snow Forecast = _____

Current Site Conditions (circle as appropriate):

Dry – Wet – Muddy – Frozen – Snow Covered – Other (describe) _____

1. Incidents or Injuries to report from Previous Day Activities: No □ Yes □ - explain below:

---

2. Safe and/or At-Risk Observations from Previous Day Activities:_____

---

3. Activities Taking Place Today: _____

---

3. Anticipated Hazards: _____

---

4. Engineering Controls-Work Practices-PPE to Protect Against Hazards: _____

---

5. Additional Safety Topic or Comments: _____

PRINTED NAME	SIGNATURE	COMPANY

SECTION 8

RECORD KEEPING AND POSTING

Parsons and its subcontractors must comply with the recordkeeping requirements of the regional, municipal, local, and/or OSHA regulations, Owner, Parsons Corporation, and this PSHEP, including:

- OSHA 300A logs
- Medical treatment and follow-up
- Cranes
- Heavy equipment inspection logs
- Fall protection
- Training
- Inspections
- Audits
- Others as required

Parsons Talent Management and the SH&E Manager are the official recordkeepers for files relating to Parsons' employees. Each subcontractor maintains its own files.

The project displays regional, municipal, local, and/or OSHA regulations posters in conspicuous places, as required by regional, municipal and local regulations, including one poster on the main bulletin board located outside in the H&S/State bulletin board outside of the craft labor trailer.

The OSHA 300 log for the project or the Market shall be posted from February 1 – April 30 of each calendar year.

SECTION 9

SAFETY AND HEALTH REQUIREMENTS

Exhibit 9-1 represents regional, municipal, local, and/or OSHA regulations, owner, and Parsons corporate regulations and requirements applicable to the project. Based on the most recent risk assessments, the Parsons PM and SSO update the listed topics periodically. Training and other requirements are updated in this PSHEP as required by changes to Exhibit 9-1, Competent Person and Activity Hazards Analysis Requirements.

The SH&E Legal Compliance Register is included as Attachment H. This document identifies the SH&E legislation, standards, codes, and regulations relevant to Parson's activities during this project.

Parsons and its subcontractors are individually responsible for training their respective employees and for complying with all project requirements. Failure to comply could lead to disciplinary actions against Parsons' employees and subcontractors or their employees. Further guidance is available in the Parsons Corporate Safety and Health Manual; Pweb link is as follows: Corporate Safety and Health Manual.

EXHIBIT 9-1
COMPETENT PERSON AND ACTIVITY HAZARDS ANALYSIS REQUIREMENTS

Safety and Health Requirement	OSHA Regulation	EM 385-1-1 Regulation	Competent Qualified Person-Supv	Training Required	AHA Required
1. General Safety & Health	1926.20	01.A	*Yes*	*Yes*	*Yes*
2. Safety Training	1926.21	01.B.01	*Yes*	*Yes*	*Yes*
3. First Aid and Medical	1926.23, 50	03.A	*Yes*	*Yes*	*Yes*
4. Fire Protection and Prevention	1926.24, 150-155, 352	09.A	*Yes*	*Yes*	*Yes*
5. Housekeeping	1926.25	14.C	*N/A*	*N/A*	*N/A*
6. Sanitation	1926.27, 51	02.A	*N/A*	*N/A*	*N/A*
7. Personal Protective Equipment	1926.28, 95-98, 100-107	05.A	*Yes*	*Yes*	*Yes*
8. Emergency Employee Action Plans	1926.35	01.E	*Recommended*	*Yes*	*Yes*
9. Noise Exposure	1910.95; 1926.52	05.C	*Yes*	*Yes*	*Yes*
10. Gases, Vapors, Dusts and Mists	1926.1926.55		*Yes*	*Yes*	*Yes*
11. Hazard Communication	1926.59	1.B.06	*Yes*	*Yes*	*Yes*
12. Hazardous Waste Operations and Emergency Response	1910.120; 1926.65	28.A	*Yes* *Supv – 8 hr*	*Yes*	*Yes*
13. Accident prevention signs and tags	1926.200	08.A	*N/A*	*N/A*	*N/A*
14. Signaling	1926.201	08.B	*Recommended*	*N/A*	*Yes*
15. Barricades	1926.202		*N/A*	*N/A*	*N/A*
16. Material Storage	1926.250	14.B	*N/A*	*Yes*	*Yes*
17. Waste Disposal	1926.252	14.D	*Yes*	*Yes*	*Yes*
18. Tools	1926.300-307	13.A	*N/A*	*N/A*	*Yes*
19. Motor Vehicles, Mechanized Equipment	1926.600-603	18.A	*Yes*	*Yes*	*Yes*
20. Site Clearing	1926.604	31.A	*N/A*	*Yes*	*Yes*
21. Excavations	1926.650-652	25.A	*Yes*	*Yes*	*Yes*
22. Excavation Permit	N/A	N/A	*Yes*	*Yes*	*Yes*
23. Internal Traffic Control	N/A	8.D	*N/A*	*Yes*	*Yes*
24. Traffic Movement Restriction Times	N/A	8.C	*N/A*	*Yes*	*Yes*
25. Boating	General Duty	-	*Yes*	*Yes*	*Yes*

ATTACHMENT A

PARSONS REQUIREMENTS

On-Line Safety Reporting System

Policy Requirements

- Initial incident reports for all incidents, including near misses, shall be reported within 2 hours.
- Detail incident reports are required within 24 hours.
- Reporting is done via on-line (PWeb) incident report form.
- Injuries with Days Away from Work - immediate supervisor and PM must teleconference with GBU President within 4 hours.
- Projects enter hours via on-line form by FIRST Friday of new period.

Reporting Incidents

Corporate policy requires that all employees report safety incidents to their supervisor immediately. Supervisors must report all incidents to the appropriate Project Manager (Department Manager if the incident is not related to a project), who must officially report the incident to the GBU within four hours. This official reporting is done via the PWeb, unless PWeb is unavailable, in which case the incident can be reported by email, fax or telephone.

"Incidents" include work related injuries, work related illness, accidents with property damage only and near misses. "Near misses" are any unplanned event that had the potential to (but did not) result in injury or property damage.

Incident reports should reflect the best available information at the time. Where exact information is not known (recordability, days away from work, etc.) the PM's best judgment should be used when completing the initial incident report. This information can be subsequently revised when the detail incident report is submitted.

When in doubt, submit an initial report or contact the GBU Safety Manager.

On-line Reporting System

The on-line reporting system can be found on the PARCOMM Safety Page on PWeb. To locate the system, follow these steps:

1. From the Corporate PWeb Homepage, select PARCOMM from the Org Units menu
2. Locate and select "Safety" from the header
3. Select the "Online Safety Reporting" link

To create and submit a new incident report, select the orange "Add" button from the main page of the reporting system. To update and existing incident report or complete the Detail Incident page, locate and select the appropriate incident from the list.

Creating or Updating Incidents

The Initial Incident page of the report must be completed within four hours of the incident occurring. This page includes basic information needed for the first notification to our insurance carriers. If possible, all of the fields should be completed in the initial report. A list is provided at the end of this document describing all fields contained on the initial incident page.

Incident Detail Reports

Within 24 hours of the incident occurring, the Incident Detail page of the on-line report must be completed. This page includes detailed information about the injured party, the nature and extent of injuries, medical treatment provided, corrective actions taken, and witness statements. In the event of property damage, this page also includes descriptive information on the property owner. Finally, the page includes a section to include electronic attachments. These might include photographs, signed witness statements, etc.

Monthly Reporting of Hours

Hours must be entered into the on-line reporting system no later than the first Friday of the new period. If an accurate accounting of hours is not available, estimated hours are submitted into the system. The estimated hours can be revised later in the month, or the following month, when accurate data is available.

From the "Hours" page, select "PAR" from the GBU drop down menu and the period (month and year) that is being reported. The system only allows hours to be entered for the period selected. MTD and PTD figures are calculated totals based on the sum of all monthly entries. To enter or correct a prior period entry, simply select that month from the drop-down box and correct the figures for that month. If the name of your "Project" is not alphabetically listed on any of the multiple pages, then select "Field Administration/Other – Industrial".

Be sure to select the correct month and year when entering hours.

Hours must be entered for each (as applicable) of six different labor categories. The categories are as follows:

- Contractor (Field/Craft)
- Contractor (Office/Admin)
- JV Partner (Field/Craft)
- JV Partner (Office/Admin)
- Parsons Employee (Field/Craft)
- Parsons Employee (Office/Admin)

Monthly Statistics Summary Reports

The on-line reporting system automatically calculates incident rates based on incidents and hours entered into the system. To view the statistics, select the "Reports" page from the on-line system. Select "Parsons Safety Statistics Summary", the appropriate GBU, and the appropriate period. (NOTE: The system does not yet provide reports at the Division and Sector level. That enhancement is pending.) Use the checkboxes to select the labor categories desired.

Contact Brad Barber or Greg Beck for Assistance

Initial Incident Report Fields

1. GBU – Select the GBU from the drop down box. Incidents are reported primarily by project, and the GBU should reflect the unit responsible for the project. This may be different from the GBU that employees the person injured.
2. Field Project Name, Office Location or Other – if the injury occurred in the field, then select the appropriate name from the alphabetical listing in the "Field Project" drop down box. If an appropriate name does not exist, select "Field Administration/Other-Industrial". If the incident occurred in a Parsons office, select the office name from the "Office Location" drop down box. ONLY select Field Project or Office Location, not both (or Other). If the appropriate Office Location is not provided, manually enter it into the "Other" box.
3. Job and WBS Numbers – These fields should reflect the charge number responsible for the incident. In general, that will be the number that the employee was charging at the time of the incident. Projects are responsible for visitors, regardless of what charge number they use while visiting the job. For example, if the Division Manager is injured while visiting Project X, the project number is entered, not the division overhead account.
4. Near Miss – Check this box if the report is for a near miss only (no injury or property damage occurred).
5. Emergency Response Notified – Check this box if fire, police or ambulance was called as a result of the incident.
6. Three or More Employees Hospitalized – Check this box if three or more employees were injured as the result of a single incident. In this case, the GBU or Corporate Safety Manager must also be immediately notified by telephone.
7. Extent of Injury – Select the appropriate radio button. First aid cases are as defined by OSHA 1904 criteria. All other injuries are considered recordable.
8. Restricted Duty (# of days) – If the injured person was limited (by a physician) to less than normal work duration or duties, enter the number of days. Estimate the days if unknown, and correct the number later. NOTE: this is the number of CALENDAR days (not scheduled work days), and it does NOT include the day of the injury.
9. Days Away From Work (# of days) – If the injured person was ordered by a physician not to return to work, enter the number of days missed. Estimate the days if unknown, and correct the number later. NOTE: this is the number of CALENDAR days (not scheduled work days), and it does NOT include the day of the injury. Injuries with Days Away From Work require a phone call to the GBU President within 4 hours.
10. Fatality (Date of Death) – In the event of a work related fatality, enter the date of death here. NOTE: Fatalities require immediate phone notification of the Division Manager, GBU President, GBU Safety Manager, and Corporate Safety Manager.
11. Property Damage – Check the appropriate boxes if applicable.
12. Place – Describe the exact location that incident occurred. For example, "in the north stairwell of building 21, between the second and third floor."
13. Date – This field reflects the date the incident occurred, not necessarily the date it was reported. If the exact date is not known, an estimate should be used.
14. Time – This field reflects the time of day that the incident occurred. If the exact time is not known, an estimate should be used.
15. Incident Description – Provide a detailed description of the incident. This is a memo field and text will scroll down the window as it is entered. Use as much space as needed to accurately describe the incident and the resulting injuries.
16. Reported by – This field defaults to the employee login ID that was used to access PWeb. However, the field can be over-written if needed.

17. Name – First and last name of the injured party.
18. Status – Select the most appropriate category from the drop box (Employee - Field, Subcontractor - Field, Partner - Field, Employee - Office, Subcontractor - Office, Partner - Office or 3rd Party).
19. Trade/Function – Select the most appropriate category from the drop box.

Parsons Project Incident/Accident Report Form

PLEASE PRINT

Attach all supplemental documentation, including photos, diagrams, witness statements and field reports

Project Information	Project Title		Location	
	Subcontractor			
	Address			
	City, State, Zip			
	Contact Name		Phone Number	

Incident Type	☐ **Worker's Compensation**	☐ **General Liability**	☐ **Builder's Risk**
	☐ Emergency Response Notified (Police, Fire, Medic, etc.)	☐ Bodily Injury/Illness	☐ Equipment
		☐ Real Property Damage	☐ Supplies
	☐ First-Aid Only	☐ Personal Property Damage	☐ Machinery
	☐ Recordable Injury	☐ Utility Property Damage	☐ Work

Incident Location	Date of Loss		Time of Loss	
	Place (exact location)			

Incident Description	Detailed Description of Accident

Worker's Comp Or Personal Injury (circle one)	Injured Name			
	Address			
	City, State, Zip			
	Home Phone		Date of Birth	
	Nature of Injury			
	Medical Facility		Work Status	
	Treatment Received			

Property Damage Or Builder's Risk (circle one)	Owner's Name			
	Address			
	City, State, Zip			
	Home Phone		Work Phone	
	Damage Type		Estimated Cost	
	Utility Type		Marked or Unmarked	
	Description of Damage			

Witness Information	Name			
	Address			
	City, State, Zip			
	Home Phone		Work Phone	
	Where to contact		Time to contact	

Contractor Subcontractor Action	Describe actions taken

Signature _____ Employer _____

Print Name _____ Date _____

Phone No. _____ Fax Number _____

PARSONS	NEAR MISS REPORT FORM

EMPLOYER

1. Name: _____
2. Mail Address: _____
   (No. and Street) (City or Town) (State and Zip)
3. Location :_____
   (if different from mail address)

NEAR MISS DESCRIPTION

4. Location of near miss:_____
   (No. and Street) (City or Town) (State and Zip)
5. Project: _____
6. Was place of near miss on employer's premises? Yes ( ) No ( )
7. Time of near miss: _____
8. Date of near miss: _____
9. How did the near miss occur? _____
   (Describe fully the events that resulted in the near miss.)

   _____

   Tell what happened and how. Name objects and substances involved. Give details on all factors that led to

   _____

   near miss. Use separate sheet for additional space).
10. What was employee doing when near miss occurred?_____
    (be specific-was employee using tools or equipment

    _____

    or handling material?)

    _____

WITNESS TO MISS

_____ _____
(Name) (Affiliation) (Phone No.)

_____ _____
(Name) (Affiliation) (Phone No.)

RECOMMENDATIONS TO PREVENT NEAR MISS FROM RECURRING

_____

_____

PARSONS PARCOMM®

Field/Project Monthly Report Form

Instructions: Enter the total number of labor hours spent in the field by all Parsons employees and subcontractors during the reporting period. Cost Type (CT) "04" used for WebTime labor entries should represent these hours for Parsons employees. Labor hours spent in the office are classified as CT "01" in WebTime. Incidents/near-miss incidents, air monitoring completed and the type of PPE worn by personnel (i.e. Parsons employees and contractors) must also be reported. Submit by the 3rd working day of the following month (an estimation of the monthly field hours based on number of people working on the project each day is acceptable).

Definitions and Reporting Criteria

Field Hours - time spent by the employee working at a job site or field project, even if performing office/administrative work (i.e. in a modular trailer). Working in another Parsons office or at a client's corporate/main office is not considered field hours for the purposes of this reporting.

Incident - any unplanned or unexpected event, including near-misses, first aid cases, personal injuries requiring medical treatment, vehicle or equipment damage or an environmental release.

Near-miss Incident (NI) - an unplanned or unexpected event that has the potential to result in a personal injury, vehicle or equipment damage, or environmental release, but does not occur (i.e. almost happened).

PPE - Personal Protective Equipment above Level D (work clothes) or Modified Level D (Tyvek or fire retardant coveralls). This includes Level C (chemical resistant suit and/or air-purifying respirator), Level B (chemical resistant suit and/or supplied air) or Level A (full encapsulation suit with SCBA).

Subcontractor - contractors hired by Parsons or a Parsons contractor, to perform activities in the field. Contractor company names should be listed and tracked separately in the Table below, followed by the hiring company in parentheses (i.e. Parsons or subcontractor).

Project Name:		Client:			
Project Location:		Client Contact:			
Parsons Contact:		Project #:		Month:	

Parsons and/or Contractor	Hours	Type of Activities	Incident or NI
Parsons			Yes No
			Yes No
			Yes No
			Yes No

Air Monitoring

Was there any air monitoring that took place during the month? No Yes - If "Yes", indicate below the potential hazards/chemicals monitored (i.e. O2, LEL, dust, VOCs), the monitoring equipment used (i.e. PID, FID, Draeger tubes, 4-gas, DataRAM, cassettes), whether the air monitoring results exceeded an Action Level (AL) or Permissible Exposure Limit (PEL), the level of PPE worn above Level D (C, B or A) and the number of days working in the specific PPE.

Chemical Monitored	Equipment Used	Exceed AL– Exceed PEL	PPE	Days in PPE
		Yes No - Yes		
		Yes No - Yes		
		Yes No - Yes		
		Yes No - Yes		

NOTE: If an AL/PEL is exceeded or PPE above Level D is worn, a Supplemental Information Form (available in the Industrial Division Safety Folder on ParShare) must be completed. All incidents must be reported on the PWeb (PARCOMM Online Safety Reporting System).

ATTACHMENT B

HONEYWELL REQUIREMENTS

HONEYWELL, SYRACUSE, NEW YORK
EVENT REPORTING REQUIREMENTS
REVISION 3 – 5/20/16

1. INTRODUCTION

To assure Honeywell Health, Safety and Environmental Remediation (HSER) leadership has sufficient knowledge of significant adverse events to enhance decision-making and drive improved performance, the following event reporting procedure will be followed to report Safety & Environmental Incidents and Near Misses (referred to as events in this procedure) for all Honeywell Syracuse Portfolio projects.

These requirements will be reviewed with project staff when they start working on the projects and on a regular basis thereafter.

2. CONTRACTOR REPORTING TO HONEYWELL SYRACUSE PERSONNEL

Event reporting to Honeywell management is the responsibility of Syracuse Honeywell personnel. Contractor personnel should report the incident to the Syracuse Honeywell personnel per Section 2.2 as soon as it is safe to do so. When that call is made, provide the information listed below to assist in classifying the event. *If the event involves any of the items listed under Tier 1 Events and none of the Honeywell Syracuse personnel can be reached within two hours of the event, contractor personnel should make the Honeywell contacts required in Section 3.*

2.1 INCIDENT REPORTING (Copied from the HSP2 dated May 2016)

The Alliance Partner PM and HSP^2 Safety Director or Safety Manager must be **notified** by the SHSO of any incident immediately.

After notification, **written incident reports** must be submitted by the SHSO to the HSP^2 Safety Director in accordance with time frames shown the following table. Honeywell representatives will be notified within prescribed time frames. Specific contact names and numbers will be outlined in safety plans and JSA forms.

	Tier 1 Incident	Tier 2 Incident	Tier 3 Incident
Notification to the Alliance Partner PM and HSP^2 Safety Director or the HSP^2 Safety Manager	Immediate Notification		
Notify Honeywell RES Management or Operations Manager by the O'Brien & Gere or Parsons PM	1 hr	4 Hours	12 Hours
Incident Report (written)	Written report within 24 hrs – (All known facts and updated as necessary)		
Entry into Honeywell Event Tracking System	1 Day	1 Day	1 Week

Tier 1 Examples

- One or more on-site or off-site fatalities involving an employee, contractor employee or visitor that are or may be work-related.
- A single work-related on-site or off-site incident resulting in three or more employees, contractors or visitors being admitted to a hospital.
- Any off-site fatalities to the general public that allegedly are or may be related to Honeywell.
- Any security incident that may be immediately dangerous to life or property, including, bomb threats, intentional explosions, chemical releases, radiation releases, or releases of biological/chemical agents.
- Fires that: (a) resulted in significant property damage, or, regardless of the level of damage, (b) were extinguished by a fire department using other than handheld fire extinguishers, or (c) were extinguished by a fire suppression system (other than an integrated fire suppression system within a piece of equipment) or (d) significantly halted operations.
- Suspicious materials, package or letter for which outside authorities were called in to investigate.
- Serious injuries or illnesses in the general public allegedly associated with a company-related incident, event or release to air, water or soil.
- A release to air, water or soil that has an Adverse Environmental Impact which includes a release that triggers a regulatory inquiry.
- Events generating community activism or adverse media coverage not associated with an episodic event at the national/international level.
- Government representatives alleging or suggesting criminal non-compliance of any kind.
- A regulatory agency inspection with notice of fine, penalty or corrective action that has a directive or other type of injunctive device designed or likely to halt, curtail, or restrict operations.

Tier 2 Examples

- Employee or contract employee lost workday injuries/illnesses.
- Any on-site or off-site injuries/illnesses involving an employee, contractor employee or visitor that are or may be work-related and are significant enough to be recordable (e.g., vaccination or doctor prescription).
- Minor injuries or illnesses in the general public that allegedly are associated with a company-related incident, event or release to air, water or soil.
- Suspicious activities in or around Honeywell facilities or processes that may present a potential security risk.
- Fires extinguished using handheld fire extinguisher(s) or an integrated fire suppression system internal to a piece of equipment that did minimal property damage, and did not halt operations.

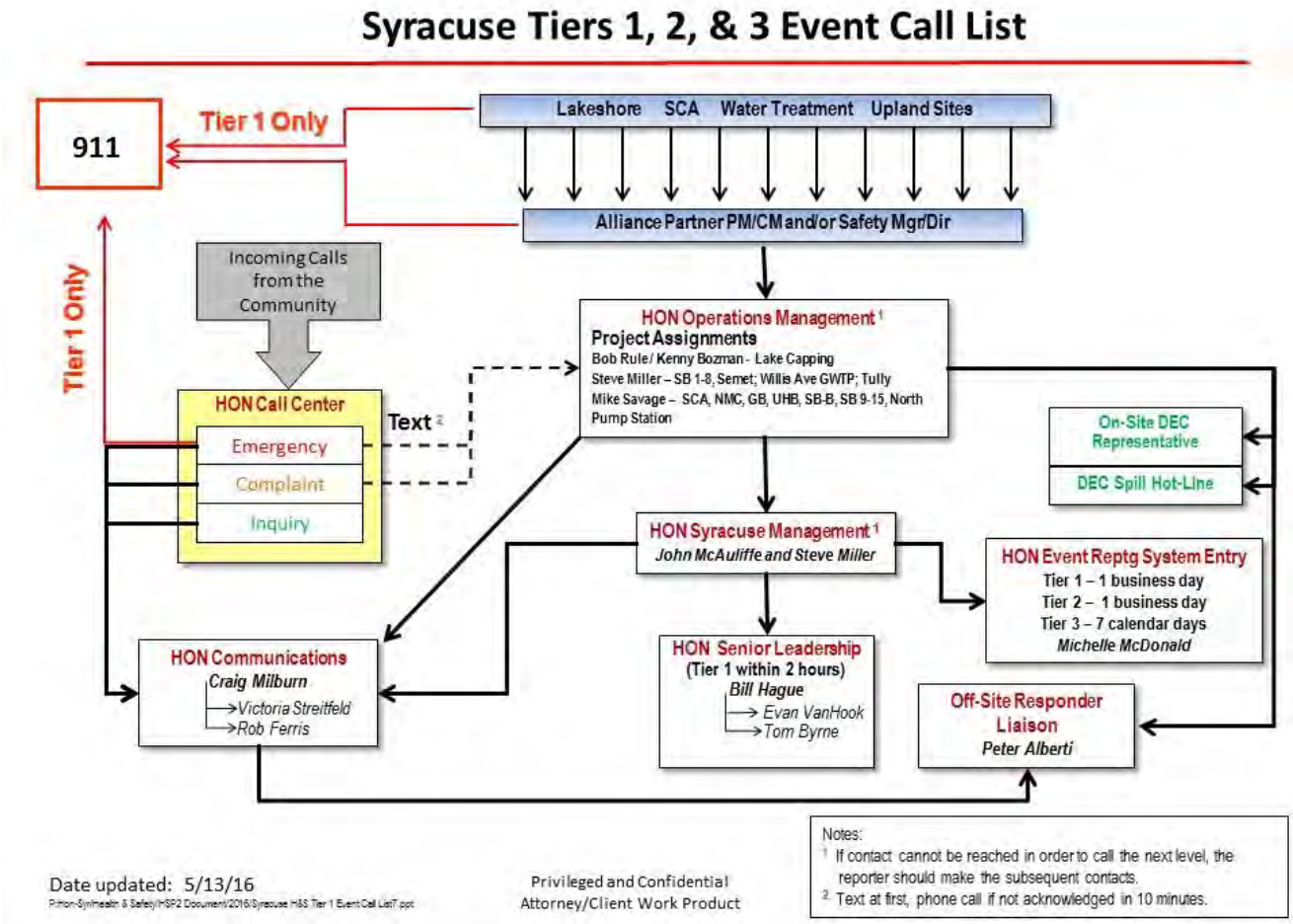
- Allegations of previously unknown health or environmental effects caused by products, processes, emissions or discharges Allegations of Adverse Health Effects, Hlth-19.
- An environmental excursion that does not also trigger Tier 1 reporting.
- Discovery of potential or actual evidence of contaminated soil or groundwater from current or former operations that does not otherwise meet the definition of an adverse environmental impact.
- Written notification from a governmental agency alleging non-compliance of any kind.
- Proposal or imposition of an HSER fine, penalty or corrective action.
- Receipt of a non-routine request for information from a governmental agency.
- A regulatory agency inspection (excluding those that are Tier 1 Events) with notice of fine, penalty or corrective action.
- An excursion from a permit condition which requires a notification to be sent to an agency that results in any notice of fine, penalty or agency corrective action.
- All HSE audits, including Corporate audits, Peer review, the annual SAT (Self-assessment tool), audits for external HSE certification processes, and SBU audits or special initiatives.
- Any evaluations made by third parties such as HSE consultants or contracted HSE services. Recommendations from such evaluations must be entered as recommendations in the Event Tracking System.
- Significant community activism or adverse media coverage not associated with an episodic event at the local/state level.
- Notice of an allegation from a third party or regulatory agency of environmental impacts from operations on current or formerly operated Honeywell facilities.
- Demands, including voluntary agreements, to conduct a site investigation or remedial measures to respond to environmental impacts from operations on current or formerly operated Honeywell facilities.
- Receipt of an information request or special notice letter associated with the disposal, transportation or storage of hazardous substances by Honeywell or its predecessors.
- Identification of any condition or circumstance which falls under the criteria of "Issues requiring TRAC approval" for which TRAC approval was NOT obtained. The Risk Assessment Committee (TRAC) - HSEMS 605.

Tier 3 Examples

- On-site or off-site employee, contractor employee or visitor injuries/illnesses where first-aid treatment or evaluation is provided by a Medical or Para-Medical Professional (e.g., with no vaccination, prescription, or lost time).

- A regulatory agency inspection (which is not a Tier 1 or Tier 2 Event, and may still be underway) with no notice of fine, penalty or corrective action.
- A notification required to be sent to an agency based on an excursion from a permit condition that does not result in any notice of fine, penalty or agency corrective action as directed by the SBG for reporting:
- Employee, contractor or visitor injuries/illnesses injury/illness where first-aid treatment or evaluation is provided by someone other than a Medical or Para-Medical professional.
- Significant near misses.
- Stewardship outreach events with customers, suppliers and/or communities, Operations successes at facilities (i.e., ISO Certification, VPP, OHSAS, local or state recognition, etc.).
- An environmental excursion that does not also trigger Tier 2 reporting.

3. TIERS 1, 2, & 3 EVENT CALL LIST (Copied from the 2016 HSP2)



Syracuse Event Call List – Phone Numbers

	Office #	Mobile #	Home #	Alternate #
HON Operations Management				
Kenny Bozman	NA	440.228.5827	NA	NA
Bob Rule	315.741.3743	865.548.6719	865.671.4981	NA
Mike Savage	315.741.3720	315.436.0765	NA	630.235.1423
HON Syracuse Management				
John McAuliffe	316.552.9782	315.440.0859	315.699.1565	NA
Steve Miller	315-741.3723	315.935.5400	315.622.5301	315.552.9713
Michelle McDonald	315.552.9783	315.415.2420	315.699.9414	NA
HON Communications				
Craig Milburn	315.552.9784	315.952.4751	315.303.4975	NA
Victoria Streitfield	973.455.5281	973.722.1324	NA	NA
Rob Ferris	973.455.3388	973.204.9621	NA	NA
Offsite Responder Liaison				
Peter Alberti	NA	315.427.7801	NA	NA
HON Senior Leadership				
Bill Hague	973.455.2175	973.896.9366	973.292.5934	315.741.3727
Evan Van Hook	973.455.4132	862.222.7705	NA	NA
Tom Byrne	973.455.2775	973.610.4816	NA	NA
NYSDEC				
Tim Larson	518.402.9676	518.402.0665	NA	315.484.2721
Bob Edwards	518.402.9676	518.469.5883	NA	315.484.2721
24-Hour Spill Hotline	800.457.7362			
Regional Spill Response - Richard Brazell	315.426.7523			315.426.7400

ATTACHMENT C

ACTIVITY HAZARD ANALYSES

Activity Hazard Analysis Master List

(to be updated as new task/activities are required)

AHA's to be developed prior to start of work:

ATTACHMENT D

SUBCONTRACTOR MODEL SUBCONTRACTOR SAFETY, HEALTH, AND ENVIRONMENT PLAN (SSHEP)

HAZWOPER Template - Subcontractor Safety Plan (SSP)

Instructions for Completing this SSP – Delete from final version

Your actual SSP will begin with the cover/signature page

Welcome to the Honeywell Syracuse Portfolio

Health and Safety Program

(HSP²)

NOTE: The yellow highlight is used to show you where instructions are and where you are to modify this template. After providing the information requested, delete the yellow highlighted instructions. You can turn the yellow highlighting feature off or on throughout the entire document by clicking on TOOLS, OPTIONS, VIEW, HIGHLIGHT, from the toolbar.

Every Subcontractor working on a Honeywell Syracuse Portfolio Site (and their lower tier subcontractors) must establish, implement and maintain a written Subcontractor Safety Plan (SSP) and a copy must be maintained at each work site. The minimum requirements for establishing, implementing and maintaining an effective written Subcontractor Safety Plan are referenced in the contract and are described more thoroughly in the Honeywell Syracuse Portfolio Health and Safety Program (HSP²) guidance document. The Subcontractor and their lower tier subcontractors shall comply with the contract terms and shall complete their SSP to include detailed and specific descriptions relating to the following elements:

- Accountability/Responsibility/Key Line Personnel
- Statement of Subcontractor's Safety and Health Policy
- Drug and Alcohol Free Workplace
- Medical Surveillance Program
- Identification of Competent/Qualified Persons
- Scope of Work Evaluation
- Hazard/Risk/Exposure Assessment
- Hazard Control Measures/Job Safety Analyses (JSA's)
- Subcontractor Periodic Safety Audits/Inspections
- Subcontractor's Risk Mitigation – Two-Week Look Ahead Plan
- Compliance Requirements Policy

- Written Progressive Disciplinary Program
- Hazard Correction Policy
- Training and Instruction
- Project Site Orientation
- Employee Communication System
- Recordkeeping
- Incident/Near Miss Incident Investigations
- Emergency Action Plan
- Site-Specific Medical Emergency Plan
- Hazard Communication Program
- Respiratory Protection Program
- Medical Surveillance Program
- Other written programs as specified by regulatory agency or contract Requirements
- SSP Review and Modifications
- Detailed List of Tables, Forms, Appendices and Attachments

This SSP template has been prepared as an aid for use by Subcontractors and their lower tier subcontractors. Subcontractors should include the scope of work and corresponding safety requirements associated with their lower tier subcontractors in their SSP, unless the lower tiered subcontractor chooses to write a similarly detailed version themselves. This model SSP template was written for a broad spectrum of subcontractor employers so it should be modified to provide the appropriate information for your scope of work. If a section of this SSP does not apply to your project, insert "not applicable" or N/A. Do not delete any sections or change the numbering sequence.

The requirements you write into this SSP must be followed and compliance to those requirements must be audited by the Subcontractor's Project Manager in order to be effective. In other words, "Plan your Work and Work your Plan".

SUBCONTRACTOR SAFETY PLAN (SSP)

Prepared For:

Honeywell Syracuse Portfolio
Health and Safety Program

(Insert Office Name - Times New Roman 12 pt.)
(Insert Street Address - Times New Roman 12 pt.)
(Insert City, State and Zip Code - Times New Roman 12 pt.)

Project Name:

(Insert Client Name - Times New Roman 12 pt.)
(Insert Project Name - Times New Roman 12 pt.)
(Insert Street Address - Times New Roman 12 pt.)
(Insert City, State and Zip Code - Times New Roman 12 pt.)

Prepared By:

(Insert Subcontractor Name – Times New Roman 18 pt. Bold)

(Insert Street Address – Times New Roman 12 pt.)
(Insert City, State, and Zip Code – Times New Roman 12 pt.)
Author: (Insert Name and Title)

REVIEWED AND APPROVED BY:

Subcontractor Project Manager: _____ _____
Date

(INSERT DATE)

TABLE OF CONTENTS

Page

TABLE OF CONTENTS (CONTINUED)

Page

LIST OF ACRYNOMS

ATV	All-Terrain Vehicle
BEI	Biological Exposure Index
CPR	Cardio Pulmonary Resuscitation
HSP^2	Honeywell Syracuse Portfolio Health and Safety Program
JSA	Job Safety Analysis
MSDS	Material Safety Data Sheet
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PM	Project Manager
PPE	Personal Protective Equipment
PSP	Project Safety Plan
SCBA	Self-Contained Breathing Apparatus
SHSO	Site Health and Safety Officer
SSP	Subcontractor Safety Plan
TLV	Threshold Limit Value

1. RESPONSIBILITY/IDENTIFICATION OF KEY LINE PERSONNEL

The following personnel have the authority and responsibility for implementing the provisions of this Subcontractor Safety Plan (SSP) for:

1.1 Site Contact Information

Project Site Location	On-site Contact No.

1.2 Key Project Personnel

Contractor:	
Address:	
Telephone:	Email:
Company Executive responsible for project:	Contact No.
Manager/Superintendent:	Contact No.
Safety Representative/Manager:	Contact No.
Key Foreperson(s):	Contact No.
Client Project Management Point of Contact:	Contact No.

All managers and supervisors are responsible for implementing and maintaining the SSP in their work areas and for answering worker questions about the SSP. A copy of this SSP is available for any employee to review.

2. STATEMENT OF SUBCONTRACTOR'S SAFETY AND HEALTH POLICY

(Include or attach your company' Safety and Health Policy Statement – not a company Health and Safety Manual or Standard Operating Procedures.)

2.1 Drug and Alcohol Free Workplace

State your company's drug and alcohol policy.

Describe your company's drug and alcohol testing requirements. At a minimum, they must meet the Honeywell Syracuse Portfolio Health and Safety Program (HSP²) requirements, summarized below:

- Pre-work. HSP² requirements call for pre-work testing for drugs and alcohol within two weeks prior to initial assignment for work on Honeywell projects, or a reasonable time frame acceptable to the Project Manager. Such testing will be repeated annually.
- Reasonable Suspicion. Project personnel may be tested if observed by trained management as exhibiting signs of use or possession of illegal drugs or alcohol.
- Post Accident. Personnel involved in an accident resulting in a fatality, disabling motor vehicle accident (requiring one or more vehicle to be towed away), injury requiring off-site medical treatment or property damage expected to result in > $5,000 in loss will be tested for drugs and alcohol.
- Random. Certain projects may be selected for random testing at the discretion of the HSP² Safety Director.

State your company's policy on the use of legally obtained prescription drugs which may affect the safe performance of a worker.

State the disciplinary measures that will result from a positive drug test or a worker's refusal to submit to drug or alcohol testing. At a minimum, workers who test positive or refuse to be tested will immediately be removed from Honeywell projects.

3. IDENTIFICATION OF COMPETENT/QUALIFIED PERSONS

(Provide the individual names and job titles of personnel assigned to the project, including the dates of training for the topics mentioned below. Add rows as necessary, and indicate the appropriate training information. Include copies of certifications in the Appendix. Include certifications for the competent/qualified personnel, when applicable.)

(If the scope of work for lower tier subcontractors is included in this SSP, then the identification of competent/qualified persons for the lower tier subs must also be included in this section).

3.1 Competent/Qualified Personnel

Name	Job Title	40-hr HAZWOPER	8-hr HAZWOPER Supervisor	8-hr HAZWOPER refresher expires	Other training (i.e. CPR, excavation, confined space)
Insert name or "Not applicable"	Insert job title	Insert date of completion	Insert date of completion or "Not applicable"	Insert expiration date	Insert date of completion

NOTE: This table may be expanded and included as an appendix. If so, describe its location.

Training requirements include:

- 40-hour HAZWOPER and 8-hour annual refresher certificates – required for general site workers (such as equipment operators, general laborers and supervisory personnel) engaged in hazardous substance removal or other activities which expose or potentially expose workers to hazardous substances and health hazard.
- 8-hour HAZWOPER Supervisor certificate – required for on-site management and supervisors directly responsible for, or who supervise employees engaged in, hazardous waste operations.
- Respirator Clearance – required for all personnel that may need to wear a half facepiece, full facepiece or supplied air respirator, or self-contained breathing apparatus (SCBA). Provide dates of training, medical clearance and fit testing. Include copies of medical clearance and fit testing records in the Appendix.
- Excavation Competent Person certificate – required for daily inspections of excavations greater than four feet in depth, the adjacent areas, and protective systems for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard increasing occurrence. These inspections are required when employee exposure can be reasonably anticipated.
- CPR/First Aid certification –A person who has a valid certificate in first-aid training from the U.S. Bureau of Mines, the American Red Cross, or equivalent training that can be verified by documentary evidence, shall be available at the worksite to render first aid in the absence of an infirmary, clinic, hospital, or physician, that is reasonably accessible in terms of time and distance to the worksite. For on-the-water activities, time, rather than

distance, is the critical factor in determining whether first aid and CPR trained personnel are required. The vessel itself shall be considered the worksite.

- Confined Space Entry (Supervisor) certificate – the employer shall ensure that each entry supervisor knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure. Verifies, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin. Terminates the entry and cancels the permit as necessary. Verifies that rescue services are available and that the means for summoning them are operable. Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations. Determines, whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained. Entrants and attendants, before assignment to a confined space operation, must demonstrate written documentation of confined space training appropriate to their assignment.

No worker will enter the exclusion zone, be exposed to hazardous substances or conditions or be assigned work unless they are properly trained, and the up-to-date documentation of such training has been submitted in advance.

4. SCOPE OF WORK EVALUATION

The work activities that will take place are described below. Activities of lower tier subcontractors will either be included in this section, or the lower tier subcontractor will complete their own SSP.

For this project, there *(insert "will" or "will not")* be any lower tier subcontractors. Lower tier subcontractor activities *(insert "are" or "are not")* included in this section. *(If there will be lower tier subcontractors, include the statement and table below):*

4.1 The lower tier subcontractors that will be working on the project will be:

SUBCONTRACTOR	WORK ACTIVITIES	HONEYWELL EVALUATION GRADE
Insert Company Name or N/A	i.e. Groundwater Sampling	B (for example)

NOTE: Each subcontractor must complete an HSP² Contractor Safety Evaluation package before being eligible to work on a Honeywell Syracuse Portfolio Project. Your Project Manager

or contact person will have access to a database of contractors that have submitted a Contractor Safety Evaluation package to determine the Evaluation Grade. If a "C" or "D" grade contractor is listed, justification must be included why the subcontractor is being used rather than an "A" or "B" grade subcontractor. Additional oversight and controls are required for the use of "C" or "D" contractors.

Major Activities of Contractor – describe activities in bullet format, in some degree of detail.

Major Activities of lower tier subcontractor(s) – describe activities in bullet format or insert "Not Applicable."

5. HAZARD/RISK/EXPOSURE ASSESSMENT AND CONTROL MEASURES

(Describe the major activities and identify the associated hazards, risks and exposures. Thoroughly describe the control measures that will be used to minimize the identified hazards. This may be presented as a Table in this section, or a Job Safety Analysis (JSA) may be used for each major activity and added to this SSP as an appendix.) Regardless of the format, the Risk Assessment or JSA shall be updated and communicated to all affected parties daily or as frequently as necessary.

Major hazards or risks and exposures associated with the scope of work evaluation are listed below.

5.1 Job Safety Analysis

Task	Hazards/Risks	Controls
Insert Task	Hazard or Risk	Control

5.2 Chemical Safety Analysis

Chemical or Class	PEL/TLV	Hazards, Target Organs

PEL = OSHA Permissible Exposure Limit
TLV = ACGIH Threshold Limit Value

5.3 Chemical Monitoring Requirements

Chemical	Instrument	Location	Frequency

5.4 Action Levels and Response Summary

Chemical (or Class)	Action Level	Response

Complete table in detail, or state: "For each major activity listed, a JSA has been developed and is included as an appendix."

Provide an evaluation of reasonably anticipated exposures, action limits, Permissible Exposure Limits (PEL's), other relevant Occupational Exposure Limits (OEL), and the response required when an action level or exposure limit has been reached.

Insert any applicable measures to mitigate identified risks or hazards, using the hierarchy of hazard controls:

- Elimination of hazard or substitution of safer method
- Engineering controls
- Administrative controls
- Personal Protective Equipment, and
- Emergency response equipment or supplies

Some of these measures should include methods for identification of work zones, the level of personal protective equipment (PPE) to be worn (including respiratory protection), action levels based on potential chemical exposures (i.e., personal monitoring, area monitoring, etc.) and procedures for decontaminating personnel and equipment. This section should include specifics, not broad generalities.

6. SUBCONTRACTOR PERIODIC SAFETY INSPECTIONS/AUDITS

Inspections and audits shall be performed by competent persons or observers in the various areas of our workplace. Inspections will focus on worker behaviors as well as site and equipment conditions. An inspection is not considered completed until all identified corrective actions are implemented.

Daily inspections are required by the Site Health and Safety Officer (SHSO), foreman or other responsible party. The completion of the daily inspection must be noted in the construction or safety log. Any corrective actions taken or required must be noted as well.

Periodic, documented inspections are performed according to the following schedule:

- At least weekly
- When we initially establish our SSP
- When new substances, processes, procedures or equipment which present potential new hazards are introduced into our workplace
- When new, previously unidentified hazards are recognized
- When occupational injuries and illnesses occur
- When we assign workers to unfamiliar processes, operations, or tasks, and
- Whenever workplace conditions warrant an inspection

Periodic inspections consist of identification and evaluation of workplace hazards or behaviors, and specifying corrective actions that will eliminate or mitigate the identified hazards. The corrective actions will be assigned to a responsible person with a target completion date and tracked to completion. Temporary or interim measures will be applied and documented as well.

7. SUBCONTRACTOR RISK MITIGATION: TWO-WEEK LOOK-AHEAD

The Risk Mitigation Two-Week Look-Ahead Form is used to review risk mitigation strategies for previously identified tasks at weekly progress meetings.

The addition of previously unanticipated activities that have not been evaluated for risks and mitigation strategies typically would require the completion of additional JSA(s).

8. COMPLIANCE REQUIREMENTS POLICY

Management is responsible for ensuring that all safety and health policies and procedures are clearly communicated and understood by all employees. Managers and supervisors are expected to enforce the rules fairly and uniformly.

All employees are responsible for using safe work practices, for following all directives, policies and procedures, and for assisting in maintaining a safe work environment.

Our system of ensuring that all workers comply with the rules and maintain a safe work environment includes:

- Informing workers of the provisions of our SSP
- Responding to concerns expressed by the workers
- Evaluating the safety performance of all workers
- Recognizing employees who perform safe and healthful work practices
- Providing training to workers whose safety performance is deficient
- Disciplining workers for failure to comply with safe and healthful work practices, and
- The following practices:
  - _____
    _____
    _____

9. WRITTEN PROGRESSIVE DISCIPLINARY PROGRAM

(Explain your company's program or include a written program in the Appendix)

10. HAZARD CORRECTION POLICY

Unsafe or unhealthy work conditions, practices or procedures shall be corrected in a timely manner based on the severity of the hazards. Hazards shall be corrected according to the following procedures:

- When observed or discovered
- When an imminent hazard exists which cannot be immediately abated without endangering employees or property, we will remove all exposed workers from the area except those necessary to correct the existing condition. Workers necessary to correct the hazardous condition shall be provided with the necessary protection, and
- All such actions taken and dates they are completed shall be documented on the appropriate forms

11. TRAINING AND INSTRUCTION

All workers, including managers and supervisors, shall have training and instruction on general and job-specific safety and health practices. Training and instruction shall be provided as follows:

- When the SSP is first established
- To all new workers
- To all workers with respect to hazards specific to each employee's job assignment
- To all workers given new job assignments for which training has not previously provided
- Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard
- Whenever the employer is made aware of a new or previously unrecognized hazard, and
- To supervisors to familiarize them with the safety and health hazards to which workers under their immediate direction and control may be exposed

Workplace safety and health practices for all locations include, but are not limited to, the following:

- Explanation of the employer's SSP
- HSP^2 requirements
- Honeywell Contractor's Safety Handbook
- Site Emergency Action Plan
- Measures for reporting any unsafe conditions, work practices and injuries, and
- Means for identifying when additional instruction is needed

In addition, we provide specific instructions to all workers regarding hazards unique to their job assignment, to the extent that such information was not already covered in other training.

12. PROJECT SITE EMPLOYEES ORIENTATION PROGRAM SUBJECTS

As a condition of working on a remediation project involving the potential for exposure to hazardous substances and health hazards, our workers will receive information about the following subjects:

- Names of personnel responsible for site safety and health

- Honeywell's contractor safety requirements
- Promptly reporting emergencies, incidents and unsafe conditions
- Emergency/evacuation plans
- Provisions for medical services and first aid including emergency procedures
- Safety, health and other hazards at the site
- Review of all activities on site and related Job Safety Analyses JSA's
- Proper use of personal protective equipment
- Work practices by which a worker can minimize risk from hazards
- Safe use of engineering controls and equipment on site
- Acute and chronic effects of compounds at the site
- Decontamination procedures, and
- Hygiene requirements - Availability of toilet, hand-washing, and drinking water facilities

In addition to the above-mentioned information, we also orient our employees on: (Line out or write "not applicable" – DO NOT delete - topics that are not covered in your employee orientation.)

12.1 Site Orientation Topics

Covered or N/A	Site Orientation Topic
	Good housekeeping
	Road and highway safety practices – flagging, traffic control
	Heavy equipment operation – cranes, excavators, articulating dump trucks, etc.
	Driver safety - defensive driving, operation of pick-up trucks, all-terrain vehicles (ATVs), etc.
	Ladder and scaffold inspection and safety rules;
	Use of elevated platforms – aerial lifts and scissor lifts
	Other fall protection measures
	Fire prevention including Hot Work Permits

	Cleaning, repairing and servicing equipment and machinery
	Proper use of hand and power tools
	Guarding of belts and pulleys, gears and sprockets, and conveyor nip points
	Machine, machine parts, and prime movers guarding
	Lockout/Tagout procedures
	Materials handling
	Chainsaw and other power tool operation
	Unsafe weather conditions – lightning, high winds, etc.
	Mobilization/demobilization
	Yard operations: moving vehicles and equipment, receiving and shipping
	Landing and loading areas – rigging, tag lines, landing areas, release of rigging
	Ergonomic hazards - proper lifting techniques
	Personal protective equipment
	Hazardous chemical exposures
	Hazard Communication/Right to Know
	Physical hazards
	Heat and cold stress
	Noise
	Ionizing and non-ionizing radiation
	Biological hazards – poisonous plants, animals, bloodborne pathogens, etc. and
	Other job-specific hazards, such as:
	•
	•
	•

13. EMPLOYEE COMMUNICATION SYSTEM AND POLICY

We recognize that open, two-way communication between management and staff on health and safety issues is essential to an injury-free, productive workplace. The following system of communication is designed to facilitate a continuous flow of safety and health information between management and staff in a form that is readily understandable and consists of one or more of the following checked items:

- New worker orientation including a discussion of safety and health policies and procedures
- Review of our SSP and Construction Manager's Project Safety Plan (PSP)
- Workplace safety and health training programs
- Regular daily and weekly safety meetings
- Effective communication of safety and health concerns between workers and supervisors, including translation where appropriate
- Awareness campaign: Posted or distributed safety information
- A system for workers to anonymously inform management about workplace hazards
- A labor/management safety and health committee that
  - Meets regularly
  - Keeps written records of the safety and health committees meetings
  - Reviews results of the periodic scheduled inspections
  - Reviews investigations of accidents and exposures
  - Makes suggestions to management for the prevention of future incidents
  - Reviews investigations of alleged hazardous conditions, and
  - Submits recommendations to assist in the evaluation of employee safety suggestion
- Other: _____

14. RECORDKEEPING POLICY

We have taken the following steps to document implementation of our SSP:

- Records of hazard assessment inspections, including:
  - The persons conducting the inspection

- The unsafe conditions and work practices that were identified, and
- The action(s) taken to correct the identified unsafe conditions or work practices

- Documentation of safety and health training for each worker, including:
  - The worker's name or other identifier
  - Training dates
  - Types/topics of training, and
  - Training provider
- Air monitoring and other exposure records
- Written reports describing in detail, any accidents, incidents or near misses. A root cause shall be determined for such events. Corrective actions will be implemented and communicated to all site team members.
- Other records are retained as required by contract specifications or by local, state or federal (Occupational Safety and Health Administration (OSHA) regulations). Where regulations do not specify the length of records retention, a minimum period of three years after project completion will be used.

15. INCIDENT/NEAR-MISS INCIDENT INVESTIGATIONS POLICY

Procedures for investigating workplace incidents and near-miss incidents include:

- Responding to the incident scene as soon as possible
- Implementing measures to prevent further injury or damage and to preserve evidence
- Providing First Aid or coordinating any needed medical care
- Reporting incidents and near-miss incidents immediately to the appropriate HSP² point-of-contact. DO NOT delay! Certain levels of incident require immediate communication to Honeywell's upper management, and possibly to regulatory authorities
- Interviewing injured workers and witnesses
- Examining the workplace for factors associated with the incident/near-miss incident
- Determining the root cause of the incident/near-miss incident
- Taking corrective action to prevent the incident/near-miss incident from reoccurring
- Recording the findings and corrective actions taken, and
- Coordinating post-accident substance abuse testing

16. EMERGENCY ACTION PLAN

(Use this section to describe alarm signals, reporting procedures, evacuation routes, assembly areas, head count procedure, etc.)

Suggest:

- Warning alarm: multiple horn blasts, repeated
- Assembly area: Command post/trailer area
- A head count will be performed at the assembly area. Individuals should not leave work for the day until they are accounted for and properly reassigned or dismissed
- Evacuation route: site specific

Describe the preventative measures and response for unanticipated spills or releases to the environment. Include materials to be staged (e.g., spill kits) and their locations, procedures for containment and cleanup and reporting requirements, using the chain-of-command concept.

17. SITE SPECIFIC MEDICAL EMERGENCY PLAN

(Provide the name of emergency treatment facilities (Emergency Room) including contact numbers and route to the hospital. Also provide contact information for a local Occupational Medicine Clinic (for non-emergency use) that your company has contracted with for the treatment of routine or non-emergency incidents. The Occupational Medicine Clinic is a valuable asset in post-injury management and return-to-work programs. Provide names of competent first-aid and CPR personnel with dates of training certification and expiration. Include copies of employee certificates in the Appendix.)

17.1 Emergency Medical Care

Hospital/Emergency Care	Address	Telephone Number(s)

17.2 Occupational Medicine Clinic

Occupational Medicine Clinic	Address	Telephone Number(s)

17.3 Competent First Aid/CPR Personnel

Name(s) Competent Persons	First Aid	CPR

	Expiration Date	Expiration Date

NOTE: This table may be expanded and included as an appendix. If so, describe its location.

18. HAZARD COMMUNICATION PROGRAM

(In this section provide the name of the Haz Com Officer, a program outline, a list of the hazardous chemicals to be used and a description of where material safety data sheets (MSDS's) will be located. Include the written HAZ COM program and MSDS's for all chemicals to be used on site as an Appendix.)

19. RESPIRATORY PROTECTION PROGRAM

(If applicable to this project, provide an outline or summary of your company's written Respiratory Protection Program.)

(In this SSP, provide a description of the change schedule for canisters and cartridges that is based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life must be provided in this section. The employer shall describe in the respirator program the information and data relied upon and the basis for the canister and cartridge change schedule and the basis for reliance on the data.)

(Include the written respiratory protection program and copies of individual records (i.e., medical clearance, fit test and training) as an Appendix.)

20. MEDICAL SURVEILLANCE AND RESPIRATORY PROTECTION PROGRAMS

All project personnel performing intrusive work or entering the restricted area where intrusive work is being conducted, must be involved in a medical surveillance program meeting, at a minimum, the requirements of 29 CFR 1910.120.

Describe your company's medical surveillance requirements for this project. Include any biological monitoring, the relevant Biological Exposure Indices (BEI's) and the action limits, if any, that would initiate such biological monitoring.

Written evidence of medical surveillance requirements shall be maintained on-site and submitted prior to work for each affected person.

20.1 Medical Surveillance Requirements

Name	Job Title	Respiratory Clearance	Medical Exam	Respirator Fit Test	Other Med Surveillance Requirement
Insert name"	Insert job title	Insert expiration date	Insert expiration date	Insert expiration date	Describe frequency

NOTE: This table may be expanded and included as an appendix. If so, describe its location.

21. OTHER WRITTEN PLANS OR PROGRAMS AS REQUIRED BY REGULATION AND APPLICABLE TO THIS PROJECT.

(If applicable, attach other written programs as an appendix. If a plan listed below is not applicable, write N/A or lineout. DO NOT delete.

21.1 Other Written Plans or Programs

Included or N/A	Name of Plan or Program
	Site sanitation plan
	Layout/material storage plans
	Access and haul road plan/traffic patterns
	Procedures and tests
	Wild fire prevention plan
	Diving plan
	Man overboard plan
	Fire Aboard/Abandon ship plan
	Asbestos abatement plan
	Lead abatement plan
	Abrasive blasting
	Critical lift procedures
	Dangerous weather contingency planning
	Demolition plan

	Formwork and shoring erection and removal plans
	Blasting plan
	Nighttime operations plan
	Control of Hazardous Energy (Lockout/Tagout)
	Operation of a Forklift
	Confined Space Entry
	100 % Fall Protection Plan
	Other:

(Include any of the applicable written programs as an Appendix.)

22. SUBCONTRACTOR SAFETY PLAN (SSP) REVIEW AND MODIFICATIONS

The SSP shall be submitted to the Project Manager (PM) at least ten days before commencement of any field activities. The SSP will be reviewed, and may be returned with comments or requests for more details or clarification. Fieldwork shall not commence until the PM has provided written acceptance that the SSP meets contractual requirements. The responsibility for completeness, accuracy and regulatory compliance of the SSP rests solely with the subcontractor.

Minor modifications, such as typographical corrections, changing names or updating contact information, may be made by means of a routine submittal to the PM. JSA's for a new activity or previously unanticipated methodology should be submitted to the PM for review at least ten days before commencement of the new activity, or as early as practicable. Acceptable JSA's become an appendix to the existing SSP.

23. LIST OF TABLES, FORMS, APPENDICES AND ATTACHMENTS

List in detail any tables, forms, appendices and attachments. These elements are attached to and become part of the completed PSP.

Tables

- _____
- _____
- _____
- _____

Forms

- _____
- _____
- _____
- _____

Appendices

- _____
- _____
- _____
- _____

Attachments

- _____
- _____
- _____
- _____

ATTACHMENT E

HONEYWELL CONTRACTOR SAFETY HANDBOOK

Honeywell Contractor Safety Handbook

This informational Handbook is intended to provide a generic, non-exhaustive overview of a particular standards-related topic. This publication does not itself alter or determine compliance responsibilities, which are set forth in OSHA standards themselves and in the Occupational Safety and Health Act of 1970. Since the regulations, interpretations and enforcement policy may change over time, it may be necessary to seek additional guidance on OSHA compliance requirements. Any and all deviations from the guidelines and rules set forth in this Handbook shall have prior approval by Honeywell.

This Handbook serves as a guide and reference for the minimum rules and standards for contractors performing capital work, maintenance, repair, dismantlement, remediation or other activities that have the potential for an incident.

This Handbook should be issued to each contract employee working at a Honeywell facility, location or site. The perforated page at the back of the Handbook must be signed and returned to the Honeywell contact/representative prior to commencing work. After reviewing each Section of this Handbook, specific attention should be focused on the topics that will be encountered during the project/task.

Contract employees must also be familiar with their company's health, safety and environmental policies, procedures and guidelines.

Revised 12/99

Contractor Safety Excellence

Our Mission
We will achieve a premier level of safety performance for contractors working at Honeywell locations through increased safety awareness, communication of expectations, following work processes that reduce at-risk behaviors and ensuring the proper management of incidents.

Our Commitment
We recognize that outstanding safety performance is essential to the welfare of our employees, contractors and to business excellence. We will continue to improve our global competitiveness by making safety an integral part of all business activities.

Our Safety Principles
- We strive to prevent all incidents that may lead to injuries or illnesses.
- Safety performance is a responsibility of line management and every contractor.
- We design safety into the work place.
- Individual behavior is the most important factor in preventing incidents.
- We expect and require every contractor to work safely.
- Working safely is good business.
- Safety is an integral part of our culture and total quality processes.
- Our safety process must react to all incidents, not just accidents.
- We continually improve our safety process by auditing the process and correcting the root cause of deficiencies.
- We promote safety, both on and off the job.
- We prepare for emergencies.

Table of Contents

A. Introduction

- This handbook sets forth the safety requirements of Honeywell International Inc. (“Honeywell”)
- At Honeywell, it is our policy to provide a safe and healthful place in which to work. It is everyone’s obligation to work safely and to correct unsafe acts, practices and/or conditions for the protection of yourself and others.
- It is extremely important that you understand how your work is to be done in a safe manner. If you don’t know, stop and ask before you begin work.
- All work must conform to plant, local, state, and federal (OSHA) regulations (CFR 29 Part 1910 and 1926).
- The information in this handbook is general in nature and is to be considered the minimum.
  S ave
  A ll
  F ellow
  E mployees
  T his
  Y ear
- During your orientation, you will be informed of the specific safety requirements for your particular site or plant.

B. General Information

Site Entry

- Personnel, vehicles, and equipment are subject to search upon entering or exiting the site premises.
- Personnel may be required to pass a drug test or show proof of passing a drug test within the past thirty (30) days prior to working at the site.

Vehicle Safety

- Operators of vehicles and equipment shall observe all site traffic regulations. Seat belts are to be worn at all times.

Pedestrians

- Pedestrians have the right of way. Pedestrians should use walkways where provided and should not take shortcuts through operating areas, buildings or other areas.

Cameras

- Cameras are not allowed on site without the proper authorization.

Running

- Running is not permitted on site except in an extreme emergency.

Smoking

- Smoking is permitted in designated areas only. Discard smoking materials in approved containers.

Conduct

- Horseplay, fighting, gambling, sexual harassment and the possession or use of firearms, alcoholic beverages and illegal substances is strictly prohibited.

Dress Code

- Pants must cover top of steel-toed leather work shoe and be in good condition. Shirts must have at least 4” of sleeve. Long sleeve shirts may be required at specific locations or for certain tasks.

C. Emergency and Disaster Procedures

In the event there is an emergency, anyone can activate
the alarm any time there is a:

- Serious injury or illness
- Fire
- Major spill or release

When an alarm sounds, the following rules are in effect:

- All flame or hot work permits for welding, cutting, and spark producing equipment will be suspended until the all-clear signal is given.
- Smoking is prohibited.
- All traffic will pull to the side of plant roads and shut off engines until the all-clear signal is given.
- Report to your assembly point / area (if previously designated), or contact your Honeywell host.

Site Specific Emergency and Disaster Procedures

- Each Honeywell plant is equipped with an emergency alarm system, designated assembly areas and emergency phone numbers. The specific guidelines for reporting emergencies and disasters should be determined in your orientation.

D. Personal Protective Equipment (PPE)

Head Protection

- Contractors are required to wear approved hard hats that meet ANSI Z89.1-1971. Hard hats must be in good condition and be worn with brim to the front.

Eyes and Ears

- Each employee should know the location of the nearest eye wash/safety shower station in their area before starting work.
- Contractors are required to wear approved ANSI Z87.1 safety glasses with rigid side shields. Additional eye/face protection will be required when performing certain tasks (e.g.: welding, burning, grinding, chipping, sawing, drilling, handling chemicals or corrosive liquids, and pouring concrete or molten materials.) Check plant procedures.
- Approved hearing protection must be worn as specified in all posted areas and while working with or around high noise level producing tools, machines or equipment.

Fingers, Hand and Wrist

- Gloves suitable for the job being performed shall be worn unless the job cannot be done with gloves or wearing gloves increases the hazard.
- Tool holders should be used when driving stakes and wedges or when holding star drills, bull pins or similar tools.

Foot Protection

- In accordance with OSHA 1910.136, all contractors must determine if hazards are present (or are likely to be present) that may require the use of safety footwear.
- Safety footwear for contractors must be in accordance with ANSI Z41-1991, constructed of industrial quality leather and without urethane soles.
- Rubber boots with safety toe protection are required on jobs subject to chemically hazardous conditions.
- Metatarsal protection should be worn when using jack hammers, tamps and similar equipment which has the potential for foot injury above the toes.

Respiratory

- Respirators used by contractors must meet NIOSH/MSHA standards.
- Respirators must be inspected regularly and stored in a dust-free container.
- Employees required to wear a respirator must have a physician's approval and be fit tested. Employees must be clean shaven in the facial area to obtain an acceptable seal.
- Contractor must keep records of qualified users.

Skin

- If the possibility of skin contact with chemicals exists, personal protective equipment required by Material Safety Data Sheets shall be worn.

E. Hazard Communication / Right To Know

Upon beginning work at a Honeywell facility, each individual has the right to know information concerning the hazardous properties of any materials he/she may come in contact with. Training regarding potential hazards must be given to each individual and will include, but not be limited to, the following:

- An explanation of the hazard communication standard and the training requirements.
- An explanation of the project hazard communication program and it's location.
- Notification of the locations of the hazardous

chemicals.
- A description of the plant labeling and hazard rating system.
- A description of the Material Safety Data Sheet (MSDS), their use and location.

F. Permits

Certain types of work are not to be started until approval is given in the form of a signed permit. A written, properly authorized permit listed below may be required before you begin any activities in any production or operating area of the plant.

- **Work Permit** - required before any work can be started on any job in any area of the plant.
- **Line Breaking Permit** - required before breaking screwed, flanged, welded or other type joints on pipelines or vessels containing hazardous materials, or breaking into (disconnecting, drilling, sawing, etc.) non-hazardous materials under pressure.
- **Confined Space or Vessel Entry Permit** - required before entering tanks, vessels, manholes or similar confined spaces that have been in service or connected to operating process equipment and may contain potentially hazardous atmospheric conditions.
- **Lockout / Tagout Permit** - required for the service and maintenance of machines and equipment in which the *unexpected* energization or start up of the machines or equipment, or release of stored energy could cause injury to workers.
- **Excavation Permit** - required to minimize hazards during excavation work and ground breaking operations, specifically when a machine or hand tools are used at a depth greater than one foot. Excavations greater than four foot in depth must be inspected and approved by a competent person and have a Confined Space permit before access by personnel.
- **Hot Work Permit** - required before any flame or spark producing activity can begin in any production, operating, or some construction areas of the plant. This includes, but is not limited to:
  - Welding / Repair of pipe lines under pressure greater than 5 PSI.
  - Welding / Repair of pipe lines containing hazardous or flammable materials.
  - Welding / Repair on any pressure vessel, fired or unfired, under pressure or in the presence of hazardous or flammable materials.
  - Work on energized circuits.
  - Cutting / Burning of pipe lines, vessels, equipment, etc. that may have contained any hazardous material.
  - Grinding
  - Any hot work on carbon steel pipe lines, vessels, equipment, etc. that may have contained sulfuric acid will <u>not</u> be permitted without extensive review with project and plant personnel due to the possible generation of hydrogen gas.

  Each plant may have permits that are required for other specific work procedures. Check with your supervisor for these permits.

G. Fall Protection

- 100% fall protection (i.e. two lanyards when moving in certain areas) is required for all work above six (6) feet.
- Safety full body harnesses must be arranged so the d-ring is in the rear.
- Safety belts are not to be used for support or as a lineman's belt.
- Lanyards must be secured to an anchorage point overhead that can support 5,000 lbs. using as short a line as possible, not to exceed five (5) feet..
- All fall protection equipment shall be inspected by the user prior to each use.
- Lanyards may not be tied-off to any pipe/conduit less than 2" in diameter.
- Safety harnesses shall be worn and tied off when performing work on the following:
  - Sloped roofs
  - Flat roofs without handrails, if within 6 feet of the edge of the roof or opening
  - Any suspended platform or stage
  - All scaffolding six (6) feet above supporting work surface
  - When working on the sixth step or higher

on a ladder
- Ladders near the edge of roofs or floor openings
- Any unguarded areas six (6) feet above any supporting work surface
- An aerial lift.

H. Barricades, Signs, and Floor Openings

All floor openings/penetrations (i.e. holes > 2") must be properly covered or guarded. Barricades and signs must be posted when working in or around the following:

- All manlifts and the immediate working area.
- In ceilings, pipe bridges, etc.
- Removing roofing panels, walls, etc.
- Swing radius of cranes and the area where the lift will be made and moved to.
- Any open excavation.
- Any confined space entry.

Types of Barricades

- Warning barricades call your attention to a hazard but offer no physical protection. Examples: yellow, red, blue synthetic tape on stands or posts, plastic, or wooden snow fence.
- Protective barricades warn and provide physical protection and shall withstand 200 lbs. of force in any direction with minimal deflection (3"). Examples: wood post and rail, cable and wood post and chain.

Guidelines

- Barricades shall be 42 inches high and maintained square and level.
- Barricades shall be erected before any work begins.
- Blinking lights must be used on road blocks after dark.
- An access opening or gate should be provided where practical.
- Barricades and signs shall be fully informative, legible, and visibly displayed.
- Barricades and signs shall be removed when no longer needed.

Hole Covers

- Must be installed immediately.
- Hole covers or barricades are required at any floor elevation.
- Material and equipment must not be stored on a hole cover.
- Must be secured to prevent movement and be marked with the word "HOLE" or "COVER".
- Must extend adequately beyond the edge of the opening (i.e. 3") and must not be more than 1" high.
- 3/4" plywood will be used providing the opening is less than 18". For any opening greater than 18 inches, 2 inch lumber of doubled ¾ inch plywood is required.

I. Ladders and Scaffolds

- Inspect ladders before use - identify defective ladders with "Do Not Use" tag.
- Only a "Type I" ladder with a minimum rating of 250 lbs. is acceptable.
- Metal ladders are prohibited.
- Fall protection must be worn when working on the sixth step or higher.
- When ascending and descending a ladder, face the approved side of the ladder, use at least one hand to grasp the ladder, and do not carry tools or materials in your hands.
- *All* ladders shall have a tie-off rope, non-skid safety feet and be tied-off.
- Never work off a ladder where the midpoint of the body (i.e. belt buckle) must be extended beyond the side rails.

Straight or Extension Ladders

- Follow the 4-to-1 rule when using an extension or straight ladder - position the base of the ladder one (1) foot from the supporting structure for every four (4) foot in height.
- If a ladder is used to reach a higher platform, the top of the ladder must extend three (3) feet past the platform.
- Do not work off of the top three (3) rungs of any straight or extension ladder.

Step Ladders

- Step ladders shall be set with all four (4) feet level.
- Ladders used in traffic areas must be secured or barricaded to prevent displacement.
- Never work off of the top two steps of step ladder.
- Never stand or sit on top of step ladders.

Scaffolding

- All scaffolds must conform to the OSHA Standard (Subpart L)
- All scaffolds are to be erected level - plumb on a firm base.
- When space allows, all scaffolds must be equipped with access ladders that extends three (3) feet past the landing gate. At landings, 42" high handrails rigidly secure, 21" high mid-rails rigidly secure, completely decked with safety planking or manufactured scaffold decking and rigidly secured toeboards on all four sides.
- A competent person must determine the feasibility and safety of providing fall protection for employees erecting and dismantling scaffolds, and train those employees accordingly.
- All scaffolds shall have a tag attached, completed by the competent person, stating what type of fall arrest system is required.
- All personnel working on scaffolds must be trained by a qualified person in the subject matter to recognize the hazards associated with the type of scaffold being used and the nature of any hazards (i.e. electrical, fall, falling objects, etc.).
- Retraining must be provided where inadequacies in an affected employee's work practices involving scaffolds are observed.
- Safety harness and tie-off required when working from scaffolding over one buck high.
- Personnel shall not climb or do any rigging from a scaffold, handrail, mid-rail or braces.
- No one may alter any scaffold member by welding, burning, cutting, drilling or bending.
- Scaffolds shall be tied off or stabilized with outriggers when its height exceeds three times the smaller dimension of its base, but tie-offs must not exceed 26 feet vertically.
- Scaffolds must be tied off horizontally every 30 feet.
- No one shall ride on a rolling scaffold when it is being moved. All tools and materials shall be removed or secured to the decking before moving the scaffold.

J. Housekeeping

Good housekeeping plays a key role in preventing accidents and fires. Good housekeeping is emphasized as a vital safety measure.

- Keep everything in its proper place - store materials and equipment in a safe and orderly manner.
- Put trash, scrap materials and other waste in the proper containers.
- Clean up tools and work areas as your job progresses - do not wait until the end of the work day.
- Keep the floor of the work area clear of tools, cords, and scrap materials.
- Insure that work tables are occupied only by work at hand and tools required for work being done.
- All work areas are to be left in orderly and clean condition at the end of each work day.
- Keep cords and hoses at least seven (7) feet overhead over walkways and work areas or lay them flat outside of walkways.
- Maintain clear access to all work areas. Do not block fire extinguishers, emergency equipment, electrical boxes or panels, or other safety/fire equipment.

K. Tools - Hand and Power

- Do not operate any tool without proper instruction.
- Only qualified persons are to use tools and equipment.
- Honeywell tools and equipment are not to be used by contractors.
- Do not use any tool or equipment for any purpose other than that for which it was designed.
- Personal tools are subject to inspection at any time.

- It is your responsibility to inspect all tools prior to each use. Do not use a tool that is deemed defective. Report and tag all defective tools.
- Do not lift electrical tools by the cord.
- Tools may be inspected and marked with color-coded tape each month. Check with your Supervisor for designations and do not use a tool without the appropriate color-coded tape.

Hand Tools

- Worn tools are dangerous! Replace or repair the tool.
- Every tool was designed to do a certain job. Use a tool for its intended use only.
- Tools subject to impact (chisels, star drills and caulking irons) tend to "mushroom." Keep them dressed to avoid flying spalls. Use tool holders.
- Don't force tools beyond their capacity or use "cheaters" to increase their capacity.

Power Tools

- Material should be secured when power tools are applied to it.
- Each power tool should be examined for damaged parts, loose fittings, and frayed or cut electrical cords before use.
- Portable electrical equipment and tools shall be grounded unless "double insulated." A ground fault circuit interrupter (G.F.C.I.) shall be used for working in damp areas when using permanent plant power or as otherwise required.
- Electrical cords shall be unplugged and air lines deactivated and bled down before adjusting, servicing, repairing, or changing bits and blades in electrical or pneumatic tools.
- Any pneumatic hoses exceeding ½ inch in diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure. All hose connections shall be properly secured.
- All tools shall be used with the correct shield, guard, or attachment recommended by the manufacturer.
- Only licensed and qualified personnel shall be allowed to operate power-actuated tools.
- Power tools should be unplugged when not in use.

L. Mobile Equipment

- Anyone who operates any mobile equipment (cranes, manlifts, pick-ups, forklifts, etc.) must demonstrate knowledge and competency for each make of equipment.
- All equipment will be inspected daily before use to insure it is in proper operating condition. If the equipment becomes defective in any way, notify your supervisor at once and place a "DANGER - DO NOT USE" tag on it.
- All equipment is to be supplied with seat belts, back-up alarm and fire extinguishers (back-up alarm is not required on pickup trucks.)
- Use of gas/diesel equipment inside operating building is prohibited unless approved by the Safety Department.

M. Cranes

- All operators must be certified and licensed to operate each make and model of crane.
- The operator is solely responsible for the safe operation of the crane.
- The operator has full responsibility for the safety of a lift and may not make a lift until safety is assured.
- A copy of the load chart, manufacturer's operators' manual and inspection record must be in the crane cab or on project site.
- All cranes and the immediate work area must be barricaded at all times.
- No load shall be swung over any persons.
- Outriggers must be leveled and fully extended when making a lift.
- No part of the crane, load, hoist (load and boom) lines, boom and tag line shall come within 10 feet of energized electrical lines.
- For pick and carry operations, consult the manufacturer's operator manual.
- Riding on crane hooks and/or "headache" balls is prohibited.
- Operators are not permitted to leave the crane while holding a live load.

- The use of suspended personnel platforms (crane baskets) must meet all OSHA requirements. The use of a crane or derrick to hoist employees on a personnel platform is prohibited unless all requirements of 1926.550 (g) are met. A company plan and check list must be used.
- A lift plan is required for any critical lift.
- Lifting in high winds (e.g. greater than 20 mph) is not recommended.

N. Material Handling Equipment

- All material handling machines must have backup alarms, horns, rollover protection structures and seat belts when provided by manufacturer.
- The operator must be trained to operate each make and model of machine.

O. Personnel Lifting Equipment

- The operator must be trained to operate all personnel lifts.
- All employees are to have a safety belt or safety harness on and tied off when working out of: manual personnel lifts, power platform lifts, scissors lifts, high-reach lifts, etc.
- Tie-off shall be made to the lifting equipment.
- Personnel are not to get under lifts.
- When exiting the lifting equipment onto a proper working elevated platform, the employee must be tied off to that platform immediately prior to, and during, that exit.

P. Cars, Pickups, and Trucks

You must have a valid driver's permit to operate any vehicles on plant property. You must obey the following rules:

- Wear your seat belt.
- Obey plant speed limits and stop signs.
- Motors must be shut-off when refueling.
- Stop at all railroad crossings.
- No more than three (3) people on a front bench seat, two (2) people if bucket seats.
- Mount and dismount the vehicle only when it is stopped.
- Keep arms, feet and bodies inside the vehicle.
- Look to the rear and sound your horn before backing up.
- Inspect the vehicle each day before use.
- Riding in the rear of a truck is prohibited unless approved seating with seat belts has been provided.

Q. Rigging

- All personnel who perform or assist in rigging operations shall have received appropriate training and be competent.
- Only ONE eye in a hook. Use a shackle to hold two (2) or more eyes.
- Tag lines are required to control lifted loads made by mechanical equipment. Never put hands on a load or wrap tag lines around your hands or body.
- Never raise a load over other people.
- Know the capacities of the rigging equipment and the weights of the loads.
- Never rig from any structural member until you are sure it will support the load.
- Never use plate grips, tongs, pipe clamps, etc. as substitutes for beam clamps.
- Two slings will be used unless impractical. If one sling is used, double wrapping is required.
- Continuous synthetic slings may be used only when heat or chemicals are not a factor, and where load permits.
- Flat nylon straps should not be used for erecting steel. Wide nylon straps may be used for lifting tube bundles, fiberglass ducts or other material that could be damaged by a metal sling. The use of flat nylon strap with any visible tear or defect is strictly prohibited.
- Steel slings should be used where heat or chemicals are a potential factor. The use of steel slings with damaged strands or other defect is strictly prohibited.
- The use of a come-a-longs with cracked or damaged handles is strictly prohibited.
- Chainfalls and come-a-longs must have OSHA approved safety spring return latches on all hooks.
- Daily, weekly, and monthly inspection records will be kept by the contractor.

R. Chain Falls and Hoists

- Inspect hoists daily (operations), monthly (maintenance) and annually (3rd party vendor).
- A chain hoist must be used within its rated capacity, marked on the equipment.
- Do not leave an unsecured and unattended load hanging on a hoist or chain fall.
- Do not stand or have any part of the body below a load suspended on a chain hoist.
- Do not wrap the load chain around the load to be lifted.
- Use of “cheater bars” is strictly prohibited.
- Use a shackle to connect straps to a hook.

S. Fire Protection and Prevention

- Be sure to locate the nearest fire extinguishers in your work area before starting work.
- As warranted by the project, a trained and equipped fire fighting organization (Fire Brigade) will be provided to assure adequate protection of life.
- All fire hydrants, fire extinguishers, fire blankets, etc. shall be clearly marked and not obstructed.
- Combustible materials shall be kept away from steam lines, radiators, heaters, hot process and service lines.
- For any job requiring hot work or open flame or welding, a fire extinguisher must be within 20 feet of where the work is taking place.
- Fire extinguishers shall be checked daily before starting work.
- Portable power equipment must not be refueled while running or when hot. Attach the ground wire before refueling.
- Store flammables in properly labeled metal type containers and in designated areas.
- Fire blankets must be used to protect equipment, control panels, instrumentation, etc. when welding, cutting, burning, or grinding overhead.
- “Borrowing” plant fire extinguishers is not permitted.

T. Material Handling / Stability Control

Proper material handling and stability control insures that personnel, material, and equipment are safe from unexpected movement such as falling, slipping, rolling, tripping, or any other uncontrolled motion.

- Clean up ragged metal edges.
- Pull all protruding nails and wires or bend them flush.
- Set on dunnage for ease of handling.
- Check all material and equipment to prevent rolling.
- Tie down all light, large-surface-area material that might be moved by the wind.
- Put absorbent on all grease and oil spills immediately and clean them up. Notify proper plant personnel of spills if significant.
- Salt or sand icy walk areas immediately.
- Use proper lifting techniques when moving material by hand.
- Know the weight of the object to be handled.
- Protect the area around and below you.

U. Welding and Burning

General

- Before beginning any flame or spark producing operations in the plant, check with your supervisor about any permits that may be required. Follow the requirements on the permit.
- Keep welding leads and burning hoses clear of passageways.
- Each welder is responsible for containing sparks and slag and/or removing combustibles to prevent fires. The welder is also responsible for making sure there is a fire watch and a good fire extinguisher for the duration of the operation.
- Provide adequate screens to protect vision of general public.

Welding - Electric

- All work must have a separate and adequate ground.
- Welding rods are not to be left in the electrode holder when not in use. Stub ends are to be put in proper containers - not on the floor.

- All weld arcs shall be shielded.
- All welding machines are to be shut off when not in use.
- Hard hats with the brim to the front must be worn during welding operations by the welder.
- An approved welding shield must be worn. Use no less than a No. 10 filter plate with safety plate on both sides of the filter plate.
- Powered welding machines should be operated in well ventilated area only and will be diesel fueled only, unless otherwise approved by safety.

Burning - Gas

- The operation of oxygen and fuel gas burning equipment shall only be done by trained and experienced personnel.
- Do not exceed 15 P.S.I. on the torch side of the gauge when using acetylene.
- Only an approved spark lighter should be used to light a burning torch. Do not use matches, cigarettes, lighters or hot work.
- Always clean burning tips with the proper type cleaner.
- All burning rigs must be broken down at the end of the shift with regulators removed and caps screwed down hand tight.
- Approved burning goggles must be worn and No. 4 lenses or darker must be used.
- Keep oil and grease away from oxygen regulators, hoses and fittings. Do not store wrenches, dies, cutters, or other grease covered tools in the same compartment with oxygen equipment.
- Compressed gas bottles shall be kept in bottle carts or secured in an upright position. They must be transported and stored in a secured, upright position with protective caps in place.
- Oxygen and acetylene compressed gas bottles should not be stored together. They must be stored a minimum of 20' apart or have a 5 feet high, 30 minute rated fireproof wall between the two bottles.
- All gauges, hoses, and torches should be inspected on a regular basis. A back flow preventer is required on all regulators.
- When in use, place cylinders and hoses where they are not exposed to sparks and slag from the burning operation.

- Any hot work on carbon steel pipe lines, vessels, equipment, etc. that may have contained sulfuric acid will <u>not</u> be permitted without extensive review with project and plant personnel due to the possible generation of hydrogen gas.
- Handle cylinders with care.
- Lift to upper levels with approved carts only.
- Do not strike an arc on cylinders.
- Do not use cylinders as rollers.
- Do not lift with slings or by the protective cap.

Protective Clothing

- Only cotton, woolen, leather or special fire retardant synthetic clothing should be worn when burning or welding. Synthetics are very flammable and melt and cause more serious burns when exposed to flames and high temperatures.

<u>V. Steel Erection</u>

General

- 100% tie-off is required at ALL times
- Containers shall be provided for storing or carrying rivets, bolts and drift pins, and secured against accidental displacement when aloft.
- A load shall not be released from the hoisting line until the members are secured with not less than two bolts, or equivalent at each connection and drawn up wrench tight.
- Tag lines are required for controlling loads.
- When bolts, drift pins or rivet heads are being knocked out/off, means shall be provided to keep them from falling.
- Impact wrenches shall be provided with a locking device for retaining the socket.

W. Accident / Incident Investigation

- Notify Honeywell personnel (project engineer, plant safety, construction safety, etc.) immediately after any injury (medical treatment and first aid cases), equipment or property damage, environmental excursions, or near-miss incidents.
- A Honeywell Contractor Incident Investigation Report shall be completed by the contractor company immediately upon knowledge of the incident.
- The report may be completed by an investigation team headed up by the contractor company, and assisted by the Honeywell project manager / engineer, site safety leader, the individual(s) involved and any other necessary personnel. All sections of the report are to be completed, signed and dated.

X. OSHA Reference Guide

Subject	Reference
Barricades	Subpart G - 1926.202 Barricades
Cars, Pickups & Trucks	Subpart O - 1926.601 Motor Vehicles
Chain Falls	Subpart H - 1926.251 Rigging Equip. for Mat. Handling
Compressed Gases	Subpart H - 1910.101 General Requirements
Concrete & Masonry	Subpart Q - 1926.700 Scope, Application & Requirements
Confined Space Entry	Subpart J - 1910.146 Permit-Required Confined Spaces
Cranes	Subpart N - 1926.550 Cranes & Derricks Subpart N - 1910.179 Overhead & Gantry Cranes
Demolition	Subpart T - 1926.850 Preparatory Operations
Egress	Subpart C - 1926.34 Means of Egress Subpart E - 1910.35 Definitions
Electrical	Subpart K - 1926.400 Introduction Subpart S - 1910.301 Introduction
Emergency Procedures	Subpart C - 1926.35 Employee Emergency Action Plans Subpart D - 1910.38 Employee Emergency Plans
Excavations	Subpart P - 1926.650 Scope, Application & Definitions
Eye Protection	Subpart E - 1926.102 Eye and Face Protection Subpart I - 1910.133 Eye and Face Protection

Subject	Reference
Fall Protection	Subpart E - 1926.104 Safety Belts, Lifelines & Lanyards Subpart M - 1926.500 Scope, Application & Definitions
Fire Protection	Subpart C - 1926.24 Fire Protection and Prevention Subpart F- 1926.150 Fire Protection Subpart L - 1910.155 Scope, Application & Definitions
First Aid	Subpart C - 1926.23 First Aid and

	Medical Attention Subpart D - 1926.50 Medical Services & First Aid Subpart K - 1910.151 Medical Services & First Aid
Floor Openings	Subpart M - 1926.502 Fall Protection Criteria & Practices Subpart D - 1910.23 Guarding Floor and Wall Openings
Foot Protection	Subpart E - 1926.96 Occupational Foot Protection Subpart I - 1910.136 Foot Protection
Hand Protection	Subpart I - 1910.138 Hand Protection
Hazard Communication	Subpart D - 1926.59 Hazard Communication
Hazardous Waste	Subpart D - 1926.65 Operations & Emergency Response Subpart H - 1910.120 Operations & Emerg. Response

Subject	**Reference**
Head Protection	Subpart E - 1926.100 Head Protection Subpart I - 1910.135 Head Protection
Hearing Protection	Subpart E - 1926.101 Hearing Protection Subpart G - 1910.95 Occupational Noise Exposure
Hoists	Subpart N - 1926.552 Mat. Hoist, Personnel Hoist & Elev.
Housekeeping	Subpart C - 1926.25 Housekeeping
Illumination	Subpart D - 1926.56 Illumination
Incident Investigation	Honeywell Contractor Near Miss/ Incident Investigation Report.
Ladders	Subpart X - 1926.1053 Ladders Subpart D - 1910.22 General Requirements
Lockout/ Tagout	Subpart K - 1926.417 Lockout and Tagging of Circuits Subpart J - 1910.147 Control of Hazardous Energy
Material Handling Equip.	Subpart O - 1926.602 Material Handling Equipment
Materials Handling	Subpart H - 1926.250 General Requirements for Storage
Mobile Equipment	Subpart O - 1926.600 Equipment
Permits	Per Site Specifics. Check With Your Site Contact.
Personal Protective Equip.	Subpart C - 1926.28 Personal Protective Equipment Subpart E - 1926.95 Criteria for Personal Protect. Equip.

	Subpart I - 1910.32 General Requirements

Subject	**Reference**
Personnel Lifting Equipment	Subpart L - 1926.453 Aerial Lifts Subpart N - 1926.552 Personnel Hoist & Elevators Subpart F - 1910.68 Manlifts
Respiratory Protection	Subpart E - 1926.103 Respiratory Protection Subpart I - 1910.134 Respiratory Protection
Rigging	Subpart H - 1926.251 Rigging Material Subpart N - 1910.184 Slings
Sanitation	Subpart D - 1926.51 Sanitation Subpart J - 1910.141 Sanitation
Scaffolds	Subpart L - 1926.451 Scope, Application & Definitions Subpart D - 1910.28 Safety Requirements for Scaffolding
Signaling	Subpart G - 1926.201 Signaling
Signs	Subpart G - 1926.200 Accident Prevention Signs & Tags Subpart J - 1910.145 Specifications for Signs & Tags
Stairways	Subpart X - 1926.1050 Scope, Application & Definitions
Steel Erection	Subpart R – 1926.750 Steel Erection
Tools - Hand & Power	Subpart I - 1926.300 General Requirements Subpart P - 1910.241 Definitions
Training & Orientation	Subpart C - 1926.21 Safety Training and Education Per Site Specifics. Check With Your Site Contact.
Ventilation	Subpart J - 1926.353 Ventilation and Protection Subpart G - 1910.94 Ventilation
Welding & Burning	Subpart J – 1926.350 Welding & Cutting Subpart Q - 1910.251 Definitions

Y. Acknowledgement Page - Read Carefully Before Signing Below

This is to acknowledge that I have received my copy of the Honeywell Contractor Safety Handbook and an orientation on its contents as well as other project rules and policies. I will read and abide by all rules and regulations in the handbook and any additional rules and regulations of my job. I understand that working safely, complying with and obeying any and all Company and Honeywell safety rules, regulations or standards is a condition of employment. Should I not comply with Company and/or Honeywell safety rules, regulations or standards, I am subject to disciplinary action including removal from the site and possible termination of employment. In consideration of my employment, I further agree that my employment and compensation can be terminated at any time, with or without cause or notice, at the option of either the Company or myself. I understand further that this handbook and the rules and regulations it contains do not in any way constitute a contract (either expressed or implied) of employment between the Company as my employer and me for any indefinite or specified period of time. The Company reserves the right to change its policies as summarized herein.

_____ _____

Print Full Name Signature

_____

Contractor Company Name

_____

Craft

_____

Honeywell Contact/Representative

_____

Date

Note: The perforated last page and the back cover of this booklet contain the same wording. After properly endorsed, the perforated page is to be removed and given to the Honeywell contact/representative.

Rev. 12/99

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Rev. 12/99

* To be completed by the Contractor Company with assistance from Honeywell personnel

Date Incident Reported:	Honeywell Location:		Honeywell Contact:	
Date of Incident:	Time of Incident:	Name of Contractor Company:		
Name of Individual(s) Involved w/Incident:		Name of Injured Worker (if applicable):		Name of Supervisor/Foreman:
If an Individual was Injured, were they working under the direct supervision of Honeywell?		Age of Individual Involved:	Job Classification/Title/Craft:	
Length of Work Experience at Job Classification:		Length of Employment with Company:		Length of Time Working at Site:
Was the Individual Involved with the Incident Performing their Regular Job? If "No", explain why:		Date of Site Safety Orientation:		Last Formal/Documented Safety Meeting Attended:
Hours Worked that Day/shift Prior to the	Hours Worked that Week Prior to the Incident:	Consecutive Days/Shifts Worked Prior to the Incident:		Last Day Off Prior to the Incident:
Description of incident according to the individual(s) involved or injured (including what happened and how the incident occurred):				
According to the individual(s) involved with the incident or injured, what could have been done differently to prevent this incident from occurring? Why weren't these done prior to the incident?				

Describe any First Aid or Medical Treatment Provided On Site and/or at a Medical Facility. **NOTE: Any follow-up treatment at a later date must be communicated to Honeywell (Contractor Safety Leader).**	
Date that the Injured Individual Returned to Work?	Any Work Restrictions or Lost Time? If "Yes", describe: **NOTE: Any work restrictions or lost time at a later date must be communicated to Honeywell (Contractor Safety Leader).**
Was there any Property Damage? If "Yes", describe:	

Contractor Supervisor/Foreman should complete the information below with an Investigation Team

Team Investigation – List the Possible Causes of the Incident Below.
For Each Possible Cause Listed Above, Reply "Why" or "Why not" the Cause Occurred.
Corrective Action(s) Taken - List Person(s) Responsible and Target Date:
Contractor Investigation Team - Leader & Members:

Date Incident Reported:	Honeywell Location:	Honeywell Contact:

Approval (Individual Involved/Injured):	Title:	Date:
Supervisor Approval (Print Name):	Title:	Date:
Honeywell Site Approval (Print Name):	Title:	Date:

HONEYWELL

01620 EXHIBIT 1
MOTOR VEHICLE ACCIDENT REPORT

Report #:_____

DATE OF ACCIDENT_____ **DAY OF WEEK**_____ **TIME**_____

LOCATION OF ACCIDENT_____

ACCIDENT INVOLVED: Employees, contractors, visitors, Vehicle vs. Vehicle, Vehicle vs. Property, Vehicle vs. Pedestrian

VEHICLE NO. 1		VEHICLE NO. 2 (or Pedestrian Info.)
	DRIVER'S NAME	
	STREET ADDRESS	
	CITY AND STATE	
	DRIVERS LICENSE NO.	
	PHONE NO. OR EXT.	
	OWNER'S NAME	
	STREET ADDRESS	
	CITY AND STATE	
	PHONE NUMBER	
	VEHICLE TYPE	
	MAKE, MODEL, YEAR	
	LICENSE PLATE	
	VEHICLE DAMAGE	
	PASSENGERS	
	VEHICLE REMOVED TO (auth.)	

INJURED (type, where taken):_____

POLICE DEPARTMENT/REPORT #:_____

WEATHER:_____

ROAD CONDITION: _____

ESTIMATED SPEED OF VEHICLE 1: _____ **VEHICLE 2:** _____

VEHICLE DEFECTS RELATING TO ACCIDENTS (Brakes, Lights, Tires, Steering)

VEHICLE 1: _____ **VEHICLE 2:** _____

STATEMENT DRIVER VEHICLE 1: _____

_____

_____

_____

STATEMENT DRIVER VEHICLE 2: _____

_____

_____

_____

INVESTIGATOR'S COMMENTS: _____

_____

_____

_____

PHOTOGRAPHS TAKEN?: _____

DIAGRAM:

INVESTIGATOR'S SIGNATURE: _____ **DATE:** _____

SUPERVISOR'S SIGNATURE: _____ **DATE:** _____

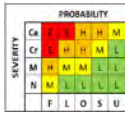
ATTACHMENT F

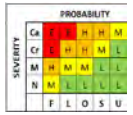
NOT USED

ATTACHMENT G

RISK REGISTER

Tonawanda Coke Site 108
Risk Register
2019





Activity	HOC Confirmation	Hazard Identification	At Risk	Pre-Risk Mgt Evaluation Matrix			Pre-Risk Mgt Treatment	Risk Management & Control -- Safety & Health		Risk Management & Control -- Environmental			Responsible Person	Cost Contingency	Post-Risk Mgt Evaluation Matrix			Residual Risk Action	PM or Office Manager Approval	Post-Risk Mgt Treatment (Residual Risk)
				Probability	Severity	RAC (Pre-Risk)		Engineering/ Administrative Controls	PPE	Waste Management	Engineering/ Administrative Controls	Site Condition Controls			Probability	Severity	RAC (Post-Risk)			
General Field Work	Yes	Injuries, Cold Stress Injuries, Biological Hazards,	Site personnel	Likely	Critical	HIGH	Reduce	Activity Hazard Analysis, Procedures	Personal Flotation Device, Leather Work Gloves	Avoidance	Procedures, Regulatory Requirements,	Spill Kit on Site	Field Team Leader	Covered in Budget	Seldom	Critical	MODERATE	NA		Accept
Fish Sampling	Yes	Dropping, Slips/Trips/Falls, Drowning, Cuts/Punctures/Bites/Muscle Strains/Blunt force injury, Carp Fence/Plant Enclosures	Site personnel	Likely	Marginal	MODERATE	Reduce	Activity Hazard Analysis, Procedures	Level D - Modified, Personal Flotation Device, Leather Work Gloves	Avoidance, Disposal	Permits, Procedures, Regulatory Requirements, Training/education, Checklists/audits, Instructions	Spill Kit on Site	Field Team Leader	Covered in Budget	Likely	Marginal	MODERATE	NA		Accept
Sediment and Water Sampling	Yes	Dropping, Slips/Trips/Falls, Drowning, Cuts/Scrapes, Strains, Preservative Burns	Site personnel	Occasional	Marginal	MODERATE	Reduce	Activity Hazard Analysis, Procedures	Level D - Modified, Personal Flotation Device, Work Gloves	Avoidance, Disposal	Permits, Procedures, Regulatory Requirements, Training/education, Checklists/audits, Instructions	Spill Kit on Site	Field Team Leader	Covered in Budget	Seldom	Marginal	LOW	NA		Accept

ATTACHMENT H

LEGAL COMPLIANCE REGISTER

Attachment H
Tonawanda Coke Legal Compliance Registry
Content Revision Date: 4/6/2018

Item #	Description / identity of relevant SH&E risk	Identity / citation of related legal compliance obligation	How does one gain access to the text of this legal compliance obligation?	Remarks
1	General Safety & Health	• US OSHA 29 CFR 1926.20 • US ACE EM 385-1-1 01.A	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
2	Safety Training	• US OSHA 29 CFR 1926.21 • US ACE EM 385-1-1 01.B.01	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
3	First Aid and Medical	• US OSHA 29 CFR 1926.23 • US OSHA 29 CFR 1926.50 • US ACE EM 385-1-1 03.A	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
4	Fire Protection and Prevention	• US OSHA 29 CFR 1926.24 • US OSHA 29 CFR 1926.150-155 • US OSHA 29 CFR 1926.352 • US ACE EM 385-1-1 09.A	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
5	Housekeeping	• US OSHA 29 CFR 1926.25 • US ACE EM 385-1-1 14.C	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
6	Sanitation	• US OSHA 29 CFR 1926.27 • US OSHA 29 CFR 1926.51 • US ACE EM 385-1-1 02.A	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
7	Personal Protective Equipment	• US OSHA 29 CFR 1926.28 • US OSHA 29 CFR 1926.95-98 • US OSHA 29 CFR 1926.100-107 • US ACE EM 385-1-1 05.A	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
8	Emergency Employee Action Plans	• US OSHA 29 CFR 1926.35 • US ACE EM 385-1-1 01.E	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
9	Noise Exposure	• US OSHA 29 CFR 1910.95 • US OSHA 29 CFR 1926.52 • US ACE EM 385-1-1 05.C	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
10	Gases, Vapors, Dusts and Mists	• US OSHA 29 CFR 1926.55	• www.osha.gov	
11	Hazard Communication	• US OSHA 29 CFR 1926.59 • US ACE EM 385-1-1 1.B.06	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
12	Hazardous Waste Operations and Emergency Response	• US OSHA 29 CFR 1910.120 • US OSHA 29 CFR 1926.65 • US ACE EM 385-1-1 28.A	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
13	Accident prevention signs and tags	• US OSHA 29 CFR 1926.200 • US ACE EM 385-1-1 08.A	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
14	Signaling	• US OSHA 29 CFR 1926.201 • US ACE EM 385-1-1 08.B	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
15	Barricades	• US OSHA 29 CFR 1926.202	• www.osha.gov	
16	Material Storage	• US OSHA 29 CFR 1926.250 • US ACE EM 385-1-1 14.B	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
17	Waste Disposal	• US OSHA 29 CFR 1926.252 • US ACE EM 385-1-1 14.D	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
18	Tools	• US OSHA 29 CFR 1926.300-307	• www.osha.gov	

		• US ACE EM 385-1-1 13.A	• www.usace.army.mil/SafetyandOccupationalHealth.aspx	
19	Motor Vehicles, Mechanized Equipment	• US OSHA 29 CFR 1926.600-603 • US ACE EM 385-1-1 18.A	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
20	Site Clearing	• US OSHA 29 CFR 1926.604 • US ACE EM 385-1-1 31.A	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
21	Excavations	• US OSHA 29 CFR 1926.650-652 • US ACE EM 385-1-1 25.A	• www.osha.gov • www.usace.army.mil/SafetyandOccupationalHealth.aspx	
22	Internal Traffic Control	• US ACE EM 385-1-1 8.D	• www.usace.army.mil/SafetyandOccupationalHealth.aspx	
23	Traffic Movement Restriction Times	• US ACE EM 385-1-1 8.C	• www.usace.army.mil/SafetyandOccupationalHealth.aspx	
25	Boating	• OSH Act of 1970 SEC. 5. Duties	• www.osha.gov	

ATTACHMENT I

TRAINING MATRIX

Employee Name / Employee Title / Employee Function	Required Compliance / Risk Control / Risk Management Training	Required Licenses / Designations of Authority / Competencies / Qualifications / Certifications	Frequency of Required Refresher Training / Assessment of Continuing Competency
Field Team Leaders/Construction Manager	Basic orientation	ESHARP/PSHEP	On initial assignment, reviewed annually
	First Aid / CPR / AED	Designated provider of first aid / CPR provider	Every 2 years (with bloodborne pathogens training)
	PPE: Hardhats, Gloves, Eye Protection, Safety Boots	ESHARP/PSHEP	On initial assignment; upon changes to PPE use
	Parsons Fleet Driver Training		Training is required when personnel are required to operate a Parsons Owned or Leased vehicle on public roadways
Field Technicians	Basic orientation	ESHARP/PSHEP	On initial assignment, reviewed annually
	PPE: Hardhats, Gloves, Eye Protection, Safety Boots	ESHARP/PSHEP	On initial assignment; upon changes to PPE use
	Parsons Fleet Driver Training		Training is required when personnel are required to operate a Parsons Owned or Leased vehicle on public roadways

Current Training Certificates Database: P:\H&S_18\Training Certificates

APPENDIX B

COMMUNITY AIR MONITORING PLAN

Tonawanda Coke Corporation Site 108
Community Air Monitoring Plan

Site Description and Removal Activities

The subject property is part of the Tonawanda Coke Corporation (TCC) plant. The main plant is located at 3875 River Road in Tonawanda, NY. The subject property, Site 108, is located across the street at 3800 River Road. Site 108 extends from River Road to the Niagara River. The site is unoccupied and located in an industrial area, with the Niagara River to the west; a warehouse and liquid asphalt terminal to the north; River Road, the TCC main plant, and the vacant Tonawanda Plastic facility to the east; and the Erie County water treatment plant to the south. Site 108 includes three aboveground storage tanks. Background information indicates the site was primarily used for main plant shipping and deliveries by way of the Niagara River, including coke, coal, and coal tar (GHD 2017). The three tanks were used for storage of coal tar produced from the coking operations. Site access is restricted with a locked gate on the property boundary along River Road. There is a perimeter containment berm around the three tanks.

Planned activities include the removal of water from the storage tank secondary containment areas, removal of coal tar and water from the storage tanks, demolition of the tanks, removal of surface tar from the berms and secondary containment areas, and site restoration upon completion of the work.

Air Monitoring Objectives and Approach

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

Continuous air monitoring will be conducted for all coal tar waste stabilization, coal tar waste processing, coal tar waste loading, ground intrusive activities, activities related to the tank demolition and any other activities which are anticipated to cause increased particulates in the air. Real-time air monitoring will be conducted for VOCs and particulate levels at the perimeter (upwind and downwind) of the exclusion zone or work area.

Monitoring Activities and Approach

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis during active work hours. Continuous upwind monitoring will be conducted along with the downwind monitoring. The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. One upwind and one downwind station will be used for this project. The locations will be established based on wind conditions for each day with adjustments as necessary if wind direction

substantially changes during the day. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below. The air monitoring will be conducted using a MiniRAE 3000 (10.6 eV bulb), or equivalent, for total VOCs and a DustTrak2 Desktop Monitor 8530, or equivalent, for monitoring dust. The monitoring equipment will be setup in weather-proof cases with telemetric capabilities for email and text notifications to the construction manager, site superintendent and safety officer. An UltraRAE 3000 (9.8 eV bulb) will also be maintained on site for periodic monitoring of benzene levels. Attachment 1 includes equipment specifications and equipment communications; Attachments 2 and 3 include standard operating procedures (SOPs).

Analytes of Concern

In addition to the coal tar waste stored in the tanks, site background indicates the site has been impacted with coal and coal tar wastes including benzene, toluene, ethylbenzene, total xylenes (BTEX), and polycyclic aromatic hydrocarbons (PAHs). Potential chemicals of concern (COCs) identified for the site include:

- Benzene
- Toluene
- Ethylbenzene
- Xylenes
- Methylene Chloride
- 1,2-Dichloroethene
- 2-Methylnaphthalene
- Anthracene
- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Chrysene
- Fluoranthene
- Fluorene
- Naphthalene
- Phenanthrene
- Pyrene
- Dibenzofuran

Air Monitoring Methodology

The VOC monitoring will use real-time monitors capable of measuring total VOCs down to 0 ppm and capable of capable of calculating 15-minute running averages. The dust monitoring will use real-time monitors capable of measuring dust less than 10 micrometers (PM-10) with precision that is consistent

with NYSDEC DER-10 Technical Guidance for Site Investigations and Remediation and capable of integrating PM-10 concentrations over a period of 15 minutes. Equipment will alert technicians immediately if dust exceeds the action level.

Baseline Monitoring

The air monitoring stations will be setup and operated at least one day before remedial operations start to establish ambient levels and used along with the upwind readings to establish background levels.

Real-time Air Monitoring

The air monitoring stations will provide continuous and real-time air monitoring data during active construction activities.

Action Levels

The NYSDOH has established action levels for VOCs at 5 parts per million (ppm) above background above background for the 15-minute average. To provide additional assurance, the equipment will be set at a lower site-specific alert level of 1 ppm above background above background for the 15-minute average. This level is based on the benzene OSHA PEL of 1 ppm. As the correction factor for a PID with 10.6 lamp is 0.53 for benzene, so an alert level of 1.0 would be conservative at almost half the PEL. If the air monitors detect VOC concentrations exceeding the site-specific level, the source of the emissions will be investigated and evaluated. If a reading of 5 ppm above background for the 15-minute average is reached or exceeded, work will be immediately stopped until corrective measures are implemented, and levels drop below the action level. Colorimetric gas detection tubes for benzene will be available and used to facilitate assessment for the presence of benzene related to elevated VOC readings.

The NYSDOH has established action levels for particulates at 150 micrograms per cubic meter ($\mu g/m^3$) above background levels. If the action level is exceeded for a 15-minute period, the work will be stopped and additional dust suppression measures (such as increasing the use of water or reducing equipment speeds) will be implemented.

Management Plan

The stations will be operated and maintained by the site Health and Safety Officer. Readings will be recorded and be available for State and federal personnel to review. Instantaneous readings, if any, used for decision purposes shall also be recorded.

As there may be situations when dust is being generated when entering, traversing and leaving the site, monitoring procedures will include visual observations for dust. Regardless of the monitoring data, if dust is observed leaving the working site, additional dust suppression techniques will be employed. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

- Applying water on haul roads;
- Wetting equipment and excavation faces;
- Spraying water on buckets during excavation and dumping;
- Hauling materials in properly tarped or watertight containers;
- Restricting vehicle speeds to 10 mph;

- Covering excavated areas and material after excavation activity ceases; and
- Reducing the excavation size and/or number of excavations.

Weather conditions will also be considered for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended.

Quality Assurance Project Plan

Quality Assurance/Quality Control (QA/QC) will include periodic instrument calibration, operator training, and daily instrument performance (span) checks. QA/QC records will be maintained for the duration of the project. Attachment 1 includes equipment specifications and equipment communications; Attachments 2 and 3 include standard operating procedures (SOPs).

Reporting

CAMP data (e.g., daily averages, confirmed action level exceedances and actions taken, etc.) will be incorporated into the construction report prepared consistent with the requirements set forth in Section 300.165 of the National Contingency Plan (NCP) entitled "On-site Coordinator (OSC) Reports".

ATTACHMENT 1

AIR MONITORING EQUIPMENT

Honeywell

THE POWER OF **CONNECTED**

MiniRAE® 3000 +

Portable Handheld VOC Monitor

The MiniRAE 3000 + is a comprehensive handheld VOC (Volatile Organic Compound) monitor that uses a third-generation patented PID technology to accurately measure one of the highest levels of ionizable chemicals available on the market. The MiniRAE 3000 + is a comprehensive handheld VOC (Volatile Organic Compound) monitor that uses a third-generation patented PID technology to accurately measure one of the highest levels of ionizable chemicals available on the market.

It provides full-range measurement from 0 to 15,000 ppm of VOCs. The MiniRAE 3000 + has a built-in wireless modem that allows real-time data connectivity with the command center located up to 2 miles (3 km) away through a Bluetooth connection to a RAELink 3* portable modem or optionally via Mesh Network.

Workers can quickly measure VOCs and wirelessly transmit data

- Highly accurate VOC measurements
- Reflex PID Technology™
- Low maintenance—easy access to lamp and sensor
- Low cost of ownership
- 3-year 10.6eV lamp warranty
- BLE module & dedicated APP for Enhanced Datalogging capability

FEATURES & BENEFITS

- Third-generation patented PID technology
- Reflex PID Technology™
- VOC detection range from 0 to 15,000 ppm
- 3-second response time
- Humidity compensation with built-in humidity and temperature sensors
- Six-month datalogging
- Highly connectivity capability through multiple wireless module options
- Large graphic display with integrated flashlight
- Multi-language support with 10 languages encoded
- IP- 67 waterproof design

APPLICATIONS

- Oil and Gas
- HazMat
- Industrial Safety
- Civil Defense
- Environmental and Indoor Air Quality

Download on the App Store

GET IT ON Google Play

Instrument Specifications

Size	10" L x 3.0" W x 2.5" H (25.5 cm x 7.6 cm x 6.4 cm)
Weight	26 oz (738 g)
Sensors	Photoionization sensor with standard 10.6 eV or optional 9.8 eV or 11.7 eV lamp
Battery	• Rechargeable, external field-replaceable Lithium-Ion battery pack • Alkaline battery adapter
Running time	16 hours of operation (12 hours with alkaline battery adapter)
Display Graphic	4 lines, 28 x 43 mm, with LED backlight for enhanced display readability
Keypad	1 operation and 2 programming keys, 1 flashlight on/off
Direct Readout	Instantaneous reading • VOCs as ppm by volume (mg/m3) • High values • STEL and TWA • Battery and shutdown voltage • Date, time, temperature
Alarms	95dB at 12" (30 cm) buzzer and flashing red LED to indicate exceeded preset limits • High: 3 beeps and flashes per second • Low: 2 beeps and flashes per second • STEL and TWA: 1 beep and flash per second • Alarms latching with manual override or automatic reset • Additional diagnostic alarm and display message for low battery and pump stall
EMC/RFI	Compliant with EMC directive (2004/108/EC) EMI and ESD test: 100MHz to 1GHz 30V/m, no alarm Contact: ±4kV Air: ±8kV, no alarm
IP Rating	• IP-67 unit off and without flexible probe • IP-65 unit running
Datalogging	Standard 6 months at one-minute intervals
Calibration	Two-point or three-point calibration for zero and span. Reflex PID Technology™ Calibration memory for 8 calibration gases, alarm limits, span values and calibration dates
Sampling Pump	• Internal, integrated flow rate at 500 cc/mn • Sample from 100' (30m) horizontally or vertically
Low Flow Alarm	Auto pump shutoff at low-flow condition
Communication & Data Download	• Download data and upload instrument set-up from PC through charging cradle or using BLE module and dedicated APP • Wireless data transmission through built-in RF modem
Wireless Network	Mesh RAE Systems Dedicated Wireless Network
Wireless Range (Typical)	Up to 15ft (5m) for BLE EchoView Host: LOS > 660 ft (200 m) ProRAE Guardian & RAEMesh Reader: LOS > 660 ft (200 m) ProRAE Guardian & RAELink3 Mesh: LOS > 330 ft (100 m)
Safety Certifications	**US and Canada:** CSA, Classified as Intrinsically Safe for use in Class I, Division 1 Groups A, B, C, D **Europe:** ATEX II 2G EEx ia IIC T4
Temperature	-4° to 122° F (-20° to 50° C)
Humidity	0% to 95% relative humidity (non-condensing)

Instrument Specifications

Attachments	Durable bright yellow rubber boot
Warranty	3 years for 10.6 eV lamp, 1 year for pump, battery, sensor and instrument
Wireless Frequency	ISM license-free band. IEEE 802.15.4 Sub 1GHz
Wireless Approvals	FCC Part 15, CE R&TTE, Others[1]
Radio Module	Supports BLE or Bluetooth or RM900

[1] Contact RAE Systems for country-specific wireless approvals and certificates. Specifications are subject to change.

Sensor Specifications

Gas Monitor	Range	Resolution	Response Time T90
VOCs	0 to 999.9 ppm 1,000 to 15,000 ppm	0.1 ppm 1 ppm	< 3 s < 3 s

MONITOR ONLY INCLUDES:

- MiniRAE 3000 + Monitor, Model PGM-7320
- Wireless communication module built in, as specified
- Datalogging with ProRAE Studio II Package
- Charging/download adapter
- RAE UV lamp, as specified
- Flex-I-Probe™
- External filter
- Rubber boot
- Alkaline battery adapter
- Lamp-cleaning kit
- Tool kit
- Soft leather case

OPTIONAL CALIBRATION KIT ADDS:

- 100 ppm isobutylene calibration gas, 34L
- Calibration regulator and flow controller

OPTIONAL GUARANTEED COST-OF-OWNERSHIP PROGRAM:

- 4-year repair and replacement warranty
- Annual maintenance service

For more information
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Datasheet_MiniRAE 3000_+_DS-1018-_EN

DUSTTRAK™ Aerosol Monitor

The DUSTTRAK™ Aerosol Monitor measures aerosols in a wide variety of environments, from offices and industrial workplaces to outdoor environmental and construction sites. TSI's DUSTTRAK provides reliable exposure assessment by measuring particle concentrations corresponding to PM10, PM2.5, PM1.0 or respirable size fractions.

The DUSTTRAK is a portable, battery-operated laser photometer which gives you a real-time digital readout with the added benefits of a built-in data logger. Suitable for clean office settings as well as harsh industrial workplaces and outdoor applications, the DUSTTRAK detects potential problems with airborne contaminants such as dust, smokes, fumes and mists.

The DUSTTRAK is easy to use, too. You can perform quick spot checks or you can program the advanced logging modes for long-term sampling. You can program the start/stop times, recording intervals and other parameters. You can even set up the instrument for continuous unattended operation.

The DUSTTRAK's new continuous analog output and adjustable alarm output allow remote access to real-time particle concentration data. Applications include site perimeter monitoring, ambient monitoring, process area monitoring and other remote uses. The alarm output with user-defined setpoint alerts you when upset or changing conditions occur. This feature allows you to program a switch closure at a concentration value of your choosing.

The DUSTTRAK provides a real-time measurement based on 90° light scattering. A pump draws the sample aerosol through an optics chamber where it is measured. A sheath air system isolates the aerosol in the chamber to keep the optics clean for improved reliability and low maintenance.

Specifications

Model 8520 DustTrak Aerosol Monitor

Sensor Type	90° light scattering
Range	0.001 to 100 mg/m³ (Calibrated to ISO 12103-1, A1 test dust)
Resolution	±0.1% of reading or ±0.001 mg/m³, whichever is greater
Zero Stability	±0.001 mg/m³ over 24 hours using 10-second time-constant
Particle Size Range	0.1 to approximately 10 micrometers
Flow Rate	Adjustable 1.4 to 2.4 l/min (1.7 nominally)
Temperature Coefficient	±0.001 mg/m³ per °C (for variations from temperature at which the DustTrak was zeroed)
Operating Temperature	32° F to 120° F (0°C to 50°C)
Storage Temperature	-4° F to 140° F (-20°C to 60°C)
Operating Humidity	0 to 95% rh (non-condensing)
Time Constant	Adjustable from 1 to 60 seconds
Data Logging	31,000 data points (21 days of logging once/minute)
Logging Interval	Adjustable from 1 second to 1 hour
Physical	
External Dimensions	8.7 in. × 5.9 in. × 3.4 in. (221 mm × 150 mm × 87 mm)
Instrument Weight	3.3 pounds with batteries (1.5 kg)
Serial Interface	RS-232 1200 baud
Power	
AC	AC adapter (included)
Battery	Four C-size alkaline batteries (included)
Battery Run-time	Alkaline 16 hours

Analog Output Specifications	
Analog Output Voltage	0 to 5 VDC
Analog Output Scaling[1]	0 to 100 mg/m³ 0 to 10.0 mg/m³ 0 to 1.00 mg/m³ 0 to 0.100 mg/m³
Output Impedance	0.01 ohm
Maximum Output Current	15 mA

Alarm Output Specifications	
Type	Non-latching, MOSFET solid state (polarized)[2] analog switch
Setpoint Range[1]	0.010 to 100 mg/m³
Maximum Voltage	15 VDC
Maximum Current	1 Amp
Deadband	-5% of alarm setpoint
Connector	4-Pin, Mini-DIN connector

[1] User selectable through TrakPro™ Data Analysis Software.
[2] See TSI Application Note ITI - 074 for important wiring information.

The DustTrak comes complete with TSI's TrakPro™ Data Analysis Software to allow you to perform a more comprehensive analysis of your measurement results. This exclusive Windows®-based program helps you generate the detailed graphs and reports needed to effectively communicate your findings.

Ordering Information

Model	Description
8520	The DustTrak Aerosol Monitor and accessories includes: Auxiliary Analog and Alarm Outputs, Carrying Case, Alkaline Batteries, TrakPro™ Data Analysis Software, Filter, Computer Cable, 25-pin to 9-pin Adapter, Operation Service Manual, Calibration Certificate, 10 mm Nylon Dorr-Oliver Cyclone, Inlet Conditioning Kit 1.0 and 2.5 µm, Sampling Extension Tube, Miscellaneous Service Tools and Two-Year Warranty.

Optional Accessories

Model	Description
8520-1	Environmental Enclosure

Specifications are subject to change without notice.
Windows is a registered trademark of the Microsoft Corporation.

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For more information
www.tsi.com

CERTIFIED ISO 9001

RAE SYSTEMS by Honeywell

UltraRAE 3000

Portable Handheld Compound-Specific VOC Monitor

The UltraRAE 3000 is the most advanced Compound-Specific Monitor on the market. Its Photoionization Detector's (PID) extended range of 0.05 to 10,000 ppm in VOC mode and 50 ppb to 200 ppm in benzene-specific mode makes it an ideal instrument for applications, from entry pre-screening during refinery and plant maintenance to hazardous material response, marine spill response and refinery down-stream monitoring.

- **Dual detection mode for total benzene exposure assessment: 60-second snap-shot or 15-minute STEL measurement**
- **High sensitivity to benzene (as low as 50 ppb) provides a lower detection range for future benzene exposure limits**
- **Lower risk of false alarms through advanced speciation method**
- **Total VOC measurement mode with extended range of 0.05 to 10,000 ppm**

KEY FEATURES

- Proven PID technology
  - 3-second response in VOC mode or 60 seconds in compound-specific mode
  - Extended range up to 10,000 ppm (in VOC mode) with improved linearity
  - Built-in humidity sensor
  - Automatic temperature-controlled sampling time calculation
  - Highly specific readings, combining a 9.8eV UV lamp and RAE-Sep™ benzene tube
- New sampling probe design provides instant tube-breakthrough visibility
- Versatile VOC or Benzene-Specific modes
- Real-time wireless built-in – Bluetooth (and optional RAELink3 portable modem) or Mesh Network support
- Integrated RAE Systems Correction Factors list for more than 200 compounds

Easy to Use

- Large graphic display
- Multi-language support
- Easy access to lamp, sensor and battery in seconds without tools

Low Cost of Ownership

- Inexpensive analysis using low-cost RAE-Sep tubes

Applications

- Confined space entry pre-screening during refinery and plant maintenance
- Hazardous material response
- Marine spill response
- Refinery down-stream monitoring
- Plant overhaul

Workers can easily and quickly obtain VOC readings anywhere in the facility with the RAE Systems UltraRAE 3000

Wireless | AutoRAE 2 Compatible | ISO 9001 CERTIFIED | C SP US | IECEx | ATEX

UltraRAE3000

Portable Handheld Compound-Specific VOC Monitor

SPECIFICATIONS

Monitor Specifications

Size	10" L x 3.0" W x 2.5" H (25.5 x 7.6 x 6.4 cm)
Weight	26 oz (738 g)
Sensors	Photoionization sensor with standard 9.8 eV or optional 10.6 eV or 11.7 eV lamps
Battery	• Rechargeable, external field-replaceable lithium-ion battery pack • Alkaline battery adapter
Operating Hours	16 hours of operation
Display Graphic	4 lines, 28 x 43mm
Keypad	1 operation and 2 programming keys, 1 flashlight on/off button
Direct Readout	• VOCs as ppm by volume • High and low values • STEL and TWA • Battery and shutdown voltage • Date, time, temperature
Alarms	• 95dB buzzer (at 12"/30 cm) and flashing red LED to indicate exceeded preset limits • High: 3 beeps and flashes per second • Low: 2 beeps and flashes per second • STEL and TWA: 1 beep and flash per second • Alarms latching with manual override or automatic reset • Additional diagnostic alarm and display message for low battery and pump stall
EMC/RFI	Compliant with EMC directive (2004/108/EC) EMI and ESD test: 100MHz to 1GHz 30V/m, no alarm Contact: ±4kV Air: ±8kV, no alarm
IP Rating	IP-65, unit running
Datalogging	Standard 6 months at one-minute intervals
Calibration	2-point or 3-point calibration for zero and span. Calibration memory for 8 calibration gases, alarm limits, span values and calibration dates
Sampling Pump	• Internal, integrated flow rate at 400 cc/min • Sample from 100' (30m) horizontally and vertically
Low Flow Alarm	Auto shut-off pump at low-flow condition
Communication & Data Download	• Download data and upload instrument set-up from PC through charging cradle or optional Bluetooth™ • Wireless data transmission through built-in RF modem
Wireless Network	Mesh RAE Systems Dedicated Wireless Network
Wireless Range (Typical)	EchoView Host: LOS > 660 ft (200 m) ProRAE Guardian & RAEMesh Reader: LOS > 660 ft (200 m) ProRAE Guardian & RAELink3 Mesh: LOS > 330 ft (100 m)
Safety Certifications	• US and Canada: IS, Classified as Intrinsically Safe for use in Class I, Division 1 Groups A, B, C, D. • Europe: ATEX II 2G EEx ia IIC T4 • IECEx CSA 10.0005 Ex ia IIC/IIB GbT4
Operating Temperature	-4° to 122° F (-20° to 50° C)
Humidity	0% to 95% relative humidity (non-condensing)
Attachments	Durable bright red rubber boot
Warranty	3 years for 10.6 eV lamp, 1 year for 9.8. eV lamp, pump, battery, sensor and instrument
Wireless Frequency	ISM license-free band. IEEE 802.15.4 Sub 1GHz
Wireless Approvals	FCC Part 15, CE R&TTE, Others[1]
Radio Module	Supports Bluetooth or RM900

[1] Contact RAE Systems for country-specific wireless approvals and certificates.

Specifications are subject to change

Sensor Specifications

Gas Monitor	Range	Resolution	Response Time (T90)
VOCs	0 to 99.99 ppm	0.025 ppm	< 3 sec
	100 to 999.9 ppm	0.1 ppm	< 3 sec
	1000 to 9999 ppm	1 ppm	< 3 sec
Benzene	0 to 200 ppm	0.025 ppm	< 60 sec
Butadiene	0 to 200 ppm	0.025 ppm	< 60 sec

ULTRARAE 3000 ORDERING OPTIONS

Monitor Only Includes

- UltraRAE 3000 Monitor, Model PGM-7360
- Wireless communication module built-in
- Datalogging with ProRAE Studio II Package for Windows® XP, Windows® Vista, or Windows®7
- Travel Charger
- RAE UV lamp and RAE-Sep™ Tubes
- Flex-I-Probe™ and short probe
- External filter
- Red rubber boot
- Alkaline battery adapter
- Lamp-cleaning kit
- Tool kit
- Lithium-ion (Li-Ion) battery with universal AC/DC charger and international plug kit
- Operation CD-ROM
- Operation & Maintenance manual
- Soft leather carrying case

Monitor with Accessories Kit

- Hard transport case with pre-cut foam padding
- Charging/download cradle
- 5 porous metal filters and O-rings
- Organic vapor zeroing kit
- Gas outlet port adapter and tubing

Optional Calibration Kit

- Calibration gas, 34L, as specified
- Calibration regulator and flow controller

Optional Guaranteed Cost of Ownership Program

- 4-year repair and replacement guarantee
- Annual maintenance service

Ordering Information

Monitor with Accessories and Calibration Kit (PN 059-D311-200)

CORPORATE HEADQUARTERS

RAE Systems by Honeywell
3775 North First Street
San Jose, CA 95134 USA
RAE-InsideSales@honeywell.com

WORLDWIDE SALES OFFICES

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Middle East +971.4.450.5852
China +86.10.5885.8788-3000
Asia Pacific +852.2669.0828

Configuring the System and Environet Guides

The modem(s) you received have been pretested by the Telemetry Technician Team (T^3) at Pine and only require configuration for new client accounts or projects. If you need assistance, the team can assist you with creating a new corporate account, troubleshooting issues, and walking you through any confusing steps in the process of utilizing your equipment. The environet.IO website also contains in depth guides for making full use of the software and a chat window to speak directly with a Netronix Programmer if you are ever in need of assistance. Once logged in, simply click on the blue circle located in the bottom right corner of your screen and search for the topic you would like to learn more about or start a chat conversation with a technician.

Starting Up the System

1. Apply power to the Thiamis 1000 and instrument(s) using a junction box and an external battery or AC power adapter. Allow the modem to come online before connecting any equipment.
2. Once power is applied, the modem should begin transmitting data within 15 minutes.
    - A flashing blue light indicates the modem is searching for signal.
    - After a few moments, the light will turn solid blue. Once the light stays solid blue, the modem has connected to environet.io
    - If at any time the light turns solid orange, remove the modem from power and wait 120 seconds before reconnecting power. Repeat until the unit finds signal.
    - If the white light reappears at any time and remains permanently, please contact Pine to obtain a replacement modem
3. Connect all tubing to associated unit(s). Turn on the DustTrak first, but **DO NOT** connect the USB cable to the DustTrak. Once the DustTrak is on the main screen, plug the USB cable into the DustTrak. After 3-5 minutes, the modem will start the DustTrak automatically.
4. Once the DustTrak is sampling, connect the RAE and turn it on. It should begin reporting within a minute.

Shutting Down the System

1. Follow the shutdown procedures for all the instruments to end the sample run.
2. Remove the source of power (battery, AC adapter) from the junction box.
3. You may disconnect your instruments at this point and shut them down.

Trouble Shooting the System

Troubleshooting the Modem

Remove the power plug directly from the modem. Wait 120 seconds and reconnect the power. If after repeated attempts the modem does not connect to Environet, please call your local office or the Telemetry Department at 609-371-9663 (extensions 01133 and 01135)

DustTrak Soft Reset

1. Stop the DustTrak's run and **remove the USB and Power cables** from the instrument.
2. Open the back of the DustTrak and **remove its internal batteries**.
3. With the internal batteries removed, hold the **Power Button** for **40 seconds**.
4. **Return the internal batteries** to their compartment.
5. **Plug in Power cable first.** Once the main screen has loaded completely, **plug in the USB cable**.
6. **Give modem 15 minutes** to report **"Comm Status: OK"** or **"Comm Status: Timeout Error"**.

MiniRAE 3000 Checks

1. Check that the MiniRAE's **travel charger is lit with a green [sometimes red] LED light**. The power cable **must** be connected the charger for the MiniRAE 3000 to report data.
2. If the travel charger light is on but the MiniRAE is still not reporting, **check that it is set P2P (Cable)** via the following procedure.
    - Hold the **Mode (center) and N /- keys**. This will take you into the RAE's setup menus.
    - Use the **NO/-** key to move to the rightmost option, **Monitor Setup**. Enter Monitor Setup using the **YES/+** button.
    - Press the **NO/-** button and scroll down these settings until you reach **Real Time Protocol**. Highlight this and hit the **YES/+** key.
    - For the RAE to be able to report, make sure the instrument is set to the **P2P (Cable)** option. Highlight **P2P** and hit **YES/+** to select it. Then press the center, **Mode** button to save these settings.
    - **Return to the main run screen**.

Call Pine's Telemetry Department with any further questions or concerns…… +1(609)-371-9663

Matthew Manion, Senior Telemetry Technician: Ex 01133

Anthony W. Borkowski, Telemetry Technician: Ex 01135

ATTACHMENT 2

DUSTTRAK SOP

STANDARD OPERATING PROCEDURE:
TONAWANDA COKE TANK DEMOLITION TSI DUSTTRAK MONITOR

A. SCOPE

The purpose of this Standard Operating Procedure (SOP) is to describe the procedures for using the DustTrak™ II Aerosol Monitor. The DustTrak™ II Aerosol Monitor is a battery-operated, data-logging, light-scattering laser photometers that monitors and records real-time aerosol mass readings. The unit is equipped with alarm options and will be used along with the DustTrak Environmental Enclosure system.

The DustTrak II will be used, along with the MiniRAE, as part of the Community Air Monitoring to continuously monitor ambient air at fixed upwind and downwind of construction operations. Locations for each day will be based on meteorological conditions for that day. Data will be recorded and transmitted by way of a cellular connection.

The procedures in this SOP may be varied or changed as required, depending on site conditions, equipment limitations or other procedural limitations. In all instances, the procedures employed must be documented. The User Manual will be included with the equipment for detailed operational instructions and will be reviewed prior to equipment use. The User Manual can be found at the following location:

- https://www.tsi.com/getmedia/7c608b93-b6d1-459a-a6a8-2b0e2a55ba91/8530-8531-8532-DustTrak_II-6001893-web?ext=.pdf

Used in conjunction with the environmental enclosure case, the unit is a rugged, weather-resistant, portable and battery-operated monitor. Key features include:

- Aerosol Concentration range 0.001 to 150 mg/m3
- Automatic zeroing to minimize the effect of zero drift
- Measure aerosol concentrations corresponding to PM1 PM2.5 PM10 or respirable size fractions
- STEL alarm setpoint for tracking 15-minute average mass concentrations

B. HEALTH AND SAFETY CONSIDERATIONS

The DustTrak II monitor is a Class I laser-based instrument. No exposure to laser radiation will occur during normal operation. Precaution should be taken to avoid exposure to hazardous radiation in the form of intense, focused, visible light. This would include not removing any parts from the unit unless indicated in the operations manual and do not remove the housing or covers. There are no serviceable components inside the housing.

C. EQUIPMENT LIST

The equipment list included in User Manual contains materials that may be needed to carry out the procedures contained in this SOP. Since multiple procedures or alternate methods may be employed to achieve the objectives, not all materials and equipment included on the list may be necessary to complete the task.

D. EQUIPMENT OPERATION

1. Ensure battery is fully charged prior to use
2. Select sampling site. The sampler should be placed in an out in the open location away from obstructions. Assess wind conditions and locate one unit upwind of site work and one downwind of

site work. Adjust locations as necessary during the work day.

3. Mount the Environmental Enclosure.
4. Set up environmental enclosure components

    a. Install the battery pack.

    b. Install in the inlet ring on top of the enclosure

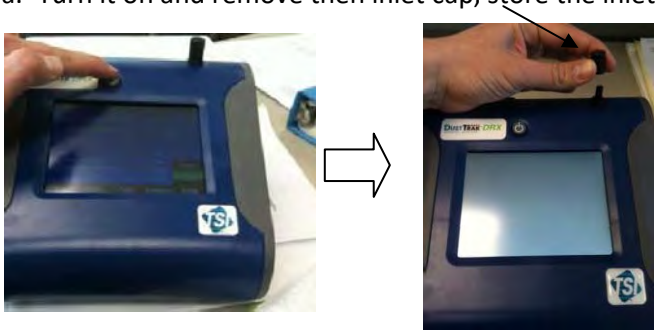
    c. Install water trap bottle in the inner inlet ring

    d. Install PM10 impactor, barbed inlet fitting, and tubing.

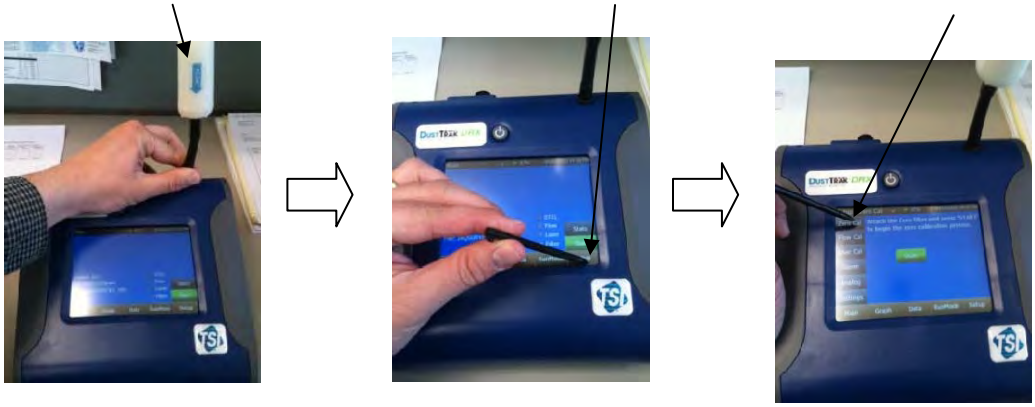
5. Remove monitor from case and install in the enclosure.

6. Zero the DustTrak

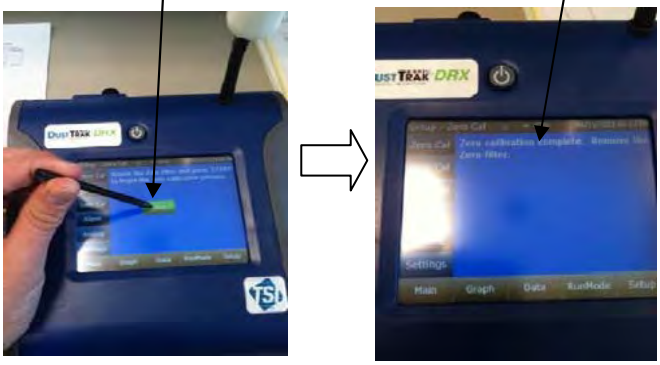
    a. Turn it on and remove then inlet cap, store the inlet cap in the accessory bag.



    b. Attach the Zero filter, using the Stylus press the Setup button, then select Zero Cal.



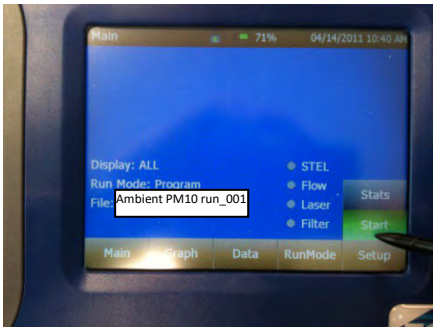
    c. Select Start to begin the Zero Cal. When complete, disconnect the zero filter



7. Attach the tubing to the inlet and select Main.

8. Select RunMode, then from the drop-down menu, select the Ambient PM10 run; set to log at 1 minute intervals

9. Select the Main button, then Select the Start button



10. During daily check of instrument functions, and after the sampling event is over, verify that no error codes have appeared on the screen.

11. Select the Stats button

12. Record the MIN, MAX, and AVG on the field data sheet.

D. DOCUMENTATION

During the implementation of the CAMP, the following information will be recorded and maintained:

- Climatological conditions including temperature, wind direction, and other atmospheric conditions along with the date and time of observations, and station location.
- Calibration.
- All particulate readings.
- Monitoring station locations.
- Any exceedances to the response levels and the respective corrective actions.

Rev	Date	Name
0	8/16/19	Tom Abrams

ATTACHMENT 3

MINIRAE 3000 SOP

STANDARD OPERATING PROCEDURE:
TONAWANDA COKE TANK DEMOLITION ULTRARAE AND MINIRAE 3000 MONITOR

A. SCOPE

The purpose of this Standard Operating Procedure (SOP) is to describe the procedures for using the MiniRAE 3000 Monitor. The unit is a programmable compound-specific photoionization detector (PID) monitor designed to provide instantaneous exposure monitoring of a specific organic gas; current manufacturer's options include benzene or butadiene. The unit will be used to monitor total volatile organic compounds (VOCs) as a broadband monitor using a 10.6 eV eV lamp. An UltraRAE 3000 will also be maintained onsite for periodic benzene-specific checks.

The MiniRAE will be used, along with the DustTrak II, as part of the Community Air Monitoring to continuously monitor ambient air at fixed upwind and downwind of construction operations. Locations for each day will be based on meteorological conditions for that day. Data will be recorded and transmitted by way of a cellular connection. The UltraRAE will be used as a hand-held device to manually check benzene levels against MiniRAE readings.

The procedures in this SOP may be varied or changed as required, depending on site conditions, equipment limitations or other procedural limitations. In all instances, the procedures employed must be documented. The User Manual will be included with the equipment for detailed operational instructions and will be reviewed prior to equipment use. User manuals can be found at the following locations:

- MiniRAE - https://www.raesystems.com/sites/default/files/content/resources/Manual_MINIRAE3000_USERGUIDE.pdf
- UltraRAE - https://www.raesystems.com/sites/default/files/content/resources/Manual_UltraRAE3000_UserGuide_RevF.pdf

A PID uses an ultraviolet (UV) light source (photo light) to break down chemicals to positive and negative ions (ionization) that can be counted with a detector. Ionization occurs when a molecule absorbs the high-energy UV light, which excites the molecule and results in the temporary loss of a negatively charged electron and the formation of positively charged ion. Once the gas becomes electrically charged in the PID, the charged particles produce a current that is amplified and displayed as a concentration of parts per million (ppm) or parts per billion (ppb). The ions subsequently recombine after passing the electrodes in the detector and re-form their original molecule.

Used in conjunction with an environmental enclosure case, the unit is a rugged, weather-resistant, portable and battery-operated monitor. Key features include:

- Range of 0.1 ppm to 15,000 ppm range with 10.6 eV lamp.
- Two-point or three-point calibration for zero and span
- 10 to 2000 ppm: 3% at calibration point
- STEL alarm setpoint for tracking 15-minute average mass concentrations
- Equipped with a wireless radio frequency (RF) modem that allows the unit to communicate and transmit readings and other information on a real-time basis with a remotely located base controller using RAE Systems software.

- The handheld UltraRAE uses Draeger tubes and provides digital readouts with a range of 50 ppb to 200 ppm (resolution of 0.05 ppm; response.

B. HEALTH AND SAFETY CONSIDERATIONS

Care should be taken handling the calibration gas cylinders and special handling procedures may apply for transport.

The PID is a non-specific total vapor detector. The PID cannot distinguish one ionizable gas from another. If there is more than one compound present, the PID will not give an accurate reading of a specific gas; the reading will be an approximate reading of the total gas concentration. The unit does not respond to certain low molecular weight hydrocarbons, such as methane and ethane. If the ionization energy of a compound is higher than that of the UV lamp, it cannot be measured by the PID.

When using the UltraRAE, make sure to wear hand and eye protection when breaking tube tips. Use caution in handling tubes with broken ends.

C. EQUIPMENT LIST

The equipment list included in the Operations Manual contains materials that may be needed to carry out the procedures contained in this SOP. Since multiple procedures or alternate methods may be employed to achieve the objectives, not all materials and equipment included on the list may be necessary to complete the task. The basic equipment includes:

- MiniRAE 3000
    - An AC Adapter (Battery Charger)
    - Alkaline battery adapter
    - External Filter
    - Organic Vapor Zeroing kit
    - Zero gas canister
    - Calibration adapter
    - Calibration regulator and flow controller
    - Operating manual
    - Spare alkaline battery pack
    - Teflon tubing
    - "T" valve for calibration
    - Tygon tubing with metal adapter
    - Lamp cleaning kit
- UltraRAE 3000
    - An AC Adapter (Battery Charger)
    - Alkaline battery adapter
    - Benzene detector tubes.
    - Operating manual

- Spare alkaline battery pack
- Lamp cleaning kit

D. GENERAL EQUIPMENT OPERATION

MiniRAE

1. Ensure battery is fully charged prior to use
2. Select sampling site. The sampler should be placed in an out in the open location away from obstructions. Assess wind conditions and locate one unit upwind of site work and one downwind of site work. Adjust locations as necessary during the work day.
3. Mount the environmental enclosure.
4. Install the PID inside the enclosure
5. The instrument is pre-programmed to operate in User Mode: Basic and Operational Mode: Hygiene as its default setting. This gives you the most commonly needed features while requiring the fewest parameter adjustments.
6. The Programming Mode is used to access the following menus:
   a. Calibration
   b. Measurement
   c. Alarm Settings
   d. Datalog
   e. Monitor Setup
7. Conduct two-point calibration; zero point and span gas calibrations as per the User's Guide.
8. Confirm datalogger is on. Type allows you to select how and when data will be logged, Auto, Manual, or Snapshot. Auto logs data whenever unit is operating and should be used.
9. The unit is factory calibrated and set with default alarm settings. Set Low to 1 ppm, High at 5 ppm and STEL at 5 ppm.
10. For the alarm notifications the instrument default is both on, and the Buzzer and red flashing LED will activate immediately to notify you of an alarm condition.
11. During daily check of instrument functions, and after the sampling event is over, verify that no error codes have appeared on the screen.

UltraRAE

1. Ensure battery is fully charged prior to use
2. Before performing a compound-specific measurement for Benzene or Butadiene using a RAE-Sep separation tube, make sure the UltraRAE 3000 is in Tube Mode and that the appropriate tube type is selected. The UltraRAE 3000 only acts as a compound-specific measurement device when it is equipped with a 9.8eV lamp. The UltraRAE 3000 is designed to auto-sense the lamp type. It can also be manually set to default to a 9.8eV lamp type. Make sure the UltraRAE 3000 is set to operate with your selected tube:
   a. Enter Programming Mode.

b. Select Measurement.

c. Select Tube Selection.

d. Make a choice of Benzene or Butadiene.

e. Save your choice.

3. To begin measuring, turn on the UltraRAE 3000. This screen is shown, which includes the CF (correction factor) and measurement gas type for calibration reference:

    a. Press [N/-] to advance. You will see this screen:

    b. Do not begin sampling yet!

4. Before you start sampling, you must insert a RAE-Sep separation tube into the inlet/holder. Follow step 5 below before pressing any buttons on the UltraRAE 3000. Once the tube is in place, then proceed to measuring.

5. Install the separation tube

    a. Unscrew the front of the sampling probe from the base.

    b. Slip the tube into the rubber holder in the front portion. Make sure the arrow on the side of the tube points toward the instrument.

    c. Insert the other end of the tube into the middle of the base while turning the front portion to tighten it onto the base's threads.

6. Measuring

    a. Once the tube is in place, begin measuring by pressing [Y/+].

    b. The display shows a countdown (60 seconds is shown here, but sampling time depends on the type of separation tube selected and the temperature).

    c. Press [Y/+] to continue sampling with the tube for 15 minutes to establish a STEL reading, or press [N/-] to return to the main menu.

E. DOCUMENTATION

During the implementation of the CAMP, the following information will be recorded and maintained:

- Climatological conditions including temperature, wind direction, and other atmospheric conditions along with the date and time of observations, and station location.
- Calibration.
- All total VOC readings (MiniRAE).
- Monitoring station locations.
- Any exceedances to the response levels and the respective corrective actions.

Manual benzene readings using the UltraRAE will be documented along with location, covered activity and reason for taking the reading.

Rev	Date	Name
0	8/16/19	Tom Abrams

APPENDIX C

WATER AND COAL TAR LABORATORY RESULTS

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-151896-1
Client Project/Site: Honeywell - Tonawanda
Revision: 2

For:
Parsons Corporation
40 LaRiviere Drive
Suite 350
Buffalo, New York 14202

Attn: Robert B Piurek

Authorized for release by:
6/19/2019 10:39:42 AM

John Schove, Project Manager II
(716)504-9838
john.schove@testamericainc.com

Table of Contents

Definitions/Glossary

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-151896-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-151896-1

Revision
This report has been revised to include percent solids for the solid samples.

Revision II
This report has been revised to include Xylenes.

Comments
No additional comments.

Receipt
The samples were received on 4/12/2019 3:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.3º C.

TCLP analysis was requested on samples TANK 1-04112019 and TANK 3-04112019 but due to the matrix of these sample TCLP analysis was unable to be performed. Totals analysis was run instead.

GC/MS VOA
Method(s) 624.1: The preservative used in the sample containers provided is not compatible with the Method 624 analytes requested. The following sample was received preserved with hydrochloric acid: TANK 2-04112019 (480-151896-3). The requested target analyte list contains 2-Chloroethyl vinyl ether and/or Acrolein, which are acid-labile compounds that degrade in an acidic medium.

Method(s) 8260C: The following samples were analyzed using medium level soil analysis and diluted due to the abundance of non-target analytes: TANK 1-04112019 (480-151896-4) and TANK 3-04112019 (480-151896-5). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA
Method(s) 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-468844 and analytical batch 480-469125 recovered outside control limits for the following analytes: 2,2'-oxybis[1-chloropropane] 4,6-Dinitro-2-methylphenol and, 2-Nitroaniline. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The following samples were diluted to bring the concentration of target analytes within the calibration range: TANK 1-04112019 (480-151896-4) and TANK 3-04112019 (480-151896-5). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-469125 recovered above the upper control limit for 2,2'-oxybis[1-chloropropane]. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: TANK 1-04112019 (480-151896-4) and TANK 3-04112019 (480-151896-5).

Method(s) 8270D: The following sample was diluted due to abundance of target analytes: TANK 1-04112019 (480-151896-4). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

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

GC Semi VOA
Method(s) 8081B: For method 8081, the recovery of the one surrogate in samples (MB 480-468846/1-A) exceeds quality control limits. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix: TANK 1-04112019 (480-151896-4) and TANK 3-04112019 (480-151896-5). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Job ID: 480-151896-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

Method(s) 8082A: The following samples are associated with method blank associated with batch preparation batch 480-469296 and analytical batch 480-469795 that had recoveries for the surrogate Tetrachloro-m-xylene that were below acceptance limits. The secondary surrogate Decachlorobiphenyl was within limits. Therefore, the data has been reported. The following samples are impacted: TANK 1-04112019 (480-151896-4) and TANK 3-04112019 (480-151896-5).

Method(s) 8082A: The following sample was diluted due to the nature of the sample matrix: TANK 3-04112019 (480-151896-5). Elevated reporting limits (RLs) are provided.

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

Metals

Method(s) 6010C: The Low Level Continuing Calibration Verification, (CCVL 480-470005/28) associated with batch 480-470005, contained Total Sodium above the upper quality control limit. The associated samples were either below the reporting limit (RL) for the affected analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples TANK 3-04112019 (480-151896-5) was not performed.

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

General Chemistry

Method(s) 335.4: Reanalysis of the following sample was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis. TANK 2-04112019 (480-151896-3) Both sets of data are included in this report.

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

Organic Prep

Method(s) 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-467891.

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-468299.

Method(s) 3580A: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: TANK 1-04112019 (480-151896-4) and TANK 3-04112019 (480-151896-5).

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

Detection Summary

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

Client Sample ID: TANK 2-04112019 — Lab Sample ID: 480-151896-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.8	J	5.0	0.60	ug/L	1		624.1	Total/NA
Toluene	1.6	J	5.0	0.45	ug/L	1		624.1	Total/NA
2,4-Dimethylphenol	1.8	J	4.8	1.3	ug/L	1		625.1	Total/NA
Fluoranthene	1.7	J	4.8	1.5	ug/L	1		625.1	Total/NA
Fluorene	1.0	J	4.8	0.95	ug/L	1		625.1	Total/NA
Phenol	13		4.8	0.33	ug/L	1		625.1	Total/NA
Nickel	0.0014	J	0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.0024	J	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Cyanide, Total	0.0080	J *	0.010	0.0050	mg/L	1		335.4	Total/NA
Cyanide, Total	0.011	H	0.010	0.0050	mg/L	1		335.4	Total/NA

Client Sample ID: TANK 1-04112019 — Lab Sample ID: 480-151896-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	120000		10000	1900	ug/Kg	100		8260C	Total/NA
m,p-Xylene	33000		20000	5500	ug/Kg	100		8260C	Total/NA
o-Xylene	7600	J	10000	1300	ug/Kg	100		8260C	Total/NA
Styrene	7800	J	10000	2400	ug/Kg	100		8260C	Total/NA
Toluene	64000		10000	2700	ug/Kg	100		8260C	Total/NA
2-Methylphenol	250000	J	360000	43000	ug/Kg	10		8270D	Total/NA
3-Methylphenol	900000		710000	56000	ug/Kg	10		8270D	Total/NA
4-Methylphenol	900000		710000	43000	ug/Kg	10		8270D	Total/NA
Fluorene	7600000		360000	43000	ug/Kg	10		8270D	Total/NA
Dibenzofuran	4400000		360000	43000	ug/Kg	10		8270D	Total/NA
Acenaphthylene	3500000		360000	47000	ug/Kg	10		8270D	Total/NA
Benzo[g,h,i]perylene	4100000		360000	39000	ug/Kg	10		8270D	Total/NA
Benzo[k]fluoranthene	3500000		360000	47000	ug/Kg	10		8270D	Total/NA
Benzo[a]pyrene	6000000		360000	54000	ug/Kg	10		8270D	Total/NA
Anthracene	3900000		360000	90000	ug/Kg	10		8270D	Total/NA
2-Methylnaphthalene	4700000		360000	73000	ug/Kg	10		8270D	Total/NA
Dibenz(a,h)anthracene	1200000		360000	64000	ug/Kg	10		8270D	Total/NA
Carbazole	3600000		360000	43000	ug/Kg	10		8270D	Total/NA
Benzo[a]anthracene	6900000		360000	36000	ug/Kg	10		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	3800000		360000	45000	ug/Kg	10		8270D	Total/NA
Chrysene	8000000		360000	81000	ug/Kg	10		8270D	Total/NA
Acenaphthene	870000		360000	54000	ug/Kg	10		8270D	Total/NA
Benzo[b]fluoranthene	8000000		360000	58000	ug/Kg	10		8270D	Total/NA
Biphenyl	1100000		360000	54000	ug/Kg	10		8270D	Total/NA
Phenol	950000		360000	56000	ug/Kg	10		8270D	Total/NA
Phenanthrene - DL	26000000		7300000	1100000	ug/Kg	200		8270D	Total/NA
Pyrene - DL	14000000		7300000	860000	ug/Kg	200		8270D	Total/NA
Naphthalene - DL	49000000		7300000	940000	ug/Kg	200		8270D	Total/NA
Fluoranthene - DL	17000000		7300000	770000	ug/Kg	200		8270D	Total/NA
Arsenic	4.2		2.1	0.42	mg/Kg	1		6010C	Total/NA
Barium	6.4		0.52	0.11	mg/Kg	1		6010C	Total/NA
Cadmium	2.3		0.21	0.031	mg/Kg	1		6010C	Total/NA
Chromium	1.6	B	0.52	0.21	mg/Kg	1		6010C	Total/NA
Lead	73.5		1.0	0.25	mg/Kg	1		6010C	Total/NA
Selenium	2.7	J	4.2	0.42	mg/Kg	1		6010C	Total/NA
Sodium	184		145	13.5	mg/Kg	1		6010C	Total/NA
Potassium	81.8		31.2	20.8	mg/Kg	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TANK 1-04112019 (Continued) — Lab Sample ID: 480-151896-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.063	J	0.21	0.029	mg/Kg	1		6010C	Total/NA
Thallium	4.1	J	6.2	0.31	mg/Kg	1		6010C	Total/NA
Calcium	377	B	52.0	3.4	mg/Kg	1		6010C	Total/NA
Iron	2530		10.4	3.6	mg/Kg	1		6010C	Total/NA
Nickel	1.4	J	5.2	0.24	mg/Kg	1		6010C	Total/NA
Vanadium	1.4		0.52	0.11	mg/Kg	1		6010C	Total/NA
Magnesium	99.0	B	20.8	0.96	mg/Kg	1		6010C	Total/NA
Copper	3.0		1.0	0.22	mg/Kg	1		6010C	Total/NA
Aluminum	637		10.4	4.6	mg/Kg	1		6010C	Total/NA
Zinc	106		2.1	0.67	mg/Kg	1		6010C	Total/NA
Manganese	9.4	B	0.21	0.033	mg/Kg	1		6010C	Total/NA
Cobalt	0.48	J	0.52	0.052	mg/Kg	1		6010C	Total/NA
Mercury	0.14		0.020	0.0083	mg/Kg	1		7471B	Total/NA
Flashpoint	>176		50.0	50.0	Degrees F	1		1010A	Total/NA
pH	7.7	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	21.1	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Total Halogens	1130		100	22.0	ug/g	1		9076	Total/NA

Client Sample ID: TANK 3-04112019 — Lab Sample ID: 480-151896-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	12000		5000	950	ug/Kg	50		8260C	Total/NA
m,p-Xylene	3200	J	10000	2800	ug/Kg	50		8260C	Total/NA
o-Xylene	1000	J	5000	650	ug/Kg	50		8260C	Total/NA
Styrene	1600	J	5000	1200	ug/Kg	50		8260C	Total/NA
Toluene	6200		5000	1300	ug/Kg	50		8260C	Total/NA
3-Methylphenol	220000	J	1700000	130000	ug/Kg	20		8270D	Total/NA
4-Methylphenol	220000	J	1700000	100000	ug/Kg	20		8270D	Total/NA
Fluorene	1800000		850000	100000	ug/Kg	20		8270D	Total/NA
Dibenzofuran	1100000		850000	100000	ug/Kg	20		8270D	Total/NA
Acenaphthylene	1000000		850000	110000	ug/Kg	20		8270D	Total/NA
Benzo[g,h,i]perylene	620000	J	850000	90000	ug/Kg	20		8270D	Total/NA
Phenanthrene	6600000		850000	130000	ug/Kg	20		8270D	Total/NA
Benzo[k]fluoranthene	710000	J	850000	110000	ug/Kg	20		8270D	Total/NA
Benzo[a]pyrene	1000000		850000	130000	ug/Kg	20		8270D	Total/NA
Anthracene	1500000		850000	210000	ug/Kg	20		8270D	Total/NA
2-Methylnaphthalene	700000	J	850000	170000	ug/Kg	20		8270D	Total/NA
Pyrene	2800000		850000	100000	ug/Kg	20		8270D	Total/NA
Naphthalene	5600000		850000	110000	ug/Kg	20		8270D	Total/NA
Fluoranthene	3500000		850000	90000	ug/Kg	20		8270D	Total/NA
Carbazole	1000000		850000	100000	ug/Kg	20		8270D	Total/NA
Benzo[a]anthracene	1300000		850000	85000	ug/Kg	20		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	570000	J	850000	110000	ug/Kg	20		8270D	Total/NA
Chrysene	1200000		850000	190000	ug/Kg	20		8270D	Total/NA
Acenaphthene	190000	J	850000	130000	ug/Kg	20		8270D	Total/NA
Benzo[b]fluoranthene	1100000		850000	140000	ug/Kg	20		8270D	Total/NA
Biphenyl	240000	J	850000	130000	ug/Kg	20		8270D	Total/NA
Chromium	0.49	J B	0.51	0.21	mg/Kg	1		6010C	Total/NA
Sodium	47.4	J B ^	144	13.3	mg/Kg	1		6010C	Total/NA
Calcium	15.7	J B	51.3	3.4	mg/Kg	1		6010C	Total/NA
Iron	15.0		10.3	3.6	mg/Kg	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TANK 3-04112019 (Continued)

Lab Sample ID: 480-151896-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	5.1		5.1	0.24	mg/Kg	1		6010C	Total/NA
Vanadium	29.8		0.51	0.11	mg/Kg	1		6010C	Total/NA
Magnesium	2.8	J B	20.5	0.95	mg/Kg	1		6010C	Total/NA
Copper	0.34	J	1.0	0.22	mg/Kg	1		6010C	Total/NA
Aluminum	4.9	J	10.3	4.5	mg/Kg	1		6010C	Total/NA
Manganese	0.14	J B	0.21	0.033	mg/Kg	1		6010C	Total/NA
Flashpoint	>176		50.0	50.0	Degrees F	1		1010A	Total/NA
pH	6.1	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	21.4	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Total Halogens	86.0	J	100	22.0	ug/g	1		9076	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

Client Sample ID: TANK 2-04112019

Date Collected: 04/11/19 11:00
Date Received: 04/12/19 15:50

Lab Sample ID: 480-151896-3

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.0	U	5.0	0.39	ug/L			04/15/19 15:26	1
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.26	ug/L			04/15/19 15:26	1
1,1,2-Trichloroethane	5.0	U	5.0	0.48	ug/L			04/15/19 15:26	1
1,1-Dichloroethane	5.0	U	5.0	0.59	ug/L			04/15/19 15:26	1
1,1-Dichloroethene	5.0	U	5.0	0.85	ug/L			04/15/19 15:26	1
1,2-Dichlorobenzene	5.0	U	5.0	0.44	ug/L			04/15/19 15:26	1
1,2-Dichloroethane	5.0	U	5.0	0.60	ug/L			04/15/19 15:26	1
1,2-Dichloroethene, Total	10	U	10	3.2	ug/L			04/15/19 15:26	1
1,2-Dichloropropane	5.0	U	5.0	0.61	ug/L			04/15/19 15:26	1
1,3-Dichlorobenzene	5.0	U	5.0	0.54	ug/L			04/15/19 15:26	1
1,4-Dichlorobenzene	5.0	U	5.0	0.51	ug/L			04/15/19 15:26	1
2-Chloroethyl vinyl ether	25	U	25	1.9	ug/L			04/15/19 15:26	1
Acrolein	100	U	100	17	ug/L			04/15/19 15:26	1
Acrylonitrile	50	U	50	1.9	ug/L			04/15/19 15:26	1
Benzene	**3.8**	**J**	5.0	0.60	ug/L			04/15/19 15:26	1
Bromoform	5.0	U	5.0	0.47	ug/L			04/15/19 15:26	1
Bromomethane	5.0	U	5.0	1.2	ug/L			04/15/19 15:26	1
Carbon tetrachloride	5.0	U	5.0	0.51	ug/L			04/15/19 15:26	1
Chlorobenzene	5.0	U	5.0	0.48	ug/L			04/15/19 15:26	1
Chlorodibromomethane	5.0	U	5.0	0.41	ug/L			04/15/19 15:26	1
Chloroethane	5.0	U	5.0	0.87	ug/L			04/15/19 15:26	1
Chloroform	5.0	U	5.0	0.54	ug/L			04/15/19 15:26	1
Chloromethane	5.0	U	5.0	0.64	ug/L			04/15/19 15:26	1
cis-1,3-Dichloropropene	5.0	U	5.0	0.33	ug/L			04/15/19 15:26	1
Dichlorobromomethane	5.0	U	5.0	0.54	ug/L			04/15/19 15:26	1
Ethylbenzene	5.0	U	5.0	0.46	ug/L			04/15/19 15:26	1
Methylene Chloride	5.0	U	5.0	0.81	ug/L			04/15/19 15:26	1
m-Xylene & p-Xylene	10	U	10	1.1	ug/L			04/15/19 15:26	1
o-Xylene	5.0	U	5.0	0.43	ug/L			04/15/19 15:26	1
Tetrachloroethene	5.0	U	5.0	0.34	ug/L			04/15/19 15:26	1
Toluene	**1.6**	**J**	5.0	0.45	ug/L			04/15/19 15:26	1
trans-1,2-Dichloroethene	5.0	U	5.0	0.59	ug/L			04/15/19 15:26	1
trans-1,3-Dichloropropene	5.0	U	5.0	0.44	ug/L			04/15/19 15:26	1
Trichloroethene	5.0	U	5.0	0.60	ug/L			04/15/19 15:26	1
Vinyl chloride	5.0	U	5.0	0.75	ug/L			04/15/19 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*68 - 130*		*04/15/19 15:26*	*1*
4-Bromofluorobenzene (Surr)	*98*		*76 - 123*		*04/15/19 15:26*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*04/15/19 15:26*	*1*
Toluene-d8 (Surr)	*98*		*77 - 120*		*04/15/19 15:26*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	9.5	U	9.5	0.78	ug/L		04/15/19 08:27	04/17/19 23:50	1
1,2-Dichlorobenzene	9.5	U	9.5	4.8	ug/L		04/15/19 08:27	04/17/19 23:50	1
1,2-Diphenylhydrazine	9.5	U	9.5	0.74	ug/L		04/15/19 08:27	04/17/19 23:50	1
1,3-Dichlorobenzene	9.5	U	9.5	0.66	ug/L		04/15/19 08:27	04/17/19 23:50	1
1,4-Dichlorobenzene	9.5	U	9.5	5.4	ug/L		04/15/19 08:27	04/17/19 23:50	1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	0.80	ug/L		04/15/19 08:27	04/17/19 23:50	1

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

Client Sample ID: TANK 2-04112019
Date Collected: 04/11/19 11:00
Date Received: 04/12/19 15:50

Lab Sample ID: 480-151896-3
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	4.8	U	4.8	0.95	ug/L		04/15/19 08:27	04/17/19 23:50	1
2,4-Dichlorophenol	4.8	U	4.8	0.73	ug/L		04/15/19 08:27	04/17/19 23:50	1
2,4-Dimethylphenol	**1.8**	**J**	4.8	1.3	ug/L		04/15/19 08:27	04/17/19 23:50	1
2,4-Dinitrophenol	9.5	U	9.5	4.8	ug/L		04/15/19 08:27	04/17/19 23:50	1
2,4-Dinitrotoluene	9.5	U	9.5	4.8	ug/L		04/15/19 08:27	04/17/19 23:50	1
2,6-Dinitrotoluene	4.8	U	4.8	0.95	ug/L		04/15/19 08:27	04/17/19 23:50	1
2-Chloronaphthalene	4.8	U	4.8	0.87	ug/L		04/15/19 08:27	04/17/19 23:50	1
2-Chlorophenol	4.8	U	4.8	0.63	ug/L		04/15/19 08:27	04/17/19 23:50	1
2-Nitrophenol	4.8	U	4.8	0.67	ug/L		04/15/19 08:27	04/17/19 23:50	1
3,3'-Dichlorobenzidine	4.8	U	4.8	0.78	ug/L		04/15/19 08:27	04/17/19 23:50	1
4,6-Dinitro-2-methylphenol	9.5	U	9.5	0.63	ug/L		04/15/19 08:27	04/17/19 23:50	1
4-Bromophenyl phenyl ether	4.8	U	4.8	1.3	ug/L		04/15/19 08:27	04/17/19 23:50	1
4-Chloro-3-methylphenol	4.8	U	4.8	1.0	ug/L		04/15/19 08:27	04/17/19 23:50	1
4-Chlorophenyl phenyl ether	4.8	U	4.8	1.2	ug/L		04/15/19 08:27	04/17/19 23:50	1
4-Nitrophenol	14	U	14	9.5	ug/L		04/15/19 08:27	04/17/19 23:50	1
Acenaphthene	4.8	U	4.8	0.77	ug/L		04/15/19 08:27	04/17/19 23:50	1
Acenaphthylene	4.8	U	4.8	0.83	ug/L		04/15/19 08:27	04/17/19 23:50	1
Anthracene	4.8	U	4.8	1.3	ug/L		04/15/19 08:27	04/17/19 23:50	1
Benzidine	76	U	76	33	ug/L		04/15/19 08:27	04/17/19 23:50	1
Benzo[a]anthracene	4.8	U	4.8	1.0	ug/L		04/15/19 08:27	04/17/19 23:50	1
Benzo[a]pyrene	4.8	U	4.8	1.2	ug/L		04/15/19 08:27	04/17/19 23:50	1
Benzo[b]fluoranthene	4.8	U	4.8	1.1	ug/L		04/15/19 08:27	04/17/19 23:50	1
Benzo[g,h,i]perylene	4.8	U	4.8	1.4	ug/L		04/15/19 08:27	04/17/19 23:50	1
Benzo[k]fluoranthene	4.8	U	4.8	1.2	ug/L		04/15/19 08:27	04/17/19 23:50	1
Bis(2-chloroethoxy)methane	4.8	U	4.8	0.71	ug/L		04/15/19 08:27	04/17/19 23:50	1
Bis(2-chloroethyl)ether	4.8	U	4.8	0.89	ug/L		04/15/19 08:27	04/17/19 23:50	1
Bis(2-ethylhexyl) phthalate	9.5	U	9.5	1.1	ug/L		04/15/19 08:27	04/17/19 23:50	1
Butyl benzyl phthalate	4.8	U	4.8	1.0	ug/L		04/15/19 08:27	04/17/19 23:50	1
Chrysene	4.8	U	4.8	0.95	ug/L		04/15/19 08:27	04/17/19 23:50	1
Dibenz(a,h)anthracene	4.8	U	4.8	1.4	ug/L		04/15/19 08:27	04/17/19 23:50	1
Diethyl phthalate	4.8	U	4.8	0.95	ug/L		04/15/19 08:27	04/17/19 23:50	1
Dimethyl phthalate	4.8	U	4.8	0.87	ug/L		04/15/19 08:27	04/17/19 23:50	1
Di-n-butyl phthalate	4.8	U	4.8	1.5	ug/L		04/15/19 08:27	04/17/19 23:50	1
Di-n-octyl phthalate	4.8	U	4.8	1.1	ug/L		04/15/19 08:27	04/17/19 23:50	1
Fluoranthene	**1.7**	**J**	4.8	1.5	ug/L		04/15/19 08:27	04/17/19 23:50	1
Fluorene	**1.0**	**J**	4.8	0.95	ug/L		04/15/19 08:27	04/17/19 23:50	1
Hexachlorobenzene	4.8	U	4.8	0.95	ug/L		04/15/19 08:27	04/17/19 23:50	1
Hexachlorobutadiene	4.8	U	4.8	0.95	ug/L		04/15/19 08:27	04/17/19 23:50	1
Hexachlorocyclopentadiene	9.5	U	9.5	4.8	ug/L		04/15/19 08:27	04/17/19 23:50	1
Hexachloroethane	4.8	U	4.8	0.57	ug/L		04/15/19 08:27	04/17/19 23:50	1
Indeno[1,2,3-cd]pyrene	4.8	U	4.8	1.4	ug/L		04/15/19 08:27	04/17/19 23:50	1
Isophorone	4.8	U	4.8	0.70	ug/L		04/15/19 08:27	04/17/19 23:50	1
Naphthalene	4.8	U	4.8	0.82	ug/L		04/15/19 08:27	04/17/19 23:50	1
Nitrobenzene	4.8	U	4.8	0.77	ug/L		04/15/19 08:27	04/17/19 23:50	1
N-Nitrosodimethylamine	9.5	U	9.5	4.8	ug/L		04/15/19 08:27	04/17/19 23:50	1
N-Nitrosodi-n-propylamine	4.8	U	4.8	0.85	ug/L		04/15/19 08:27	04/17/19 23:50	1
N-Nitrosodiphenylamine	4.8	U	4.8	0.38	ug/L		04/15/19 08:27	04/17/19 23:50	1
Pentachlorophenol	9.5	U	9.5	1.5	ug/L		04/15/19 08:27	04/17/19 23:50	1
Phenanthrene	4.8	U	4.8	1.1	ug/L		04/15/19 08:27	04/17/19 23:50	1

Client Sample ID: TANK 2-04112019

Lab Sample ID: 480-151896-3

Date Collected: 04/11/19 11:00

Matrix: Water

Date Received: 04/12/19 15:50

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	**13**		4.8	0.33	ug/L		04/15/19 08:27	04/17/19 23:50	1
Pyrene	4.8	U	4.8	1.3	ug/L		04/15/19 08:27	04/17/19 23:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*97*		*52 - 151*	*04/15/19 08:27*	*04/17/19 23:50*	*1*
2-Fluorobiphenyl	*89*		*44 - 120*	*04/15/19 08:27*	*04/17/19 23:50*	*1*
2-Fluorophenol	*46*		*17 - 120*	*04/15/19 08:27*	*04/17/19 23:50*	*1*
Nitrobenzene-d5	*92*		*15 - 314*	*04/15/19 08:27*	*04/17/19 23:50*	*1*
Phenol-d5	*32*		*8 - 424*	*04/15/19 08:27*	*04/17/19 23:50*	*1*
p-Terphenyl-d14 (Surr)	*81*		*22 - 125*	*04/15/19 08:27*	*04/17/19 23:50*	*1*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.057	U	0.057	0.036	ug/L		04/17/19 08:19	04/19/19 12:07	1
PCB-1221	0.057	U	0.057	0.036	ug/L		04/17/19 08:19	04/19/19 12:07	1
PCB-1232	0.057	U	0.057	0.036	ug/L		04/17/19 08:19	04/19/19 12:07	1
PCB-1242	0.057	U	0.057	0.036	ug/L		04/17/19 08:19	04/19/19 12:07	1
PCB-1248	0.057	U	0.057	0.036	ug/L		04/17/19 08:19	04/19/19 12:07	1
PCB-1254	0.057	U	0.057	0.030	ug/L		04/17/19 08:19	04/19/19 12:07	1
PCB-1260	0.057	U	0.057	0.030	ug/L		04/17/19 08:19	04/19/19 12:07	1
PCB-1262	0.057	U	0.057	0.030	ug/L		04/17/19 08:19	04/19/19 12:07	1
PCB-1268	0.057	U	0.057	0.030	ug/L		04/17/19 08:19	04/19/19 12:07	1
Polychlorinated biphenyls, Total	0.057	U	0.057	0.036	ug/L		04/17/19 08:19	04/19/19 12:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*36*		*36 - 121*	*04/17/19 08:19*	*04/19/19 12:07*	*1*
Tetrachloro-m-xylene (Surr)	*73*		*42 - 135*	*04/17/19 08:19*	*04/19/19 12:07*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.020	U	0.020	0.0068	mg/L		04/17/19 07:47	04/19/19 11:30	1
Arsenic	0.015	U	0.015	0.0056	mg/L		04/17/19 07:47	04/19/19 11:30	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		04/17/19 07:47	04/19/19 11:30	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		04/17/19 07:47	04/19/19 11:30	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		04/17/19 07:47	04/19/19 11:30	1
Copper	0.010	U	0.010	0.0016	mg/L		04/17/19 07:47	04/19/19 11:30	1
Lead	0.010	U	0.010	0.0030	mg/L		04/17/19 07:47	04/19/19 11:30	1
Nickel	**0.0014**	**J**	0.010	0.0013	mg/L		04/17/19 07:47	04/19/19 11:30	1
Selenium	0.025	U	0.025	0.0087	mg/L		04/17/19 07:47	04/19/19 11:30	1
Silver	0.0060	U	0.0060	0.0017	mg/L		04/17/19 07:47	04/19/19 11:30	1
Thallium	0.020	U	0.020	0.010	mg/L		04/17/19 07:47	04/19/19 11:30	1
Zinc	**0.0024**	**J**	0.010	0.0015	mg/L		04/17/19 07:47	04/19/19 11:30	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		04/17/19 11:42	04/17/19 14:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0080**	**J ***	0.010	0.0050	mg/L		04/25/19 12:00	04/25/19 17:37	1
Cyanide, Total	**0.011**	**H**	0.010	0.0050	mg/L		05/05/19 12:45	05/06/19 12:47	1

Client Sample ID: TANK 1-04112019

Date Collected: 04/11/19 09:30
Date Received: 04/12/19 15:50

Lab Sample ID: 480-151896-4

Matrix: Waste

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	10000	U	10000	2800	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
1,1,2,2-Tetrachloroethane	10000	U	10000	1600	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
1,1,2-Trichloro-1,2,2-trifluoroethane	10000	U	10000	5000	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
1,1,2-Trichloroethane	10000	U	10000	2100	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
1,1-Dichloroethane	10000	U	10000	3100	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
1,1-Dichloroethene	10000	U	10000	3500	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
1,2,4-Trichlorobenzene	10000	U	10000	3800	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
1,2-Dibromo-3-Chloropropane	10000	U	10000	5000	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
1,2-Dibromoethane	10000	U	10000	1800	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
1,2-Dichlorobenzene	10000	U	10000	2600	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
1,2-Dichloroethane	10000	U	10000	4100	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
1,2-Dichloropropane	10000	U	10000	1600	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
1,3-Dichlorobenzene	10000	U	10000	2700	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
1,4-Dichlorobenzene	10000	U	10000	1400	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
2-Butanone (MEK)	50000	U	50000	30000	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
2-Hexanone	50000	U	50000	21000	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
4-Methyl-2-pentanone (MIBK)	50000	U	50000	3200	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Acetone	50000	U	50000	41000	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Benzene	**120000**		10000	1900	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Bromodichloromethane	10000	U	10000	2000	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Bromoform	10000	U	10000	5000	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Bromomethane	10000	U	10000	2200	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Carbon disulfide	10000	U	10000	4600	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Carbon tetrachloride	10000	U	10000	2600	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Chlorobenzene	10000	U	10000	1300	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Chloroethane	10000	U	10000	2100	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Chloroform	10000	U	10000	6900	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Chloromethane	10000	U	10000	2400	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
cis-1,2-Dichloroethene	10000	U	10000	2800	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
cis-1,3-Dichloropropene	10000	U	10000	2400	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Cyclohexane	10000	U	10000	2200	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Dibromochloromethane	10000	U	10000	4800	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Dichlorodifluoromethane	10000	U	10000	4400	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Ethylbenzene	10000	U	10000	2900	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Isopropylbenzene	10000	U	10000	1500	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
m,p-Xylene	**33000**		20000	5500	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Methyl acetate	50000	U	50000	4800	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Methyl tert-butyl ether	10000	U	10000	3800	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Methylcyclohexane	10000	U	10000	4700	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Methylene Chloride	10000	U	10000	2000	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
o-Xylene	**7600**	**J**	10000	1300	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Styrene	**7800**	**J**	10000	2400	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Tetrachloroethene	10000	U	10000	1300	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Toluene	**64000**		10000	2700	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
trans-1,2-Dichloroethene	10000	U	10000	2400	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
trans-1,3-Dichloropropene	10000	U	10000	980	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Trichloroethene	10000	U	10000	2800	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Trichlorofluoromethane	10000	U	10000	4700	ug/Kg		04/16/19 09:37	04/17/19 16:53	100
Vinyl chloride	10000	U	10000	3400	ug/Kg		04/16/19 09:37	04/17/19 16:53	100

Client Sample ID: TANK 1-04112019

Date Collected: 04/11/19 09:30
Date Received: 04/12/19 15:50

Lab Sample ID: 480-151896-4

Matrix: Waste

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*53 - 146*	*04/16/19 09:37*	*04/17/19 16:53*	*100*
4-Bromofluorobenzene (Surr)	*85*		*49 - 148*	*04/16/19 09:37*	*04/17/19 16:53*	*100*
Toluene-d8 (Surr)	*97*		*50 - 149*	*04/16/19 09:37*	*04/17/19 16:53*	*100*
Dibromofluoromethane (Surr)	*91*		*60 - 140*	*04/16/19 09:37*	*04/17/19 16:53*	*100*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	710000	U	710000	56000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
2,4-Dinitrotoluene	360000	U	360000	75000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
2,4,5-Trichlorophenol	360000	U	360000	99000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
2,4,6-Trichlorophenol	360000	U	360000	73000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
2-Methylphenol	**250000**	**J**	360000	43000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
3-Methylphenol	**900000**		710000	56000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
4-Methylphenol	**900000**		710000	43000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Hexachlorobenzene	360000	U	360000	49000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Hexachlorobutadiene	360000	U	360000	54000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Hexachloroethane	360000	U	360000	47000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Nitrobenzene	360000	U	360000	41000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Pentachlorophenol	710000	U	710000	360000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Pyridine	710000	U	710000	51000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Dimethyl phthalate	360000	U	360000	43000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
2,4-Dimethylphenol	360000	U	360000	88000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Isophorone	360000	U	360000	77000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Fluorene	**7600000**		360000	43000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Dibenzofuran	**4400000**		360000	43000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Bis(2-ethylhexyl) phthalate	360000	U	360000	120000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
N-Nitrosodi-n-propylamine	360000	U	360000	62000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Acenaphthylene	**3500000**		360000	47000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
2,4-Dichlorophenol	360000	U	360000	39000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
4-Chlorophenyl phenyl ether	360000	U	360000	45000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Benzo[g,h,i]perylene	**4100000**		360000	39000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
4-Chloro-3-methylphenol	360000	U	360000	90000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Di-n-octyl phthalate	360000	U	360000	43000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
2-Nitrophenol	360000	U	360000	100000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Benzo[k]fluoranthene	**3500000**		360000	47000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Benzo[a]pyrene	**6000000**		360000	54000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
2,4-Dinitrophenol	3600000	U	3600000	1700000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Anthracene	**3900000**		360000	90000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
2-Methylnaphthalene	**4700000**		360000	73000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Di-n-butyl phthalate	360000	U	360000	62000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Dibenz(a,h)anthracene	**1200000**		360000	64000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
4-Nitroaniline	710000	U	710000	190000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
3,3'-Dichlorobenzidine	710000	U	710000	430000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
2-Nitroaniline	710000	U *	710000	54000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
4-Bromophenyl phenyl ether	360000	U	360000	51000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Caprolactam	360000	U	360000	110000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Diethyl phthalate	360000	U	360000	47000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Carbazole	**3600000**		360000	43000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
4,6-Dinitro-2-methylphenol	710000	U *	710000	360000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
bis (2-chloroisopropyl) ether	360000	U *	360000	73000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10

Client Sample ID: TANK 1-04112019

Date Collected: 04/11/19 09:30
Date Received: 04/12/19 15:50

Lab Sample ID: 480-151896-4

Matrix: Waste

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	360000	U	360000	300000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Acetophenone	360000	U	360000	49000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Bis(2-chloroethyl)ether	360000	U	360000	47000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Atrazine	360000	U	360000	130000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Benzo[a]anthracene	**6900000**		360000	36000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Indeno[1,2,3-cd]pyrene	**3800000**		360000	45000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Benzaldehyde	360000	U	360000	290000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Butyl benzyl phthalate	360000	U	360000	60000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Hexachlorocyclopentadiene	360000	U	360000	49000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Chrysene	**8000000**		360000	81000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Acenaphthene	**870000**		360000	54000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Benzo[b]fluoranthene	**8000000**		360000	58000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
4-Nitrophenol	710000	U	710000	260000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
4-Chloroaniline	360000	U	360000	90000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
2-Chlorophenol	360000	U	360000	66000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
3-Nitroaniline	710000	U	710000	100000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
2,6-Dinitrotoluene	360000	U	360000	43000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Biphenyl	**1100000**		360000	54000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Phenol	**950000**		360000	56000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
Bis(2-chloroethoxy)methane	360000	U	360000	77000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10
2-Chloronaphthalene	360000	U	360000	60000	ug/Kg		04/19/19 12:31	04/22/19 23:29	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*110*		*54 - 120*	*04/19/19 12:31*	*04/22/19 23:29*	*10*
2-Fluorobiphenyl	*102*		*60 - 120*	*04/19/19 12:31*	*04/22/19 23:29*	*10*
2-Fluorophenol (Surr)	*106*		*52 - 120*	*04/19/19 12:31*	*04/22/19 23:29*	*10*
Nitrobenzene-d5 (Surr)	*109*		*53 - 120*	*04/19/19 12:31*	*04/22/19 23:29*	*10*
p-Terphenyl-d14 (Surr)	*107*		*65 - 121*	*04/19/19 12:31*	*04/22/19 23:29*	*10*
Phenol-d5 (Surr)	*108*		*54 - 120*	*04/19/19 12:31*	*04/22/19 23:29*	*10*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	**26000000**		7300000	1100000	ug/Kg		04/19/19 12:31	04/23/19 15:07	200
Pyrene	**14000000**		7300000	860000	ug/Kg		04/19/19 12:31	04/23/19 15:07	200
Naphthalene	**49000000**		7300000	940000	ug/Kg		04/19/19 12:31	04/23/19 15:07	200
Fluoranthene	**17000000**		7300000	770000	ug/Kg		04/19/19 12:31	04/23/19 15:07	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*0*	*X*	*54 - 120*	*04/19/19 12:31*	*04/23/19 15:07*	*200*
2-Fluorobiphenyl	*0*	*X*	*60 - 120*	*04/19/19 12:31*	*04/23/19 15:07*	*200*
2-Fluorophenol (Surr)	*0*	*X*	*52 - 120*	*04/19/19 12:31*	*04/23/19 15:07*	*200*
Nitrobenzene-d5 (Surr)	*0*	*X*	*53 - 120*	*04/19/19 12:31*	*04/23/19 15:07*	*200*
p-Terphenyl-d14 (Surr)	*0*	*X*	*65 - 121*	*04/19/19 12:31*	*04/23/19 15:07*	*200*
Phenol-d5 (Surr)	*0*	*X*	*54 - 120*	*04/19/19 12:31*	*04/23/19 15:07*	*200*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	91	U	91	36	mg/Kg		04/19/19 12:35	04/23/19 17:22	20
Endrin	9.1	U	9.1	2.9	mg/Kg		04/19/19 12:35	04/23/19 17:22	20
gamma-BHC (Lindane)	9.1	U	9.1	6.5	mg/Kg		04/19/19 12:35	04/23/19 17:22	20

Client Sample ID: TANK 1-04112019

Date Collected: 04/11/19 09:30
Date Received: 04/12/19 15:50

Lab Sample ID: 480-151896-4

Matrix: Waste

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	9.1	U	9.1	1.4	mg/Kg		04/19/19 12:35	04/23/19 17:22	20
Heptachlor epoxide	9.1	U	9.1	2.4	mg/Kg		04/19/19 12:35	04/23/19 17:22	20
Methoxychlor	9.1	U	9.1	2.4	mg/Kg		04/19/19 12:35	04/23/19 17:22	20
Toxaphene	91	U	91	53	mg/Kg		04/19/19 12:35	04/23/19 17:22	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*	*04/19/19 12:35*	*04/23/19 17:22*	*20*
Tetrachloro-m-xylene	*0*	*X*	*30 - 124*	*04/19/19 12:35*	*04/23/19 17:22*	*20*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	3.8	U	3.8	0.75	mg/Kg		04/23/19 12:04	04/25/19 21:04	1
PCB-1221	3.8	U	3.8	0.75	mg/Kg		04/23/19 12:04	04/25/19 21:04	1
PCB-1232	3.8	U	3.8	0.75	mg/Kg		04/23/19 12:04	04/25/19 21:04	1
PCB-1242	3.8	U	3.8	0.75	mg/Kg		04/23/19 12:04	04/25/19 21:04	1
PCB-1248	3.8	U	3.8	0.75	mg/Kg		04/23/19 12:04	04/25/19 21:04	1
PCB-1254	3.8	U	3.8	0.18	mg/Kg		04/23/19 12:04	04/25/19 21:04	1
PCB-1260	3.8	U	3.8	0.18	mg/Kg		04/23/19 12:04	04/25/19 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*60 - 154*	*04/23/19 12:04*	*04/25/19 21:04*	*1*
DCB Decachlorobiphenyl	*88*		*65 - 174*	*04/23/19 12:04*	*04/25/19 21:04*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	2300	U	2300	470	ug/Kg		04/24/19 12:45	04/25/19 15:41	1
2,4,5-T	580	U	580	130	ug/Kg		04/24/19 12:45	04/25/19 15:41	1
Silvex (2,4,5-TP)	580	U	580	130	ug/Kg		04/24/19 12:45	04/25/19 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*82*		*15 - 120*	*04/24/19 12:45*	*04/25/19 15:41*	*1*
2,4-Dichlorophenylacetic acid	*75*		*15 - 120*	*04/24/19 12:45*	*04/25/19 15:41*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.2**		2.1	0.42	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Barium	**6.4**		0.52	0.11	mg/Kg		04/24/19 12:19	04/26/19 11:33	1
Cadmium	**2.3**		0.21	0.031	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Chromium	**1.6**	**B**	0.52	0.21	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Lead	**73.5**		1.0	0.25	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Selenium	**2.7**	**J**	4.2	0.42	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Silver	0.62	U	0.62	0.21	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Antimony	15.6	U	15.6	0.42	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Sodium	**184**		145	13.5	mg/Kg		04/24/19 12:19	04/26/19 11:33	1
Potassium	**81.8**		31.2	20.8	mg/Kg		04/24/19 12:19	04/26/19 11:33	1
Beryllium	**0.063**	**J**	0.21	0.029	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Thallium	**4.1**	**J**	6.2	0.31	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Calcium	**377**	**B**	52.0	3.4	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Iron	**2530**		10.4	3.6	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Nickel	**1.4**	**J**	5.2	0.24	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Vanadium	**1.4**		0.52	0.11	mg/Kg		04/24/19 12:19	04/25/19 15:43	1

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

Client Sample ID: TANK 1-04112019

Date Collected: 04/11/19 09:30
Date Received: 04/12/19 15:50

Lab Sample ID: 480-151896-4

Matrix: Waste

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	99.0	B	20.8	0.96	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Copper	3.0		1.0	0.22	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Aluminum	637		10.4	4.6	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Zinc	106		2.1	0.67	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Manganese	9.4	B	0.21	0.033	mg/Kg		04/24/19 12:19	04/25/19 15:43	1
Cobalt	0.48	J	0.52	0.052	mg/Kg		04/24/19 12:19	04/25/19 15:43	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.020	0.0083	mg/Kg		04/25/19 12:23	04/25/19 14:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Halogens	1130		100	22.0	ug/g			05/01/19 07:07	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>176		50.0	50.0	Degrees F			04/19/19 07:10	1
Cyanide, Reactive	10	U	10	10	mg/Kg		04/23/19 09:01	04/25/19 18:17	1
Sulfide, Reactive	10	U	10	10	mg/Kg		04/23/19 09:01	04/24/19 14:40	1
pH	7.7	HF	0.1	0.1	SU			04/18/19 13:00	1
Temperature	21.1	HF	0.001	0.001	Degrees C			04/18/19 13:00	1

Client Sample ID: TANK 3-04112019

Date Collected: 04/11/19 10:30
Date Received: 04/12/19 15:50

Lab Sample ID: 480-151896-5

Matrix: Waste

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5000	U	5000	1400	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
1,1,2,2-Tetrachloroethane	5000	U	5000	810	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
1,1,2-Trichloro-1,2,2-trifluoroethane	5000	U	5000	2500	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
1,1,2-Trichloroethane	5000	U	5000	1000	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
1,1-Dichloroethane	5000	U	5000	1500	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
1,1-Dichloroethene	5000	U	5000	1700	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
1,2,4-Trichlorobenzene	5000	U	5000	1900	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
1,2-Dibromo-3-Chloropropane	5000	U	5000	2500	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
1,2-Dibromoethane	5000	U	5000	870	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
1,2-Dichlorobenzene	5000	U	5000	1300	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
1,2-Dichloroethane	5000	U	5000	2000	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
1,2-Dichloropropane	5000	U	5000	810	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
1,3-Dichlorobenzene	5000	U	5000	1300	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
1,4-Dichlorobenzene	5000	U	5000	700	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
2-Butanone (MEK)	25000	U	25000	15000	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
2-Hexanone	25000	U	25000	10000	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
4-Methyl-2-pentanone (MIBK)	25000	U	25000	1600	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Acetone	25000	U	25000	21000	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Benzene	**12000**		5000	950	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Bromodichloromethane	5000	U	5000	1000	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Bromoform	5000	U	5000	2500	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Bromomethane	5000	U	5000	1100	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Carbon disulfide	5000	U	5000	2300	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Carbon tetrachloride	5000	U	5000	1300	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Chlorobenzene	5000	U	5000	660	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Chloroethane	5000	U	5000	1000	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Chloroform	5000	U	5000	3400	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Chloromethane	5000	U	5000	1200	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
cis-1,2-Dichloroethene	5000	U	5000	1400	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
cis-1,3-Dichloropropene	5000	U	5000	1200	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Cyclohexane	5000	U	5000	1100	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Dibromochloromethane	5000	U	5000	2400	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Dichlorodifluoromethane	5000	U	5000	2200	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Ethylbenzene	5000	U	5000	1500	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Isopropylbenzene	5000	U	5000	750	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
m,p-Xylene	**3200**	**J**	10000	2800	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Methyl acetate	25000	U	25000	2400	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Methyl tert-butyl ether	5000	U	5000	1900	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Methylcyclohexane	5000	U	5000	2300	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Methylene Chloride	5000	U	5000	990	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
o-Xylene	**1000**	**J**	5000	650	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Styrene	**1600**	**J**	5000	1200	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Tetrachloroethene	5000	U	5000	670	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Toluene	**6200**		5000	1300	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
trans-1,2-Dichloroethene	5000	U	5000	1200	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
trans-1,3-Dichloropropene	5000	U	5000	490	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Trichloroethene	5000	U	5000	1400	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Trichlorofluoromethane	5000	U	5000	2300	ug/Kg		04/16/19 09:37	04/17/19 17:16	50
Vinyl chloride	5000	U	5000	1700	ug/Kg		04/16/19 09:37	04/17/19 17:16	50

Client Sample ID: TANK 3-04112019

Date Collected: 04/11/19 10:30
Date Received: 04/12/19 15:50

Lab Sample ID: 480-151896-5

Matrix: Waste

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*53 - 146*	*04/16/19 09:37*	*04/17/19 17:16*	*50*
4-Bromofluorobenzene (Surr)	*88*		*49 - 148*	*04/16/19 09:37*	*04/17/19 17:16*	*50*
Toluene-d8 (Surr)	*99*		*50 - 149*	*04/16/19 09:37*	*04/17/19 17:16*	*50*
Dibromofluoromethane (Surr)	*88*		*60 - 140*	*04/16/19 09:37*	*04/17/19 17:16*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1700000	U	1700000	130000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
2,4-Dinitrotoluene	850000	U	850000	180000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
2,4,5-Trichlorophenol	850000	U	850000	230000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
2,4,6-Trichlorophenol	850000	U	850000	170000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
2-Methylphenol	850000	U	850000	100000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
3-Methylphenol	**220000**	**J**	1700000	130000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
4-Methylphenol	**220000**	**J**	1700000	100000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Hexachlorobenzene	850000	U	850000	120000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Hexachlorobutadiene	850000	U	850000	130000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Hexachloroethane	850000	U	850000	110000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Nitrobenzene	850000	U	850000	95000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Pentachlorophenol	1700000	U	1700000	850000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Pyridine	1700000	U	1700000	120000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Dimethyl phthalate	850000	U	850000	100000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
2,4-Dimethylphenol	850000	U	850000	210000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Isophorone	850000	U	850000	180000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Fluorene	**1800000**		850000	100000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Dibenzofuran	**1100000**		850000	100000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Bis(2-ethylhexyl) phthalate	850000	U	850000	290000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
N-Nitrosodi-n-propylamine	850000	U	850000	150000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Acenaphthylene	**1000000**		850000	110000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
2,4-Dichlorophenol	850000	U	850000	90000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
4-Chlorophenyl phenyl ether	850000	U	850000	110000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Benzo[g,h,i]perylene	**620000**	**J**	850000	90000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
4-Chloro-3-methylphenol	850000	U	850000	210000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Di-n-octyl phthalate	850000	U	850000	100000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Phenanthrene	**6600000**		850000	130000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
2-Nitrophenol	850000	U	850000	240000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Benzo[k]fluoranthene	**710000**	**J**	850000	110000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Benzo[a]pyrene	**1000000**		850000	130000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
2,4-Dinitrophenol	8300000	U	8300000	3900000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Anthracene	**1500000**		850000	210000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
2-Methylnaphthalene	**700000**	**J**	850000	170000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Di-n-butyl phthalate	850000	U	850000	150000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Pyrene	**2800000**		850000	100000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Dibenz(a,h)anthracene	850000	U	850000	150000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
4-Nitroaniline	1700000	U	1700000	450000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Naphthalene	**5600000**		850000	110000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Fluoranthene	**3500000**		850000	90000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
3,3'-Dichlorobenzidine	1700000	U	1700000	1000000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
2-Nitroaniline	1700000	U *	1700000	130000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
4-Bromophenyl phenyl ether	850000	U	850000	120000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Caprolactam	850000	U	850000	260000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20

Client Sample ID: TANK 3-04112019

Date Collected: 04/11/19 10:30
Date Received: 04/12/19 15:50

Lab Sample ID: 480-151896-5

Matrix: Waste

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diethyl phthalate	850000	U	850000	110000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Carbazole	**1000000**		850000	100000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
4,6-Dinitro-2-methylphenol	1700000	U *	1700000	850000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
bis (2-chloroisopropyl) ether	850000	U *	850000	170000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
N-Nitrosodiphenylamine	850000	U	850000	690000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Acetophenone	850000	U	850000	120000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Bis(2-chloroethyl)ether	850000	U	850000	110000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Atrazine	850000	U	850000	300000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Benzo[a]anthracene	**1300000**		850000	85000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Indeno[1,2,3-cd]pyrene	**570000**	**J**	850000	110000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Benzaldehyde	850000	U	850000	680000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Butyl benzyl phthalate	850000	U	850000	140000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Hexachlorocyclopentadiene	850000	U	850000	120000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Chrysene	**1200000**		850000	190000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Acenaphthene	**190000**	**J**	850000	130000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Benzo[b]fluoranthene	**1100000**		850000	140000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
4-Nitrophenol	1700000	U	1700000	600000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
4-Chloroaniline	850000	U	850000	210000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
2-Chlorophenol	850000	U	850000	160000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
3-Nitroaniline	1700000	U	1700000	240000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
2,6-Dinitrotoluene	850000	U	850000	100000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Biphenyl	**240000**	**J**	850000	130000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Phenol	850000	U	850000	130000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
Bis(2-chloroethoxy)methane	850000	U	850000	180000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20
2-Chloronaphthalene	850000	U	850000	140000	ug/Kg		04/19/19 12:31	04/22/19 23:53	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*116*		*54 - 120*	*04/19/19 12:31*	*04/22/19 23:53*	*20*
2-Fluorobiphenyl	*86*		*60 - 120*	*04/19/19 12:31*	*04/22/19 23:53*	*20*
2-Fluorophenol (Surr)	*109*		*52 - 120*	*04/19/19 12:31*	*04/22/19 23:53*	*20*
Nitrobenzene-d5 (Surr)	*104*		*53 - 120*	*04/19/19 12:31*	*04/22/19 23:53*	*20*
p-Terphenyl-d14 (Surr)	*122*	*X*	*65 - 121*	*04/19/19 12:31*	*04/22/19 23:53*	*20*
Phenol-d5 (Surr)	*94*		*54 - 120*	*04/19/19 12:31*	*04/22/19 23:53*	*20*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	140	U	140	56	mg/Kg		04/19/19 12:35	04/23/19 17:42	50
Endrin	14	U	14	4.4	mg/Kg		04/19/19 12:35	04/23/19 17:42	50
gamma-BHC (Lindane)	14	U	14	10	mg/Kg		04/19/19 12:35	04/23/19 17:42	50
Heptachlor	14	U	14	2.2	mg/Kg		04/19/19 12:35	04/23/19 17:42	50
Heptachlor epoxide	14	U	14	3.6	mg/Kg		04/19/19 12:35	04/23/19 17:42	50
Methoxychlor	14	U	14	3.6	mg/Kg		04/19/19 12:35	04/23/19 17:42	50
Toxaphene	140	U	140	81	mg/Kg		04/19/19 12:35	04/23/19 17:42	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*	*04/19/19 12:35*	*04/23/19 17:42*	*50*
Tetrachloro-m-xylene	*0*	*X*	*30 - 124*	*04/19/19 12:35*	*04/23/19 17:42*	*50*

Client Sample ID: TANK 3-04112019

Date Collected: 04/11/19 10:30
Date Received: 04/12/19 15:50

Lab Sample ID: 480-151896-5

Matrix: Waste

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	6.7	U	6.7	1.3	mg/Kg		04/23/19 12:04	04/25/19 21:20	2
PCB-1221	6.7	U	6.7	1.3	mg/Kg		04/23/19 12:04	04/25/19 21:20	2
PCB-1232	6.7	U	6.7	1.3	mg/Kg		04/23/19 12:04	04/25/19 21:20	2
PCB-1242	6.7	U	6.7	1.3	mg/Kg		04/23/19 12:04	04/25/19 21:20	2
PCB-1248	6.7	U	6.7	1.3	mg/Kg		04/23/19 12:04	04/25/19 21:20	2
PCB-1254	6.7	U	6.7	0.31	mg/Kg		04/23/19 12:04	04/25/19 21:20	2
PCB-1260	6.7	U	6.7	0.31	mg/Kg		04/23/19 12:04	04/25/19 21:20	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*70*		*60 - 154*	*04/23/19 12:04*	*04/25/19 21:20*	*2*
DCB Decachlorobiphenyl	*87*		*65 - 174*	*04/23/19 12:04*	*04/25/19 21:20*	*2*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	2400	U	2400	490	ug/Kg		04/24/19 12:45	04/25/19 16:01	1
2,4,5-T	590	U	590	130	ug/Kg		04/24/19 12:45	04/25/19 16:01	1
Silvex (2,4,5-TP)	590	U	590	140	ug/Kg		04/24/19 12:45	04/25/19 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*73*		*15 - 120*	*04/24/19 12:45*	*04/25/19 16:01*	*1*
2,4-Dichlorophenylacetic acid	*66*		*15 - 120*	*04/24/19 12:45*	*04/25/19 16:01*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.1	U	2.1	0.41	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Barium	0.51	U	0.51	0.11	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Cadmium	0.21	U	0.21	0.031	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Chromium	**0.49**	**J B**	0.51	0.21	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Lead	1.0	U	1.0	0.25	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Selenium	4.1	U	4.1	0.41	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Silver	0.62	U	0.62	0.21	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Antimony	15.4	U	15.4	0.41	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Sodium	**47.4**	**J B ^**	144	13.3	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Potassium	30.8	U	30.8	20.5	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Beryllium	0.21	U	0.21	0.029	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Thallium	6.2	U	6.2	0.31	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Calcium	**15.7**	**J B**	51.3	3.4	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Iron	**15.0**		10.3	3.6	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Nickel	**5.1**		5.1	0.24	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Vanadium	**29.8**		0.51	0.11	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Magnesium	**2.8**	**J B**	20.5	0.95	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Copper	**0.34**	**J**	1.0	0.22	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Aluminum	**4.9**	**J**	10.3	4.5	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Zinc	2.1	U	2.1	0.66	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Manganese	**0.14**	**J B**	0.21	0.033	mg/Kg		04/24/19 12:19	04/25/19 15:58	1
Cobalt	0.51	U	0.51	0.051	mg/Kg		04/24/19 12:19	04/25/19 15:58	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	U	0.020	0.0083	mg/Kg		04/25/19 12:23	04/25/19 14:29	1

Client Sample Results

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

Client Sample ID: TANK 3-04112019

Date Collected: 04/11/19 10:30
Date Received: 04/12/19 15:50

Lab Sample ID: 480-151896-5

Matrix: Waste

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Halogens	**86.0**	**J**	100	22.0	ug/g			05/01/19 07:07	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**>176**		50.0	50.0	Degrees F			04/19/19 07:10	1
Cyanide, Reactive	10	U	10	10	mg/Kg		04/23/19 09:01	04/25/19 18:17	1
Sulfide, Reactive	10	U	10	10	mg/Kg		04/23/19 09:01	04/24/19 14:40	1
pH	**6.1**	**HF**	0.1	0.1	SU			04/18/19 13:00	1
Temperature	**21.4**	**HF**	0.001	0.001	Degrees C			04/18/19 13:00	1

Surrogate Summary

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(75-123)	(77-120)
480-151896-3	TANK 2-04112019	101	98	106	98
LCS 480-467877/5	Lab Control Sample	106	106	105	103
MB 480-467877/7	Method Blank	103	100	102	99

Surrogate Legend

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

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

Matrix: Waste — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(53-146)	(49-148)	(50-149)	(60-140)
480-151896-4	TANK 1-04112019	102	85	97	91
480-151896-5	TANK 3-04112019	103	88	99	88
LCS 480-468129/1-A	Lab Control Sample	102	100	96	99
MB 480-468129/2-A	Method Blank	101	98	96	94

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(8-424)	(22-125)
480-151896-3	TANK 2-04112019	97	89	46	92	32	81
LCS 480-467891/2-A	Lab Control Sample	103	82	47	86	32	86
LCSD 480-467891/3-A	Lab Control Sample Dup	95	82	47	83	33	90
MB 480-467891/1-A	Method Blank	95	86	49	92	35	88

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Waste **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	TBP (54-120)	FBP (60-120)	2FP (52-120)	NBZ (53-120)	TPHd14 (65-121)	PHL (54-120)
480-151896-4	TANK 1-04112019	110	102	106	109	107	108
480-151896-4 - DL	TANK 1-04112019	0 X	0 X	0 X	0 X	0 X	0 X
480-151896-5	TANK 3-04112019	116	86	109	104	122 X	94
LCS 480-468844/2-A	Lab Control Sample	106	98	105	105	95	102
LCSD 480-468844/3-A	Lab Control Sample Dup	109	97	109	108	99	106
MB 480-468844/1-A	Method Blank	91	93	103	101	89	101

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCBP2 (36-121)	TCX2 (42-135)
480-151896-3	TANK 2-04112019	36	73
LCS 480-468299/2-A	Lab Control Sample	39	78
LCSD 480-468299/3-A	Lab Control Sample Dup	40	76
MB 480-468299/1-A	Method Blank	39	67

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Waste **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCBP2 (45-120)	TCX2 (30-124)
480-151896-4	TANK 1-04112019	0 X	0 X
480-151896-5	TANK 3-04112019	0 X	0 X
LCS 480-468846/2-A	Lab Control Sample	88	57
LCSD 480-468846/3-A	Lab Control Sample Dup	90	57
MB 480-468846/1-A	Method Blank	135 X	58

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Waste **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX1 (60-154)	DCBP1 (65-174)
480-151896-4	TANK 1-04112019	72	88

Surrogate Summary

Client: Parsons Corporation
Job ID: 480-151896-1
Project/Site: Honeywell - Tonawanda

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Waste **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCBP1
Lab Sample ID	Client Sample ID	(60-154)	(65-174)
480-151896-5	TANK 3-04112019	70	87
LCS 480-469296/2-A	Lab Control Sample	65	90
MB 480-469296/1-A	Method Blank	50 X	78

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

Matrix: Waste **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1	DCPAA2
Lab Sample ID	Client Sample ID	(15-120)	(15-120)
480-151896-4	TANK 1-04112019	82	75
480-151896-5	TANK 3-04112019	73	66
LCS 240-377980/7-A	Lab Control Sample	84	82
MB 240-377980/6-A	Method Blank	72	65

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-467877/7
Matrix: Water
Analysis Batch: 467877

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.0	U	5.0	0.39	ug/L			04/15/19 10:54	1
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.26	ug/L			04/15/19 10:54	1
1,1,2-Trichloroethane	5.0	U	5.0	0.48	ug/L			04/15/19 10:54	1
1,1-Dichloroethane	5.0	U	5.0	0.59	ug/L			04/15/19 10:54	1
1,1-Dichloroethene	5.0	U	5.0	0.85	ug/L			04/15/19 10:54	1
1,2-Dichlorobenzene	5.0	U	5.0	0.44	ug/L			04/15/19 10:54	1
1,2-Dichloroethane	5.0	U	5.0	0.60	ug/L			04/15/19 10:54	1
1,2-Dichloroethene, Total	10	U	10	3.2	ug/L			04/15/19 10:54	1
1,2-Dichloropropane	5.0	U	5.0	0.61	ug/L			04/15/19 10:54	1
1,3-Dichlorobenzene	5.0	U	5.0	0.54	ug/L			04/15/19 10:54	1
1,4-Dichlorobenzene	5.0	U	5.0	0.51	ug/L			04/15/19 10:54	1
2-Chloroethyl vinyl ether	25	U	25	1.9	ug/L			04/15/19 10:54	1
Acrolein	100	U	100	17	ug/L			04/15/19 10:54	1
Acrylonitrile	50	U	50	1.9	ug/L			04/15/19 10:54	1
Benzene	5.0	U	5.0	0.60	ug/L			04/15/19 10:54	1
Bromoform	5.0	U	5.0	0.47	ug/L			04/15/19 10:54	1
Bromomethane	5.0	U	5.0	1.2	ug/L			04/15/19 10:54	1
Carbon tetrachloride	5.0	U	5.0	0.51	ug/L			04/15/19 10:54	1
Chlorobenzene	5.0	U	5.0	0.48	ug/L			04/15/19 10:54	1
Chlorodibromomethane	5.0	U	5.0	0.41	ug/L			04/15/19 10:54	1
Chloroethane	5.0	U	5.0	0.87	ug/L			04/15/19 10:54	1
Chloroform	5.0	U	5.0	0.54	ug/L			04/15/19 10:54	1
Chloromethane	5.0	U	5.0	0.64	ug/L			04/15/19 10:54	1
cis-1,3-Dichloropropene	5.0	U	5.0	0.33	ug/L			04/15/19 10:54	1
Dichlorobromomethane	5.0	U	5.0	0.54	ug/L			04/15/19 10:54	1
Ethylbenzene	5.0	U	5.0	0.46	ug/L			04/15/19 10:54	1
Methylene Chloride	5.0	U	5.0	0.81	ug/L			04/15/19 10:54	1
m-Xylene & p-Xylene	10	U	10	1.1	ug/L			04/15/19 10:54	1
o-Xylene	5.0	U	5.0	0.43	ug/L			04/15/19 10:54	1
Tetrachloroethene	5.0	U	5.0	0.34	ug/L			04/15/19 10:54	1
Toluene	5.0	U	5.0	0.45	ug/L			04/15/19 10:54	1
trans-1,2-Dichloroethene	5.0	U	5.0	0.59	ug/L			04/15/19 10:54	1
trans-1,3-Dichloropropene	5.0	U	5.0	0.44	ug/L			04/15/19 10:54	1
Trichloroethene	5.0	U	5.0	0.60	ug/L			04/15/19 10:54	1
Vinyl chloride	5.0	U	5.0	0.75	ug/L			04/15/19 10:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*68 - 130*		*04/15/19 10:54*	*1*
4-Bromofluorobenzene (Surr)	*100*		*76 - 123*		*04/15/19 10:54*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*04/15/19 10:54*	*1*
Toluene-d8 (Surr)	*99*		*77 - 120*		*04/15/19 10:54*	*1*

Lab Sample ID: LCS 480-467877/5
Matrix: Water
Analysis Batch: 467877

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1,1-Trichloroethane			20.0	22.7		ug/L		113	52 - 162		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-467877/5
Matrix: Water
Analysis Batch: 467877

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	20.0	20.0		ug/L		100	46 - 157
1,1,2-Trichloroethane	20.0	19.9		ug/L		99	52 - 150
1,1-Dichloroethane	20.0	21.6		ug/L		108	59 - 155
1,1-Dichloroethene	20.0	22.5		ug/L		112	1 - 234
1,2-Dichlorobenzene	20.0	19.5		ug/L		98	18 - 190
1,2-Dichloroethane	20.0	19.8		ug/L		99	49 - 155
1,2-Dichloropropane	20.0	20.8		ug/L		104	1 - 210
1,3-Dichlorobenzene	20.0	19.6		ug/L		98	59 - 156
1,4-Dichlorobenzene	20.0	19.4		ug/L		97	18 - 190
2-Chloroethyl vinyl ether	20.0	20.6	J	ug/L		103	1 - 305
Benzene	20.0	21.0		ug/L		105	37 - 151
Bromoform	20.0	20.6		ug/L		103	45 - 169
Bromomethane	20.0	19.9		ug/L		99	1 - 242
Carbon tetrachloride	20.0	22.5		ug/L		113	70 - 140
Chlorobenzene	20.0	20.1		ug/L		100	37 - 160
Chlorodibromomethane	20.0	20.2		ug/L		101	53 - 149
Chloroethane	20.0	21.8		ug/L		109	14 - 230
Chloroform	20.0	21.2		ug/L		106	51 - 138
Chloromethane	20.0	19.8		ug/L		99	1 - 273
cis-1,3-Dichloropropene	20.0	20.9		ug/L		104	1 - 227
Dichlorobromomethane	20.0	20.6		ug/L		103	35 - 155
Ethylbenzene	20.0	20.8		ug/L		104	37 - 162
Methylene Chloride	20.0	21.0		ug/L		105	1 - 221
Tetrachloroethene	20.0	21.2		ug/L		106	64 - 148
Toluene	20.0	20.6		ug/L		103	47 - 150
trans-1,2-Dichloroethene	20.0	22.4		ug/L		112	54 - 156
trans-1,3-Dichloropropene	20.0	20.5		ug/L		102	17 - 183
Trichloroethene	20.0	21.9		ug/L		109	71 - 157
Vinyl chloride	20.0	20.2		ug/L		101	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 130*
4-Bromofluorobenzene (Surr)	*106*		*76 - 123*
Dibromofluoromethane (Surr)	*105*		*75 - 123*
Toluene-d8 (Surr)	*103*		*77 - 120*

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

Lab Sample ID: MB 480-468129/2-A
Matrix: Waste
Analysis Batch: 468062

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468129

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	100	U	100	28	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
1,1,2,2-Tetrachloroethane	100	U	100	16	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	100	U	100	50	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
1,1,2-Trichloroethane	100	U	100	21	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
1,1-Dichloroethane	100	U	100	31	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
1,1-Dichloroethene	100	U	100	35	ug/Kg		04/16/19 09:37	04/16/19 11:50	1

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

Lab Sample ID: MB 480-468129/2-A
Matrix: Waste
Analysis Batch: 468062

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468129

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	100	U	100	38	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
1,2-Dibromo-3-Chloropropane	100	U	100	50	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
1,2-Dibromoethane	100	U	100	18	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
1,2-Dichlorobenzene	100	U	100	26	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
1,2-Dichloroethane	100	U	100	41	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
1,2-Dichloropropane	100	U	100	16	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
1,3-Dichlorobenzene	100	U	100	27	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
1,4-Dichlorobenzene	100	U	100	14	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
2-Butanone (MEK)	500	U	500	300	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
2-Hexanone	500	U	500	210	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
4-Methyl-2-pentanone (MIBK)	500	U	500	32	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Acetone	500	U	500	410	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Benzene	100	U	100	19	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Bromodichloromethane	100	U	100	20	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Bromoform	100	U	100	50	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Bromomethane	100	U	100	22	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Carbon disulfide	100	U	100	46	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Carbon tetrachloride	100	U	100	26	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Chlorobenzene	100	U	100	13	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Chloroethane	100	U	100	21	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Chloroform	100	U	100	69	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Chloromethane	100	U	100	24	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
cis-1,2-Dichloroethene	100	U	100	28	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
cis-1,3-Dichloropropene	100	U	100	24	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Cyclohexane	100	U	100	22	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Dibromochloromethane	100	U	100	48	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Dichlorodifluoromethane	100	U	100	44	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Ethylbenzene	100	U	100	29	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Isopropylbenzene	100	U	100	15	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
m,p-Xylene	200	U	200	55	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Methyl acetate	85.4	J	500	48	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Methyl tert-butyl ether	100	U	100	38	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Methylcyclohexane	100	U	100	47	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Methylene Chloride	100	U	100	20	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
o-Xylene	100	U	100	13	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Styrene	100	U	100	24	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Tetrachloroethene	100	U	100	13	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Toluene	100	U	100	27	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
trans-1,2-Dichloroethene	100	U	100	24	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
trans-1,3-Dichloropropene	100	U	100	9.8	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Trichloroethene	100	U	100	28	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Trichlorofluoromethane	100	U	100	47	ug/Kg		04/16/19 09:37	04/16/19 11:50	1
Vinyl chloride	100	U	100	34	ug/Kg		04/16/19 09:37	04/16/19 11:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*53 - 146*	*04/16/19 09:37*	*04/16/19 11:50*	*1*
4-Bromofluorobenzene (Surr)	*98*		*49 - 148*	*04/16/19 09:37*	*04/16/19 11:50*	*1*
Toluene-d8 (Surr)	*96*		*50 - 149*	*04/16/19 09:37*	*04/16/19 11:50*	*1*

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

Lab Sample ID: MB 480-468129/2-A
Matrix: Waste
Analysis Batch: 468062

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468129

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	94		60 - 140	04/16/19 09:37	04/16/19 11:50	1

Lab Sample ID: LCS 480-468129/1-A
Matrix: Waste
Analysis Batch: 468062

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468129

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2500	2500		ug/Kg		100	68 - 130
1,1,2,2-Tetrachloroethane	2500	2100		ug/Kg		84	73 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	2770		ug/Kg		111	10 - 179
1,1,2-Trichloroethane	2500	2180		ug/Kg		87	80 - 120
1,1-Dichloroethane	2500	2350		ug/Kg		94	78 - 121
1,1-Dichloroethene	2500	2520		ug/Kg		101	48 - 133
1,2,4-Trichlorobenzene	2500	2410		ug/Kg		96	70 - 140
1,2-Dibromo-3-Chloropropane	2500	2070		ug/Kg		83	56 - 122
1,2-Dibromoethane	2500	2190		ug/Kg		87	80 - 120
1,2-Dichlorobenzene	2500	2380		ug/Kg		95	78 - 125
1,2-Dichloroethane	2500	2350		ug/Kg		94	74 - 127
1,2-Dichloropropane	2500	2280		ug/Kg		91	80 - 120
1,3-Dichlorobenzene	2500	2380		ug/Kg		95	80 - 120
1,4-Dichlorobenzene	2500	2340		ug/Kg		94	80 - 120
2-Butanone (MEK)	12500	11000		ug/Kg		88	54 - 149
2-Hexanone	12500	10300		ug/Kg		83	59 - 127
4-Methyl-2-pentanone (MIBK)	12500	10400		ug/Kg		83	74 - 120
Acetone	12500	11600		ug/Kg		93	47 - 141
Benzene	2500	2380		ug/Kg		95	77 - 125
Bromodichloromethane	2500	2370		ug/Kg		95	71 - 121
Bromoform	2500	2410		ug/Kg		96	48 - 125
Bromomethane	2500	2350		ug/Kg		94	39 - 149
Carbon disulfide	2500	2310		ug/Kg		92	40 - 136
Carbon tetrachloride	2500	2600		ug/Kg		104	54 - 135
Chlorobenzene	2500	2320		ug/Kg		93	76 - 126
Chloroethane	2500	2580		ug/Kg		103	23 - 150
Chloroform	2500	2260		ug/Kg		90	78 - 120
Chloromethane	2500	2070		ug/Kg		83	61 - 124
cis-1,2-Dichloroethene	2500	2370		ug/Kg		95	79 - 124
cis-1,3-Dichloropropene	2500	2330		ug/Kg		93	75 - 121
Cyclohexane	2500	2680		ug/Kg		107	49 - 129
Dibromochloromethane	2500	2340		ug/Kg		94	64 - 120
Dichlorodifluoromethane	2500	2390		ug/Kg		95	10 - 150
Ethylbenzene	2500	2490		ug/Kg		99	78 - 124
Isopropylbenzene	2500	2510		ug/Kg		100	76 - 120
m,p-Xylene	2500	2450		ug/Kg		98	77 - 125
Methyl acetate	5000	4510		ug/Kg		90	71 - 123
Methyl tert-butyl ether	2500	2220		ug/Kg		89	67 - 137
Methylcyclohexane	2500	2730		ug/Kg		109	50 - 130
Methylene Chloride	2500	2260		ug/Kg		90	75 - 118
o-Xylene	2500	2370		ug/Kg		95	80 - 124

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

Lab Sample ID: LCS 480-468129/1-A
Matrix: Waste
Analysis Batch: 468062

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468129

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Styrene	2500	2360		ug/Kg		94	80 - 120
Tetrachloroethene	2500	2400		ug/Kg		96	73 - 133
Toluene	2500	2420		ug/Kg		97	75 - 124
trans-1,2-Dichloroethene	2500	2210		ug/Kg		89	74 - 129
trans-1,3-Dichloropropene	2500	2300		ug/Kg		92	73 - 120
Trichloroethene	2500	2390		ug/Kg		96	75 - 131
Trichlorofluoromethane	2500	2870		ug/Kg		115	29 - 158
Vinyl chloride	2500	2080		ug/Kg		83	59 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*53 - 146*
4-Bromofluorobenzene (Surr)	*100*		*49 - 148*
Toluene-d8 (Surr)	*96*		*50 - 149*
Dibromofluoromethane (Surr)	*99*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-467891/1-A
Matrix: Water
Analysis Batch: 468400

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467891

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	10	U	10	0.82	ug/L		04/15/19 08:27	04/17/19 21:54	1
1,2-Dichlorobenzene	10	U	10	5.0	ug/L		04/15/19 08:27	04/17/19 21:54	1
1,2-Diphenylhydrazine	10	U	10	0.78	ug/L		04/15/19 08:27	04/17/19 21:54	1
1,3-Dichlorobenzene	10	U	10	0.69	ug/L		04/15/19 08:27	04/17/19 21:54	1
1,4-Dichlorobenzene	10	U	10	5.6	ug/L		04/15/19 08:27	04/17/19 21:54	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.84	ug/L		04/15/19 08:27	04/17/19 21:54	1
2,4,6-Trichlorophenol	5.0	U	5.0	1.0	ug/L		04/15/19 08:27	04/17/19 21:54	1
2,4-Dichlorophenol	5.0	U	5.0	0.77	ug/L		04/15/19 08:27	04/17/19 21:54	1
2,4-Dimethylphenol	5.0	U	5.0	1.4	ug/L		04/15/19 08:27	04/17/19 21:54	1
2,4-Dinitrophenol	10	U	10	5.0	ug/L		04/15/19 08:27	04/17/19 21:54	1
2,4-Dinitrotoluene	10	U	10	5.0	ug/L		04/15/19 08:27	04/17/19 21:54	1
2,6-Dinitrotoluene	5.0	U	5.0	1.0	ug/L		04/15/19 08:27	04/17/19 21:54	1
2-Chloronaphthalene	5.0	U	5.0	0.91	ug/L		04/15/19 08:27	04/17/19 21:54	1
2-Chlorophenol	5.0	U	5.0	0.66	ug/L		04/15/19 08:27	04/17/19 21:54	1
2-Nitrophenol	5.0	U	5.0	0.70	ug/L		04/15/19 08:27	04/17/19 21:54	1
3,3'-Dichlorobenzidine	5.0	U	5.0	0.82	ug/L		04/15/19 08:27	04/17/19 21:54	1
4,6-Dinitro-2-methylphenol	10	U	10	0.66	ug/L		04/15/19 08:27	04/17/19 21:54	1
4-Bromophenyl phenyl ether	5.0	U	5.0	1.4	ug/L		04/15/19 08:27	04/17/19 21:54	1
4-Chloro-3-methylphenol	5.0	U	5.0	1.1	ug/L		04/15/19 08:27	04/17/19 21:54	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	1.3	ug/L		04/15/19 08:27	04/17/19 21:54	1
4-Nitrophenol	15	U	15	10	ug/L		04/15/19 08:27	04/17/19 21:54	1
Acenaphthene	5.0	U	5.0	0.81	ug/L		04/15/19 08:27	04/17/19 21:54	1
Acenaphthylene	5.0	U	5.0	0.87	ug/L		04/15/19 08:27	04/17/19 21:54	1
Anthracene	5.0	U	5.0	1.4	ug/L		04/15/19 08:27	04/17/19 21:54	1
Benzidine	80	U	80	35	ug/L		04/15/19 08:27	04/17/19 21:54	1
Benzo[a]anthracene	5.0	U	5.0	1.1	ug/L		04/15/19 08:27	04/17/19 21:54	1
Benzo[a]pyrene	5.0	U	5.0	1.3	ug/L		04/15/19 08:27	04/17/19 21:54	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-467891/1-A
Matrix: Water
Analysis Batch: 468400

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467891

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	5.0	U	5.0	1.2	ug/L		04/15/19 08:27	04/17/19 21:54	1
Benzo[g,h,i]perylene	5.0	U	5.0	1.5	ug/L		04/15/19 08:27	04/17/19 21:54	1
Benzo[k]fluoranthene	5.0	U	5.0	1.3	ug/L		04/15/19 08:27	04/17/19 21:54	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.75	ug/L		04/15/19 08:27	04/17/19 21:54	1
Bis(2-chloroethyl)ether	5.0	U	5.0	0.93	ug/L		04/15/19 08:27	04/17/19 21:54	1
Bis(2-ethylhexyl) phthalate	10	U	10	1.2	ug/L		04/15/19 08:27	04/17/19 21:54	1
Butyl benzyl phthalate	5.0	U	5.0	1.1	ug/L		04/15/19 08:27	04/17/19 21:54	1
Chrysene	5.0	U	5.0	1.0	ug/L		04/15/19 08:27	04/17/19 21:54	1
Dibenz(a,h)anthracene	5.0	U	5.0	1.5	ug/L		04/15/19 08:27	04/17/19 21:54	1
Diethyl phthalate	5.0	U	5.0	1.0	ug/L		04/15/19 08:27	04/17/19 21:54	1
Dimethyl phthalate	5.0	U	5.0	0.91	ug/L		04/15/19 08:27	04/17/19 21:54	1
Di-n-butyl phthalate	5.0	U	5.0	1.6	ug/L		04/15/19 08:27	04/17/19 21:54	1
Di-n-octyl phthalate	5.0	U	5.0	1.2	ug/L		04/15/19 08:27	04/17/19 21:54	1
Fluoranthene	5.0	U	5.0	1.6	ug/L		04/15/19 08:27	04/17/19 21:54	1
Fluorene	5.0	U	5.0	1.0	ug/L		04/15/19 08:27	04/17/19 21:54	1
Hexachlorobenzene	5.0	U	5.0	1.0	ug/L		04/15/19 08:27	04/17/19 21:54	1
Hexachlorobutadiene	5.0	U	5.0	1.0	ug/L		04/15/19 08:27	04/17/19 21:54	1
Hexachlorocyclopentadiene	10	U	10	5.0	ug/L		04/15/19 08:27	04/17/19 21:54	1
Hexachloroethane	5.0	U	5.0	0.60	ug/L		04/15/19 08:27	04/17/19 21:54	1
Indeno[1,2,3-cd]pyrene	5.0	U	5.0	1.5	ug/L		04/15/19 08:27	04/17/19 21:54	1
Isophorone	5.0	U	5.0	0.74	ug/L		04/15/19 08:27	04/17/19 21:54	1
Naphthalene	5.0	U	5.0	0.86	ug/L		04/15/19 08:27	04/17/19 21:54	1
Nitrobenzene	5.0	U	5.0	0.81	ug/L		04/15/19 08:27	04/17/19 21:54	1
N-Nitrosodimethylamine	10	U	10	5.0	ug/L		04/15/19 08:27	04/17/19 21:54	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.89	ug/L		04/15/19 08:27	04/17/19 21:54	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.40	ug/L		04/15/19 08:27	04/17/19 21:54	1
Pentachlorophenol	10	U	10	1.6	ug/L		04/15/19 08:27	04/17/19 21:54	1
Phenanthrene	5.0	U	5.0	1.2	ug/L		04/15/19 08:27	04/17/19 21:54	1
Phenol	5.0	U	5.0	0.35	ug/L		04/15/19 08:27	04/17/19 21:54	1
Pyrene	5.0	U	5.0	1.4	ug/L		04/15/19 08:27	04/17/19 21:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*95*		*52 - 151*	*04/15/19 08:27*	*04/17/19 21:54*	*1*
2-Fluorobiphenyl	*86*		*44 - 120*	*04/15/19 08:27*	*04/17/19 21:54*	*1*
2-Fluorophenol	*49*		*17 - 120*	*04/15/19 08:27*	*04/17/19 21:54*	*1*
Nitrobenzene-d5	*92*		*15 - 314*	*04/15/19 08:27*	*04/17/19 21:54*	*1*
Phenol-d5	*35*		*8 - 424*	*04/15/19 08:27*	*04/17/19 21:54*	*1*
p-Terphenyl-d14 (Surr)	*88*		*22 - 125*	*04/15/19 08:27*	*04/17/19 21:54*	*1*

Lab Sample ID: LCS 480-467891/2-A
Matrix: Water
Analysis Batch: 468400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 467891

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	32.8		ug/L		66	44 - 142
1,2-Dichlorobenzene	50.0	30.3		ug/L		61	32 - 129
1,2-Diphenylhydrazine	50.0	48.7		ug/L		97	47 - 146
1,3-Dichlorobenzene	50.0	27.2		ug/L		54	1 - 172

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-467891/2-A
Matrix: Water
Analysis Batch: 468400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 467891

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	50.0	28.4		ug/L		57	20 - 124
2,2'-oxybis[1-chloropropane]	50.0	38.8		ug/L		78	36 - 166
2,4,6-Trichlorophenol	50.0	48.8		ug/L		98	37 - 144
2,4-Dichlorophenol	50.0	46.4		ug/L		93	39 - 135
2,4-Dimethylphenol	50.0	44.0		ug/L		88	32 - 120
2,4-Dinitrophenol	100	65.6		ug/L		66	1 - 191
2,4-Dinitrotoluene	50.0	52.6		ug/L		105	39 - 139
2,6-Dinitrotoluene	50.0	50.8		ug/L		102	50 - 158
2-Chloronaphthalene	50.0	41.3		ug/L		83	60 - 120
2-Chlorophenol	50.0	37.1		ug/L		74	23 - 134
2-Nitrophenol	50.0	44.3		ug/L		89	29 - 182
3,3'-Dichlorobenzidine	100	93.9		ug/L		94	1 - 262
4,6-Dinitro-2-methylphenol	100	95.9		ug/L		96	1 - 181
4-Bromophenyl phenyl ether	50.0	49.2		ug/L		98	53 - 127
4-Chloro-3-methylphenol	50.0	45.4		ug/L		91	22 - 147
4-Chlorophenyl phenyl ether	50.0	45.7		ug/L		91	25 - 158
4-Nitrophenol	100	52.2		ug/L		52	1 - 132
Acenaphthene	50.0	44.1		ug/L		88	47 - 145
Acenaphthylene	50.0	43.3		ug/L		87	33 - 145
Anthracene	50.0	43.1		ug/L		86	27 - 133
Benzidine	100	44.4	J	ug/L		44	1 - 120
Benzo[a]anthracene	50.0	45.5		ug/L		91	33 - 143
Benzo[a]pyrene	50.0	42.5		ug/L		85	17 - 163
Benzo[b]fluoranthene	50.0	52.5		ug/L		105	24 - 159
Benzo[g,h,i]perylene	50.0	51.5		ug/L		103	1 - 219
Benzo[k]fluoranthene	50.0	42.7		ug/L		85	11 - 162
Bis(2-chloroethoxy)methane	50.0	43.8		ug/L		88	33 - 184
Bis(2-chloroethyl)ether	50.0	39.5		ug/L		79	12 - 158
Bis(2-ethylhexyl) phthalate	50.0	41.1		ug/L		82	8 - 158
Butyl benzyl phthalate	50.0	48.0		ug/L		96	1 - 152
Chrysene	50.0	42.5		ug/L		85	17 - 168
Dibenz(a,h)anthracene	50.0	45.8		ug/L		92	1 - 227
Diethyl phthalate	50.0	49.2		ug/L		98	1 - 120
Dimethyl phthalate	50.0	47.4		ug/L		95	1 - 120
Di-n-butyl phthalate	50.0	41.5		ug/L		83	1 - 120
Di-n-octyl phthalate	50.0	39.1		ug/L		78	4 - 146
Fluoranthene	50.0	42.0		ug/L		84	26 - 137
Fluorene	50.0	46.0		ug/L		92	59 - 121
Hexachlorobenzene	50.0	50.9		ug/L		102	1 - 152
Hexachlorobutadiene	50.0	27.0		ug/L		54	24 - 120
Hexachlorocyclopentadiene	50.0	32.2		ug/L		64	5 - 120
Hexachloroethane	50.0	25.2		ug/L		50	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	50.0		ug/L		100	1 - 171
Isophorone	50.0	46.3		ug/L		93	21 - 196
Naphthalene	50.0	35.2		ug/L		70	21 - 133
Nitrobenzene	50.0	42.5		ug/L		85	35 - 180
N-Nitrosodimethylamine	50.0	29.1		ug/L		58	19 - 120
N-Nitrosodi-n-propylamine	50.0	42.7		ug/L		85	1 - 230
N-Nitrosodiphenylamine	50.0	51.1		ug/L		102	54 - 125

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-467891/2-A
Matrix: Water
Analysis Batch: 468400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 467891

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Pentachlorophenol	100	82.2		ug/L		82	14 - 176
Phenanthrene	50.0	46.3		ug/L		93	54 - 120
Phenol	50.0	17.1		ug/L		34	5 - 120
Pyrene	50.0	45.1		ug/L		90	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*103*		*52 - 151*
2-Fluorobiphenyl	*82*		*44 - 120*
2-Fluorophenol	*47*		*17 - 120*
Nitrobenzene-d5	*86*		*15 - 314*
Phenol-d5	*32*		*8 - 424*
p-Terphenyl-d14 (Surr)	*86*		*22 - 125*

Lab Sample ID: LCSD 480-467891/3-A
Matrix: Water
Analysis Batch: 468400

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 467891

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	33.2		ug/L		66	44 - 142	1	34
1,2-Dichlorobenzene	50.0	29.5		ug/L		59	32 - 129	3	38
1,2-Diphenylhydrazine	50.0	48.3		ug/L		97	47 - 146	1	20
1,3-Dichlorobenzene	50.0	27.2		ug/L		54	1 - 172	0	37
1,4-Dichlorobenzene	50.0	28.1		ug/L		56	20 - 124	1	40
2,2'-oxybis[1-chloropropane]	50.0	41.6		ug/L		83	36 - 166	7	36
2,4,6-Trichlorophenol	50.0	50.4		ug/L		101	37 - 144	3	20
2,4-Dichlorophenol	50.0	44.7		ug/L		89	39 - 135	4	23
2,4-Dimethylphenol	50.0	42.7		ug/L		85	32 - 120	3	18
2,4-Dinitrophenol	100	75.8		ug/L		76	1 - 191	14	29
2,4-Dinitrotoluene	50.0	49.6		ug/L		99	39 - 139	6	20
2,6-Dinitrotoluene	50.0	50.1		ug/L		100	50 - 158	1	17
2-Chloronaphthalene	50.0	41.1		ug/L		82	60 - 120	0	30
2-Chlorophenol	50.0	37.2		ug/L		74	23 - 134	0	26
2-Nitrophenol	50.0	43.4		ug/L		87	29 - 182	2	28
3,3'-Dichlorobenzidine	100	96.3		ug/L		96	1 - 262	3	31
4,6-Dinitro-2-methylphenol	100	96.4		ug/L		96	1 - 181	1	30
4-Bromophenyl phenyl ether	50.0	49.2		ug/L		98	53 - 127	0	16
4-Chloro-3-methylphenol	50.0	45.4		ug/L		91	22 - 147	0	16
4-Chlorophenyl phenyl ether	50.0	47.0		ug/L		94	25 - 158	3	15
4-Nitrophenol	100	52.9		ug/L		53	1 - 132	1	24
Acenaphthene	50.0	43.9		ug/L		88	47 - 145	1	25
Acenaphthylene	50.0	44.0		ug/L		88	33 - 145	2	22
Anthracene	50.0	43.8		ug/L		88	27 - 133	2	15
Benzidine	100	46.9	J	ug/L		47	1 - 120	5	50
Benzo[a]anthracene	50.0	48.4		ug/L		97	33 - 143	6	15
Benzo[a]pyrene	50.0	41.9		ug/L		84	17 - 163	1	15
Benzo[b]fluoranthene	50.0	53.8		ug/L		108	24 - 159	2	17
Benzo[g,h,i]perylene	50.0	52.8		ug/L		106	1 - 219	3	19
Benzo[k]fluoranthene	50.0	42.1		ug/L		84	11 - 162	1	19

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-467891/3-A
Matrix: Water
Analysis Batch: 468400

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 467891

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-chloroethoxy)methane	50.0	42.1		ug/L		84	33 - 184	4	23
Bis(2-chloroethyl)ether	50.0	41.1		ug/L		82	12 - 158	4	33
Bis(2-ethylhexyl) phthalate	50.0	42.8		ug/L		86	8 - 158	4	15
Butyl benzyl phthalate	50.0	50.0		ug/L		100	1 - 152	4	15
Chrysene	50.0	43.4		ug/L		87	17 - 168	2	15
Dibenz(a,h)anthracene	50.0	47.1		ug/L		94	1 - 227	3	18
Diethyl phthalate	50.0	48.8		ug/L		98	1 - 120	1	15
Dimethyl phthalate	50.0	47.3		ug/L		95	1 - 120	0	15
Di-n-butyl phthalate	50.0	41.9		ug/L		84	1 - 120	1	15
Di-n-octyl phthalate	50.0	42.2		ug/L		84	4 - 146	8	15
Fluoranthene	50.0	42.0		ug/L		84	26 - 137	0	15
Fluorene	50.0	45.3		ug/L		91	59 - 121	1	18
Hexachlorobenzene	50.0	51.9		ug/L		104	1 - 152	2	15
Hexachlorobutadiene	50.0	27.3		ug/L		55	24 - 120	1	50
Hexachlorocyclopentadiene	50.0	30.9		ug/L		62	5 - 120	4	50
Hexachloroethane	50.0	25.1		ug/L		50	40 - 120	0	43
Indeno[1,2,3-cd]pyrene	50.0	51.6		ug/L		103	1 - 171	3	17
Isophorone	50.0	45.7		ug/L		91	21 - 196	1	21
Naphthalene	50.0	35.0		ug/L		70	21 - 133	0	31
Nitrobenzene	50.0	41.1		ug/L		82	35 - 180	3	27
N-Nitrosodimethylamine	50.0	28.2		ug/L		56	19 - 120	3	22
N-Nitrosodi-n-propylamine	50.0	46.2		ug/L		92	1 - 230	8	23
N-Nitrosodiphenylamine	50.0	49.8		ug/L		100	54 - 125	3	15
Pentachlorophenol	100	83.9		ug/L		84	14 - 176	2	21
Phenanthrene	50.0	46.9		ug/L		94	54 - 120	1	16
Phenol	50.0	17.4		ug/L		35	5 - 120	2	36
Pyrene	50.0	47.5		ug/L		95	52 - 120	5	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*95*		*52 - 151*
2-Fluorobiphenyl	*82*		*44 - 120*
2-Fluorophenol	*47*		*17 - 120*
Nitrobenzene-d5	*83*		*15 - 314*
Phenol-d5	*33*		*8 - 424*
p-Terphenyl-d14 (Surr)	*90*		*22 - 125*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-468844/1-A
Matrix: Waste
Analysis Batch: 469125

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468844

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	99000	U	99000	7800	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
2,4-Dinitrotoluene	51000	U	51000	11000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
2,4,5-Trichlorophenol	51000	U	51000	14000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
2,4,6-Trichlorophenol	51000	U	51000	10000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
2-Methylphenol	51000	U	51000	6000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
3-Methylphenol	99000	U	99000	7800	ug/Kg		04/19/19 12:31	04/22/19 22:19	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-468844/1-A
Matrix: Waste
Analysis Batch: 469125

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468844

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methylphenol	99000	U	99000	6000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Hexachlorobenzene	51000	U	51000	6900	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Hexachlorobutadiene	51000	U	51000	7500	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Hexachloroethane	51000	U	51000	6600	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Nitrobenzene	51000	U	51000	5700	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Pentachlorophenol	99000	U	99000	51000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Pyridine	99000	U	99000	7200	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Dimethyl phthalate	51000	U	51000	6000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
2,4-Dimethylphenol	51000	U	51000	12000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Isophorone	51000	U	51000	11000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Fluorene	51000	U	51000	6000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Dibenzofuran	51000	U	51000	6000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Bis(2-ethylhexyl) phthalate	51000	U	51000	17000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
N-Nitrosodi-n-propylamine	51000	U	51000	8700	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Acenaphthylene	51000	U	51000	6600	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
2,4-Dichlorophenol	51000	U	51000	5400	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
4-Chlorophenyl phenyl ether	51000	U	51000	6300	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Benzo[g,h,i]perylene	51000	U	51000	5400	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
4-Chloro-3-methylphenol	51000	U	51000	13000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Di-n-octyl phthalate	51000	U	51000	6000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Phenanthrene	51000	U	51000	7500	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
2-Nitrophenol	51000	U	51000	14000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Benzo[k]fluoranthene	51000	U	51000	6600	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Benzo[a]pyrene	51000	U	51000	7500	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
2,4-Dinitrophenol	500000	U	500000	240000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Anthracene	51000	U	51000	13000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
2-Methylnaphthalene	51000	U	51000	10000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Di-n-butyl phthalate	51000	U	51000	8700	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Pyrene	51000	U	51000	6000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Dibenz(a,h)anthracene	51000	U	51000	9000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
4-Nitroaniline	99000	U	99000	27000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Naphthalene	51000	U	51000	6600	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Fluoranthene	51000	U	51000	5400	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
3,3'-Dichlorobenzidine	99000	U	99000	60000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
2-Nitroaniline	99000	U	99000	7500	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
4-Bromophenyl phenyl ether	51000	U	51000	7200	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Caprolactam	51000	U	51000	15000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Diethyl phthalate	51000	U	51000	6600	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Carbazole	51000	U	51000	6000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
4,6-Dinitro-2-methylphenol	99000	U	99000	51000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
bis (2-chloroisopropyl) ether	51000	U	51000	10000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
N-Nitrosodiphenylamine	51000	U	51000	41000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Acetophenone	51000	U	51000	6900	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Bis(2-chloroethyl)ether	51000	U	51000	6600	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Atrazine	51000	U	51000	18000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Benzo[a]anthracene	51000	U	51000	5100	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Indeno[1,2,3-cd]pyrene	51000	U	51000	6300	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Benzaldehyde	51000	U	51000	41000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Butyl benzyl phthalate	51000	U	51000	8400	ug/Kg		04/19/19 12:31	04/22/19 22:19	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-468844/1-A
Matrix: Waste
Analysis Batch: 469125

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468844

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	51000	U	51000	6900	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Chrysene	51000	U	51000	11000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Acenaphthene	51000	U	51000	7500	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Benzo[b]fluoranthene	51000	U	51000	8100	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
4-Nitrophenol	99000	U	99000	36000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
4-Chloroaniline	51000	U	51000	13000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
2-Chlorophenol	51000	U	51000	9300	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
3-Nitroaniline	99000	U	99000	14000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
2,6-Dinitrotoluene	51000	U	51000	6000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Biphenyl	51000	U	51000	7500	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Phenol	51000	U	51000	7800	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
Bis(2-chloroethoxy)methane	51000	U	51000	11000	ug/Kg		04/19/19 12:31	04/22/19 22:19	1
2-Chloronaphthalene	51000	U	51000	8400	ug/Kg		04/19/19 12:31	04/22/19 22:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*91*		*54 - 120*	*04/19/19 12:31*	*04/22/19 22:19*	*1*
2-Fluorobiphenyl	*93*		*60 - 120*	*04/19/19 12:31*	*04/22/19 22:19*	*1*
2-Fluorophenol (Surr)	*103*		*52 - 120*	*04/19/19 12:31*	*04/22/19 22:19*	*1*
Nitrobenzene-d5 (Surr)	*101*		*53 - 120*	*04/19/19 12:31*	*04/22/19 22:19*	*1*
p-Terphenyl-d14 (Surr)	*89*		*65 - 121*	*04/19/19 12:31*	*04/22/19 22:19*	*1*
Phenol-d5 (Surr)	*101*		*54 - 120*	*04/19/19 12:31*	*04/22/19 22:19*	*1*

Lab Sample ID: LCS 480-468844/2-A
Matrix: Waste
Analysis Batch: 469125

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468844

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	500000	474000		ug/Kg		95	48 - 120
2,4-Dinitrotoluene	500000	547000		ug/Kg		109	63 - 120
2,4,5-Trichlorophenol	500000	567000		ug/Kg		113	59 - 126
2,4,6-Trichlorophenol	500000	546000		ug/Kg		109	59 - 123
2-Methylphenol	500000	522000		ug/Kg		104	54 - 120
3-Methylphenol	500000	523000		ug/Kg		105	55 - 120
4-Methylphenol	500000	523000		ug/Kg		105	55 - 120
Hexachlorobenzene	500000	543000		ug/Kg		109	60 - 120
Hexachlorobutadiene	500000	501000		ug/Kg		100	45 - 120
Hexachloroethane	500000	497000		ug/Kg		99	41 - 120
Nitrobenzene	500000	540000		ug/Kg		108	54 - 120
Pentachlorophenol	1000000	783000		ug/Kg		78	51 - 120
Pyridine	1000000	1190000		ug/Kg		119	23 - 120
Dimethyl phthalate	500000	526000		ug/Kg		105	65 - 124
2,4-Dimethylphenol	500000	544000		ug/Kg		109	59 - 120
Isophorone	500000	553000		ug/Kg		111	56 - 120
Fluorene	500000	528000		ug/Kg		106	63 - 120
Dibenzofuran	500000	484000		ug/Kg		97	63 - 120
Bis(2-ethylhexyl) phthalate	500000	513000		ug/Kg		103	61 - 133
N-Nitrosodi-n-propylamine	500000	550000		ug/Kg		110	52 - 120
Acenaphthylene	500000	506000		ug/Kg		101	58 - 121

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-468844/2-A
Matrix: Waste
Analysis Batch: 469125

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468844

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dichlorophenol	500000	524000		ug/Kg		105	61 - 120
4-Chlorophenyl phenyl ether	500000	532000		ug/Kg		106	63 - 124
Benzo[g,h,i]perylene	500000	553000		ug/Kg		111	45 - 145
4-Chloro-3-methylphenol	500000	541000		ug/Kg		108	61 - 120
Di-n-octyl phthalate	500000	494000		ug/Kg		99	57 - 133
Phenanthrene	500000	508000		ug/Kg		102	60 - 120
2-Nitrophenol	500000	522000		ug/Kg		104	56 - 120
Benzo[k]fluoranthene	500000	473000		ug/Kg		95	65 - 120
Benzo[a]pyrene	500000	450000		ug/Kg		90	64 - 120
2,4-Dinitrophenol	1000000	1020000		ug/Kg		102	41 - 146
Anthracene	500000	481000		ug/Kg		96	62 - 120
2-Methylnaphthalene	500000	502000		ug/Kg		100	59 - 120
Di-n-butyl phthalate	500000	462000		ug/Kg		92	58 - 130
Pyrene	500000	521000		ug/Kg		104	61 - 133
Dibenz(a,h)anthracene	500000	485000		ug/Kg		97	54 - 132
4-Nitroaniline	500000	583000		ug/Kg		117	56 - 120
Naphthalene	500000	478000		ug/Kg		96	55 - 120
Fluoranthene	500000	454000		ug/Kg		91	62 - 120
3,3'-Dichlorobenzidine	1000000	1030000		ug/Kg		103	54 - 120
2-Nitroaniline	500000	586000		ug/Kg		117	61 - 120
4-Bromophenyl phenyl ether	500000	539000		ug/Kg		108	58 - 120
Caprolactam	1000000	1050000		ug/Kg		105	47 - 120
Diethyl phthalate	500000	543000		ug/Kg		109	66 - 120
Carbazole	500000	521000		ug/Kg		104	65 - 120
4,6-Dinitro-2-methylphenol	1000000	1170000		ug/Kg		117	49 - 122
bis (2-chloroisopropyl) ether	500000	580000		ug/Kg		116	44 - 120
N-Nitrosodiphenylamine	500000	564000		ug/Kg		113	51 - 128
Acetophenone	500000	509000		ug/Kg		102	54 - 120
Bis(2-chloroethyl)ether	500000	552000		ug/Kg		110	45 - 120
Atrazine	1000000	1140000		ug/Kg		114	60 - 127
Benzo[a]anthracene	500000	526000		ug/Kg		105	65 - 120
Indeno[1,2,3-cd]pyrene	500000	535000		ug/Kg		107	56 - 134
Benzaldehyde	1000000	1020000		ug/Kg		102	10 - 150
Butyl benzyl phthalate	500000	562000		ug/Kg		112	61 - 129
Hexachlorocyclopentadiene	500000	543000		ug/Kg		109	47 - 120
Chrysene	500000	484000		ug/Kg		97	64 - 120
Acenaphthene	500000	525000		ug/Kg		105	62 - 120
Benzo[b]fluoranthene	500000	554000		ug/Kg		111	64 - 120
4-Nitrophenol	1000000	1010000		ug/Kg		101	43 - 147
4-Chloroaniline	500000	480000		ug/Kg		96	38 - 120
2-Chlorophenol	500000	513000		ug/Kg		103	53 - 120
3-Nitroaniline	500000	506000		ug/Kg		101	48 - 120
2,6-Dinitrotoluene	500000	561000		ug/Kg		112	66 - 120
Biphenyl	500000	496000		ug/Kg		99	59 - 120
Phenol	500000	519000		ug/Kg		104	53 - 120
Bis(2-chloroethoxy)methane	500000	544000		ug/Kg		109	55 - 120
2-Chloronaphthalene	500000	515000		ug/Kg		103	57 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-468844/2-A
Matrix: Waste
Analysis Batch: 469125

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468844

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*106*		*54 - 120*
2-Fluorobiphenyl	*98*		*60 - 120*
2-Fluorophenol (Surr)	*105*		*52 - 120*
Nitrobenzene-d5 (Surr)	*105*		*53 - 120*
p-Terphenyl-d14 (Surr)	*95*		*65 - 121*
Phenol-d5 (Surr)	*102*		*54 - 120*

Lab Sample ID: LCSD 480-468844/3-A
Matrix: Waste
Analysis Batch: 469125

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 468844

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene			500000	478000		ug/Kg		96	48 - 120	1	35
2,4-Dinitrotoluene			500000	570000		ug/Kg		114	63 - 120	4	20
2,4,5-Trichlorophenol			500000	569000		ug/Kg		114	59 - 126	0	18
2,4,6-Trichlorophenol			500000	571000		ug/Kg		114	59 - 123	4	19
2-Methylphenol			500000	551000		ug/Kg		110	54 - 120	5	27
3-Methylphenol			500000	558000		ug/Kg		112	55 - 120	6	24
4-Methylphenol			500000	558000		ug/Kg		112	55 - 120	6	24
Hexachlorobenzene			500000	561000		ug/Kg		112	60 - 120	3	15
Hexachlorobutadiene			500000	478000		ug/Kg		96	45 - 120	5	44
Hexachloroethane			500000	506000		ug/Kg		101	41 - 120	2	46
Nitrobenzene			500000	547000		ug/Kg		109	54 - 120	1	24
Pentachlorophenol			1000000	862000		ug/Kg		86	51 - 120	10	35
Pyridine			1000000	1180000		ug/Kg		118	23 - 120	1	49
Dimethyl phthalate			500000	552000		ug/Kg		110	65 - 124	5	15
2,4-Dimethylphenol			500000	566000		ug/Kg		113	59 - 120	4	42
Isophorone			500000	574000		ug/Kg		115	56 - 120	4	17
Fluorene			500000	545000		ug/Kg		109	63 - 120	3	15
Dibenzofuran			500000	515000		ug/Kg		103	63 - 120	6	15
Bis(2-ethylhexyl) phthalate			500000	521000		ug/Kg		104	61 - 133	2	15
N-Nitrosodi-n-propylamine			500000	575000		ug/Kg		115	52 - 120	4	31
Acenaphthylene			500000	524000		ug/Kg		105	58 - 121	3	18
2,4-Dichlorophenol			500000	558000		ug/Kg		112	61 - 120	6	19
4-Chlorophenyl phenyl ether			500000	531000		ug/Kg		106	63 - 124	0	16
Benzo[g,h,i]perylene			500000	611000		ug/Kg		122	45 - 145	10	15
4-Chloro-3-methylphenol			500000	550000		ug/Kg		110	61 - 120	2	27
Di-n-octyl phthalate			500000	503000		ug/Kg		101	57 - 133	2	16
Phenanthrene			500000	533000		ug/Kg		107	60 - 120	5	15
2-Nitrophenol			500000	547000		ug/Kg		109	56 - 120	5	18
Benzo[k]fluoranthene			500000	539000		ug/Kg		108	65 - 120	13	22
Benzo[a]pyrene			500000	484000		ug/Kg		97	64 - 120	7	15
2,4-Dinitrophenol			1000000	1040000		ug/Kg		104	41 - 146	2	22
Anthracene			500000	504000		ug/Kg		101	62 - 120	5	15
2-Methylnaphthalene			500000	508000		ug/Kg		102	59 - 120	1	21
Di-n-butyl phthalate			500000	487000		ug/Kg		97	58 - 130	5	15
Pyrene			500000	543000		ug/Kg		109	61 - 133	4	35
Dibenz(a,h)anthracene			500000	518000		ug/Kg		104	54 - 132	6	15

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-468844/3-A
Matrix: Waste
Analysis Batch: 469125

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 468844

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Nitroaniline			500000	584000		ug/Kg		117	56 - 120	0	24
Naphthalene			500000	477000		ug/Kg		95	55 - 120	0	29
Fluoranthene			500000	494000		ug/Kg		99	62 - 120	8	15
3,3'-Dichlorobenzidine			1000000	1050000		ug/Kg		105	54 - 120	1	25
2-Nitroaniline			500000	620000	*	ug/Kg		124	61 - 120	6	15
4-Bromophenyl phenyl ether			500000	531000		ug/Kg		106	58 - 120	2	15
Caprolactam			1000000	1100000		ug/Kg		110	47 - 120	5	20
Diethyl phthalate			500000	563000		ug/Kg		113	66 - 120	4	15
Carbazole			500000	559000		ug/Kg		112	65 - 120	7	20
4,6-Dinitro-2-methylphenol			1000000	1250000	*	ug/Kg		125	49 - 122	7	15
bis (2-chloroisopropyl) ether			500000	606000	*	ug/Kg		121	44 - 120	4	24
N-Nitrosodiphenylamine			500000	573000		ug/Kg		115	51 - 128	2	15
Acetophenone			500000	528000		ug/Kg		106	54 - 120	4	20
Bis(2-chloroethyl)ether			500000	564000		ug/Kg		113	45 - 120	2	21
Atrazine			1000000	1180000		ug/Kg		118	60 - 127	4	20
Benzo[a]anthracene			500000	536000		ug/Kg		107	65 - 120	2	15
Indeno[1,2,3-cd]pyrene			500000	579000		ug/Kg		116	56 - 134	8	15
Benzaldehyde			1000000	1090000		ug/Kg		109	10 - 150	7	20
Butyl benzyl phthalate			500000	588000		ug/Kg		118	61 - 129	5	16
Hexachlorocyclopentadiene			500000	537000		ug/Kg		107	47 - 120	1	49
Chrysene			500000	505000		ug/Kg		101	64 - 120	4	15
Acenaphthene			500000	542000		ug/Kg		108	62 - 120	3	35
Benzo[b]fluoranthene			500000	544000		ug/Kg		109	64 - 120	2	15
4-Nitrophenol			1000000	1040000		ug/Kg		104	43 - 147	2	25
4-Chloroaniline			500000	506000		ug/Kg		101	38 - 120	5	22
2-Chlorophenol			500000	534000		ug/Kg		107	53 - 120	4	25
3-Nitroaniline			500000	523000		ug/Kg		105	48 - 120	3	19
2,6-Dinitrotoluene			500000	598000		ug/Kg		120	66 - 120	6	15
Biphenyl			500000	509000		ug/Kg		102	59 - 120	3	20
Phenol			500000	524000		ug/Kg		105	53 - 120	1	35
Bis(2-chloroethoxy)methane			500000	560000		ug/Kg		112	55 - 120	3	17
2-Chloronaphthalene			500000	526000		ug/Kg		105	57 - 120	2	21

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*109*		*54 - 120*
2-Fluorobiphenyl	*97*		*60 - 120*
2-Fluorophenol (Surr)	*109*		*52 - 120*
Nitrobenzene-d5 (Surr)	*108*		*53 - 120*
p-Terphenyl-d14 (Surr)	*99*		*65 - 121*
Phenol-d5 (Surr)	*106*		*54 - 120*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 480-468299/1-A
Matrix: Water
Analysis Batch: 468765

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.060	U	0.060	0.038	ug/L		04/17/19 08:19	04/19/19 10:48	1

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: MB 480-468299/1-A
Matrix: Water
Analysis Batch: 468765

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	0.060	U	0.060	0.038	ug/L		04/17/19 08:19	04/19/19 10:48	1
PCB-1232	0.060	U	0.060	0.038	ug/L		04/17/19 08:19	04/19/19 10:48	1
PCB-1242	0.060	U	0.060	0.038	ug/L		04/17/19 08:19	04/19/19 10:48	1
PCB-1248	0.060	U	0.060	0.038	ug/L		04/17/19 08:19	04/19/19 10:48	1
PCB-1254	0.060	U	0.060	0.031	ug/L		04/17/19 08:19	04/19/19 10:48	1
PCB-1260	0.060	U	0.060	0.031	ug/L		04/17/19 08:19	04/19/19 10:48	1
PCB-1262	0.060	U	0.060	0.031	ug/L		04/17/19 08:19	04/19/19 10:48	1
PCB-1268	0.060	U	0.060	0.031	ug/L		04/17/19 08:19	04/19/19 10:48	1
Polychlorinated biphenyls, Total	0.060	U	0.060	0.038	ug/L		04/17/19 08:19	04/19/19 10:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*39*		*36 - 121*	*04/17/19 08:19*	*04/19/19 10:48*	*1*
Tetrachloro-m-xylene (Surr)	*67*		*42 - 135*	*04/17/19 08:19*	*04/19/19 10:48*	*1*

Lab Sample ID: LCS 480-468299/2-A
Matrix: Water
Analysis Batch: 468765

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468299

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			1.00	0.947		ug/L		95	69 - 123		
PCB-1260			1.00	0.741		ug/L		74	69 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*39*		*36 - 121*
Tetrachloro-m-xylene (Surr)	*78*		*42 - 135*

Lab Sample ID: LCSD 480-468299/3-A
Matrix: Water
Analysis Batch: 468765

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 468299

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			1.00	0.971		ug/L		97	69 - 123	2	30
PCB-1260			1.00	0.768		ug/L		77	69 - 120	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*40*		*36 - 121*
Tetrachloro-m-xylene (Surr)	*76*		*42 - 135*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-468846/1-A
Matrix: Waste
Analysis Batch: 469266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468846

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	5.0	U	5.0	2.0	mg/Kg		04/19/19 12:35	04/23/19 16:23	1
Endrin	0.50	U	0.50	0.16	mg/Kg		04/19/19 12:35	04/23/19 16:23	1
gamma-BHC (Lindane)	0.50	U	0.50	0.36	mg/Kg		04/19/19 12:35	04/23/19 16:23	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-468846/1-A
Matrix: Waste
Analysis Batch: 469266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468846

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	0.50	U	0.50	0.078	mg/Kg		04/19/19 12:35	04/23/19 16:23	1
Heptachlor epoxide	0.50	U	0.50	0.13	mg/Kg		04/19/19 12:35	04/23/19 16:23	1
Methoxychlor	0.50	U	0.50	0.13	mg/Kg		04/19/19 12:35	04/23/19 16:23	1
Toxaphene	5.0	U	5.0	2.9	mg/Kg		04/19/19 12:35	04/23/19 16:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*135*	*X*	*45 - 120*	*04/19/19 12:35*	*04/23/19 16:23*	*1*
Tetrachloro-m-xylene	*58*		*30 - 124*	*04/19/19 12:35*	*04/23/19 16:23*	*1*

Lab Sample ID: LCS 480-468846/2-A
Matrix: Waste
Analysis Batch: 469266

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468846

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin	5.00	3.97		mg/Kg		79	58 - 120
gamma-BHC (Lindane)	5.00	3.50		mg/Kg		70	50 - 120
Heptachlor	5.00	3.45		mg/Kg		69	50 - 120
Heptachlor epoxide	5.00	4.15		mg/Kg		83	50 - 120
Methoxychlor	5.00	3.38		mg/Kg		68	58 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*88*		*45 - 120*
Tetrachloro-m-xylene	*57*		*30 - 124*

Lab Sample ID: LCSD 480-468846/3-A
Matrix: Waste
Analysis Batch: 469266

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 468846

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endrin	5.00	3.70		mg/Kg		74	58 - 120	7	19
gamma-BHC (Lindane)	5.00	3.35		mg/Kg		67	50 - 120	4	20
Heptachlor	5.00	3.17		mg/Kg		63	50 - 120	8	16
Heptachlor epoxide	5.00	4.10		mg/Kg		82	50 - 120	1	17
Methoxychlor	5.00	3.06		mg/Kg		61	58 - 133	10	14

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*90*		*45 - 120*
Tetrachloro-m-xylene	*57*		*30 - 124*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-469296/1-A
Matrix: Waste
Analysis Batch: 469795

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469296

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	4.2	U	4.2	0.82	mg/Kg		04/23/19 12:04	04/25/19 18:56	1
PCB-1221	4.2	U	4.2	0.82	mg/Kg		04/23/19 12:04	04/25/19 18:56	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 480-469296/1-A
Matrix: Waste
Analysis Batch: 469795

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469296

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	4.2	U	4.2	0.82	mg/Kg		04/23/19 12:04	04/25/19 18:56	1
PCB-1242	4.2	U	4.2	0.82	mg/Kg		04/23/19 12:04	04/25/19 18:56	1
PCB-1248	4.2	U	4.2	0.82	mg/Kg		04/23/19 12:04	04/25/19 18:56	1
PCB-1254	4.2	U	4.2	0.20	mg/Kg		04/23/19 12:04	04/25/19 18:56	1
PCB-1260	4.2	U	4.2	0.20	mg/Kg		04/23/19 12:04	04/25/19 18:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*50*	*X*	*60 - 154*	*04/23/19 12:04*	*04/25/19 18:56*	*1*
DCB Decachlorobiphenyl	*78*		*65 - 174*	*04/23/19 12:04*	*04/25/19 18:56*	*1*

Lab Sample ID: LCS 480-469296/2-A
Matrix: Waste
Analysis Batch: 469795

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469296

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	41.7	26.7		mg/Kg		64	51 - 185
PCB-1260	41.7	30.7		mg/Kg		74	61 - 184

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*65*		*60 - 154*
DCB Decachlorobiphenyl	*90*		*65 - 174*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 240-377980/6-A
Matrix: Waste
Analysis Batch: 378243

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 377980

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	240	U	240	49	ug/Kg		04/24/19 08:33	04/25/19 16:21	1
2,4,5-T	60	U	60	13	ug/Kg		04/24/19 08:33	04/25/19 16:21	1
Silvex (2,4,5-TP)	60	U	60	14	ug/Kg		04/24/19 08:33	04/25/19 16:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*72*		*15 - 120*	*04/24/19 08:33*	*04/25/19 16:21*	*1*
2,4-Dichlorophenylacetic acid	*65*		*15 - 120*	*04/24/19 08:33*	*04/25/19 16:21*	*1*

Lab Sample ID: LCS 240-377980/7-A
Matrix: Waste
Analysis Batch: 378243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 377980

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	1000	892		ug/Kg		89	31 - 149
2,4,5-T	250	227		ug/Kg		91	30 - 156
Silvex (2,4,5-TP)	250	233		ug/Kg		93	26 - 151

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*84*		*15 - 120*

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 240-377980/7-A
Matrix: Waste
Analysis Batch: 378243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 377980

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*82*		*15 - 120*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-468172/1-A
Matrix: Water
Analysis Batch: 468933

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468172

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.020	U	0.020	0.0068	mg/L		04/17/19 07:47	04/19/19 10:29	1
Arsenic	0.015	U	0.015	0.0056	mg/L		04/17/19 07:47	04/19/19 10:29	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		04/17/19 07:47	04/19/19 10:29	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		04/17/19 07:47	04/19/19 10:29	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		04/17/19 07:47	04/19/19 10:29	1
Copper	0.010	U	0.010	0.0016	mg/L		04/17/19 07:47	04/19/19 10:29	1
Lead	0.010	U	0.010	0.0030	mg/L		04/17/19 07:47	04/19/19 10:29	1
Nickel	0.010	U	0.010	0.0013	mg/L		04/17/19 07:47	04/19/19 10:29	1
Selenium	0.025	U	0.025	0.0087	mg/L		04/17/19 07:47	04/19/19 10:29	1
Silver	0.0060	U	0.0060	0.0017	mg/L		04/17/19 07:47	04/19/19 10:29	1
Thallium	0.020	U	0.020	0.010	mg/L		04/17/19 07:47	04/19/19 10:29	1
Zinc	0.010	U	0.010	0.0015	mg/L		04/17/19 07:47	04/19/19 10:29	1

Lab Sample ID: LCS 480-468172/2-A
Matrix: Water
Analysis Batch: 468933

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.200	0.188		mg/L		94	85 - 115
Arsenic	0.200	0.191		mg/L		95	85 - 115
Beryllium	0.200	0.202		mg/L		101	85 - 115
Cadmium	0.200	0.188		mg/L		94	85 - 115
Chromium	0.200	0.192		mg/L		96	85 - 115
Copper	0.200	0.190		mg/L		95	85 - 115
Lead	0.200	0.186		mg/L		93	85 - 115
Nickel	0.200	0.188		mg/L		94	85 - 115
Selenium	0.200	0.192		mg/L		96	85 - 115
Silver	0.0500	0.0496		mg/L		99	85 - 115
Thallium	0.200	0.193		mg/L		96	85 - 115
Zinc	0.200	0.196		mg/L		98	85 - 115

Lab Sample ID: 480-151896-3 MS
Matrix: Water
Analysis Batch: 468933

Client Sample ID: TANK 2-04112019
Prep Type: Total/NA
Prep Batch: 468172

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.020	U	0.200	0.190		mg/L		95	70 - 130
Arsenic	0.015	U	0.200	0.193		mg/L		97	70 - 130
Beryllium	0.0020	U	0.200	0.205		mg/L		102	70 - 130
Cadmium	0.0020	U	0.200	0.189		mg/L		95	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 480-151896-3 MS
Matrix: Water
Analysis Batch: 468933

Client Sample ID: TANK 2-04112019
Prep Type: Total/NA
Prep Batch: 468172

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.0040	U	0.200	0.195		mg/L		98	70 - 130
Copper	0.010	U	0.200	0.192		mg/L		96	70 - 130
Lead	0.010	U	0.200	0.186		mg/L		93	70 - 130
Nickel	0.0014	J	0.200	0.190		mg/L		94	70 - 130
Selenium	0.025	U	0.200	0.195		mg/L		97	70 - 130
Silver	0.0060	U	0.0500	0.0488		mg/L		98	70 - 130
Thallium	0.020	U	0.200	0.195		mg/L		97	70 - 130
Zinc	0.0024	J	0.200	0.200		mg/L		99	70 - 130

Lab Sample ID: 480-151896-3 MSD
Matrix: Water
Analysis Batch: 468933

Client Sample ID: TANK 2-04112019
Prep Type: Total/NA
Prep Batch: 468172

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.020	U	0.200	0.191		mg/L		95	70 - 130	0	20
Arsenic	0.015	U	0.200	0.194		mg/L		97	70 - 130	0	20
Beryllium	0.0020	U	0.200	0.205		mg/L		102	70 - 130	0	20
Cadmium	0.0020	U	0.200	0.190		mg/L		95	70 - 130	0	20
Chromium	0.0040	U	0.200	0.195		mg/L		97	70 - 130	0	20
Copper	0.010	U	0.200	0.192		mg/L		96	70 - 130	0	20
Lead	0.010	U	0.200	0.187		mg/L		94	70 - 130	1	20
Nickel	0.0014	J	0.200	0.191		mg/L		95	70 - 130	1	20
Selenium	0.025	U	0.200	0.195		mg/L		97	70 - 130	0	20
Silver	0.0060	U	0.0500	0.0480		mg/L		96	70 - 130	2	20
Thallium	0.020	U	0.200	0.196		mg/L		98	70 - 130	1	20
Zinc	0.0024	J	0.200	0.202		mg/L		100	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-468360/1-A
Matrix: Water
Analysis Batch: 468456

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468360

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		04/17/19 11:42	04/17/19 14:12	1

Lab Sample ID: LCS 480-468360/2-A
Matrix: Water
Analysis Batch: 468456

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468360

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00722		mg/L		108	85 - 115

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-469302/1-A
Matrix: Waste
Analysis Batch: 470005

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469302

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0	U	2.0	0.40	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Cadmium	0.20	U	0.20	0.030	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Chromium	0.284	J	0.50	0.20	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Lead	0.99	U	0.99	0.24	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Selenium	4.0	U	4.0	0.40	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Silver	0.60	U	0.60	0.20	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Antimony	14.9	U	14.9	0.40	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Beryllium	0.20	U	0.20	0.028	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Thallium	6.0	U	6.0	0.30	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Calcium	6.28	J	49.6	3.3	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Iron	9.9	U	9.9	3.5	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Nickel	5.0	U	5.0	0.23	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Vanadium	0.50	U	0.50	0.11	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Magnesium	1.89	J	19.8	0.92	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Copper	0.99	U	0.99	0.21	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Aluminum	9.9	U	9.9	4.4	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Zinc	2.0	U	2.0	0.64	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Manganese	0.0903	J	0.20	0.032	mg/Kg		04/24/19 12:19	04/25/19 15:25	1
Cobalt	0.50	U	0.50	0.050	mg/Kg		04/24/19 12:19	04/25/19 15:25	1

Lab Sample ID: MB 480-469302/1-A
Matrix: Waste
Analysis Batch: 470203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469302

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.50	U	0.50	0.11	mg/Kg		04/24/19 12:19	04/26/19 11:15	1
Sodium	139	U	139	12.9	mg/Kg		04/24/19 12:19	04/26/19 11:15	1
Potassium	29.8	U	29.8	19.8	mg/Kg		04/24/19 12:19	04/26/19 11:15	1

Lab Sample ID: LCSSRM 480-469302/2-A
Matrix: Waste
Analysis Batch: 470005

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469302

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	221	157.6		mg/Kg		71.3	63.8 - 119.0
Cadmium	153	107.9		mg/Kg		70.5	68.6 - 115.0
Chromium	179	132.0		mg/Kg		73.8	65.4 - 121.2
Lead	74.5	66.40		mg/Kg		89.1	67.8 - 130.3
Selenium	54.4	38.64		mg/Kg		71.0	53.3 - 130.0
Silver	75.5	54.42		mg/Kg		72.1	66.6 - 121.7
Antimony	173	57.00		mg/Kg		32.9	10.0 - 134.1
Potassium	2630	2083		mg/Kg		79.2	51.7 - 119.0

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

Lab Sample ID: LCSSRM 480-469302/2-A
Matrix: Waste
Analysis Batch: 470005

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469302

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	102	74.00		mg/Kg		72.5	71.2 - 118.6
Thallium	64.7	52.66		mg/Kg		81.4	55.0 - 126.0
Calcium	5190	3617		mg/Kg		69.7	65.7 - 115.6
Iron	15000	11550		mg/Kg		77.0	35.7 - 160.7
Nickel	98.0	81.19		mg/Kg		82.8	63.8 - 118.4
Vanadium	62.7	49.54		mg/Kg		79.0	53.3 - 132.4
Magnesium	2570	1952		mg/Kg		76.0	55.6 - 124.1
Copper	113	83.68		mg/Kg		74.1	71.4 - 118.6
Aluminum	10100	7724		mg/Kg		76.5	41.6 - 123.8
Zinc	281	206.8		mg/Kg		73.6	65.8 - 122.4
Manganese	348	260.2		mg/Kg		74.8	71.3 - 118.4
Cobalt	182	155.5		mg/Kg		85.4	71.4 - 119.2

Lab Sample ID: LCSSRM 480-469302/2-A
Matrix: Waste
Analysis Batch: 470203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469302

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	288	214.2		mg/Kg		74.4	70.5 - 117.4
Sodium	226	177.0		mg/Kg		78.3	39.2 - 133.2

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-469543/1-A
Matrix: Waste
Analysis Batch: 469809

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469543

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	U	0.020	0.0080	mg/Kg		04/25/19 12:23	04/25/19 14:17	1

Lab Sample ID: LCSSRM 480-469543/2-A ^5
Matrix: Waste
Analysis Batch: 469809

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469543

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	4.85	2.84		mg/Kg		58.6	46.0 - 107.0

Method: 1010A - Ignitability, Pensky-Martens Closed-Cup Method

Lab Sample ID: LCS 480-468720/1
Matrix: Waste
Analysis Batch: 468720

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Flashpoint	81.0	81.00		Degrees F		100	97.5 - 102.5

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-469778/1-A
Matrix: Water
Analysis Batch: 469851

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469778

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		04/25/19 12:00	04/25/19 17:31	1

Lab Sample ID: LCS 480-469778/2-A
Matrix: Water
Analysis Batch: 469851

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469778

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.352	*	mg/L		88	90 - 110

Lab Sample ID: LCS 480-469778/3-A
Matrix: Water
Analysis Batch: 469851

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469778

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.205	*	mg/L		82	90 - 110

Lab Sample ID: MB 480-471271/1-A
Matrix: Water
Analysis Batch: 471399

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 471271

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		05/05/19 12:45	05/06/19 12:34	1

Lab Sample ID: LCS 480-471271/2-A
Matrix: Water
Analysis Batch: 471399

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 471271

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.261		mg/L		104	90 - 110

Method: 9012 - Cyanide, Reactive

Lab Sample ID: MB 480-469362/1-A
Matrix: Waste
Analysis Batch: 470169

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469362

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	10.0	U	10.0	10.0	mg/Kg		04/23/19 09:01	04/25/19 18:17	1

Method: 9012 - Cyanide, Reactive (Continued)

Lab Sample ID: LCS 480-469362/2-A ^25
Matrix: Waste
Analysis Batch: 470169

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469362

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Reactive	1000	263.8		mg/Kg		26	10 - 100

Method: 9034 - Sulfide, Reactive

Lab Sample ID: MB 480-469365/1-A
Matrix: Waste
Analysis Batch: 469593

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469365

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	10.0	U	10.0	10.0	mg/Kg		04/23/19 09:01	04/24/19 14:40	1

Lab Sample ID: LCS 480-469365/2-A
Matrix: Waste
Analysis Batch: 469593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469365

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide, Reactive	780	621.2		mg/Kg		80	10 - 100

Method: 9045D - pH

Lab Sample ID: LCS 480-468685/21
Matrix: Waste
Analysis Batch: 468685

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		101	99 - 101

Method: 9076 - Chlorine, Total

Lab Sample ID: MB 490-591631/2
Matrix: Waste
Analysis Batch: 591631

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Halogens	100	U	100	22.0	ug/g			04/30/19 14:29	1

Lab Sample ID: LCS 490-591631/4
Matrix: Waste
Analysis Batch: 591631

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Halogens	500	506.5		ug/g		101	85 - 115

QC Association Summary

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

GC/MS VOA

Analysis Batch: 467877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-3	TANK 2-04112019	Total/NA	Water	624.1	
MB 480-467877/7	Method Blank	Total/NA	Water	624.1	
LCS 480-467877/5	Lab Control Sample	Total/NA	Water	624.1	

Analysis Batch: 468062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-468129/2-A	Method Blank	Total/NA	Waste	8260C	468129
LCS 480-468129/1-A	Lab Control Sample	Total/NA	Waste	8260C	468129

Prep Batch: 468129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	5035A_H	
480-151896-5	TANK 3-04112019	Total/NA	Waste	5035A_H	
MB 480-468129/2-A	Method Blank	Total/NA	Waste	5035A_H	
LCS 480-468129/1-A	Lab Control Sample	Total/NA	Waste	5035A_H	

Analysis Batch: 468264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	8260C	468129
480-151896-5	TANK 3-04112019	Total/NA	Waste	8260C	468129

GC/MS Semi VOA

Prep Batch: 467891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-3	TANK 2-04112019	Total/NA	Water	625	
MB 480-467891/1-A	Method Blank	Total/NA	Water	625	
LCS 480-467891/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-467891/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 468400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-3	TANK 2-04112019	Total/NA	Water	625.1	467891
MB 480-467891/1-A	Method Blank	Total/NA	Water	625.1	467891
LCS 480-467891/2-A	Lab Control Sample	Total/NA	Water	625.1	467891
LCSD 480-467891/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	467891

Prep Batch: 468844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	3580A	
480-151896-4 - DL	TANK 1-04112019	Total/NA	Waste	3580A	
480-151896-5	TANK 3-04112019	Total/NA	Waste	3580A	
MB 480-468844/1-A	Method Blank	Total/NA	Waste	3580A	
LCS 480-468844/2-A	Lab Control Sample	Total/NA	Waste	3580A	
LCSD 480-468844/3-A	Lab Control Sample Dup	Total/NA	Waste	3580A	

Analysis Batch: 469125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	8270D	468844
480-151896-5	TANK 3-04112019	Total/NA	Waste	8270D	468844
MB 480-468844/1-A	Method Blank	Total/NA	Waste	8270D	468844

GC/MS Semi VOA (Continued)

Analysis Batch: 469125 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-468844/2-A	Lab Control Sample	Total/NA	Waste	8270D	468844
LCSD 480-468844/3-A	Lab Control Sample Dup	Total/NA	Waste	8270D	468844

Analysis Batch: 469310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4 - DL	TANK 1-04112019	Total/NA	Waste	8270D	468844

GC Semi VOA

Prep Batch: 377980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	3546	
480-151896-5	TANK 3-04112019	Total/NA	Waste	3546	
MB 240-377980/6-A	Method Blank	Total/NA	Waste	3546	
LCS 240-377980/7-A	Lab Control Sample	Total/NA	Waste	3546	

Analysis Batch: 378243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	8151A	377980
480-151896-5	TANK 3-04112019	Total/NA	Waste	8151A	377980
MB 240-377980/6-A	Method Blank	Total/NA	Waste	8151A	377980
LCS 240-377980/7-A	Lab Control Sample	Total/NA	Waste	8151A	377980

Prep Batch: 468299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-3	TANK 2-04112019	Total/NA	Water	3510C	
MB 480-468299/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-468299/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-468299/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 468765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-3	TANK 2-04112019	Total/NA	Water	608.3	468299
MB 480-468299/1-A	Method Blank	Total/NA	Water	608.3	468299
LCS 480-468299/2-A	Lab Control Sample	Total/NA	Water	608.3	468299
LCSD 480-468299/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	468299

Prep Batch: 468846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	3580A	
480-151896-5	TANK 3-04112019	Total/NA	Waste	3580A	
MB 480-468846/1-A	Method Blank	Total/NA	Waste	3580A	
LCS 480-468846/2-A	Lab Control Sample	Total/NA	Waste	3580A	
LCSD 480-468846/3-A	Lab Control Sample Dup	Total/NA	Waste	3580A	

Analysis Batch: 469266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	8081B	468846
480-151896-5	TANK 3-04112019	Total/NA	Waste	8081B	468846
MB 480-468846/1-A	Method Blank	Total/NA	Waste	8081B	468846
LCS 480-468846/2-A	Lab Control Sample	Total/NA	Waste	8081B	468846

GC Semi VOA (Continued)

Analysis Batch: 469266 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 480-468846/3-A	Lab Control Sample Dup	Total/NA	Waste	8081B	468846

Prep Batch: 469296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	3580A	
480-151896-5	TANK 3-04112019	Total/NA	Waste	3580A	
MB 480-469296/1-A	Method Blank	Total/NA	Waste	3580A	
LCS 480-469296/2-A	Lab Control Sample	Total/NA	Waste	3580A	

Analysis Batch: 469795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	8082A	469296
480-151896-5	TANK 3-04112019	Total/NA	Waste	8082A	469296
MB 480-469296/1-A	Method Blank	Total/NA	Waste	8082A	469296
LCS 480-469296/2-A	Lab Control Sample	Total/NA	Waste	8082A	469296

Metals

Prep Batch: 468172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-3	TANK 2-04112019	Total/NA	Water	200.7	
MB 480-468172/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-468172/2-A	Lab Control Sample	Total/NA	Water	200.7	
480-151896-3 MS	TANK 2-04112019	Total/NA	Water	200.7	
480-151896-3 MSD	TANK 2-04112019	Total/NA	Water	200.7	

Prep Batch: 468360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-3	TANK 2-04112019	Total/NA	Water	245.1	
MB 480-468360/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-468360/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 468456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-3	TANK 2-04112019	Total/NA	Water	245.1	468360
MB 480-468360/1-A	Method Blank	Total/NA	Water	245.1	468360
LCS 480-468360/2-A	Lab Control Sample	Total/NA	Water	245.1	468360

Analysis Batch: 468933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-3	TANK 2-04112019	Total/NA	Water	200.7 Rev 4.4	468172
MB 480-468172/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	468172
LCS 480-468172/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	468172
480-151896-3 MS	TANK 2-04112019	Total/NA	Water	200.7 Rev 4.4	468172
480-151896-3 MSD	TANK 2-04112019	Total/NA	Water	200.7 Rev 4.4	468172

Prep Batch: 469302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	3050B	
480-151896-5	TANK 3-04112019	Total/NA	Waste	3050B	
MB 480-469302/1-A	Method Blank	Total/NA	Waste	3050B	

Metals (Continued)

Prep Batch: 469302 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 480-469302/2-A	Lab Control Sample	Total/NA	Waste	3050B	

Prep Batch: 469543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	7471B	
480-151896-5	TANK 3-04112019	Total/NA	Waste	7471B	
MB 480-469543/1-A	Method Blank	Total/NA	Waste	7471B	
LCSSRM 480-469543/2-A ^5	Lab Control Sample	Total/NA	Waste	7471B	

Analysis Batch: 469809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	7471B	469543
480-151896-5	TANK 3-04112019	Total/NA	Waste	7471B	469543
MB 480-469543/1-A	Method Blank	Total/NA	Waste	7471B	469543
LCSSRM 480-469543/2-A ^5	Lab Control Sample	Total/NA	Waste	7471B	469543

Analysis Batch: 470005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	6010C	469302
480-151896-5	TANK 3-04112019	Total/NA	Waste	6010C	469302
MB 480-469302/1-A	Method Blank	Total/NA	Waste	6010C	469302
LCSSRM 480-469302/2-A	Lab Control Sample	Total/NA	Waste	6010C	469302

Analysis Batch: 470203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	6010C	469302
MB 480-469302/1-A	Method Blank	Total/NA	Waste	6010C	469302
LCSSRM 480-469302/2-A	Lab Control Sample	Total/NA	Waste	6010C	469302

General Chemistry

Analysis Batch: 468685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	9045D	
480-151896-5	TANK 3-04112019	Total/NA	Waste	9045D	
LCS 480-468685/21	Lab Control Sample	Total/NA	Waste	9045D	

Analysis Batch: 468720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	1010A	
480-151896-5	TANK 3-04112019	Total/NA	Waste	1010A	
LCS 480-468720/1	Lab Control Sample	Total/NA	Waste	1010A	

Prep Batch: 469362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	7.3.3	
480-151896-5	TANK 3-04112019	Total/NA	Waste	7.3.3	
MB 480-469362/1-A	Method Blank	Total/NA	Waste	7.3.3	
LCS 480-469362/2-A ^25	Lab Control Sample	Total/NA	Waste	7.3.3	

General Chemistry

Prep Batch: 469365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	7.3.4	
480-151896-5	TANK 3-04112019	Total/NA	Waste	7.3.4	
MB 480-469365/1-A	Method Blank	Total/NA	Waste	7.3.4	
LCS 480-469365/2-A	Lab Control Sample	Total/NA	Waste	7.3.4	

Analysis Batch: 469593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	9034	469365
480-151896-5	TANK 3-04112019	Total/NA	Waste	9034	469365
MB 480-469365/1-A	Method Blank	Total/NA	Waste	9034	469365
LCS 480-469365/2-A	Lab Control Sample	Total/NA	Waste	9034	469365

Prep Batch: 469778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-3	TANK 2-04112019	Total/NA	Water	Distill/CN	
MB 480-469778/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-469778/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 480-469778/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 469851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-3	TANK 2-04112019	Total/NA	Water	335.4	469778
MB 480-469778/1-A	Method Blank	Total/NA	Water	335.4	469778
LCS 480-469778/2-A	Lab Control Sample	Total/NA	Water	335.4	469778
LCS 480-469778/3-A	Lab Control Sample	Total/NA	Water	335.4	469778

Analysis Batch: 470169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	9012	469362
480-151896-5	TANK 3-04112019	Total/NA	Waste	9012	469362
MB 480-469362/1-A	Method Blank	Total/NA	Waste	9012	469362
LCS 480-469362/2-A ^25	Lab Control Sample	Total/NA	Waste	9012	469362

Prep Batch: 471271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-3	TANK 2-04112019	Total/NA	Water	Distill/CN	
MB 480-471271/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-471271/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 471399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-3	TANK 2-04112019	Total/NA	Water	335.4	471271
MB 480-471271/1-A	Method Blank	Total/NA	Water	335.4	471271
LCS 480-471271/2-A	Lab Control Sample	Total/NA	Water	335.4	471271

Analysis Batch: 473268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	Moisture	
480-151896-5	TANK 3-04112019	Total/NA	Waste	Moisture	
480-151896-4 DU	TANK 1-04112019	Total/NA	Waste	Moisture	

QC Association Summary

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

General Chemistry

Analysis Batch: 591631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151896-4	TANK 1-04112019	Total/NA	Waste	9076	
480-151896-5	TANK 3-04112019	Total/NA	Waste	9076	
MB 490-591631/2	Method Blank	Total/NA	Waste	9076	
LCS 490-591631/4	Lab Control Sample	Total/NA	Waste	9076	

Lab Chronicle

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

Client Sample ID: TANK 2-04112019

Lab Sample ID: 480-151896-3

Date Collected: 04/11/19 11:00

Matrix: Water

Date Received: 04/12/19 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	467877	04/15/19 15:26	S1V	TAL BUF
Total/NA	Prep	625			467891	04/15/19 08:27	JMP	TAL BUF
Total/NA	Analysis	625.1		1	468400	04/17/19 23:50	DMR	TAL BUF
Total/NA	Prep	3510C			468299	04/17/19 08:19	JMP	TAL BUF
Total/NA	Analysis	608.3		1	468765	04/19/19 12:07	DSC	TAL BUF
Total/NA	Prep	200.7			468172	04/17/19 07:47	KMP	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	468933	04/19/19 11:30	EMB	TAL BUF
Total/NA	Prep	245.1			468360	04/17/19 11:42	BMB	TAL BUF
Total/NA	Analysis	245.1		1	468456	04/17/19 14:49	BMB	TAL BUF
Total/NA	Prep	Distill/CN			469778	04/25/19 12:00	MDL	TAL BUF
Total/NA	Analysis	335.4		1	469851	04/25/19 17:37	MDL	TAL BUF
Total/NA	Prep	Distill/CN			471271	05/05/19 12:45	MDL	TAL BUF
Total/NA	Analysis	335.4		1	471399	05/06/19 12:47	MDL	TAL BUF

Client Sample ID: TANK 1-04112019

Lab Sample ID: 480-151896-4

Date Collected: 04/11/19 09:30

Matrix: Waste

Date Received: 04/12/19 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_H			468129	04/16/19 09:37	AMM	TAL BUF
Total/NA	Analysis	8260C		100	468264	04/17/19 16:53	AEM	TAL BUF
Total/NA	Prep	3580A			468844	04/19/19 12:31	SMP	TAL BUF
Total/NA	Analysis	8270D		10	469125	04/22/19 23:29	DMR	TAL BUF
Total/NA	Prep	3580A	DL		468844	04/19/19 12:31	SMP	TAL BUF
Total/NA	Analysis	8270D	DL	200	469310	04/23/19 15:07	DMR	TAL BUF
Total/NA	Prep	3580A			468846	04/19/19 12:35	SMP	TAL BUF
Total/NA	Analysis	8081B		20	469266	04/23/19 17:22	JLS	TAL BUF
Total/NA	Prep	3580A			469296	04/23/19 12:04	SMP	TAL BUF
Total/NA	Analysis	8082A		1	469795	04/25/19 21:04	W1T	TAL BUF
Total/NA	Prep	3546			377980	04/24/19 12:45	EMB	TAL CAN
Total/NA	Analysis	8151A		1	378243	04/25/19 15:41	OCR	TAL CAN
Total/NA	Prep	3050B			469302	04/24/19 12:19	JMP	TAL BUF
Total/NA	Analysis	6010C		1	470005	04/25/19 15:43	AMH	TAL BUF
Total/NA	Prep	3050B			469302	04/24/19 12:19	JMP	TAL BUF
Total/NA	Analysis	6010C		1	470203	04/26/19 11:33	AMH	TAL BUF
Total/NA	Prep	7471B			469543	04/25/19 12:23	BMB	TAL BUF
Total/NA	Analysis	7471B		1	469809	04/25/19 14:27	BMB	TAL BUF
Total/NA	Analysis	1010A		1	468720	04/19/19 07:10	MV	TAL BUF
Total/NA	Prep	7.3.3			469362	04/23/19 09:01	MJB	TAL BUF
Total/NA	Analysis	9012		1	470169	04/25/19 18:17	MDL	TAL BUF
Total/NA	Prep	7.3.4			469365	04/23/19 09:01	MJB	TAL BUF
Total/NA	Analysis	9034		1	469593	04/24/19 14:40	MJB	TAL BUF
Total/NA	Analysis	9045D		1	468685	04/18/19 13:00	KEB	TAL BUF
Total/NA	Analysis	9076		1	591631	05/01/19 07:07	CLJ	TAL NSH

Lab Chronicle

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

Client Sample ID: TANK 1-04112019

Lab Sample ID: 480-151896-4

Date Collected: 04/11/19 09:30

Matrix: Waste

Date Received: 04/12/19 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	473268	05/16/19 16:33	KEK1	TAL BUF

Client Sample ID: TANK 3-04112019

Lab Sample ID: 480-151896-5

Date Collected: 04/11/19 10:30

Matrix: Waste

Date Received: 04/12/19 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_H			468129	04/16/19 09:37	AMM	TAL BUF
Total/NA	Analysis	8260C		50	468264	04/17/19 17:16	AEM	TAL BUF
Total/NA	Prep	3580A			468844	04/19/19 12:31	SMP	TAL BUF
Total/NA	Analysis	8270D		20	469125	04/22/19 23:53	DMR	TAL BUF
Total/NA	Prep	3580A			468846	04/19/19 12:35	SMP	TAL BUF
Total/NA	Analysis	8081B		50	469266	04/23/19 17:42	JLS	TAL BUF
Total/NA	Prep	3580A			469296	04/23/19 12:04	SMP	TAL BUF
Total/NA	Analysis	8082A		2	469795	04/25/19 21:20	W1T	TAL BUF
Total/NA	Prep	3546			377980	04/24/19 12:45	EMB	TAL CAN
Total/NA	Analysis	8151A		1	378243	04/25/19 16:01	OCR	TAL CAN
Total/NA	Prep	3050B			469302	04/24/19 12:19	JMP	TAL BUF
Total/NA	Analysis	6010C		1	470005	04/25/19 15:58	AMH	TAL BUF
Total/NA	Prep	7471B			469543	04/25/19 12:23	BMB	TAL BUF
Total/NA	Analysis	7471B		1	469809	04/25/19 14:29	BMB	TAL BUF
Total/NA	Analysis	1010A		1	468720	04/19/19 07:10	MV	TAL BUF
Total/NA	Prep	7.3.3			469362	04/23/19 09:01	MJB	TAL BUF
Total/NA	Analysis	9012		1	470169	04/25/19 18:17	MDL	TAL BUF
Total/NA	Prep	7.3.4			469365	04/23/19 09:01	MJB	TAL BUF
Total/NA	Analysis	9034		1	469593	04/24/19 14:40	MJB	TAL BUF
Total/NA	Analysis	9045D		1	468685	04/18/19 13:00	KEB	TAL BUF
Total/NA	Analysis	9076		1	591631	05/01/19 07:07	CLJ	TAL NSH
Total/NA	Analysis	Moisture		1	473268	05/16/19 16:33	KEK1	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: Parsons Corporation
Job ID: 480-151896-1
Project/Site: Honeywell - Tonawanda

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Water	Cyanide, Total
608.3	3510C	Water	PCB-1262
608.3	3510C	Water	PCB-1268
608.3	3510C	Water	Polychlorinated biphenyls, Total
624.1		Water	1,2-Dichloroethene, Total
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
9012	7.3.3	Waste	Cyanide, Reactive
9034	7.3.4	Waste	Sulfide, Reactive
9045D		Waste	Temperature
Moisture		Waste	Percent Solids

Laboratory: Eurofins TestAmerica, Canton

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10975	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte

Laboratory: Eurofins TestAmerica, Nashville

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11342	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9076		Waste	Total Halogens

Method Summary

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
608.3	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
1010A	Ignitability, Pensky-Martens Closed-Cup Method	SW846	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
9012	Cyanide, Reactive	SW846	TAL BUF
9034	Sulfide, Reactive	SW846	TAL BUF
9045D	pH	SW846	TAL BUF
9076	Chlorine, Total	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
3050B	Preparation, Metals	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3546	Microwave Extraction	SW846	TAL CAN
3580A	Waste Dilution	SW846	TAL BUF
5035A_H	Closed System Purge and Trap	SW846	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
7.3.3	Cyanide, Reactive	SW846	TAL BUF
7.3.4	Sulfide, Reactive	SW846	TAL BUF
7471B	Preparation, Mercury	SW846	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
None = None
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396
TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: Parsons Corporation
Project/Site: Honeywell - Tonawanda

Job ID: 480-151896-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-151896-3	TANK 2-04112019	Water	04/11/19 11:00	04/12/19 15:50	
480-151896-4	TANK 1-04112019	Waste	04/11/19 09:30	04/12/19 15:50	
480-151896-5	TANK 3-04112019	Waste	04/11/19 10:30	04/12/19 15:50	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-128945-29100.1
Client Contact: Mr. Jeff Poulsen	Phone:	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 1
Company: Parsons Corporation				Job #:

Address: 40 LaRiviere Drive Suite 350	Due Date Requested:
City: Buffalo	TAT Requested (days):
State, Zip: NY, 14202	
Phone: 215-807-8453(Tel)	PO #: A000001605
Email: jeffrey.poulsen@parsons.com	WO #: R30088-02400 RA/IRM Analytical
Project Name: Honeywell - Tonawanda	Project #: 48014882
Site:	SSOW#:

Analysis Requested

480-151896 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9012_ReactiveCN, 9034_Reactive	6010C, 7470A, 8081B, 8151A, 8270D	8260C - TCLP Volatiles	1010A, 9045D	6010C, 7471B	8082A, 8270D	8260C - TCL VOCs (LL Bulk)	9023 - Extractable Organic Halide	200.7, 245.1	624.1_PREC - Priority Pollutant Li	608.3_PCB_PREC - PCBs	625.1_PREC - Priority Pollutant Li	335.4 - Cyanide, Total	Total Number of containers	Special Instructions/Note:
				Preservation Code:			N	N	N	N	N	N	N	N	D	A	N	N	B		
TANK 1 - 04112019	4.11.19	0930	G	Solid			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		COAL TAR 100g
TANK 3 - 04112019	4.11.19	1030	G	Solid			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		COAL TAR 100g
				Solid																	
TANK 2 - 04112019	4.11.19	1100	G	Water			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
				Water																	
				Water																	

Preservation Codes:

HCL	M - Hexane
NaOH	N - None
Zn Acetate	O - AsNaO2
Nitric Acid	P - Na2O4S
NaHSO4	Q - Na2SO3
MeOH	R - Na2S2O3
Amchlor	S - H2SO4
Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 4/11/19 1200	Company: PARSON	Received by:	Date/Time: 11APR19	Company: Test America
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 4-12-19 1550	Company: FAB

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.3 #1

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

0.8/C0.6

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-49147.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: john.schove@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-151896-1
Address: 4101 Shuffel Street NW,	Due Date Requested: 4/25/2019			
City: North Canton	TAT Requested (days):			
State, Zip: OH, 44720				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Honeywell - Tonawanda	Project #: 48014882			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

C181

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8151A/3580A TCLP Herbicides	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
TANK 1-04112019 (480-151896-4)	4/11/19	09:30 Eastern		Waste			X	1	Labeled has sample 151896-1
TANK 3-04112019 (480-151896-5)	4/11/19	10:30 Eastern		Waste			X	1	Labeled has sample 151896-2

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		4-23-19 1630			4/24/19 1015	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** _____
Canton Facility

Client TA Buffalo Site Name _____ Cooler unpacked by:

Cooler Received on 4/24/16 Opened on 4/24/16

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 3 Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.2** °C) Observed Cooler Temp. 0.8 °C Corrected Cooler Temp. 0.6 °C
   IR GUN #36 (CF **+0.7**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Are these work share samples?	Yes	No
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC984738**
13. Were VOAs on the COC?	Yes	No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
16. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

480-151896 Chain of Custody

Cooler Received/Opened On 4/19/2019 @ 0935

Time Samples Removed From Cooler 11:55 Time Samples Placed In Storage 12:15 (2 Hour Window)

1. Tracking # 4807 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960358 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 0.5 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES (NO)...NA

4. Were custody seals on outside of cooler? (YES)...NO...NA

If yes, how many and where: 1 (Front)

5. Were the seals intact, signed, and dated correctly? (YES)...NO...NA

6. Were custody papers inside cooler? (YES)...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) 2.2

7. Were custody seals on containers: YES (NO) and Intact YES...NO...(NA)

Were these signed and dated correctly? YES...NO...(NA)

8. Packing mat'l used? (Bubblewrap) Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)...NO...NA

12. Did all container labels and tags agree with custody papers? (YES)...NO...NA

13a. Were VOA vials received? (YES)...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...(NA)

● ⬅ Larger than this.

14. Was there a Trip Blank in this cooler? YES...(NO)...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) 2.2

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...(NA)

b. Did the bottle labels indicate that the correct preservatives were used (YES)...NO...NA

16. Was residual chlorine present? YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) 2.2

17. Were custody papers properly filled out (ink, signed, etc)? (YES)...NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)...NO...NA

19. Were correct containers used for the analysis requested? (YES)...NO...NA

20. Was sufficient amount of sample sent in each container? (YES)...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) 2.2

I certify that I attached a label with the unique LIMS number to each container (intial) 2.2

21. Were there Non-Conformance issues at login? YES...(NO) Was a NCM generated? YES...(NO)...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-151896

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	COC No: 480-48992.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: john.schove@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York	Job #: 480-151896-1
Address: 2960 Foster Creighton Drive,	Due Date Requested: 4/24/2019		
City: Nashville	TAT Requested (days):		
State, Zip: TN, 37204			
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:		
Email:	WO #:		
Project Name: Honeywell - Tonawanda	Project #: 48014882		
Site:	SSOW#:		

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA
M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9023/9023_Prep Extractable Organic Halides	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
TANK 1-04112019 (480-151896-1)	4/11/19	09:30 Eastern		Solid			X	1	
TANK 3-04112019 (480-151896-2)	4/11/19	10:30 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ______ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	4-18-19 1410	TA-B	[signature]	09:35 04/19/19	TA-NAS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0.5

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 480-151896-1

Login Number: 151896
List Number: 1
Creator: Harper, Marcus D

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	PARSONS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-145712-1
Laboratory Sample Delivery Group: 480-145712-1
Client Project/Site: Priority Pollutants
Revision: 1

For:
Parsons Corporation
40 LaRiviere Drive
Suite 350
Buffalo, New York 14202

Attn: Robert B Piurek

Authorized for release by:
6/19/2019 10:04:30 AM

John Schove, Project Manager II
(716)504-9838
john.schove@testamericainc.com

Table of Contents

Definitions/Glossary

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
b	Result Detected in the Unseeded Control blank (USB).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job ID: 480-145712-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-145712-1

Revision
This report has been revised to include Xylenes.

Comments
No additional comments.

Receipt
The samples were received on 11/26/2018 5:45 PM and 11/28/2018 3:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.6º C, 2.8º C, 3.0º C and 3.2º C.

Receipt Exceptions
WESTBERM1_11262018 is listed on the chain of custody (COC) for all analysis however no volume was received for this sample set. No tests have been assigned to this sample.

Insufficient sample volume was provided for the following sample for all the analysis requested on the chain of custody (COC): EASTBERM2-11262018 (480-145712-2). Only those tests that we received volume for were assigned.

GC/MS VOA
Method(s) 624.1: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: WESTBERM2-11262018 (480-145712-4) and WESTBERM3-11262018 (480-145712-5). Elevated reporting limits (RLs) are provided.

Method(s) 624.1: The preservative used in the sample containers provided is not compatible with the Method 624 analytes requested. The following samples were received preserved with hydrochloric acid: EASTBERM1-11262018 (480-145712-1), WESTBERM2-11262018 (480-145712-4) and WESTBERM3-11262018 (480-145712-5). The requested target analyte list contains 2-Chloroethyl vinyl ether and/or Acrolein, which are acid-labile compounds that degrade in an acidic medium.

Method(s) 624.1: The preservative used in the sample containers provided is not compatible with the Method 624 analytes requested. The following sample was received preserved with hydrochloric acid: WESTBERM1-11262018 (480-145712-3). The requested target analyte list contains 2-Chloroethyl vinyl ether and/or Acrolein, which are acid-labile compounds that degrade in an acidic medium.

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

GC/MS Semi VOA
Method(s) 625.1: The following sample was diluted due to the nature of the sample matrix: WESTBERM3-11262018 (480-145712-5). Elevated reporting limits (RLs) are provided.

Method(s) 625.1: The following sample was diluted due to the nature of the sample matrix: WESTBERM3-11262018 (480-145712-5). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

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

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

General Chemistry
Method(s) SM 5210B: Analyst forgot to include a duplicate in the batch.

WESTBERM1_11282018 (480-145793-1)

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

Organic Prep

Job ID: 480-145712-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

Method(s) 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 480-447670.

Method(s) 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 480-448157.

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

Detection Summary

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Client Sample ID: EASTBERM1-11262018 — Lab Sample ID: 480-145712-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0053		0.0040	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.0033	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Lead	0.0033	J	0.010	0.0030	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.0030	J	0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.018	B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Oil & Grease	3.6	J	5.5	1.5	mg/L	1		1664B	Total/NA
Cyanide, Total	0.0064	J	0.010	0.0050	mg/L	1		335.4	Total/NA
Ammonia	0.090	B	0.020	0.0090	mg/L	1		350.1	Total/NA
Total Suspended Solids	18.0		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Total Phosphorus	0.0055	J	0.010	0.0050	mg/L	1		SM 4500 P E	Total/NA
Biochemical Oxygen Demand	3.8		2.0	2.0	mg/L	1		SM 5210B	Total/NA

Client Sample ID: EASTBERM2-11262018 — Lab Sample ID: 480-145712-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Oil & Grease	4.3	J B	5.6	1.6	mg/L	1		1664B	Total/NA
Total Suspended Solids	13.6		4.0	4.0	mg/L	1		SM 2540D	Total/NA

Client Sample ID: WESTBERM1-11262018 — Lab Sample ID: 480-145712-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.8	J	5.0	0.60	ug/L	1		624.1	Total/NA
m-Xylene & p-Xylene	1.3	J	10	1.1	ug/L	1		624.1	Total/NA
o-Xylene	0.71	J	5.0	0.43	ug/L	1		624.1	Total/NA
Toluene	1.7	J	5.0	0.45	ug/L	1		624.1	Total/NA
2,4-Dimethylphenol	2.0	J	5.0	1.4	ug/L	1		625.1	Total/NA
Benzo[a]anthracene	1.1	J	5.0	1.1	ug/L	1		625.1	Total/NA
Benzo[b]fluoranthene	1.4	J	5.0	1.2	ug/L	1		625.1	Total/NA
Fluoranthene	4.6	J	5.0	1.6	ug/L	1		625.1	Total/NA
Pyrene	3.6	J	5.0	1.4	ug/L	1		625.1	Total/NA
Nickel	0.0016	J	0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.013	B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Oil & Grease	8.7	B	5.0	1.4	mg/L	1		1664B	Total/NA
Ammonia	2.5		0.040	0.018	mg/L	2		350.1	Total/NA
Total Suspended Solids	6.8		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Total Phosphorus	0.013		0.010	0.0050	mg/L	1		SM 4500 P E	Total/NA

Client Sample ID: WESTBERM2-11262018 — Lab Sample ID: 480-145712-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	3.3	J	20	3.3	ug/L	4		624.1	Total/NA
Phenanthrene	1.5	J	5.0	1.2	ug/L	1		625.1	Total/NA
Copper	0.0023	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.0018	J	0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.015	B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Oil & Grease	2.4	J B	5.0	1.4	mg/L	1		1664B	Total/NA
Cyanide, Total	0.011		0.010	0.0050	mg/L	1		335.4	Total/NA
Ammonia	0.30	B	0.020	0.0090	mg/L	1		350.1	Total/NA
Total Suspended Solids	15.6		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	2.8		2.0	2.0	mg/L	1		SM 5210B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Client Sample ID: WESTBERM3-11262018 — Lab Sample ID: 480-145712-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	3.9	J	20	3.3	ug/L	4		624.1	Total/NA
Benzo[a]anthracene	250	J	1000	220	ug/L	200		625.1	Total/NA
Chrysene	250	J	1000	200	ug/L	200		625.1	Total/NA
Fluoranthene	700	J	1000	320	ug/L	200		625.1	Total/NA
Fluorene	250	J	1000	200	ug/L	200		625.1	Total/NA
Naphthalene	960	J	1000	170	ug/L	200		625.1	Total/NA
Phenanthrene	1100		1000	240	ug/L	200		625.1	Total/NA
Pyrene	550	J	1000	280	ug/L	200		625.1	Total/NA
Chromium	0.0018	J	0.0040	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.0028	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.0029	J	0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.017	B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Oil & Grease	2.4	J B	4.9	1.4	mg/L	1		1664B	Total/NA
Cyanide, Total	0.011		0.010	0.0050	mg/L	1		335.4	Total/NA
Ammonia	0.37	B	0.020	0.0090	mg/L	1		350.1	Total/NA
Total Suspended Solids	16.4		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Total Phosphorus	0.011		0.010	0.0050	mg/L	1		SM 4500 P E	Total/NA
Biochemical Oxygen Demand	2.6		2.0	2.0	mg/L	1		SM 5210B	Total/NA

Client Sample ID: WESTBERM1_11282018 — Lab Sample ID: 480-145793-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Biochemical Oxygen Demand	3.6	b	2.0	2.0	mg/L	1		SM 5210B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Client Sample ID: EASTBERM1-11262018
Date Collected: 11/26/18 15:15
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-1
Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.0	U	5.0	0.39	ug/L			11/27/18 15:31	1
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.26	ug/L			11/27/18 15:31	1
1,1,2-Trichloroethane	5.0	U	5.0	0.48	ug/L			11/27/18 15:31	1
1,1-Dichloroethane	5.0	U	5.0	0.59	ug/L			11/27/18 15:31	1
1,1-Dichloroethene	5.0	U	5.0	0.85	ug/L			11/27/18 15:31	1
1,2-Dichlorobenzene	5.0	U	5.0	0.44	ug/L			11/27/18 15:31	1
1,2-Dichloroethane	5.0	U	5.0	0.60	ug/L			11/27/18 15:31	1
1,2-Dichloroethene, Total	10	U	10	3.2	ug/L			11/27/18 15:31	1
1,2-Dichloropropane	5.0	U	5.0	0.61	ug/L			11/27/18 15:31	1
1,3-Dichlorobenzene	5.0	U	5.0	0.54	ug/L			11/27/18 15:31	1
1,4-Dichlorobenzene	5.0	U	5.0	0.51	ug/L			11/27/18 15:31	1
2-Chloroethyl vinyl ether	25	U	25	1.9	ug/L			11/27/18 15:31	1
Acrolein	100	U	100	17	ug/L			11/27/18 15:31	1
Acrylonitrile	50	U	50	1.9	ug/L			11/27/18 15:31	1
Benzene	5.0	U	5.0	0.60	ug/L			11/27/18 15:31	1
Bromoform	5.0	U	5.0	0.47	ug/L			11/27/18 15:31	1
Bromomethane	5.0	U	5.0	1.2	ug/L			11/27/18 15:31	1
Carbon tetrachloride	5.0	U	5.0	0.51	ug/L			11/27/18 15:31	1
Chlorobenzene	5.0	U	5.0	0.48	ug/L			11/27/18 15:31	1
Chlorodibromomethane	5.0	U	5.0	0.41	ug/L			11/27/18 15:31	1
Chloroethane	5.0	U	5.0	0.87	ug/L			11/27/18 15:31	1
Chloroform	5.0	U	5.0	0.54	ug/L			11/27/18 15:31	1
Chloromethane	5.0	U	5.0	0.64	ug/L			11/27/18 15:31	1
cis-1,3-Dichloropropene	5.0	U	5.0	0.33	ug/L			11/27/18 15:31	1
Dichlorobromomethane	5.0	U	5.0	0.54	ug/L			11/27/18 15:31	1
Ethylbenzene	5.0	U	5.0	0.46	ug/L			11/27/18 15:31	1
Methylene Chloride	5.0	U	5.0	0.81	ug/L			11/27/18 15:31	1
m-Xylene & p-Xylene	10	U	10	1.1	ug/L			11/27/18 15:31	1
o-Xylene	5.0	U	5.0	0.43	ug/L			11/27/18 15:31	1
Tetrachloroethene	5.0	U	5.0	0.34	ug/L			11/27/18 15:31	1
Toluene	5.0	U	5.0	0.45	ug/L			11/27/18 15:31	1
trans-1,2-Dichloroethene	5.0	U	5.0	0.59	ug/L			11/27/18 15:31	1
trans-1,3-Dichloropropene	5.0	U	5.0	0.44	ug/L			11/27/18 15:31	1
Trichloroethene	5.0	U	5.0	0.60	ug/L			11/27/18 15:31	1
Vinyl chloride	5.0	U	5.0	0.75	ug/L			11/27/18 15:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*68 - 130*		*11/27/18 15:31*	*1*
4-Bromofluorobenzene (Surr)	*110*		*76 - 123*		*11/27/18 15:31*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 123*		*11/27/18 15:31*	*1*
Toluene-d8 (Surr)	*91*		*77 - 120*		*11/27/18 15:31*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	10	U	10	0.82	ug/L		11/27/18 14:11	12/04/18 19:40	1
1,2-Dichlorobenzene	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 19:40	1
1,2-Diphenylhydrazine	10	U	10	0.78	ug/L		11/27/18 14:11	12/04/18 19:40	1
1,3-Dichlorobenzene	10	U	10	0.69	ug/L		11/27/18 14:11	12/04/18 19:40	1
1,4-Dichlorobenzene	10	U	10	5.6	ug/L		11/27/18 14:11	12/04/18 19:40	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.84	ug/L		11/27/18 14:11	12/04/18 19:40	1

Client Sample ID: EASTBERM1-11262018

Date Collected: 11/26/18 15:15
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-1

Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 19:40	1
2,4-Dichlorophenol	5.0	U	5.0	0.77	ug/L		11/27/18 14:11	12/04/18 19:40	1
2,4-Dimethylphenol	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/04/18 19:40	1
2,4-Dinitrophenol	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 19:40	1
2,4-Dinitrotoluene	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 19:40	1
2,6-Dinitrotoluene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 19:40	1
2-Chloronaphthalene	5.0	U	5.0	0.91	ug/L		11/27/18 14:11	12/04/18 19:40	1
2-Chlorophenol	5.0	U	5.0	0.66	ug/L		11/27/18 14:11	12/04/18 19:40	1
2-Nitrophenol	5.0	U	5.0	0.70	ug/L		11/27/18 14:11	12/04/18 19:40	1
3,3'-Dichlorobenzidine	5.0	U	5.0	0.82	ug/L		11/27/18 14:11	12/04/18 19:40	1
4,6-Dinitro-2-methylphenol	10	U	10	0.66	ug/L		11/27/18 14:11	12/04/18 19:40	1
4-Bromophenyl phenyl ether	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/04/18 19:40	1
4-Chloro-3-methylphenol	5.0	U	5.0	1.1	ug/L		11/27/18 14:11	12/04/18 19:40	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	1.3	ug/L		11/27/18 14:11	12/04/18 19:40	1
4-Nitrophenol	15	U	15	10	ug/L		11/27/18 14:11	12/04/18 19:40	1
Acenaphthene	5.0	U	5.0	0.81	ug/L		11/27/18 14:11	12/04/18 19:40	1
Acenaphthylene	5.0	U	5.0	0.87	ug/L		11/27/18 14:11	12/04/18 19:40	1
Anthracene	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/04/18 19:40	1
Benzidine	80	U	80	35	ug/L		11/27/18 14:11	12/04/18 19:40	1
Benzo[a]anthracene	5.0	U	5.0	1.1	ug/L		11/27/18 14:11	12/04/18 19:40	1
Benzo[a]pyrene	5.0	U	5.0	1.3	ug/L		11/27/18 14:11	12/04/18 19:40	1
Benzo[b]fluoranthene	5.0	U	5.0	1.2	ug/L		11/27/18 14:11	12/04/18 19:40	1
Benzo[g,h,i]perylene	5.0	U	5.0	1.5	ug/L		11/27/18 14:11	12/04/18 19:40	1
Benzo[k]fluoranthene	5.0	U	5.0	1.3	ug/L		11/27/18 14:11	12/04/18 19:40	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.75	ug/L		11/27/18 14:11	12/04/18 19:40	1
Bis(2-chloroethyl)ether	5.0	U	5.0	0.93	ug/L		11/27/18 14:11	12/04/18 19:40	1
Bis(2-ethylhexyl) phthalate	10	U	10	1.2	ug/L		11/27/18 14:11	12/04/18 19:40	1
Butyl benzyl phthalate	5.0	U	5.0	1.1	ug/L		11/27/18 14:11	12/04/18 19:40	1
Chrysene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 19:40	1
Dibenz(a,h)anthracene	5.0	U	5.0	1.5	ug/L		11/27/18 14:11	12/04/18 19:40	1
Diethyl phthalate	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 19:40	1
Dimethyl phthalate	5.0	U	5.0	0.91	ug/L		11/27/18 14:11	12/04/18 19:40	1
Di-n-butyl phthalate	5.0	U	5.0	1.6	ug/L		11/27/18 14:11	12/04/18 19:40	1
Di-n-octyl phthalate	5.0	U	5.0	1.2	ug/L		11/27/18 14:11	12/04/18 19:40	1
Fluoranthene	5.0	U	5.0	1.6	ug/L		11/27/18 14:11	12/04/18 19:40	1
Fluorene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 19:40	1
Hexachlorobenzene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 19:40	1
Hexachlorobutadiene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 19:40	1
Hexachlorocyclopentadiene	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 19:40	1
Hexachloroethane	5.0	U	5.0	0.60	ug/L		11/27/18 14:11	12/04/18 19:40	1
Indeno[1,2,3-cd]pyrene	5.0	U	5.0	1.5	ug/L		11/27/18 14:11	12/04/18 19:40	1
Isophorone	5.0	U	5.0	0.74	ug/L		11/27/18 14:11	12/04/18 19:40	1
Naphthalene	5.0	U	5.0	0.86	ug/L		11/27/18 14:11	12/04/18 19:40	1
Nitrobenzene	5.0	U	5.0	0.81	ug/L		11/27/18 14:11	12/04/18 19:40	1
N-Nitrosodimethylamine	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 19:40	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.89	ug/L		11/27/18 14:11	12/04/18 19:40	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.40	ug/L		11/27/18 14:11	12/04/18 19:40	1
Pentachlorophenol	10	U	10	1.6	ug/L		11/27/18 14:11	12/04/18 19:40	1
Phenanthrene	5.0	U	5.0	1.2	ug/L		11/27/18 14:11	12/04/18 19:40	1

Client Sample ID: EASTBERM1-11262018

Date Collected: 11/26/18 15:15
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-1

Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	5.0	U	5.0	0.35	ug/L		11/27/18 14:11	12/04/18 19:40	1
Pyrene	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/04/18 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*87*		*52 - 151*	*11/27/18 14:11*	*12/04/18 19:40*	*1*
2-Fluorobiphenyl	*81*		*44 - 120*	*11/27/18 14:11*	*12/04/18 19:40*	*1*
2-Fluorophenol	*50*		*17 - 120*	*11/27/18 14:11*	*12/04/18 19:40*	*1*
Nitrobenzene-d5	*87*		*15 - 314*	*11/27/18 14:11*	*12/04/18 19:40*	*1*
Phenol-d5	*36*		*8 - 424*	*11/27/18 14:11*	*12/04/18 19:40*	*1*
p-Terphenyl-d14 (Surr)	*91*		*22 - 125*	*11/27/18 14:11*	*12/04/18 19:40*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.020	U	0.020	0.0068	mg/L		11/30/18 09:55	11/30/18 18:51	1
Arsenic	0.015	U	0.015	0.0056	mg/L		11/30/18 09:55	11/30/18 18:51	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		11/30/18 09:55	11/30/18 18:51	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		11/30/18 09:55	11/30/18 18:51	1
Chromium	**0.0053**		0.0040	0.0010	mg/L		11/30/18 09:55	11/30/18 18:51	1
Copper	**0.0033**	**J**	0.010	0.0016	mg/L		11/30/18 09:55	11/30/18 18:51	1
Lead	**0.0033**	**J**	0.010	0.0030	mg/L		11/30/18 09:55	11/30/18 18:51	1
Nickel	**0.0030**	**J**	0.010	0.0013	mg/L		11/30/18 09:55	11/30/18 18:51	1
Selenium	0.025	U	0.025	0.0087	mg/L		11/30/18 09:55	11/30/18 18:51	1
Silver	0.0060	U	0.0060	0.0017	mg/L		11/30/18 09:55	11/30/18 18:51	1
Thallium	0.020	U	0.020	0.010	mg/L		11/30/18 09:55	11/30/18 18:51	1
Zinc	**0.018**	**B**	0.010	0.0015	mg/L		11/30/18 09:55	11/30/18 18:51	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		11/29/18 12:00	11/29/18 14:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	**3.6**	**J**	5.5	1.5	mg/L		11/30/18 06:53	11/30/18 10:04	1
Cyanide, Total	**0.0064**	**J**	0.010	0.0050	mg/L		12/04/18 12:15	12/04/18 17:23	1
Ammonia	**0.090**	**B**	0.020	0.0090	mg/L			11/28/18 17:16	1
Total Phosphorus	**0.0055**	**J**	0.010	0.0050	mg/L			11/28/18 09:20	1
Biochemical Oxygen Demand	**3.8**		2.0	2.0	mg/L			11/27/18 21:06	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**18.0**		4.0	4.0	mg/L			11/28/18 17:36	1

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Client Sample ID: EASTBERM2-11262018
Date Collected: 11/26/18 15:20
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-2
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	10	U	10	0.82	ug/L		11/27/18 14:11	12/04/18 20:06	1
1,2-Dichlorobenzene	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 20:06	1
1,2-Diphenylhydrazine	10	U	10	0.78	ug/L		11/27/18 14:11	12/04/18 20:06	1
1,3-Dichlorobenzene	10	U	10	0.69	ug/L		11/27/18 14:11	12/04/18 20:06	1
1,4-Dichlorobenzene	10	U	10	5.6	ug/L		11/27/18 14:11	12/04/18 20:06	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.84	ug/L		11/27/18 14:11	12/04/18 20:06	1
2,4,6-Trichlorophenol	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:06	1
2,4-Dichlorophenol	5.0	U	5.0	0.77	ug/L		11/27/18 14:11	12/04/18 20:06	1
2,4-Dimethylphenol	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/04/18 20:06	1
2,4-Dinitrophenol	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 20:06	1
2,4-Dinitrotoluene	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 20:06	1
2,6-Dinitrotoluene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:06	1
2-Chloronaphthalene	5.0	U	5.0	0.91	ug/L		11/27/18 14:11	12/04/18 20:06	1
2-Chlorophenol	5.0	U	5.0	0.66	ug/L		11/27/18 14:11	12/04/18 20:06	1
2-Nitrophenol	5.0	U	5.0	0.70	ug/L		11/27/18 14:11	12/04/18 20:06	1
3,3'-Dichlorobenzidine	5.0	U	5.0	0.82	ug/L		11/27/18 14:11	12/04/18 20:06	1
4,6-Dinitro-2-methylphenol	10	U	10	0.66	ug/L		11/27/18 14:11	12/04/18 20:06	1
4-Bromophenyl phenyl ether	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/04/18 20:06	1
4-Chloro-3-methylphenol	5.0	U	5.0	1.1	ug/L		11/27/18 14:11	12/04/18 20:06	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	1.3	ug/L		11/27/18 14:11	12/04/18 20:06	1
4-Nitrophenol	15	U	15	10	ug/L		11/27/18 14:11	12/04/18 20:06	1
Acenaphthene	5.0	U	5.0	0.81	ug/L		11/27/18 14:11	12/04/18 20:06	1
Acenaphthylene	5.0	U	5.0	0.87	ug/L		11/27/18 14:11	12/04/18 20:06	1
Anthracene	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/04/18 20:06	1
Benzidine	80	U	80	35	ug/L		11/27/18 14:11	12/04/18 20:06	1
Benzo[a]anthracene	5.0	U	5.0	1.1	ug/L		11/27/18 14:11	12/04/18 20:06	1
Benzo[a]pyrene	5.0	U	5.0	1.3	ug/L		11/27/18 14:11	12/04/18 20:06	1
Benzo[b]fluoranthene	5.0	U	5.0	1.2	ug/L		11/27/18 14:11	12/04/18 20:06	1
Benzo[g,h,i]perylene	5.0	U	5.0	1.5	ug/L		11/27/18 14:11	12/04/18 20:06	1
Benzo[k]fluoranthene	5.0	U	5.0	1.3	ug/L		11/27/18 14:11	12/04/18 20:06	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.75	ug/L		11/27/18 14:11	12/04/18 20:06	1
Bis(2-chloroethyl)ether	5.0	U	5.0	0.93	ug/L		11/27/18 14:11	12/04/18 20:06	1
Bis(2-ethylhexyl) phthalate	10	U	10	1.2	ug/L		11/27/18 14:11	12/04/18 20:06	1
Butyl benzyl phthalate	5.0	U	5.0	1.1	ug/L		11/27/18 14:11	12/04/18 20:06	1
Chrysene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:06	1
Dibenz(a,h)anthracene	5.0	U	5.0	1.5	ug/L		11/27/18 14:11	12/04/18 20:06	1
Diethyl phthalate	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:06	1
Dimethyl phthalate	5.0	U	5.0	0.91	ug/L		11/27/18 14:11	12/04/18 20:06	1
Di-n-butyl phthalate	5.0	U	5.0	1.6	ug/L		11/27/18 14:11	12/04/18 20:06	1
Di-n-octyl phthalate	5.0	U	5.0	1.2	ug/L		11/27/18 14:11	12/04/18 20:06	1
Fluoranthene	5.0	U	5.0	1.6	ug/L		11/27/18 14:11	12/04/18 20:06	1
Fluorene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:06	1
Hexachlorobenzene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:06	1
Hexachlorobutadiene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:06	1
Hexachlorocyclopentadiene	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 20:06	1
Hexachloroethane	5.0	U	5.0	0.60	ug/L		11/27/18 14:11	12/04/18 20:06	1
Indeno[1,2,3-cd]pyrene	5.0	U	5.0	1.5	ug/L		11/27/18 14:11	12/04/18 20:06	1
Isophorone	5.0	U	5.0	0.74	ug/L		11/27/18 14:11	12/04/18 20:06	1
Naphthalene	5.0	U	5.0	0.86	ug/L		11/27/18 14:11	12/04/18 20:06	1

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Client Sample ID: EASTBERM2-11262018
Date Collected: 11/26/18 15:20
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-2
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	5.0	U	5.0	0.81	ug/L		11/27/18 14:11	12/04/18 20:06	1
N-Nitrosodimethylamine	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 20:06	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.89	ug/L		11/27/18 14:11	12/04/18 20:06	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.40	ug/L		11/27/18 14:11	12/04/18 20:06	1
Pentachlorophenol	10	U	10	1.6	ug/L		11/27/18 14:11	12/04/18 20:06	1
Phenanthrene	5.0	U	5.0	1.2	ug/L		11/27/18 14:11	12/04/18 20:06	1
Phenol	5.0	U	5.0	0.35	ug/L		11/27/18 14:11	12/04/18 20:06	1
Pyrene	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/04/18 20:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*88*		*52 - 151*	*11/27/18 14:11*	*12/04/18 20:06*	*1*
2-Fluorobiphenyl	*81*		*44 - 120*	*11/27/18 14:11*	*12/04/18 20:06*	*1*
2-Fluorophenol	*52*		*17 - 120*	*11/27/18 14:11*	*12/04/18 20:06*	*1*
Nitrobenzene-d5	*87*		*15 - 314*	*11/27/18 14:11*	*12/04/18 20:06*	*1*
Phenol-d5	*39*		*8 - 424*	*11/27/18 14:11*	*12/04/18 20:06*	*1*
p-Terphenyl-d14 (Surr)	*90*		*22 - 125*	*11/27/18 14:11*	*12/04/18 20:06*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	**4.3**	**J B**	5.6	1.6	mg/L		11/29/18 07:51	11/29/18 11:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**13.6**		4.0	4.0	mg/L			11/28/18 17:36	1

Client Sample ID: WESTBERM1-11262018

Date Collected: 11/26/18 15:30
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-3

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.0	U	5.0	0.39	ug/L			11/30/18 13:38	1
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.26	ug/L			11/30/18 13:38	1
1,1,2-Trichloroethane	5.0	U	5.0	0.48	ug/L			11/30/18 13:38	1
1,1-Dichloroethane	5.0	U	5.0	0.59	ug/L			11/30/18 13:38	1
1,1-Dichloroethene	5.0	U	5.0	0.85	ug/L			11/30/18 13:38	1
1,2-Dichlorobenzene	5.0	U	5.0	0.44	ug/L			11/30/18 13:38	1
1,2-Dichloroethane	5.0	U	5.0	0.60	ug/L			11/30/18 13:38	1
1,2-Dichloroethene, Total	10	U	10	3.2	ug/L			11/30/18 13:38	1
1,2-Dichloropropane	5.0	U	5.0	0.61	ug/L			11/30/18 13:38	1
1,3-Dichlorobenzene	5.0	U	5.0	0.54	ug/L			11/30/18 13:38	1
1,4-Dichlorobenzene	5.0	U	5.0	0.51	ug/L			11/30/18 13:38	1
2-Chloroethyl vinyl ether	25	U	25	1.9	ug/L			11/30/18 13:38	1
Acrolein	100	U	100	17	ug/L			11/30/18 13:38	1
Acrylonitrile	50	U	50	1.9	ug/L			11/30/18 13:38	1
Benzene	**1.8**	**J**	5.0	0.60	ug/L			11/30/18 13:38	1
Bromoform	5.0	U	5.0	0.47	ug/L			11/30/18 13:38	1
Bromomethane	5.0	U	5.0	1.2	ug/L			11/30/18 13:38	1
Carbon tetrachloride	5.0	U	5.0	0.51	ug/L			11/30/18 13:38	1
Chlorobenzene	5.0	U	5.0	0.48	ug/L			11/30/18 13:38	1
Chlorodibromomethane	5.0	U	5.0	0.41	ug/L			11/30/18 13:38	1
Chloroethane	5.0	U	5.0	0.87	ug/L			11/30/18 13:38	1
Chloroform	5.0	U	5.0	0.54	ug/L			11/30/18 13:38	1
Chloromethane	5.0	U	5.0	0.64	ug/L			11/30/18 13:38	1
cis-1,3-Dichloropropene	5.0	U	5.0	0.33	ug/L			11/30/18 13:38	1
Dichlorobromomethane	5.0	U	5.0	0.54	ug/L			11/30/18 13:38	1
Ethylbenzene	5.0	U	5.0	0.46	ug/L			11/30/18 13:38	1
Methylene Chloride	5.0	U	5.0	0.81	ug/L			11/30/18 13:38	1
m-Xylene & p-Xylene	**1.3**	**J**	10	1.1	ug/L			11/30/18 13:38	1
o-Xylene	**0.71**	**J**	5.0	0.43	ug/L			11/30/18 13:38	1
Tetrachloroethene	5.0	U	5.0	0.34	ug/L			11/30/18 13:38	1
Toluene	**1.7**	**J**	5.0	0.45	ug/L			11/30/18 13:38	1
trans-1,2-Dichloroethene	5.0	U	5.0	0.59	ug/L			11/30/18 13:38	1
trans-1,3-Dichloropropene	5.0	U	5.0	0.44	ug/L			11/30/18 13:38	1
Trichloroethene	5.0	U	5.0	0.60	ug/L			11/30/18 13:38	1
Vinyl chloride	5.0	U	5.0	0.75	ug/L			11/30/18 13:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*68 - 130*		*11/30/18 13:38*	*1*
4-Bromofluorobenzene (Surr)	*112*		*76 - 123*		*11/30/18 13:38*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*11/30/18 13:38*	*1*
Toluene-d8 (Surr)	*94*		*77 - 120*		*11/30/18 13:38*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	10	U	10	0.82	ug/L		11/29/18 14:22	12/04/18 23:53	1
1,2-Dichlorobenzene	10	U	10	5.0	ug/L		11/29/18 14:22	12/04/18 23:53	1
1,2-Diphenylhydrazine	10	U	10	0.78	ug/L		11/29/18 14:22	12/04/18 23:53	1
1,3-Dichlorobenzene	10	U	10	0.69	ug/L		11/29/18 14:22	12/04/18 23:53	1
1,4-Dichlorobenzene	10	U	10	5.6	ug/L		11/29/18 14:22	12/04/18 23:53	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.84	ug/L		11/29/18 14:22	12/04/18 23:53	1

Client Sample ID: WESTBERM1-11262018

Date Collected: 11/26/18 15:30
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-3

Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 23:53	1
2,4-Dichlorophenol	5.0	U	5.0	0.77	ug/L		11/29/18 14:22	12/04/18 23:53	1
2,4-Dimethylphenol	**2.0**	**J**	5.0	1.4	ug/L		11/29/18 14:22	12/04/18 23:53	1
2,4-Dinitrophenol	10	U	10	5.0	ug/L		11/29/18 14:22	12/04/18 23:53	1
2,4-Dinitrotoluene	10	U	10	5.0	ug/L		11/29/18 14:22	12/04/18 23:53	1
2,6-Dinitrotoluene	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 23:53	1
2-Chloronaphthalene	5.0	U	5.0	0.91	ug/L		11/29/18 14:22	12/04/18 23:53	1
2-Chlorophenol	5.0	U	5.0	0.66	ug/L		11/29/18 14:22	12/04/18 23:53	1
2-Nitrophenol	5.0	U	5.0	0.70	ug/L		11/29/18 14:22	12/04/18 23:53	1
3,3'-Dichlorobenzidine	5.0	U	5.0	0.82	ug/L		11/29/18 14:22	12/04/18 23:53	1
4,6-Dinitro-2-methylphenol	10	U	10	0.66	ug/L		11/29/18 14:22	12/04/18 23:53	1
4-Bromophenyl phenyl ether	5.0	U	5.0	1.4	ug/L		11/29/18 14:22	12/04/18 23:53	1
4-Chloro-3-methylphenol	5.0	U	5.0	1.1	ug/L		11/29/18 14:22	12/04/18 23:53	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	1.3	ug/L		11/29/18 14:22	12/04/18 23:53	1
4-Nitrophenol	15	U	15	10	ug/L		11/29/18 14:22	12/04/18 23:53	1
Acenaphthene	5.0	U	5.0	0.81	ug/L		11/29/18 14:22	12/04/18 23:53	1
Acenaphthylene	5.0	U	5.0	0.87	ug/L		11/29/18 14:22	12/04/18 23:53	1
Anthracene	5.0	U	5.0	1.4	ug/L		11/29/18 14:22	12/04/18 23:53	1
Benzidine	80	U	80	35	ug/L		11/29/18 14:22	12/04/18 23:53	1
Benzo[a]anthracene	**1.1**	**J**	5.0	1.1	ug/L		11/29/18 14:22	12/04/18 23:53	1
Benzo[a]pyrene	5.0	U	5.0	1.3	ug/L		11/29/18 14:22	12/04/18 23:53	1
Benzo[b]fluoranthene	**1.4**	**J**	5.0	1.2	ug/L		11/29/18 14:22	12/04/18 23:53	1
Benzo[g,h,i]perylene	5.0	U	5.0	1.5	ug/L		11/29/18 14:22	12/04/18 23:53	1
Benzo[k]fluoranthene	5.0	U	5.0	1.3	ug/L		11/29/18 14:22	12/04/18 23:53	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.75	ug/L		11/29/18 14:22	12/04/18 23:53	1
Bis(2-chloroethyl)ether	5.0	U	5.0	0.93	ug/L		11/29/18 14:22	12/04/18 23:53	1
Bis(2-ethylhexyl) phthalate	10	U	10	1.2	ug/L		11/29/18 14:22	12/04/18 23:53	1
Butyl benzyl phthalate	5.0	U	5.0	1.1	ug/L		11/29/18 14:22	12/04/18 23:53	1
Chrysene	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 23:53	1
Dibenz(a,h)anthracene	5.0	U	5.0	1.5	ug/L		11/29/18 14:22	12/04/18 23:53	1
Diethyl phthalate	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 23:53	1
Dimethyl phthalate	5.0	U	5.0	0.91	ug/L		11/29/18 14:22	12/04/18 23:53	1
Di-n-butyl phthalate	5.0	U	5.0	1.6	ug/L		11/29/18 14:22	12/04/18 23:53	1
Di-n-octyl phthalate	5.0	U	5.0	1.2	ug/L		11/29/18 14:22	12/04/18 23:53	1
Fluoranthene	**4.6**	**J**	5.0	1.6	ug/L		11/29/18 14:22	12/04/18 23:53	1
Fluorene	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 23:53	1
Hexachlorobenzene	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 23:53	1
Hexachlorobutadiene	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 23:53	1
Hexachlorocyclopentadiene	10	U	10	5.0	ug/L		11/29/18 14:22	12/04/18 23:53	1
Hexachloroethane	5.0	U	5.0	0.60	ug/L		11/29/18 14:22	12/04/18 23:53	1
Indeno[1,2,3-cd]pyrene	5.0	U	5.0	1.5	ug/L		11/29/18 14:22	12/04/18 23:53	1
Isophorone	5.0	U	5.0	0.74	ug/L		11/29/18 14:22	12/04/18 23:53	1
Naphthalene	5.0	U	5.0	0.86	ug/L		11/29/18 14:22	12/04/18 23:53	1
Nitrobenzene	5.0	U	5.0	0.81	ug/L		11/29/18 14:22	12/04/18 23:53	1
N-Nitrosodimethylamine	10	U	10	5.0	ug/L		11/29/18 14:22	12/04/18 23:53	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.89	ug/L		11/29/18 14:22	12/04/18 23:53	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.40	ug/L		11/29/18 14:22	12/04/18 23:53	1
Pentachlorophenol	10	U	10	1.6	ug/L		11/29/18 14:22	12/04/18 23:53	1
Phenanthrene	5.0	U	5.0	1.2	ug/L		11/29/18 14:22	12/04/18 23:53	1

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Client Sample ID: WESTBERM1-11262018

Date Collected: 11/26/18 15:30
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-3

Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	5.0	U	5.0	0.35	ug/L		11/29/18 14:22	12/04/18 23:53	1
Pyrene	**3.6**	**J**	5.0	1.4	ug/L		11/29/18 14:22	12/04/18 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*112*		*52 - 151*	*11/29/18 14:22*	*12/04/18 23:53*	*1*
2-Fluorobiphenyl	*100*		*44 - 120*	*11/29/18 14:22*	*12/04/18 23:53*	*1*
2-Fluorophenol	*57*		*17 - 120*	*11/29/18 14:22*	*12/04/18 23:53*	*1*
Nitrobenzene-d5	*105*		*15 - 314*	*11/29/18 14:22*	*12/04/18 23:53*	*1*
Phenol-d5	*41*		*8 - 424*	*11/29/18 14:22*	*12/04/18 23:53*	*1*
p-Terphenyl-d14 (Surr)	*89*		*22 - 125*	*11/29/18 14:22*	*12/04/18 23:53*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.020	U	0.020	0.0068	mg/L		11/30/18 09:55	11/30/18 18:55	1
Arsenic	0.015	U	0.015	0.0056	mg/L		11/30/18 09:55	11/30/18 18:55	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		11/30/18 09:55	11/30/18 18:55	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		11/30/18 09:55	11/30/18 18:55	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		11/30/18 09:55	11/30/18 18:55	1
Copper	0.010	U	0.010	0.0016	mg/L		11/30/18 09:55	11/30/18 18:55	1
Lead	0.010	U	0.010	0.0030	mg/L		11/30/18 09:55	11/30/18 18:55	1
Nickel	**0.0016**	**J**	0.010	0.0013	mg/L		11/30/18 09:55	11/30/18 18:55	1
Selenium	0.025	U	0.025	0.0087	mg/L		11/30/18 09:55	11/30/18 18:55	1
Silver	0.0060	U	0.0060	0.0017	mg/L		11/30/18 09:55	11/30/18 18:55	1
Thallium	0.020	U	0.020	0.010	mg/L		11/30/18 09:55	11/30/18 18:55	1
Zinc	**0.013**	**B**	0.010	0.0015	mg/L		11/30/18 09:55	11/30/18 18:55	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		11/29/18 12:55	11/29/18 16:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	**8.7**	**B**	5.0	1.4	mg/L		11/29/18 07:51	11/29/18 11:00	1
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		12/04/18 12:15	12/04/18 17:24	1
Ammonia	**2.5**		0.040	0.018	mg/L			12/04/18 14:02	2
Total Phosphorus	**0.013**		0.010	0.0050	mg/L			11/29/18 16:40	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**6.8**		4.0	4.0	mg/L			11/28/18 17:36	1

Client Sample ID: WESTBERM2-11262018
Date Collected: 11/26/18 15:35
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-4
Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	20	U	20	1.5	ug/L			11/27/18 15:55	4
1,1,2,2-Tetrachloroethane	20	U	20	1.0	ug/L			11/27/18 15:55	4
1,1,2-Trichloroethane	20	U	20	1.9	ug/L			11/27/18 15:55	4
1,1-Dichloroethane	20	U	20	2.4	ug/L			11/27/18 15:55	4
1,1-Dichloroethene	20	U	20	3.4	ug/L			11/27/18 15:55	4
1,2-Dichlorobenzene	20	U	20	1.8	ug/L			11/27/18 15:55	4
1,2-Dichloroethane	20	U	20	2.4	ug/L			11/27/18 15:55	4
1,2-Dichloroethene, Total	40	U	40	13	ug/L			11/27/18 15:55	4
1,2-Dichloropropane	20	U	20	2.4	ug/L			11/27/18 15:55	4
1,3-Dichlorobenzene	20	U	20	2.2	ug/L			11/27/18 15:55	4
1,4-Dichlorobenzene	20	U	20	2.0	ug/L			11/27/18 15:55	4
2-Chloroethyl vinyl ether	100	U	100	7.4	ug/L			11/27/18 15:55	4
Acrolein	400	U	400	70	ug/L			11/27/18 15:55	4
Acrylonitrile	200	U	200	7.6	ug/L			11/27/18 15:55	4
Benzene	20	U	20	2.4	ug/L			11/27/18 15:55	4
Bromoform	20	U	20	1.9	ug/L			11/27/18 15:55	4
Bromomethane	20	U	20	4.8	ug/L			11/27/18 15:55	4
Carbon tetrachloride	20	U	20	2.0	ug/L			11/27/18 15:55	4
Chlorobenzene	20	U	20	1.9	ug/L			11/27/18 15:55	4
Chlorodibromomethane	20	U	20	1.7	ug/L			11/27/18 15:55	4
Chloroethane	20	U	20	3.5	ug/L			11/27/18 15:55	4
Chloroform	20	U	20	2.2	ug/L			11/27/18 15:55	4
Chloromethane	20	U	20	2.5	ug/L			11/27/18 15:55	4
cis-1,3-Dichloropropene	20	U	20	1.3	ug/L			11/27/18 15:55	4
Dichlorobromomethane	20	U	20	2.1	ug/L			11/27/18 15:55	4
Ethylbenzene	20	U	20	1.9	ug/L			11/27/18 15:55	4
Methylene Chloride	**3.3**	**J**	20	3.3	ug/L			11/27/18 15:55	4
m-Xylene & p-Xylene	40	U	40	4.3	ug/L			11/27/18 15:55	4
o-Xylene	20	U	20	1.7	ug/L			11/27/18 15:55	4
Tetrachloroethene	20	U	20	1.4	ug/L			11/27/18 15:55	4
Toluene	20	U	20	1.8	ug/L			11/27/18 15:55	4
trans-1,2-Dichloroethene	20	U	20	2.4	ug/L			11/27/18 15:55	4
trans-1,3-Dichloropropene	20	U	20	1.8	ug/L			11/27/18 15:55	4
Trichloroethene	20	U	20	2.4	ug/L			11/27/18 15:55	4
Vinyl chloride	20	U	20	3.0	ug/L			11/27/18 15:55	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*68 - 130*		*11/27/18 15:55*	*4*
4-Bromofluorobenzene (Surr)	*111*		*76 - 123*		*11/27/18 15:55*	*4*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*11/27/18 15:55*	*4*
Toluene-d8 (Surr)	*96*		*77 - 120*		*11/27/18 15:55*	*4*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	10	U	10	0.82	ug/L		11/27/18 14:11	12/04/18 20:31	1
1,2-Dichlorobenzene	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 20:31	1
1,2-Diphenylhydrazine	10	U	10	0.78	ug/L		11/27/18 14:11	12/04/18 20:31	1
1,3-Dichlorobenzene	10	U	10	0.69	ug/L		11/27/18 14:11	12/04/18 20:31	1
1,4-Dichlorobenzene	10	U	10	5.6	ug/L		11/27/18 14:11	12/04/18 20:31	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.84	ug/L		11/27/18 14:11	12/04/18 20:31	1

Client Sample ID: WESTBERM2-11262018
Date Collected: 11/26/18 15:35
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-4
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:31	1
2,4-Dichlorophenol	5.0	U	5.0	0.77	ug/L		11/27/18 14:11	12/04/18 20:31	1
2,4-Dimethylphenol	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/04/18 20:31	1
2,4-Dinitrophenol	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 20:31	1
2,4-Dinitrotoluene	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 20:31	1
2,6-Dinitrotoluene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:31	1
2-Chloronaphthalene	5.0	U	5.0	0.91	ug/L		11/27/18 14:11	12/04/18 20:31	1
2-Chlorophenol	5.0	U	5.0	0.66	ug/L		11/27/18 14:11	12/04/18 20:31	1
2-Nitrophenol	5.0	U	5.0	0.70	ug/L		11/27/18 14:11	12/04/18 20:31	1
3,3'-Dichlorobenzidine	5.0	U	5.0	0.82	ug/L		11/27/18 14:11	12/04/18 20:31	1
4,6-Dinitro-2-methylphenol	10	U	10	0.66	ug/L		11/27/18 14:11	12/04/18 20:31	1
4-Bromophenyl phenyl ether	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/04/18 20:31	1
4-Chloro-3-methylphenol	5.0	U	5.0	1.1	ug/L		11/27/18 14:11	12/04/18 20:31	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	1.3	ug/L		11/27/18 14:11	12/04/18 20:31	1
4-Nitrophenol	15	U	15	10	ug/L		11/27/18 14:11	12/04/18 20:31	1
Acenaphthene	5.0	U	5.0	0.81	ug/L		11/27/18 14:11	12/04/18 20:31	1
Acenaphthylene	5.0	U	5.0	0.87	ug/L		11/27/18 14:11	12/04/18 20:31	1
Anthracene	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/04/18 20:31	1
Benzidine	80	U	80	35	ug/L		11/27/18 14:11	12/04/18 20:31	1
Benzo[a]anthracene	5.0	U	5.0	1.1	ug/L		11/27/18 14:11	12/04/18 20:31	1
Benzo[a]pyrene	5.0	U	5.0	1.3	ug/L		11/27/18 14:11	12/04/18 20:31	1
Benzo[b]fluoranthene	5.0	U	5.0	1.2	ug/L		11/27/18 14:11	12/04/18 20:31	1
Benzo[g,h,i]perylene	5.0	U	5.0	1.5	ug/L		11/27/18 14:11	12/04/18 20:31	1
Benzo[k]fluoranthene	5.0	U	5.0	1.3	ug/L		11/27/18 14:11	12/04/18 20:31	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.75	ug/L		11/27/18 14:11	12/04/18 20:31	1
Bis(2-chloroethyl)ether	5.0	U	5.0	0.93	ug/L		11/27/18 14:11	12/04/18 20:31	1
Bis(2-ethylhexyl) phthalate	10	U	10	1.2	ug/L		11/27/18 14:11	12/04/18 20:31	1
Butyl benzyl phthalate	5.0	U	5.0	1.1	ug/L		11/27/18 14:11	12/04/18 20:31	1
Chrysene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:31	1
Dibenz(a,h)anthracene	5.0	U	5.0	1.5	ug/L		11/27/18 14:11	12/04/18 20:31	1
Diethyl phthalate	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:31	1
Dimethyl phthalate	5.0	U	5.0	0.91	ug/L		11/27/18 14:11	12/04/18 20:31	1
Di-n-butyl phthalate	5.0	U	5.0	1.6	ug/L		11/27/18 14:11	12/04/18 20:31	1
Di-n-octyl phthalate	5.0	U	5.0	1.2	ug/L		11/27/18 14:11	12/04/18 20:31	1
Fluoranthene	5.0	U	5.0	1.6	ug/L		11/27/18 14:11	12/04/18 20:31	1
Fluorene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:31	1
Hexachlorobenzene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:31	1
Hexachlorobutadiene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/04/18 20:31	1
Hexachlorocyclopentadiene	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 20:31	1
Hexachloroethane	5.0	U	5.0	0.60	ug/L		11/27/18 14:11	12/04/18 20:31	1
Indeno[1,2,3-cd]pyrene	5.0	U	5.0	1.5	ug/L		11/27/18 14:11	12/04/18 20:31	1
Isophorone	5.0	U	5.0	0.74	ug/L		11/27/18 14:11	12/04/18 20:31	1
Naphthalene	5.0	U	5.0	0.86	ug/L		11/27/18 14:11	12/04/18 20:31	1
Nitrobenzene	5.0	U	5.0	0.81	ug/L		11/27/18 14:11	12/04/18 20:31	1
N-Nitrosodimethylamine	10	U	10	5.0	ug/L		11/27/18 14:11	12/04/18 20:31	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.89	ug/L		11/27/18 14:11	12/04/18 20:31	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.40	ug/L		11/27/18 14:11	12/04/18 20:31	1
Pentachlorophenol	10	U	10	1.6	ug/L		11/27/18 14:11	12/04/18 20:31	1
Phenanthrene	**1.5**	**J**	5.0	1.2	ug/L		11/27/18 14:11	12/04/18 20:31	1

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Client Sample ID: WESTBERM2-11262018
Date Collected: 11/26/18 15:35
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-4
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	5.0	U	5.0	0.35	ug/L		11/27/18 14:11	12/04/18 20:31	1
Pyrene	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/04/18 20:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*96*		*52 - 151*	*11/27/18 14:11*	*12/04/18 20:31*	*1*
2-Fluorobiphenyl	*79*		*44 - 120*	*11/27/18 14:11*	*12/04/18 20:31*	*1*
2-Fluorophenol	*45*		*17 - 120*	*11/27/18 14:11*	*12/04/18 20:31*	*1*
Nitrobenzene-d5	*87*		*15 - 314*	*11/27/18 14:11*	*12/04/18 20:31*	*1*
Phenol-d5	*30*		*8 - 424*	*11/27/18 14:11*	*12/04/18 20:31*	*1*
p-Terphenyl-d14 (Surr)	*70*		*22 - 125*	*11/27/18 14:11*	*12/04/18 20:31*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.020	U	0.020	0.0068	mg/L		11/30/18 09:55	11/30/18 19:09	1
Arsenic	0.015	U	0.015	0.0056	mg/L		11/30/18 09:55	11/30/18 19:09	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		11/30/18 09:55	11/30/18 19:09	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		11/30/18 09:55	11/30/18 19:09	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		11/30/18 09:55	11/30/18 19:09	1
Copper	**0.0023**	**J**	0.010	0.0016	mg/L		11/30/18 09:55	11/30/18 19:09	1
Lead	0.010	U	0.010	0.0030	mg/L		11/30/18 09:55	11/30/18 19:09	1
Nickel	**0.0018**	**J**	0.010	0.0013	mg/L		11/30/18 09:55	11/30/18 19:09	1
Selenium	0.025	U	0.025	0.0087	mg/L		11/30/18 09:55	11/30/18 19:09	1
Silver	0.0060	U	0.0060	0.0017	mg/L		11/30/18 09:55	11/30/18 19:09	1
Thallium	0.020	U	0.020	0.010	mg/L		11/30/18 09:55	11/30/18 19:09	1
Zinc	**0.015**	**B**	0.010	0.0015	mg/L		11/30/18 09:55	11/30/18 19:09	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		11/29/18 12:00	11/29/18 14:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	**2.4**	**J B**	5.0	1.4	mg/L		11/29/18 07:51	11/29/18 11:00	1
Cyanide, Total	**0.011**		0.010	0.0050	mg/L		12/04/18 12:15	12/04/18 17:25	1
Ammonia	**0.30**	**B**	0.020	0.0090	mg/L			11/28/18 17:16	1
Total Phosphorus	0.010	U	0.010	0.0050	mg/L			11/28/18 09:20	1
Biochemical Oxygen Demand	**2.8**		2.0	2.0	mg/L			11/27/18 21:06	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**15.6**		4.0	4.0	mg/L			11/28/18 17:36	1

Client Sample ID: WESTBERM3-11262018

Date Collected: 11/26/18 15:40
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	20	U	20	1.5	ug/L			11/27/18 16:18	4
1,1,2,2-Tetrachloroethane	20	U	20	1.0	ug/L			11/27/18 16:18	4
1,1,2-Trichloroethane	20	U	20	1.9	ug/L			11/27/18 16:18	4
1,1-Dichloroethane	20	U	20	2.4	ug/L			11/27/18 16:18	4
1,1-Dichloroethene	20	U	20	3.4	ug/L			11/27/18 16:18	4
1,2-Dichlorobenzene	20	U	20	1.8	ug/L			11/27/18 16:18	4
1,2-Dichloroethane	20	U	20	2.4	ug/L			11/27/18 16:18	4
1,2-Dichloroethene, Total	40	U	40	13	ug/L			11/27/18 16:18	4
1,2-Dichloropropane	20	U	20	2.4	ug/L			11/27/18 16:18	4
1,3-Dichlorobenzene	20	U	20	2.2	ug/L			11/27/18 16:18	4
1,4-Dichlorobenzene	20	U	20	2.0	ug/L			11/27/18 16:18	4
2-Chloroethyl vinyl ether	100	U	100	7.4	ug/L			11/27/18 16:18	4
Acrolein	400	U	400	70	ug/L			11/27/18 16:18	4
Acrylonitrile	200	U	200	7.6	ug/L			11/27/18 16:18	4
Benzene	20	U	20	2.4	ug/L			11/27/18 16:18	4
Bromoform	20	U	20	1.9	ug/L			11/27/18 16:18	4
Bromomethane	20	U	20	4.8	ug/L			11/27/18 16:18	4
Carbon tetrachloride	20	U	20	2.0	ug/L			11/27/18 16:18	4
Chlorobenzene	20	U	20	1.9	ug/L			11/27/18 16:18	4
Chlorodibromomethane	20	U	20	1.7	ug/L			11/27/18 16:18	4
Chloroethane	20	U	20	3.5	ug/L			11/27/18 16:18	4
Chloroform	20	U	20	2.2	ug/L			11/27/18 16:18	4
Chloromethane	20	U	20	2.5	ug/L			11/27/18 16:18	4
cis-1,3-Dichloropropene	20	U	20	1.3	ug/L			11/27/18 16:18	4
Dichlorobromomethane	20	U	20	2.1	ug/L			11/27/18 16:18	4
Ethylbenzene	20	U	20	1.9	ug/L			11/27/18 16:18	4
Methylene Chloride	**3.9**	**J**	20	3.3	ug/L			11/27/18 16:18	4
m-Xylene & p-Xylene	40	U	40	4.3	ug/L			11/27/18 16:18	4
o-Xylene	20	U	20	1.7	ug/L			11/27/18 16:18	4
Tetrachloroethene	20	U	20	1.4	ug/L			11/27/18 16:18	4
Toluene	20	U	20	1.8	ug/L			11/27/18 16:18	4
trans-1,2-Dichloroethene	20	U	20	2.4	ug/L			11/27/18 16:18	4
trans-1,3-Dichloropropene	20	U	20	1.8	ug/L			11/27/18 16:18	4
Trichloroethene	20	U	20	2.4	ug/L			11/27/18 16:18	4
Vinyl chloride	20	U	20	3.0	ug/L			11/27/18 16:18	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*68 - 130*		*11/27/18 16:18*	*4*
4-Bromofluorobenzene (Surr)	*113*		*76 - 123*		*11/27/18 16:18*	*4*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*11/27/18 16:18*	*4*
Toluene-d8 (Surr)	*96*		*77 - 120*		*11/27/18 16:18*	*4*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	2000	U	2000	160	ug/L		11/27/18 14:11	12/03/18 21:39	200
1,2-Dichlorobenzene	2000	U	2000	1000	ug/L		11/27/18 14:11	12/03/18 21:39	200
1,2-Diphenylhydrazine	2000	U	2000	160	ug/L		11/27/18 14:11	12/03/18 21:39	200
1,3-Dichlorobenzene	2000	U	2000	140	ug/L		11/27/18 14:11	12/03/18 21:39	200
1,4-Dichlorobenzene	2000	U	2000	1100	ug/L		11/27/18 14:11	12/03/18 21:39	200
2,2'-oxybis[1-chloropropane]	1000	U	1000	170	ug/L		11/27/18 14:11	12/03/18 21:39	200

Client Sample ID: WESTBERM3-11262018

Date Collected: 11/26/18 15:40
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-5

Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	1000	U	1000	200	ug/L		11/27/18 14:11	12/03/18 21:39	200
2,4-Dichlorophenol	1000	U	1000	150	ug/L		11/27/18 14:11	12/03/18 21:39	200
2,4-Dimethylphenol	1000	U	1000	280	ug/L		11/27/18 14:11	12/03/18 21:39	200
2,4-Dinitrophenol	2000	U	2000	1000	ug/L		11/27/18 14:11	12/03/18 21:39	200
2,4-Dinitrotoluene	2000	U	2000	1000	ug/L		11/27/18 14:11	12/03/18 21:39	200
2,6-Dinitrotoluene	1000	U	1000	200	ug/L		11/27/18 14:11	12/03/18 21:39	200
2-Chloronaphthalene	1000	U	1000	180	ug/L		11/27/18 14:11	12/03/18 21:39	200
2-Chlorophenol	1000	U	1000	130	ug/L		11/27/18 14:11	12/03/18 21:39	200
2-Nitrophenol	1000	U	1000	140	ug/L		11/27/18 14:11	12/03/18 21:39	200
3,3'-Dichlorobenzidine	1000	U	1000	160	ug/L		11/27/18 14:11	12/03/18 21:39	200
4,6-Dinitro-2-methylphenol	2000	U	2000	130	ug/L		11/27/18 14:11	12/03/18 21:39	200
4-Bromophenyl phenyl ether	1000	U	1000	280	ug/L		11/27/18 14:11	12/03/18 21:39	200
4-Chloro-3-methylphenol	1000	U	1000	220	ug/L		11/27/18 14:11	12/03/18 21:39	200
4-Chlorophenyl phenyl ether	1000	U	1000	260	ug/L		11/27/18 14:11	12/03/18 21:39	200
4-Nitrophenol	3000	U	3000	2000	ug/L		11/27/18 14:11	12/03/18 21:39	200
Acenaphthene	1000	U	1000	160	ug/L		11/27/18 14:11	12/03/18 21:39	200
Acenaphthylene	1000	U	1000	170	ug/L		11/27/18 14:11	12/03/18 21:39	200
Anthracene	1000	U	1000	280	ug/L		11/27/18 14:11	12/03/18 21:39	200
Benzidine	16000	U	16000	7000	ug/L		11/27/18 14:11	12/03/18 21:39	200
Benzo[a]anthracene	**250**	**J**	1000	220	ug/L		11/27/18 14:11	12/03/18 21:39	200
Benzo[a]pyrene	1000	U	1000	260	ug/L		11/27/18 14:11	12/03/18 21:39	200
Benzo[b]fluoranthene	1000	U	1000	240	ug/L		11/27/18 14:11	12/03/18 21:39	200
Benzo[g,h,i]perylene	1000	U	1000	300	ug/L		11/27/18 14:11	12/03/18 21:39	200
Benzo[k]fluoranthene	1000	U	1000	260	ug/L		11/27/18 14:11	12/03/18 21:39	200
Bis(2-chloroethoxy)methane	1000	U	1000	150	ug/L		11/27/18 14:11	12/03/18 21:39	200
Bis(2-chloroethyl)ether	1000	U	1000	190	ug/L		11/27/18 14:11	12/03/18 21:39	200
Bis(2-ethylhexyl) phthalate	2000	U	2000	240	ug/L		11/27/18 14:11	12/03/18 21:39	200
Butyl benzyl phthalate	1000	U	1000	220	ug/L		11/27/18 14:11	12/03/18 21:39	200
Chrysene	**250**	**J**	1000	200	ug/L		11/27/18 14:11	12/03/18 21:39	200
Dibenz(a,h)anthracene	1000	U	1000	300	ug/L		11/27/18 14:11	12/03/18 21:39	200
Diethyl phthalate	1000	U	1000	200	ug/L		11/27/18 14:11	12/03/18 21:39	200
Dimethyl phthalate	1000	U	1000	180	ug/L		11/27/18 14:11	12/03/18 21:39	200
Di-n-butyl phthalate	1000	U	1000	320	ug/L		11/27/18 14:11	12/03/18 21:39	200
Di-n-octyl phthalate	1000	U	1000	240	ug/L		11/27/18 14:11	12/03/18 21:39	200
Fluoranthene	**700**	**J**	1000	320	ug/L		11/27/18 14:11	12/03/18 21:39	200
Fluorene	**250**	**J**	1000	200	ug/L		11/27/18 14:11	12/03/18 21:39	200
Hexachlorobenzene	1000	U	1000	200	ug/L		11/27/18 14:11	12/03/18 21:39	200
Hexachlorobutadiene	1000	U	1000	200	ug/L		11/27/18 14:11	12/03/18 21:39	200
Hexachlorocyclopentadiene	2000	U	2000	1000	ug/L		11/27/18 14:11	12/03/18 21:39	200
Hexachloroethane	1000	U	1000	120	ug/L		11/27/18 14:11	12/03/18 21:39	200
Indeno[1,2,3-cd]pyrene	1000	U	1000	300	ug/L		11/27/18 14:11	12/03/18 21:39	200
Isophorone	1000	U	1000	150	ug/L		11/27/18 14:11	12/03/18 21:39	200
Naphthalene	**960**	**J**	1000	170	ug/L		11/27/18 14:11	12/03/18 21:39	200
Nitrobenzene	1000	U	1000	160	ug/L		11/27/18 14:11	12/03/18 21:39	200
N-Nitrosodimethylamine	2000	U	2000	1000	ug/L		11/27/18 14:11	12/03/18 21:39	200
N-Nitrosodi-n-propylamine	1000	U	1000	180	ug/L		11/27/18 14:11	12/03/18 21:39	200
N-Nitrosodiphenylamine	1000	U	1000	79	ug/L		11/27/18 14:11	12/03/18 21:39	200
Pentachlorophenol	2000	U	2000	320	ug/L		11/27/18 14:11	12/03/18 21:39	200
Phenanthrene	**1100**		1000	240	ug/L		11/27/18 14:11	12/03/18 21:39	200

Client Sample ID: WESTBERM3-11262018

Date Collected: 11/26/18 15:40
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-5

Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	1000	U	1000	70	ug/L		11/27/18 14:11	12/03/18 21:39	200
Pyrene	**550**	**J**	1000	280	ug/L		11/27/18 14:11	12/03/18 21:39	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*52 - 151*	*11/27/18 14:11*	*12/03/18 21:39*	*200*
2-Fluorobiphenyl	*0*	*X*	*44 - 120*	*11/27/18 14:11*	*12/03/18 21:39*	*200*
2-Fluorophenol	*0*	*X*	*17 - 120*	*11/27/18 14:11*	*12/03/18 21:39*	*200*
Nitrobenzene-d5	*0*	*X*	*15 - 314*	*11/27/18 14:11*	*12/03/18 21:39*	*200*
Phenol-d5	*0*	*X*	*8 - 424*	*11/27/18 14:11*	*12/03/18 21:39*	*200*
p-Terphenyl-d14 (Surr)	*0*	*X*	*22 - 125*	*11/27/18 14:11*	*12/03/18 21:39*	*200*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.020	U	0.020	0.0068	mg/L		11/30/18 09:55	11/30/18 19:13	1
Arsenic	0.015	U	0.015	0.0056	mg/L		11/30/18 09:55	11/30/18 19:13	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		11/30/18 09:55	11/30/18 19:13	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		11/30/18 09:55	11/30/18 19:13	1
Chromium	**0.0018**	**J**	0.0040	0.0010	mg/L		11/30/18 09:55	11/30/18 19:13	1
Copper	**0.0028**	**J**	0.010	0.0016	mg/L		11/30/18 09:55	11/30/18 19:13	1
Lead	0.010	U	0.010	0.0030	mg/L		11/30/18 09:55	11/30/18 19:13	1
Nickel	**0.0029**	**J**	0.010	0.0013	mg/L		11/30/18 09:55	11/30/18 19:13	1
Selenium	0.025	U	0.025	0.0087	mg/L		11/30/18 09:55	11/30/18 19:13	1
Silver	0.0060	U	0.0060	0.0017	mg/L		11/30/18 09:55	11/30/18 19:13	1
Thallium	0.020	U	0.020	0.010	mg/L		11/30/18 09:55	11/30/18 19:13	1
Zinc	**0.017**	**B**	0.010	0.0015	mg/L		11/30/18 09:55	11/30/18 19:13	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		11/29/18 12:00	11/29/18 14:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	**2.4**	**J B**	4.9	1.4	mg/L		11/29/18 07:51	11/29/18 11:00	1
Cyanide, Total	**0.011**		0.010	0.0050	mg/L		12/04/18 12:15	12/04/18 17:27	1
Ammonia	**0.37**	**B**	0.020	0.0090	mg/L			11/28/18 17:17	1
Total Phosphorus	**0.011**		0.010	0.0050	mg/L			11/28/18 09:20	1
Biochemical Oxygen Demand	**2.6**		2.0	2.0	mg/L			11/27/18 21:06	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**16.4**		4.0	4.0	mg/L			11/28/18 17:36	1

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Client Sample ID: WESTBERM1_11282018
Date Collected: 11/28/18 15:30
Date Received: 11/28/18 15:45

Lab Sample ID: 480-145793-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	3.6	b	2.0	2.0	mg/L			11/30/18 09:00	1

Surrogate Summary

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(75-123)	(77-120)
480-145712-1	EASTBERM1-11262018	96	110	97	91
480-145712-3	WESTBERM1-11262018	96	112	96	94
480-145712-4	WESTBERM2-11262018	105	111	99	96
480-145712-5	WESTBERM3-11262018	107	113	96	96
LCS 480-447541/30	Lab Control Sample	99	109	98	96
LCS 480-448288/5	Lab Control Sample	93	112	93	95
MB 480-447541/32	Method Blank	109	120	107	101
MB 480-448288/7	Method Blank	103	113	96	94

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(8-424)	(22-125)
480-145712-1	EASTBERM1-11262018	87	81	50	87	36	91
480-145712-2	EASTBERM2-11262018	88	81	52	87	39	90
480-145712-3	WESTBERM1-11262018	112	100	57	105	41	89
480-145712-4	WESTBERM2-11262018	96	79	45	87	30	70
480-145712-5	WESTBERM3-11262018	0 X	0 X	0 X	0 X	0 X	0 X
LCS 480-447670/2-A	Lab Control Sample	82	78	47	80	34	87
LCS 480-448157/2-A	Lab Control Sample	100	85	49	90	36	97
LCSD 480-447670/3-A	Lab Control Sample Dup	87	77	47	81	35	91
LCSD 480-448157/3-A	Lab Control Sample Dup	104	94	50	94	36	105
MB 480-447670/1-A	Method Blank	68	80	49	88	35	89
MB 480-448157/1-A	Method Blank	77	94	52	97	38	102

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-447541/32
Matrix: Water
Analysis Batch: 447541

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.0	U	5.0	0.39	ug/L			11/27/18 12:14	1
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.26	ug/L			11/27/18 12:14	1
1,1,2-Trichloroethane	5.0	U	5.0	0.48	ug/L			11/27/18 12:14	1
1,1-Dichloroethane	5.0	U	5.0	0.59	ug/L			11/27/18 12:14	1
1,1-Dichloroethene	5.0	U	5.0	0.85	ug/L			11/27/18 12:14	1
1,2-Dichlorobenzene	5.0	U	5.0	0.44	ug/L			11/27/18 12:14	1
1,2-Dichloroethane	5.0	U	5.0	0.60	ug/L			11/27/18 12:14	1
1,2-Dichloroethene, Total	10	U	10	3.2	ug/L			11/27/18 12:14	1
1,2-Dichloropropane	5.0	U	5.0	0.61	ug/L			11/27/18 12:14	1
1,3-Dichlorobenzene	5.0	U	5.0	0.54	ug/L			11/27/18 12:14	1
1,4-Dichlorobenzene	5.0	U	5.0	0.51	ug/L			11/27/18 12:14	1
2-Chloroethyl vinyl ether	25	U	25	1.9	ug/L			11/27/18 12:14	1
Acrolein	100	U	100	17	ug/L			11/27/18 12:14	1
Acrylonitrile	50	U	50	1.9	ug/L			11/27/18 12:14	1
Benzene	5.0	U	5.0	0.60	ug/L			11/27/18 12:14	1
Bromoform	5.0	U	5.0	0.47	ug/L			11/27/18 12:14	1
Bromomethane	5.0	U	5.0	1.2	ug/L			11/27/18 12:14	1
Carbon tetrachloride	5.0	U	5.0	0.51	ug/L			11/27/18 12:14	1
Chlorobenzene	2.50	J	5.0	0.48	ug/L			11/27/18 12:14	1
Chlorodibromomethane	5.0	U	5.0	0.41	ug/L			11/27/18 12:14	1
Chloroethane	5.0	U	5.0	0.87	ug/L			11/27/18 12:14	1
Chloroform	5.0	U	5.0	0.54	ug/L			11/27/18 12:14	1
Chloromethane	5.0	U	5.0	0.64	ug/L			11/27/18 12:14	1
cis-1,3-Dichloropropene	5.0	U	5.0	0.33	ug/L			11/27/18 12:14	1
Dichlorobromomethane	5.0	U	5.0	0.54	ug/L			11/27/18 12:14	1
Ethylbenzene	5.0	U	5.0	0.46	ug/L			11/27/18 12:14	1
Methylene Chloride	5.0	U	5.0	0.81	ug/L			11/27/18 12:14	1
m-Xylene & p-Xylene	10	U	10	1.1	ug/L			11/27/18 12:14	1
o-Xylene	5.0	U	5.0	0.43	ug/L			11/27/18 12:14	1
Tetrachloroethene	5.0	U	5.0	0.34	ug/L			11/27/18 12:14	1
Toluene	5.0	U	5.0	0.45	ug/L			11/27/18 12:14	1
trans-1,2-Dichloroethene	5.0	U	5.0	0.59	ug/L			11/27/18 12:14	1
trans-1,3-Dichloropropene	5.0	U	5.0	0.44	ug/L			11/27/18 12:14	1
Trichloroethene	5.0	U	5.0	0.60	ug/L			11/27/18 12:14	1
Vinyl chloride	5.0	U	5.0	0.75	ug/L			11/27/18 12:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*68 - 130*		*11/27/18 12:14*	*1*
4-Bromofluorobenzene (Surr)	*120*		*76 - 123*		*11/27/18 12:14*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*11/27/18 12:14*	*1*
Toluene-d8 (Surr)	*101*		*77 - 120*		*11/27/18 12:14*	*1*

Lab Sample ID: LCS 480-447541/30
Matrix: Water
Analysis Batch: 447541

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1,1-Trichloroethane			20.0	21.2		ug/L		106	52 - 162		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-447541/30
Matrix: Water
Analysis Batch: 447541

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	20.0	18.9		ug/L		94	46 - 157
1,1,2-Trichloroethane	20.0	19.5		ug/L		97	52 - 150
1,1-Dichloroethane	20.0	21.9		ug/L		109	59 - 155
1,1-Dichloroethene	20.0	21.9		ug/L		110	1 - 234
1,2-Dichlorobenzene	20.0	19.3		ug/L		97	18 - 190
1,2-Dichloroethane	20.0	21.8		ug/L		109	49 - 155
1,2-Dichloropropane	20.0	21.4		ug/L		107	1 - 210
1,3-Dichlorobenzene	20.0	19.1		ug/L		95	59 - 156
1,4-Dichlorobenzene	20.0	19.2		ug/L		96	18 - 190
2-Chloroethyl vinyl ether	20.0	20.7	J	ug/L		104	1 - 305
Benzene	20.0	21.5		ug/L		108	37 - 151
Bromoform	20.0	19.4		ug/L		97	45 - 169
Bromomethane	20.0	19.0		ug/L		95	1 - 242
Carbon tetrachloride	20.0	21.6		ug/L		108	70 - 140
Chlorobenzene	20.0	20.2		ug/L		101	37 - 160
Chlorodibromomethane	20.0	19.6		ug/L		98	53 - 149
Chloroethane	20.0	20.1		ug/L		100	14 - 230
Chloroform	20.0	21.2		ug/L		106	51 - 138
Chloromethane	20.0	22.5		ug/L		113	1 - 273
cis-1,3-Dichloropropene	20.0	21.0		ug/L		105	1 - 227
Dichlorobromomethane	20.0	21.2		ug/L		106	35 - 155
Ethylbenzene	20.0	20.6		ug/L		103	37 - 162
Methylene Chloride	20.0	20.3		ug/L		101	1 - 221
Tetrachloroethene	20.0	20.7		ug/L		103	64 - 148
Toluene	20.0	20.2		ug/L		101	47 - 150
trans-1,2-Dichloroethene	20.0	21.5		ug/L		108	54 - 156
trans-1,3-Dichloropropene	20.0	19.9		ug/L		100	17 - 183
Trichloroethene	20.0	21.2		ug/L		106	71 - 157
Vinyl chloride	20.0	18.4		ug/L		92	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 130*
4-Bromofluorobenzene (Surr)	*109*		*76 - 123*
Dibromofluoromethane (Surr)	*98*		*75 - 123*
Toluene-d8 (Surr)	*96*		*77 - 120*

Lab Sample ID: MB 480-448288/7
Matrix: Water
Analysis Batch: 448288

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.0	U	5.0	0.39	ug/L			11/30/18 10:19	1
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.26	ug/L			11/30/18 10:19	1
1,1,2-Trichloroethane	5.0	U	5.0	0.48	ug/L			11/30/18 10:19	1
1,1-Dichloroethane	5.0	U	5.0	0.59	ug/L			11/30/18 10:19	1
1,1-Dichloroethene	5.0	U	5.0	0.85	ug/L			11/30/18 10:19	1
1,2-Dichlorobenzene	5.0	U	5.0	0.44	ug/L			11/30/18 10:19	1
1,2-Dichloroethane	5.0	U	5.0	0.60	ug/L			11/30/18 10:19	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-448288/7
Matrix: Water
Analysis Batch: 448288

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	10	U	10	3.2	ug/L			11/30/18 10:19	1
1,2-Dichloropropane	5.0	U	5.0	0.61	ug/L			11/30/18 10:19	1
1,3-Dichlorobenzene	5.0	U	5.0	0.54	ug/L			11/30/18 10:19	1
1,4-Dichlorobenzene	5.0	U	5.0	0.51	ug/L			11/30/18 10:19	1
2-Chloroethyl vinyl ether	25	U	25	1.9	ug/L			11/30/18 10:19	1
Acrolein	100	U	100	17	ug/L			11/30/18 10:19	1
Acrylonitrile	50	U	50	1.9	ug/L			11/30/18 10:19	1
Benzene	5.0	U	5.0	0.60	ug/L			11/30/18 10:19	1
Bromoform	5.0	U	5.0	0.47	ug/L			11/30/18 10:19	1
Bromomethane	5.0	U	5.0	1.2	ug/L			11/30/18 10:19	1
Carbon tetrachloride	5.0	U	5.0	0.51	ug/L			11/30/18 10:19	1
Chlorobenzene	5.0	U	5.0	0.48	ug/L			11/30/18 10:19	1
Chlorodibromomethane	5.0	U	5.0	0.41	ug/L			11/30/18 10:19	1
Chloroethane	5.0	U	5.0	0.87	ug/L			11/30/18 10:19	1
Chloroform	5.0	U	5.0	0.54	ug/L			11/30/18 10:19	1
Chloromethane	5.0	U	5.0	0.64	ug/L			11/30/18 10:19	1
cis-1,3-Dichloropropene	5.0	U	5.0	0.33	ug/L			11/30/18 10:19	1
Dichlorobromomethane	5.0	U	5.0	0.54	ug/L			11/30/18 10:19	1
Ethylbenzene	5.0	U	5.0	0.46	ug/L			11/30/18 10:19	1
Methylene Chloride	5.0	U	5.0	0.81	ug/L			11/30/18 10:19	1
m-Xylene & p-Xylene	10	U	10	1.1	ug/L			11/30/18 10:19	1
o-Xylene	5.0	U	5.0	0.43	ug/L			11/30/18 10:19	1
Tetrachloroethene	5.0	U	5.0	0.34	ug/L			11/30/18 10:19	1
Toluene	5.0	U	5.0	0.45	ug/L			11/30/18 10:19	1
trans-1,2-Dichloroethene	5.0	U	5.0	0.59	ug/L			11/30/18 10:19	1
trans-1,3-Dichloropropene	5.0	U	5.0	0.44	ug/L			11/30/18 10:19	1
Trichloroethene	5.0	U	5.0	0.60	ug/L			11/30/18 10:19	1
Vinyl chloride	5.0	U	5.0	0.75	ug/L			11/30/18 10:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*68 - 130*		*11/30/18 10:19*	*1*
4-Bromofluorobenzene (Surr)	*113*		*76 - 123*		*11/30/18 10:19*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*11/30/18 10:19*	*1*
Toluene-d8 (Surr)	*94*		*77 - 120*		*11/30/18 10:19*	*1*

Lab Sample ID: LCS 480-448288/5
Matrix: Water
Analysis Batch: 448288

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	17.2		ug/L		86	52 - 162
1,1,2,2-Tetrachloroethane	20.0	19.1		ug/L		96	46 - 157
1,1,2-Trichloroethane	20.0	16.9		ug/L		84	52 - 150
1,1-Dichloroethane	20.0	17.2		ug/L		86	59 - 155
1,1-Dichloroethene	20.0	17.8		ug/L		89	1 - 234
1,2-Dichlorobenzene	20.0	17.5		ug/L		88	18 - 190
1,2-Dichloroethane	20.0	17.4		ug/L		87	49 - 155
1,2-Dichloropropane	20.0	16.9		ug/L		84	1 - 210

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-448288/5
Matrix: Water
Analysis Batch: 448288

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	20.0	17.5		ug/L		88	59 - 156
1,4-Dichlorobenzene	20.0	17.5		ug/L		87	18 - 190
2-Chloroethyl vinyl ether	20.0	17.4	J	ug/L		87	1 - 305
Benzene	20.0	16.9		ug/L		84	37 - 151
Bromoform	20.0	17.6		ug/L		88	45 - 169
Bromomethane	20.0	15.0		ug/L		75	1 - 242
Carbon tetrachloride	20.0	17.1		ug/L		85	70 - 140
Chlorobenzene	20.0	16.8		ug/L		84	37 - 160
Chlorodibromomethane	20.0	16.3		ug/L		81	53 - 149
Chloroethane	20.0	15.0		ug/L		75	14 - 230
Chloroform	20.0	17.0		ug/L		85	51 - 138
Chloromethane	20.0	15.9		ug/L		79	1 - 273
cis-1,3-Dichloropropene	20.0	16.8		ug/L		84	1 - 227
Dichlorobromomethane	20.0	17.1		ug/L		86	35 - 155
Ethylbenzene	20.0	17.1		ug/L		86	37 - 162
Methylene Chloride	20.0	15.9		ug/L		80	1 - 221
Tetrachloroethene	20.0	16.8		ug/L		84	64 - 148
Toluene	20.0	16.9		ug/L		85	47 - 150
trans-1,2-Dichloroethene	20.0	17.3		ug/L		87	54 - 156
trans-1,3-Dichloropropene	20.0	16.9		ug/L		85	17 - 183
Trichloroethene	20.0	17.4		ug/L		87	71 - 157
Vinyl chloride	20.0	13.8		ug/L		69	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*68 - 130*
4-Bromofluorobenzene (Surr)	*112*		*76 - 123*
Dibromofluoromethane (Surr)	*93*		*75 - 123*
Toluene-d8 (Surr)	*95*		*77 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-447670/1-A
Matrix: Water
Analysis Batch: 448743

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 447670

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	10	U	10	0.82	ug/L		11/27/18 14:11	12/03/18 17:03	1
1,2-Dichlorobenzene	10	U	10	5.0	ug/L		11/27/18 14:11	12/03/18 17:03	1
1,2-Diphenylhydrazine	10	U	10	0.78	ug/L		11/27/18 14:11	12/03/18 17:03	1
1,3-Dichlorobenzene	10	U	10	0.69	ug/L		11/27/18 14:11	12/03/18 17:03	1
1,4-Dichlorobenzene	10	U	10	5.6	ug/L		11/27/18 14:11	12/03/18 17:03	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.84	ug/L		11/27/18 14:11	12/03/18 17:03	1
2,4,6-Trichlorophenol	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/03/18 17:03	1
2,4-Dichlorophenol	5.0	U	5.0	0.77	ug/L		11/27/18 14:11	12/03/18 17:03	1
2,4-Dimethylphenol	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/03/18 17:03	1
2,4-Dinitrophenol	10	U	10	5.0	ug/L		11/27/18 14:11	12/03/18 17:03	1
2,4-Dinitrotoluene	10	U	10	5.0	ug/L		11/27/18 14:11	12/03/18 17:03	1
2,6-Dinitrotoluene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/03/18 17:03	1
2-Chloronaphthalene	5.0	U	5.0	0.91	ug/L		11/27/18 14:11	12/03/18 17:03	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-447670/1-A
Matrix: Water
Analysis Batch: 448743

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 447670

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	5.0	U	5.0	0.66	ug/L		11/27/18 14:11	12/03/18 17:03	1
2-Nitrophenol	5.0	U	5.0	0.70	ug/L		11/27/18 14:11	12/03/18 17:03	1
3,3'-Dichlorobenzidine	5.0	U	5.0	0.82	ug/L		11/27/18 14:11	12/03/18 17:03	1
4,6-Dinitro-2-methylphenol	10	U	10	0.66	ug/L		11/27/18 14:11	12/03/18 17:03	1
4-Bromophenyl phenyl ether	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/03/18 17:03	1
4-Chloro-3-methylphenol	5.0	U	5.0	1.1	ug/L		11/27/18 14:11	12/03/18 17:03	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	1.3	ug/L		11/27/18 14:11	12/03/18 17:03	1
4-Nitrophenol	15	U	15	10	ug/L		11/27/18 14:11	12/03/18 17:03	1
Acenaphthene	5.0	U	5.0	0.81	ug/L		11/27/18 14:11	12/03/18 17:03	1
Acenaphthylene	5.0	U	5.0	0.87	ug/L		11/27/18 14:11	12/03/18 17:03	1
Anthracene	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/03/18 17:03	1
Benzidine	80	U	80	35	ug/L		11/27/18 14:11	12/03/18 17:03	1
Benzo[a]anthracene	5.0	U	5.0	1.1	ug/L		11/27/18 14:11	12/03/18 17:03	1
Benzo[a]pyrene	5.0	U	5.0	1.3	ug/L		11/27/18 14:11	12/03/18 17:03	1
Benzo[b]fluoranthene	5.0	U	5.0	1.2	ug/L		11/27/18 14:11	12/03/18 17:03	1
Benzo[g,h,i]perylene	5.0	U	5.0	1.5	ug/L		11/27/18 14:11	12/03/18 17:03	1
Benzo[k]fluoranthene	5.0	U	5.0	1.3	ug/L		11/27/18 14:11	12/03/18 17:03	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.75	ug/L		11/27/18 14:11	12/03/18 17:03	1
Bis(2-chloroethyl)ether	5.0	U	5.0	0.93	ug/L		11/27/18 14:11	12/03/18 17:03	1
Bis(2-ethylhexyl) phthalate	10	U	10	1.2	ug/L		11/27/18 14:11	12/03/18 17:03	1
Butyl benzyl phthalate	5.0	U	5.0	1.1	ug/L		11/27/18 14:11	12/03/18 17:03	1
Chrysene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/03/18 17:03	1
Dibenz(a,h)anthracene	5.0	U	5.0	1.5	ug/L		11/27/18 14:11	12/03/18 17:03	1
Diethyl phthalate	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/03/18 17:03	1
Dimethyl phthalate	5.0	U	5.0	0.91	ug/L		11/27/18 14:11	12/03/18 17:03	1
Di-n-butyl phthalate	5.0	U	5.0	1.6	ug/L		11/27/18 14:11	12/03/18 17:03	1
Di-n-octyl phthalate	5.0	U	5.0	1.2	ug/L		11/27/18 14:11	12/03/18 17:03	1
Fluoranthene	5.0	U	5.0	1.6	ug/L		11/27/18 14:11	12/03/18 17:03	1
Fluorene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/03/18 17:03	1
Hexachlorobenzene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/03/18 17:03	1
Hexachlorobutadiene	5.0	U	5.0	1.0	ug/L		11/27/18 14:11	12/03/18 17:03	1
Hexachlorocyclopentadiene	10	U	10	5.0	ug/L		11/27/18 14:11	12/03/18 17:03	1
Hexachloroethane	5.0	U	5.0	0.60	ug/L		11/27/18 14:11	12/03/18 17:03	1
Indeno[1,2,3-cd]pyrene	5.0	U	5.0	1.5	ug/L		11/27/18 14:11	12/03/18 17:03	1
Isophorone	5.0	U	5.0	0.74	ug/L		11/27/18 14:11	12/03/18 17:03	1
Naphthalene	5.0	U	5.0	0.86	ug/L		11/27/18 14:11	12/03/18 17:03	1
Nitrobenzene	5.0	U	5.0	0.81	ug/L		11/27/18 14:11	12/03/18 17:03	1
N-Nitrosodimethylamine	10	U	10	5.0	ug/L		11/27/18 14:11	12/03/18 17:03	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.89	ug/L		11/27/18 14:11	12/03/18 17:03	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.40	ug/L		11/27/18 14:11	12/03/18 17:03	1
Pentachlorophenol	10	U	10	1.6	ug/L		11/27/18 14:11	12/03/18 17:03	1
Phenanthrene	5.0	U	5.0	1.2	ug/L		11/27/18 14:11	12/03/18 17:03	1
Phenol	5.0	U	5.0	0.35	ug/L		11/27/18 14:11	12/03/18 17:03	1
Pyrene	5.0	U	5.0	1.4	ug/L		11/27/18 14:11	12/03/18 17:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*68*		*52 - 151*	*11/27/18 14:11*	*12/03/18 17:03*	*1*
2-Fluorobiphenyl	*80*		*44 - 120*	*11/27/18 14:11*	*12/03/18 17:03*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-447670/1-A
Matrix: Water
Analysis Batch: 448743

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 447670

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	49		17 - 120	11/27/18 14:11	12/03/18 17:03	1
Nitrobenzene-d5	88		15 - 314	11/27/18 14:11	12/03/18 17:03	1
Phenol-d5	35		8 - 424	11/27/18 14:11	12/03/18 17:03	1
p-Terphenyl-d14 (Surr)	89		22 - 125	11/27/18 14:11	12/03/18 17:03	1

Lab Sample ID: LCS 480-447670/2-A
Matrix: Water
Analysis Batch: 448743

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 447670

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	30.6		ug/L		61	44 - 142
1,2-Dichlorobenzene	50.0	28.7		ug/L		57	32 - 129
1,2-Diphenylhydrazine	50.0	48.6		ug/L		97	47 - 146
1,3-Dichlorobenzene	50.0	26.0		ug/L		52	1 - 172
1,4-Dichlorobenzene	50.0	26.9		ug/L		54	20 - 124
2,2'-oxybis[1-chloropropane]	50.0	38.9		ug/L		78	36 - 166
2,4,6-Trichlorophenol	50.0	46.1		ug/L		92	37 - 144
2,4-Dichlorophenol	50.0	42.5		ug/L		85	39 - 135
2,4-Dimethylphenol	50.0	43.5		ug/L		87	32 - 120
2,4-Dinitrophenol	100	87.7		ug/L		88	1 - 191
2,4-Dinitrotoluene	50.0	47.6		ug/L		95	39 - 139
2,6-Dinitrotoluene	50.0	45.6		ug/L		91	50 - 158
2-Chloronaphthalene	50.0	39.0		ug/L		78	60 - 120
2-Chlorophenol	50.0	37.2		ug/L		74	23 - 134
2-Nitrophenol	50.0	41.7		ug/L		83	29 - 182
3,3'-Dichlorobenzidine	100	88.6		ug/L		89	1 - 262
4,6-Dinitro-2-methylphenol	100	90.8		ug/L		91	1 - 181
4-Bromophenyl phenyl ether	50.0	45.6		ug/L		91	53 - 127
4-Chloro-3-methylphenol	50.0	46.8		ug/L		94	22 - 147
4-Chlorophenyl phenyl ether	50.0	45.2		ug/L		90	25 - 158
4-Nitrophenol	100	54.5		ug/L		55	1 - 132
Acenaphthene	50.0	42.4		ug/L		85	47 - 145
Acenaphthylene	50.0	42.6		ug/L		85	33 - 145
Anthracene	50.0	47.7		ug/L		95	27 - 133
Benzidine	100	63.4	J	ug/L		63	1 - 120
Benzo[a]anthracene	50.0	46.3		ug/L		93	33 - 143
Benzo[a]pyrene	50.0	47.8		ug/L		96	17 - 163
Benzo[b]fluoranthene	50.0	45.5		ug/L		91	24 - 159
Benzo[g,h,i]perylene	50.0	46.8		ug/L		94	1 - 219
Benzo[k]fluoranthene	50.0	52.2		ug/L		104	11 - 162
Bis(2-chloroethoxy)methane	50.0	42.2		ug/L		84	33 - 184
Bis(2-chloroethyl)ether	50.0	37.2		ug/L		74	12 - 158
Bis(2-ethylhexyl) phthalate	50.0	49.6		ug/L		99	8 - 158
Butyl benzyl phthalate	50.0	48.5		ug/L		97	1 - 152
Chrysene	50.0	45.3		ug/L		91	17 - 168
Dibenz(a,h)anthracene	50.0	47.7		ug/L		95	1 - 227
Diethyl phthalate	50.0	51.4		ug/L		103	1 - 120
Dimethyl phthalate	50.0	47.3		ug/L		95	1 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-447670/2-A
Matrix: Water
Analysis Batch: 448743

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 447670

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Di-n-butyl phthalate	50.0	51.5		ug/L		103	1 - 120
Di-n-octyl phthalate	50.0	49.1		ug/L		98	4 - 146
Fluoranthene	50.0	48.3		ug/L		97	26 - 137
Fluorene	50.0	45.8		ug/L		92	59 - 121
Hexachlorobenzene	50.0	45.3		ug/L		91	1 - 152
Hexachlorobutadiene	50.0	23.6		ug/L		47	24 - 120
Hexachlorocyclopentadiene	50.0	26.0		ug/L		52	5 - 120
Hexachloroethane	50.0	22.7		ug/L		45	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	47.1		ug/L		94	1 - 171
Isophorone	50.0	45.0		ug/L		90	21 - 196
Naphthalene	50.0	36.1		ug/L		72	21 - 133
Nitrobenzene	50.0	43.0		ug/L		86	35 - 180
N-Nitrosodimethylamine	50.0	31.6		ug/L		63	19 - 120
N-Nitrosodi-n-propylamine	50.0	44.0		ug/L		88	1 - 230
N-Nitrosodiphenylamine	50.0	46.6		ug/L		93	54 - 125
Pentachlorophenol	100	84.3		ug/L		84	14 - 176
Phenanthrene	50.0	47.0		ug/L		94	54 - 120
Phenol	50.0	20.3		ug/L		41	5 - 120
Pyrene	50.0	47.7		ug/L		95	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*82*		*52 - 151*
2-Fluorobiphenyl	*78*		*44 - 120*
2-Fluorophenol	*47*		*17 - 120*
Nitrobenzene-d5	*80*		*15 - 314*
Phenol-d5	*34*		*8 - 424*
p-Terphenyl-d14 (Surr)	*87*		*22 - 125*

Lab Sample ID: LCSD 480-447670/3-A
Matrix: Water
Analysis Batch: 448743

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 447670

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	30.5		ug/L		61	44 - 142	0	34
1,2-Dichlorobenzene	50.0	29.6		ug/L		59	32 - 129	3	38
1,2-Diphenylhydrazine	50.0	48.2		ug/L		96	47 - 146	1	20
1,3-Dichlorobenzene	50.0	25.8		ug/L		52	1 - 172	1	37
1,4-Dichlorobenzene	50.0	27.7		ug/L		55	20 - 124	3	40
2,2'-oxybis[1-chloropropane]	50.0	40.0		ug/L		80	36 - 166	3	36
2,4,6-Trichlorophenol	50.0	45.3		ug/L		91	37 - 144	2	20
2,4-Dichlorophenol	50.0	44.9		ug/L		90	39 - 135	6	23
2,4-Dimethylphenol	50.0	44.6		ug/L		89	32 - 120	3	18
2,4-Dinitrophenol	100	91.7		ug/L		92	1 - 191	4	29
2,4-Dinitrotoluene	50.0	47.6		ug/L		95	39 - 139	0	20
2,6-Dinitrotoluene	50.0	46.9		ug/L		94	50 - 158	3	17
2-Chloronaphthalene	50.0	38.9		ug/L		78	60 - 120	0	30
2-Chlorophenol	50.0	39.4		ug/L		79	23 - 134	6	26
2-Nitrophenol	50.0	41.2		ug/L		82	29 - 182	1	28

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-447670/3-A
Matrix: Water
Analysis Batch: 448743

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 447670

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
3,3'-Dichlorobenzidine			100	91.6		ug/L		92	1 - 262	3	31
4,6-Dinitro-2-methylphenol			100	92.6		ug/L		93	1 - 181	2	30
4-Bromophenyl phenyl ether			50.0	47.8		ug/L		96	53 - 127	5	16
4-Chloro-3-methylphenol			50.0	47.8		ug/L		96	22 - 147	2	16
4-Chlorophenyl phenyl ether			50.0	45.4		ug/L		91	25 - 158	0	15
4-Nitrophenol			100	55.1		ug/L		55	1 - 132	1	24
Acenaphthene			50.0	42.8		ug/L		86	47 - 145	1	25
Acenaphthylene			50.0	41.8		ug/L		84	33 - 145	2	22
Anthracene			50.0	48.5		ug/L		97	27 - 133	2	15
Benzidine			100	50.4	J	ug/L		50	1 - 120	23	50
Benzo[a]anthracene			50.0	47.6		ug/L		95	33 - 143	3	15
Benzo[a]pyrene			50.0	48.3		ug/L		97	17 - 163	1	15
Benzo[b]fluoranthene			50.0	47.0		ug/L		94	24 - 159	3	17
Benzo[g,h,i]perylene			50.0	46.7		ug/L		93	1 - 219	0	19
Benzo[k]fluoranthene			50.0	52.2		ug/L		104	11 - 162	0	19
Bis(2-chloroethoxy)methane			50.0	43.3		ug/L		87	33 - 184	3	23
Bis(2-chloroethyl)ether			50.0	38.8		ug/L		78	12 - 158	4	33
Bis(2-ethylhexyl) phthalate			50.0	50.3		ug/L		101	8 - 158	1	15
Butyl benzyl phthalate			50.0	49.9		ug/L		100	1 - 152	3	15
Chrysene			50.0	46.8		ug/L		94	17 - 168	3	15
Dibenz(a,h)anthracene			50.0	47.9		ug/L		96	1 - 227	0	18
Diethyl phthalate			50.0	50.9		ug/L		102	1 - 120	1	15
Dimethyl phthalate			50.0	47.8		ug/L		96	1 - 120	1	15
Di-n-butyl phthalate			50.0	52.4		ug/L		105	1 - 120	2	15
Di-n-octyl phthalate			50.0	49.5		ug/L		99	4 - 146	1	15
Fluoranthene			50.0	49.6		ug/L		99	26 - 137	3	15
Fluorene			50.0	45.1		ug/L		90	59 - 121	1	18
Hexachlorobenzene			50.0	46.4		ug/L		93	1 - 152	2	15
Hexachlorobutadiene			50.0	24.4		ug/L		49	24 - 120	3	50
Hexachlorocyclopentadiene			50.0	26.4		ug/L		53	5 - 120	1	50
Hexachloroethane			50.0	23.5		ug/L		47	40 - 120	3	43
Indeno[1,2,3-cd]pyrene			50.0	47.3		ug/L		95	1 - 171	0	17
Isophorone			50.0	45.5		ug/L		91	21 - 196	1	21
Naphthalene			50.0	37.1		ug/L		74	21 - 133	3	31
Nitrobenzene			50.0	43.1		ug/L		86	35 - 180	0	27
N-Nitrosodimethylamine			50.0	33.5		ug/L		67	19 - 120	6	22
N-Nitrosodi-n-propylamine			50.0	46.2		ug/L		92	1 - 230	5	23
N-Nitrosodiphenylamine			50.0	47.3		ug/L		95	54 - 125	2	15
Pentachlorophenol			100	86.8		ug/L		87	14 - 176	3	21
Phenanthrene			50.0	47.7		ug/L		95	54 - 120	2	16
Phenol			50.0	21.3		ug/L		43	5 - 120	5	36
Pyrene			50.0	48.2		ug/L		96	52 - 120	1	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*87*		*52 - 151*
2-Fluorobiphenyl	*77*		*44 - 120*
2-Fluorophenol	*47*		*17 - 120*
Nitrobenzene-d5	*81*		*15 - 314*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-447670/3-A
Matrix: Water
Analysis Batch: 448743

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 447670

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Phenol-d5	*35*		*8 - 424*
p-Terphenyl-d14 (Surr)	*91*		*22 - 125*

Lab Sample ID: MB 480-448157/1-A
Matrix: Water
Analysis Batch: 448904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 448157

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	10	U	10	0.82	ug/L		11/29/18 14:22	12/04/18 22:38	1
1,2-Dichlorobenzene	10	U	10	5.0	ug/L		11/29/18 14:22	12/04/18 22:38	1
1,2-Diphenylhydrazine	10	U	10	0.78	ug/L		11/29/18 14:22	12/04/18 22:38	1
1,3-Dichlorobenzene	10	U	10	0.69	ug/L		11/29/18 14:22	12/04/18 22:38	1
1,4-Dichlorobenzene	10	U	10	5.6	ug/L		11/29/18 14:22	12/04/18 22:38	1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	0.84	ug/L		11/29/18 14:22	12/04/18 22:38	1
2,4,6-Trichlorophenol	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 22:38	1
2,4-Dichlorophenol	5.0	U	5.0	0.77	ug/L		11/29/18 14:22	12/04/18 22:38	1
2,4-Dimethylphenol	5.0	U	5.0	1.4	ug/L		11/29/18 14:22	12/04/18 22:38	1
2,4-Dinitrophenol	10	U	10	5.0	ug/L		11/29/18 14:22	12/04/18 22:38	1
2,4-Dinitrotoluene	10	U	10	5.0	ug/L		11/29/18 14:22	12/04/18 22:38	1
2,6-Dinitrotoluene	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 22:38	1
2-Chloronaphthalene	5.0	U	5.0	0.91	ug/L		11/29/18 14:22	12/04/18 22:38	1
2-Chlorophenol	5.0	U	5.0	0.66	ug/L		11/29/18 14:22	12/04/18 22:38	1
2-Nitrophenol	5.0	U	5.0	0.70	ug/L		11/29/18 14:22	12/04/18 22:38	1
3,3'-Dichlorobenzidine	5.0	U	5.0	0.82	ug/L		11/29/18 14:22	12/04/18 22:38	1
4,6-Dinitro-2-methylphenol	10	U	10	0.66	ug/L		11/29/18 14:22	12/04/18 22:38	1
4-Bromophenyl phenyl ether	5.0	U	5.0	1.4	ug/L		11/29/18 14:22	12/04/18 22:38	1
4-Chloro-3-methylphenol	5.0	U	5.0	1.1	ug/L		11/29/18 14:22	12/04/18 22:38	1
4-Chlorophenyl phenyl ether	5.0	U	5.0	1.3	ug/L		11/29/18 14:22	12/04/18 22:38	1
4-Nitrophenol	15	U	15	10	ug/L		11/29/18 14:22	12/04/18 22:38	1
Acenaphthene	5.0	U	5.0	0.81	ug/L		11/29/18 14:22	12/04/18 22:38	1
Acenaphthylene	5.0	U	5.0	0.87	ug/L		11/29/18 14:22	12/04/18 22:38	1
Anthracene	5.0	U	5.0	1.4	ug/L		11/29/18 14:22	12/04/18 22:38	1
Benzidine	80	U	80	35	ug/L		11/29/18 14:22	12/04/18 22:38	1
Benzo[a]anthracene	5.0	U	5.0	1.1	ug/L		11/29/18 14:22	12/04/18 22:38	1
Benzo[a]pyrene	5.0	U	5.0	1.3	ug/L		11/29/18 14:22	12/04/18 22:38	1
Benzo[b]fluoranthene	5.0	U	5.0	1.2	ug/L		11/29/18 14:22	12/04/18 22:38	1
Benzo[g,h,i]perylene	5.0	U	5.0	1.5	ug/L		11/29/18 14:22	12/04/18 22:38	1
Benzo[k]fluoranthene	5.0	U	5.0	1.3	ug/L		11/29/18 14:22	12/04/18 22:38	1
Bis(2-chloroethoxy)methane	5.0	U	5.0	0.75	ug/L		11/29/18 14:22	12/04/18 22:38	1
Bis(2-chloroethyl)ether	5.0	U	5.0	0.93	ug/L		11/29/18 14:22	12/04/18 22:38	1
Bis(2-ethylhexyl) phthalate	10	U	10	1.2	ug/L		11/29/18 14:22	12/04/18 22:38	1
Butyl benzyl phthalate	5.0	U	5.0	1.1	ug/L		11/29/18 14:22	12/04/18 22:38	1
Chrysene	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 22:38	1
Dibenz(a,h)anthracene	5.0	U	5.0	1.5	ug/L		11/29/18 14:22	12/04/18 22:38	1
Diethyl phthalate	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 22:38	1
Dimethyl phthalate	5.0	U	5.0	0.91	ug/L		11/29/18 14:22	12/04/18 22:38	1
Di-n-butyl phthalate	5.0	U	5.0	1.6	ug/L		11/29/18 14:22	12/04/18 22:38	1
Di-n-octyl phthalate	5.0	U	5.0	1.2	ug/L		11/29/18 14:22	12/04/18 22:38	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-448157/1-A
Matrix: Water
Analysis Batch: 448904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 448157

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	5.0	U	5.0	1.6	ug/L		11/29/18 14:22	12/04/18 22:38	1
Fluorene	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 22:38	1
Hexachlorobenzene	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 22:38	1
Hexachlorobutadiene	5.0	U	5.0	1.0	ug/L		11/29/18 14:22	12/04/18 22:38	1
Hexachlorocyclopentadiene	10	U	10	5.0	ug/L		11/29/18 14:22	12/04/18 22:38	1
Hexachloroethane	5.0	U	5.0	0.60	ug/L		11/29/18 14:22	12/04/18 22:38	1
Indeno[1,2,3-cd]pyrene	5.0	U	5.0	1.5	ug/L		11/29/18 14:22	12/04/18 22:38	1
Isophorone	5.0	U	5.0	0.74	ug/L		11/29/18 14:22	12/04/18 22:38	1
Naphthalene	5.0	U	5.0	0.86	ug/L		11/29/18 14:22	12/04/18 22:38	1
Nitrobenzene	5.0	U	5.0	0.81	ug/L		11/29/18 14:22	12/04/18 22:38	1
N-Nitrosodimethylamine	10	U	10	5.0	ug/L		11/29/18 14:22	12/04/18 22:38	1
N-Nitrosodi-n-propylamine	5.0	U	5.0	0.89	ug/L		11/29/18 14:22	12/04/18 22:38	1
N-Nitrosodiphenylamine	5.0	U	5.0	0.40	ug/L		11/29/18 14:22	12/04/18 22:38	1
Pentachlorophenol	10	U	10	1.6	ug/L		11/29/18 14:22	12/04/18 22:38	1
Phenanthrene	5.0	U	5.0	1.2	ug/L		11/29/18 14:22	12/04/18 22:38	1
Phenol	5.0	U	5.0	0.35	ug/L		11/29/18 14:22	12/04/18 22:38	1
Pyrene	5.0	U	5.0	1.4	ug/L		11/29/18 14:22	12/04/18 22:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*77*		*52 - 151*	*11/29/18 14:22*	*12/04/18 22:38*	*1*
2-Fluorobiphenyl	*94*		*44 - 120*	*11/29/18 14:22*	*12/04/18 22:38*	*1*
2-Fluorophenol	*52*		*17 - 120*	*11/29/18 14:22*	*12/04/18 22:38*	*1*
Nitrobenzene-d5	*97*		*15 - 314*	*11/29/18 14:22*	*12/04/18 22:38*	*1*
Phenol-d5	*38*		*8 - 424*	*11/29/18 14:22*	*12/04/18 22:38*	*1*
p-Terphenyl-d14 (Surr)	*102*		*22 - 125*	*11/29/18 14:22*	*12/04/18 22:38*	*1*

Lab Sample ID: LCS 480-448157/2-A
Matrix: Water
Analysis Batch: 448904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 448157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	37.2		ug/L		74	44 - 142
1,2-Dichlorobenzene	50.0	33.2		ug/L		66	32 - 129
1,2-Diphenylhydrazine	50.0	51.0		ug/L		102	47 - 146
1,3-Dichlorobenzene	50.0	32.6		ug/L		65	1 - 172
1,4-Dichlorobenzene	50.0	33.2		ug/L		66	20 - 124
2,2'-oxybis[1-chloropropane]	50.0	39.1		ug/L		78	36 - 166
2,4,6-Trichlorophenol	50.0	47.9		ug/L		96	37 - 144
2,4-Dichlorophenol	50.0	45.3		ug/L		91	39 - 135
2,4-Dimethylphenol	50.0	45.5		ug/L		91	32 - 120
2,4-Dinitrophenol	100	92.7		ug/L		93	1 - 191
2,4-Dinitrotoluene	50.0	50.3		ug/L		101	39 - 139
2,6-Dinitrotoluene	50.0	47.5		ug/L		95	50 - 158
2-Chloronaphthalene	50.0	42.0		ug/L		84	60 - 120
2-Chlorophenol	50.0	37.7		ug/L		75	23 - 134
2-Nitrophenol	50.0	40.3		ug/L		81	29 - 182
3,3'-Dichlorobenzidine	100	94.5		ug/L		94	1 - 262
4,6-Dinitro-2-methylphenol	100	96.6		ug/L		97	1 - 181

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-448157/2-A
Matrix: Water
Analysis Batch: 448904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 448157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Bromophenyl phenyl ether	50.0	48.6		ug/L		97	53 - 127
4-Chloro-3-methylphenol	50.0	52.7		ug/L		105	22 - 147
4-Chlorophenyl phenyl ether	50.0	48.2		ug/L		96	25 - 158
4-Nitrophenol	100	63.4		ug/L		63	1 - 132
Acenaphthene	50.0	43.5		ug/L		87	47 - 145
Acenaphthylene	50.0	44.6		ug/L		89	33 - 145
Anthracene	50.0	49.4		ug/L		99	27 - 133
Benzidine	100	57.5	J	ug/L		57	1 - 120
Benzo[a]anthracene	50.0	48.4		ug/L		97	33 - 143
Benzo[a]pyrene	50.0	49.1		ug/L		98	17 - 163
Benzo[b]fluoranthene	50.0	47.2		ug/L		94	24 - 159
Benzo[g,h,i]perylene	50.0	49.2		ug/L		98	1 - 219
Benzo[k]fluoranthene	50.0	50.7		ug/L		101	11 - 162
Bis(2-chloroethoxy)methane	50.0	44.6		ug/L		89	33 - 184
Bis(2-chloroethyl)ether	50.0	38.6		ug/L		77	12 - 158
Bis(2-ethylhexyl) phthalate	50.0	50.0		ug/L		100	8 - 158
Butyl benzyl phthalate	50.0	50.0		ug/L		100	1 - 152
Chrysene	50.0	48.0		ug/L		96	17 - 168
Dibenz(a,h)anthracene	50.0	48.3		ug/L		97	1 - 227
Diethyl phthalate	50.0	53.4		ug/L		107	1 - 120
Dimethyl phthalate	50.0	51.0		ug/L		102	1 - 120
Di-n-butyl phthalate	50.0	53.7		ug/L		107	1 - 120
Di-n-octyl phthalate	50.0	49.5		ug/L		99	4 - 146
Fluoranthene	50.0	50.8		ug/L		102	26 - 137
Fluorene	50.0	47.3		ug/L		95	59 - 121
Hexachlorobenzene	50.0	48.0		ug/L		96	1 - 152
Hexachlorobutadiene	50.0	35.9		ug/L		72	24 - 120
Hexachlorocyclopentadiene	50.0	38.5		ug/L		77	5 - 120
Hexachloroethane	50.0	32.5		ug/L		65	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	49.6		ug/L		99	1 - 171
Isophorone	50.0	48.5		ug/L		97	21 - 196
Naphthalene	50.0	38.9		ug/L		78	21 - 133
Nitrobenzene	50.0	45.6		ug/L		91	35 - 180
N-Nitrosodimethylamine	50.0	40.6		ug/L		81	19 - 120
N-Nitrosodi-n-propylamine	50.0	45.8		ug/L		92	1 - 230
N-Nitrosodiphenylamine	50.0	49.6		ug/L		99	54 - 125
Pentachlorophenol	100	93.4		ug/L		93	14 - 176
Phenanthrene	50.0	48.2		ug/L		96	54 - 120
Phenol	50.0	20.0		ug/L		40	5 - 120
Pyrene	50.0	48.9		ug/L		98	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*100*		*52 - 151*
2-Fluorobiphenyl	*85*		*44 - 120*
2-Fluorophenol	*49*		*17 - 120*
Nitrobenzene-d5	*90*		*15 - 314*
Phenol-d5	*36*		*8 - 424*
p-Terphenyl-d14 (Surr)	*97*		*22 - 125*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-448157/3-A
Matrix: Water
Analysis Batch: 448904

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 448157

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	42.3		ug/L		85	44 - 142	13	34
1,2-Dichlorobenzene	50.0	36.7		ug/L		73	32 - 129	10	38
1,2-Diphenylhydrazine	50.0	56.7		ug/L		113	47 - 146	11	20
1,3-Dichlorobenzene	50.0	35.0		ug/L		70	1 - 172	7	37
1,4-Dichlorobenzene	50.0	34.9		ug/L		70	20 - 124	5	40
2,2'-oxybis[1-chloropropane]	50.0	41.4		ug/L		83	36 - 166	6	36
2,4,6-Trichlorophenol	50.0	51.7		ug/L		103	37 - 144	8	20
2,4-Dichlorophenol	50.0	47.3		ug/L		95	39 - 135	4	23
2,4-Dimethylphenol	50.0	47.2		ug/L		94	32 - 120	4	18
2,4-Dinitrophenol	100	101		ug/L		101	1 - 191	8	29
2,4-Dinitrotoluene	50.0	52.5		ug/L		105	39 - 139	4	20
2,6-Dinitrotoluene	50.0	51.2		ug/L		102	50 - 158	7	17
2-Chloronaphthalene	50.0	48.0		ug/L		96	60 - 120	13	30
2-Chlorophenol	50.0	39.8		ug/L		80	23 - 134	6	26
2-Nitrophenol	50.0	44.8		ug/L		90	29 - 182	11	28
3,3'-Dichlorobenzidine	100	101		ug/L		101	1 - 262	7	31
4,6-Dinitro-2-methylphenol	100	103		ug/L		103	1 - 181	6	30
4-Bromophenyl phenyl ether	50.0	55.1		ug/L		110	53 - 127	12	16
4-Chloro-3-methylphenol	50.0	49.8		ug/L		100	22 - 147	6	16
4-Chlorophenyl phenyl ether	50.0	51.7		ug/L		103	25 - 158	7	15
4-Nitrophenol	100	63.7		ug/L		64	1 - 132	0	24
Acenaphthene	50.0	48.1		ug/L		96	47 - 145	10	25
Acenaphthylene	50.0	49.0		ug/L		98	33 - 145	9	22
Anthracene	50.0	54.2		ug/L		108	27 - 133	9	15
Benzidine	100	64.7	J	ug/L		65	1 - 120	12	50
Benzo[a]anthracene	50.0	53.4		ug/L		107	33 - 143	10	15
Benzo[a]pyrene	50.0	53.4		ug/L		107	17 - 163	8	15
Benzo[b]fluoranthene	50.0	50.6		ug/L		101	24 - 159	7	17
Benzo[g,h,i]perylene	50.0	56.8		ug/L		114	1 - 219	14	19
Benzo[k]fluoranthene	50.0	56.7		ug/L		113	11 - 162	11	19
Bis(2-chloroethoxy)methane	50.0	47.3		ug/L		95	33 - 184	6	23
Bis(2-chloroethyl)ether	50.0	41.7		ug/L		83	12 - 158	8	33
Bis(2-ethylhexyl) phthalate	50.0	56.2		ug/L		112	8 - 158	12	15
Butyl benzyl phthalate	50.0	54.4		ug/L		109	1 - 152	9	15
Chrysene	50.0	52.8		ug/L		106	17 - 168	10	15
Dibenz(a,h)anthracene	50.0	56.9		ug/L		114	1 - 227	16	18
Diethyl phthalate	50.0	56.9		ug/L		114	1 - 120	6	15
Dimethyl phthalate	50.0	53.7		ug/L		107	1 - 120	5	15
Di-n-butyl phthalate	50.0	57.6		ug/L		115	1 - 120	7	15
Di-n-octyl phthalate	50.0	53.5		ug/L		107	4 - 146	8	15
Fluoranthene	50.0	55.2		ug/L		110	26 - 137	8	15
Fluorene	50.0	51.0		ug/L		102	59 - 121	8	18
Hexachlorobenzene	50.0	52.7		ug/L		105	1 - 152	9	15
Hexachlorobutadiene	50.0	41.2		ug/L		82	24 - 120	14	50
Hexachlorocyclopentadiene	50.0	45.3		ug/L		91	5 - 120	16	50
Hexachloroethane	50.0	36.3		ug/L		73	40 - 120	11	43
Indeno[1,2,3-cd]pyrene	50.0	56.7		ug/L		113	1 - 171	13	17
Isophorone	50.0	50.0		ug/L		100	21 - 196	3	21

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-448157/3-A
Matrix: Water
Analysis Batch: 448904

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 448157

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	50.0	42.4		ug/L		85	21 - 133	9	31
Nitrobenzene	50.0	49.1		ug/L		98	35 - 180	7	27
N-Nitrosodimethylamine	50.0	37.5		ug/L		75	19 - 120	8	22
N-Nitrosodi-n-propylamine	50.0	48.3		ug/L		97	1 - 230	5	23
N-Nitrosodiphenylamine	50.0	54.3		ug/L		109	54 - 125	9	15
Pentachlorophenol	100	103		ug/L		103	14 - 176	9	21
Phenanthrene	50.0	54.1		ug/L		108	54 - 120	12	16
Phenol	50.0	21.3		ug/L		43	5 - 120	6	36
Pyrene	50.0	56.2		ug/L		112	52 - 120	14	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*104*		*52 - 151*
2-Fluorobiphenyl	*94*		*44 - 120*
2-Fluorophenol	*50*		*17 - 120*
Nitrobenzene-d5	*94*		*15 - 314*
Phenol-d5	*36*		*8 - 424*
p-Terphenyl-d14 (Surr)	*105*		*22 - 125*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-448190/1-A
Matrix: Water
Analysis Batch: 448561

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 448190

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.020	U	0.020	0.0068	mg/L		11/30/18 09:55	11/30/18 18:04	1
Arsenic	0.015	U	0.015	0.0056	mg/L		11/30/18 09:55	11/30/18 18:04	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		11/30/18 09:55	11/30/18 18:04	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		11/30/18 09:55	11/30/18 18:04	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		11/30/18 09:55	11/30/18 18:04	1
Copper	0.010	U	0.010	0.0016	mg/L		11/30/18 09:55	11/30/18 18:04	1
Lead	0.010	U	0.010	0.0030	mg/L		11/30/18 09:55	11/30/18 18:04	1
Nickel	0.010	U	0.010	0.0013	mg/L		11/30/18 09:55	11/30/18 18:04	1
Selenium	0.025	U	0.025	0.0087	mg/L		11/30/18 09:55	11/30/18 18:04	1
Silver	0.0060	U	0.0060	0.0017	mg/L		11/30/18 09:55	11/30/18 18:04	1
Thallium	0.020	U	0.020	0.010	mg/L		11/30/18 09:55	11/30/18 18:04	1
Zinc	0.00189	J	0.010	0.0015	mg/L		11/30/18 09:55	11/30/18 18:04	1

Lab Sample ID: LCS 480-448190/2-A
Matrix: Water
Analysis Batch: 448561

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 448190

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.200	0.195		mg/L		97	85 - 115
Arsenic	0.200	0.205		mg/L		102	85 - 115
Beryllium	0.200	0.198		mg/L		99	85 - 115
Cadmium	0.200	0.204		mg/L		102	85 - 115
Chromium	0.200	0.200		mg/L		100	85 - 115
Copper	0.200	0.205		mg/L		103	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-448190/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 448561 — **Prep Batch: 448190**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.200	0.201		mg/L		101	85 - 115
Nickel	0.200	0.207		mg/L		104	85 - 115
Selenium	0.200	0.212		mg/L		106	85 - 115
Silver	0.0500	0.0517		mg/L		103	85 - 115
Thallium	0.200	0.210		mg/L		105	85 - 115
Zinc	0.200	0.226		mg/L		113	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-447912/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 448191 — **Prep Batch: 447912**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		11/29/18 12:00	11/29/18 14:19	1

Lab Sample ID: LCS 480-447912/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 448191 — **Prep Batch: 447912**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00740		mg/L		111	85 - 115

Lab Sample ID: MB 480-448084/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 448224 — **Prep Batch: 448084**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		11/29/18 12:55	11/29/18 15:43	1

Lab Sample ID: LCS 480-448084/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 448224 — **Prep Batch: 448084**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00678		mg/L		102	85 - 115

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 480-448043/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 448097 — **Prep Batch: 448043**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	1.68	J	5.3	1.5	mg/L		11/29/18 07:51	11/29/18 11:00	1

Method: 1664B - HEM and SGT-HEM (Continued)

Lab Sample ID: LCS 480-448043/2-A
Matrix: Water
Analysis Batch: 448097

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 448043

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oil & Grease	41.5	35.75		mg/L		86	78 - 114

Lab Sample ID: MB 480-448174/1-A
Matrix: Water
Analysis Batch: 448352

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 448174

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	5.3	U	5.3	1.5	mg/L		11/30/18 06:53	11/30/18 10:04	1

Lab Sample ID: LCS 480-448174/2-A
Matrix: Water
Analysis Batch: 448352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 448174

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oil & Grease	42.3	40.49		mg/L		96	78 - 114

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-449007/1-A
Matrix: Water
Analysis Batch: 449035

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 449007

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		12/04/18 12:15	12/04/18 16:59	1

Lab Sample ID: LCS 480-449007/2-A
Matrix: Water
Analysis Batch: 449035

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 449007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.407		mg/L		102	90 - 110

Lab Sample ID: LCS 480-449007/3-A
Matrix: Water
Analysis Batch: 449035

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 449007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.266		mg/L		106	90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-447991/27
Matrix: Water
Analysis Batch: 447991

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.0107	J	0.020	0.0090	mg/L			11/28/18 17:22	1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: MB 480-447991/3
Matrix: Water
Analysis Batch: 447991

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.0151	J	0.020	0.0090	mg/L			11/28/18 17:01	1

Lab Sample ID: LCS 480-447991/28
Matrix: Water
Analysis Batch: 447991

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.08		mg/L		108	90 - 110

Lab Sample ID: LCS 480-447991/4
Matrix: Water
Analysis Batch: 447991

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.09		mg/L		109	90 - 110

Lab Sample ID: MB 480-448989/123
Matrix: Water
Analysis Batch: 448989

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.020	U	0.020	0.0090	mg/L			12/04/18 14:18	1

Lab Sample ID: MB 480-448989/3
Matrix: Water
Analysis Batch: 448989

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.020	U	0.020	0.0090	mg/L			12/04/18 12:35	1

Lab Sample ID: MB 480-448989/99
Matrix: Water
Analysis Batch: 448989

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.020	U	0.020	0.0090	mg/L			12/04/18 13:57	1

Lab Sample ID: LCS 480-448989/100
Matrix: Water
Analysis Batch: 448989

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	0.991		mg/L		99	90 - 110

Lab Sample ID: LCS 480-448989/124
Matrix: Water
Analysis Batch: 448989

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.00		mg/L		100	90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: LCS 480-448989/4
Matrix: Water
Analysis Batch: 448989

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia			1.00	0.993		mg/L		99	90 - 110		

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-447970/1
Matrix: Water
Analysis Batch: 447970

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			11/28/18 17:36	1

Lab Sample ID: LCS 480-447970/2
Matrix: Water
Analysis Batch: 447970

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			250	220.8		mg/L		88	88 - 110		

Method: SM 4500 P E - Phosphorus

Lab Sample ID: MB 480-447814/3
Matrix: Water
Analysis Batch: 447814

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus	0.010	U	0.010	0.0050	mg/L			11/28/18 09:20	1

Lab Sample ID: LCS 480-447814/4
Matrix: Water
Analysis Batch: 447814

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Phosphorus			0.200	0.212		mg/L		106	90 - 110		

Lab Sample ID: 480-145712-1 MS
Matrix: Water
Analysis Batch: 447814

Client Sample ID: EASTBERM1-11262018
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Phosphorus	0.0055	J	0.500	0.578		mg/L		115	52 - 148		

Lab Sample ID: 480-145712-1 MSD
Matrix: Water
Analysis Batch: 447814

Client Sample ID: EASTBERM1-11262018
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Phosphorus	0.0055	J	0.500	0.563		mg/L		112	52 - 148	3	20

Method: SM 4500 P E - Phosphorus (Continued)

Lab Sample ID: MB 480-448242/3
Matrix: Water
Analysis Batch: 448242

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus	0.010	U	0.010	0.0050	mg/L			11/29/18 16:40	1

Lab Sample ID: LCS 480-448242/4
Matrix: Water
Analysis Batch: 448242

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Phosphorus	0.200	0.190		mg/L		95	90 - 110

Lab Sample ID: 480-145712-3 MS
Matrix: Water
Analysis Batch: 448242

Client Sample ID: WESTBERM1-11262018
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Phosphorus	0.013		0.500	0.526		mg/L		103	52 - 148

Lab Sample ID: 480-145712-3 MSD
Matrix: Water
Analysis Batch: 448242

Client Sample ID: WESTBERM1-11262018
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Phosphorus	0.013		0.500	0.545		mg/L		106	52 - 148	3	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 480-447754/1
Matrix: Water
Analysis Batch: 447754

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			11/27/18 21:06	1

Lab Sample ID: LCS 480-447754/2
Matrix: Water
Analysis Batch: 447754

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	188.8		mg/L		95	85 - 115

Lab Sample ID: USB 480-448384/1
Matrix: Water
Analysis Batch: 448384

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			11/30/18 09:00	1

Method: SM 5210B - BOD, 5-Day (Continued)

Lab Sample ID: LCS 480-448384/2
Matrix: Water
Analysis Batch: 448384

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	186.0		mg/L		94	85 - 115

QC Association Summary

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

GC/MS VOA

Analysis Batch: 447541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	624.1	
480-145712-4	WESTBERM2-11262018	Total/NA	Water	624.1	
480-145712-5	WESTBERM3-11262018	Total/NA	Water	624.1	
MB 480-447541/32	Method Blank	Total/NA	Water	624.1	
LCS 480-447541/30	Lab Control Sample	Total/NA	Water	624.1	

Analysis Batch: 448288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-3	WESTBERM1-11262018	Total/NA	Water	624.1	
MB 480-448288/7	Method Blank	Total/NA	Water	624.1	
LCS 480-448288/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 447670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	625	
480-145712-2	EASTBERM2-11262018	Total/NA	Water	625	
480-145712-4	WESTBERM2-11262018	Total/NA	Water	625	
480-145712-5	WESTBERM3-11262018	Total/NA	Water	625	
MB 480-447670/1-A	Method Blank	Total/NA	Water	625	
LCS 480-447670/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-447670/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Prep Batch: 448157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-3	WESTBERM1-11262018	Total/NA	Water	625	
MB 480-448157/1-A	Method Blank	Total/NA	Water	625	
LCS 480-448157/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-448157/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 448743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-5	WESTBERM3-11262018	Total/NA	Water	625.1	447670
MB 480-447670/1-A	Method Blank	Total/NA	Water	625.1	447670
LCS 480-447670/2-A	Lab Control Sample	Total/NA	Water	625.1	447670
LCSD 480-447670/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	447670

Analysis Batch: 448904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	625.1	447670
480-145712-2	EASTBERM2-11262018	Total/NA	Water	625.1	447670
480-145712-3	WESTBERM1-11262018	Total/NA	Water	625.1	448157
480-145712-4	WESTBERM2-11262018	Total/NA	Water	625.1	447670
MB 480-448157/1-A	Method Blank	Total/NA	Water	625.1	448157
LCS 480-448157/2-A	Lab Control Sample	Total/NA	Water	625.1	448157
LCSD 480-448157/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	448157

QC Association Summary

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Metals

Prep Batch: 447912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	245.1	
480-145712-4	WESTBERM2-11262018	Total/NA	Water	245.1	
480-145712-5	WESTBERM3-11262018	Total/NA	Water	245.1	
MB 480-447912/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-447912/2-A	Lab Control Sample	Total/NA	Water	245.1	

Prep Batch: 448084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-3	WESTBERM1-11262018	Total/NA	Water	245.1	
MB 480-448084/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-448084/2-A	Lab Control Sample	Total/NA	Water	245.1	

Prep Batch: 448190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	200.7	
480-145712-3	WESTBERM1-11262018	Total/NA	Water	200.7	
480-145712-4	WESTBERM2-11262018	Total/NA	Water	200.7	
480-145712-5	WESTBERM3-11262018	Total/NA	Water	200.7	
MB 480-448190/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-448190/2-A	Lab Control Sample	Total/NA	Water	200.7	

Analysis Batch: 448191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	245.1	447912
480-145712-4	WESTBERM2-11262018	Total/NA	Water	245.1	447912
480-145712-5	WESTBERM3-11262018	Total/NA	Water	245.1	447912
MB 480-447912/1-A	Method Blank	Total/NA	Water	245.1	447912
LCS 480-447912/2-A	Lab Control Sample	Total/NA	Water	245.1	447912

Analysis Batch: 448224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-3	WESTBERM1-11262018	Total/NA	Water	245.1	448084
MB 480-448084/1-A	Method Blank	Total/NA	Water	245.1	448084
LCS 480-448084/2-A	Lab Control Sample	Total/NA	Water	245.1	448084

Analysis Batch: 448561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	200.7 Rev 4.4	448190
480-145712-3	WESTBERM1-11262018	Total/NA	Water	200.7 Rev 4.4	448190
480-145712-4	WESTBERM2-11262018	Total/NA	Water	200.7 Rev 4.4	448190
480-145712-5	WESTBERM3-11262018	Total/NA	Water	200.7 Rev 4.4	448190
MB 480-448190/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	448190
LCS 480-448190/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	448190

General Chemistry

Analysis Batch: 447754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	SM 5210B	
480-145712-4	WESTBERM2-11262018	Total/NA	Water	SM 5210B	
480-145712-5	WESTBERM3-11262018	Total/NA	Water	SM 5210B	

General Chemistry (Continued)

Analysis Batch: 447754 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
USB 480-447754/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-447754/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 447814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	SM 4500 P E	
480-145712-4	WESTBERM2-11262018	Total/NA	Water	SM 4500 P E	
480-145712-5	WESTBERM3-11262018	Total/NA	Water	SM 4500 P E	
MB 480-447814/3	Method Blank	Total/NA	Water	SM 4500 P E	
LCS 480-447814/4	Lab Control Sample	Total/NA	Water	SM 4500 P E	
480-145712-1 MS	EASTBERM1-11262018	Total/NA	Water	SM 4500 P E	
480-145712-1 MSD	EASTBERM1-11262018	Total/NA	Water	SM 4500 P E	

Analysis Batch: 447970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	SM 2540D	
480-145712-2	EASTBERM2-11262018	Total/NA	Water	SM 2540D	
480-145712-3	WESTBERM1-11262018	Total/NA	Water	SM 2540D	
480-145712-4	WESTBERM2-11262018	Total/NA	Water	SM 2540D	
480-145712-5	WESTBERM3-11262018	Total/NA	Water	SM 2540D	
MB 480-447970/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 480-447970/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 447991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	350.1	
480-145712-4	WESTBERM2-11262018	Total/NA	Water	350.1	
480-145712-5	WESTBERM3-11262018	Total/NA	Water	350.1	
MB 480-447991/27	Method Blank	Total/NA	Water	350.1	
MB 480-447991/3	Method Blank	Total/NA	Water	350.1	
LCS 480-447991/28	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-447991/4	Lab Control Sample	Total/NA	Water	350.1	

Prep Batch: 448043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-2	EASTBERM2-11262018	Total/NA	Water	1664B	
480-145712-3	WESTBERM1-11262018	Total/NA	Water	1664B	
480-145712-4	WESTBERM2-11262018	Total/NA	Water	1664B	
480-145712-5	WESTBERM3-11262018	Total/NA	Water	1664B	
MB 480-448043/1-A	Method Blank	Total/NA	Water	1664B	
LCS 480-448043/2-A	Lab Control Sample	Total/NA	Water	1664B	

Analysis Batch: 448097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-2	EASTBERM2-11262018	Total/NA	Water	1664B	448043
480-145712-3	WESTBERM1-11262018	Total/NA	Water	1664B	448043
480-145712-4	WESTBERM2-11262018	Total/NA	Water	1664B	448043
480-145712-5	WESTBERM3-11262018	Total/NA	Water	1664B	448043
MB 480-448043/1-A	Method Blank	Total/NA	Water	1664B	448043
LCS 480-448043/2-A	Lab Control Sample	Total/NA	Water	1664B	448043

General Chemistry

Prep Batch: 448174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	1664B	
MB 480-448174/1-A	Method Blank	Total/NA	Water	1664B	
LCS 480-448174/2-A	Lab Control Sample	Total/NA	Water	1664B	

Analysis Batch: 448242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-3	WESTBERM1-11262018	Total/NA	Water	SM 4500 P E	
MB 480-448242/3	Method Blank	Total/NA	Water	SM 4500 P E	
LCS 480-448242/4	Lab Control Sample	Total/NA	Water	SM 4500 P E	
480-145712-3 MS	WESTBERM1-11262018	Total/NA	Water	SM 4500 P E	
480-145712-3 MSD	WESTBERM1-11262018	Total/NA	Water	SM 4500 P E	

Analysis Batch: 448352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	1664B	448174
MB 480-448174/1-A	Method Blank	Total/NA	Water	1664B	448174
LCS 480-448174/2-A	Lab Control Sample	Total/NA	Water	1664B	448174

Analysis Batch: 448384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145793-1	WESTBERM1_11282018	Total/NA	Water	SM 5210B	
USB 480-448384/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-448384/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 448989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-3	WESTBERM1-11262018	Total/NA	Water	350.1	
MB 480-448989/123	Method Blank	Total/NA	Water	350.1	
MB 480-448989/3	Method Blank	Total/NA	Water	350.1	
MB 480-448989/99	Method Blank	Total/NA	Water	350.1	
LCS 480-448989/100	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-448989/124	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-448989/4	Lab Control Sample	Total/NA	Water	350.1	

Prep Batch: 449007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	Distill/CN	
480-145712-3	WESTBERM1-11262018	Total/NA	Water	Distill/CN	
480-145712-4	WESTBERM2-11262018	Total/NA	Water	Distill/CN	
480-145712-5	WESTBERM3-11262018	Total/NA	Water	Distill/CN	
MB 480-449007/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-449007/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 480-449007/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 449035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145712-1	EASTBERM1-11262018	Total/NA	Water	335.4	449007
480-145712-3	WESTBERM1-11262018	Total/NA	Water	335.4	449007
480-145712-4	WESTBERM2-11262018	Total/NA	Water	335.4	449007
480-145712-5	WESTBERM3-11262018	Total/NA	Water	335.4	449007
MB 480-449007/1-A	Method Blank	Total/NA	Water	335.4	449007

General Chemistry (Continued)

Analysis Batch: 449035 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-449007/2-A	Lab Control Sample	Total/NA	Water	335.4	449007
LCS 480-449007/3-A	Lab Control Sample	Total/NA	Water	335.4	449007

Lab Chronicle

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Client Sample ID: EASTBERM1-11262018

Lab Sample ID: 480-145712-1

Date Collected: 11/26/18 15:15
Matrix: Water
Date Received: 11/26/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	447541	11/27/18 15:31	S1V	TAL BUF
Total/NA	Prep	625			447670	11/27/18 14:11	ATG	TAL BUF
Total/NA	Analysis	625.1		1	448904	12/04/18 19:40	RJS	TAL BUF
Total/NA	Prep	200.7			448190	11/30/18 09:55	VEG	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	448561	11/30/18 18:51	LMH	TAL BUF
Total/NA	Prep	245.1			447912	11/29/18 12:00	BMB	TAL BUF
Total/NA	Analysis	245.1		1	448191	11/29/18 14:23	BMB	TAL BUF
Total/NA	Prep	1664B			448174	11/30/18 06:53	MV	TAL BUF
Total/NA	Analysis	1664B		1	448352	11/30/18 10:04	MV	TAL BUF
Total/NA	Prep	Distill/CN			449007	12/04/18 12:15	LAW	TAL BUF
Total/NA	Analysis	335.4		1	449035	12/04/18 17:23	CAP	TAL BUF
Total/NA	Analysis	350.1		1	447991	11/28/18 17:16	A1A	TAL BUF
Total/NA	Analysis	SM 2540D		1	447970	11/28/18 17:36	KTP	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	447814	11/28/18 09:20	RP	TAL BUF
Total/NA	Analysis	SM 5210B		1	447754	11/27/18 21:06	EY	TAL BUF

Client Sample ID: EASTBERM2-11262018

Lab Sample ID: 480-145712-2

Date Collected: 11/26/18 15:20
Matrix: Water
Date Received: 11/26/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			447670	11/27/18 14:11	ATG	TAL BUF
Total/NA	Analysis	625.1		1	448904	12/04/18 20:06	RJS	TAL BUF
Total/NA	Prep	1664B			448043	11/29/18 07:51	MV	TAL BUF
Total/NA	Analysis	1664B		1	448097	11/29/18 11:00	MV	TAL BUF
Total/NA	Analysis	SM 2540D		1	447970	11/28/18 17:36	KTP	TAL BUF

Client Sample ID: WESTBERM1-11262018

Lab Sample ID: 480-145712-3

Date Collected: 11/26/18 15:30
Matrix: Water
Date Received: 11/26/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	448288	11/30/18 13:38	S1V	TAL BUF
Total/NA	Prep	625			448157	11/29/18 14:22	ATG	TAL BUF
Total/NA	Analysis	625.1		1	448904	12/04/18 23:53	RJS	TAL BUF
Total/NA	Prep	200.7			448190	11/30/18 09:55	VEG	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	448561	11/30/18 18:55	LMH	TAL BUF
Total/NA	Prep	245.1			448084	11/29/18 12:55	BMB	TAL BUF
Total/NA	Analysis	245.1		1	448224	11/29/18 16:02	BMB	TAL BUF
Total/NA	Prep	1664B			448043	11/29/18 07:51	MV	TAL BUF
Total/NA	Analysis	1664B		1	448097	11/29/18 11:00	MV	TAL BUF
Total/NA	Prep	Distill/CN			449007	12/04/18 12:15	LAW	TAL BUF
Total/NA	Analysis	335.4		1	449035	12/04/18 17:24	CAP	TAL BUF
Total/NA	Analysis	350.1		2	448989	12/04/18 14:02	A1A	TAL BUF

Client Sample ID: WESTBERM1-11262018
Date Collected: 11/26/18 15:30
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	447970	11/28/18 17:36	KTP	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	448242	11/29/18 16:40	DCB	TAL BUF

Client Sample ID: WESTBERM2-11262018
Date Collected: 11/26/18 15:35
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		4	447541	11/27/18 15:55	S1V	TAL BUF
Total/NA	Prep	625			447670	11/27/18 14:11	ATG	TAL BUF
Total/NA	Analysis	625.1		1	448904	12/04/18 20:31	RJS	TAL BUF
Total/NA	Prep	200.7			448190	11/30/18 09:55	VEG	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	448561	11/30/18 19:09	LMH	TAL BUF
Total/NA	Prep	245.1			447912	11/29/18 12:00	BMB	TAL BUF
Total/NA	Analysis	245.1		1	448191	11/29/18 14:24	BMB	TAL BUF
Total/NA	Prep	1664B			448043	11/29/18 07:51	MV	TAL BUF
Total/NA	Analysis	1664B		1	448097	11/29/18 11:00	MV	TAL BUF
Total/NA	Prep	Distill/CN			449007	12/04/18 12:15	LAW	TAL BUF
Total/NA	Analysis	335.4		1	449035	12/04/18 17:25	CAP	TAL BUF
Total/NA	Analysis	350.1		1	447991	11/28/18 17:16	A1A	TAL BUF
Total/NA	Analysis	SM 2540D		1	447970	11/28/18 17:36	KTP	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	447814	11/28/18 09:20	RP	TAL BUF
Total/NA	Analysis	SM 5210B		1	447754	11/27/18 21:06	EY	TAL BUF

Client Sample ID: WESTBERM3-11262018
Date Collected: 11/26/18 15:40
Date Received: 11/26/18 17:45

Lab Sample ID: 480-145712-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		4	447541	11/27/18 16:18	S1V	TAL BUF
Total/NA	Prep	625			447670	11/27/18 14:11	ATG	TAL BUF
Total/NA	Analysis	625.1		200	448743	12/03/18 21:39	RJS	TAL BUF
Total/NA	Prep	200.7			448190	11/30/18 09:55	VEG	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	448561	11/30/18 19:13	LMH	TAL BUF
Total/NA	Prep	245.1			447912	11/29/18 12:00	BMB	TAL BUF
Total/NA	Analysis	245.1		1	448191	11/29/18 14:26	BMB	TAL BUF
Total/NA	Prep	1664B			448043	11/29/18 07:51	MV	TAL BUF
Total/NA	Analysis	1664B		1	448097	11/29/18 11:00	MV	TAL BUF
Total/NA	Prep	Distill/CN			449007	12/04/18 12:15	LAW	TAL BUF
Total/NA	Analysis	335.4		1	449035	12/04/18 17:27	CAP	TAL BUF
Total/NA	Analysis	350.1		1	447991	11/28/18 17:17	A1A	TAL BUF
Total/NA	Analysis	SM 2540D		1	447970	11/28/18 17:36	KTP	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	447814	11/28/18 09:20	RP	TAL BUF
Total/NA	Analysis	SM 5210B		1	447754	11/27/18 21:06	EY	TAL BUF

Lab Chronicle

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Client Sample ID: WESTBERM1_11282018

Date Collected: 11/28/18 15:30
Date Received: 11/28/18 15:45

Lab Sample ID: 480-145793-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	448384	11/30/18 09:00	SAH	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Water	Cyanide, Total
624.1		Water	1,2-Dichloroethene, Total
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene

Method Summary

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
1664B	HEM and SGT-HEM	1664B	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
350.1	Nitrogen, Ammonia	MCAWW	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 P E	Phosphorus	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF
1664B	HEM and SGT-HEM (Aqueous)	1664B	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

1664B = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Parsons Corporation
Project/Site: Priority Pollutants

Job ID: 480-145712-1
SDG: 480-145712-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-145712-1	EASTBERM1-11262018	Water	11/26/18 15:15	11/26/18 17:45	
480-145712-2	EASTBERM2-11262018	Water	11/26/18 15:20	11/26/18 17:45	
480-145712-3	WESTBERM1-11262018	Water	11/26/18 15:30	11/26/18 17:45	
480-145712-4	WESTBERM2-11262018	Water	11/26/18 15:35	11/26/18 17:45	
480-145712-5	WESTBERM3-11262018	Water	11/26/18 15:40	11/26/18 17:45	
480-145793-1	WESTBERM1_11282018	Water	11/28/18 15:30	11/28/18 15:45	

TestAmerica Buffalo
10 Hazelwood Drive

Amherst, NY 14228
Phone: 716.691.2600 Fax: 716.691.7991

Chain of Custody Record 306553

TestAmerica

THE L... TESTING ...ries, Inc.
...8210 (0713)

480-145712 COC

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: [illegible]	Site Contact: J. Paulsen	Date:	COC
Company Name: PARSONS	Tel/Fax:	Lab Contact: J. SHOVE	Carrier:	
Address: 40 LaRiviere DR	Analysis Turnaround Time			Samp...
City/State/Zip: Buffalo 14202	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 716 432 7685	TAT if different from Below			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name:	X 1 week			
Site:	☐ 2 days			Job / SDG No.:
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Ammonia	phos.	PPMetals	DPVOC	PPSVOC	BoD	TSS	CN-	O/G	Sample Specific Notes:
EASTBERM1-11262018	11.26	1515	G	W				✓	✓	✓	✓	✓	✓	✓	✓	✓	
EASTBERM2-11262018	11.26	1520	G	W				✓	✓	✓	✓	✓	✓	✓		✓	
~~[illegible]~~			"	W													
WESTBERM1-11262018	1126	1530	G	W				✓	✓	✓	✓	✓	✓	✓	✓	✓	
WESTBERM2-11262018	11.26	1535	G	W				✓	✓	✓	✓	✓	✓	✓		✓	
WESTBERM3-11262018	11.26	1540	G	W				✓	✓	✓	✓	✓	✓	✓		✓	
								✓	✓	✓	✓	✓	✓	✓			

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

#1 3.0, 2.8, 3.2

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	PARSONS	11/26/18 1705			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA	Date/Time: 11/26/18 1745

6/19/2019 (Rev. 1)

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 480-145712-1
SDG Number: 480-145712-1

Login Number: 145712
List Number: 1
Creator: Wallace, Cameron

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 480-145712-1
SDG Number: 480-145712-1

Login Number: 145793
List Number: 1
Creator: Wallace, Cameron

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	PARSONS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 480-145167-1
Client Project/Site: Area 108

For:
Parsons Corporation
40 LaRiviere Drive
Suite 350
Buffalo, New York 14202

Attn: Robert B Piurek

Authorized for release by:
11/20/2018 9:02:46 AM

John Schove, Project Manager II
(716)504-9838
john.schove@testamericainc.com

Table of Contents

Definitions/Glossary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Job ID: 480-145167-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-145167-1

Comments
No additional comments.

Receipt
The samples were received on 11/13/2018 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2º C.

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

GC/MS Semi VOA
Method(s) 625.1: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits due to poor performance. The LCS associated with batch 460-568979 had (N-Nitrosodimethylamine) outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified

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

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

General Chemistry
Method(s) Distill/CN: The reference method requires samples to be preserved to a pH>12. The following samples were received with insufficient preservation at a pH of 6.03: EAST BERM_11122018 (480-145167-1) and WEST BERM_11122018 (480-145167-2). The samples were preserved to the appropriate pH in the laboratory.

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

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

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

Detection Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Client Sample ID: EAST BERM_11122018 — Lab Sample ID: 480-145167-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	9.6	J	25.0	5.5	ug/L	1		200.7 Rev 4.4	Total Recoverable
Zinc	18.6	J	30.0	5.4	ug/L	1		200.7 Rev 4.4	Total Recoverable
Cyanide, Total	0.0035	J	0.010	0.0020	mg/L	1		335.4	Total/NA

Client Sample ID: WEST BERM_11122018 — Lab Sample ID: 480-145167-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.67	J	10	0.58	ug/L	1		625.1	Total/NA
Zinc	9.7	J	30.0	5.4	ug/L	1		200.7 Rev 4.4	Total Recoverable
Cyanide, Total	0.011		0.010	0.0020	mg/L	1		335.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: EAST BERM_11122018
Date Collected: 11/13/18 15:30
Date Received: 11/13/18 17:00

Lab Sample ID: 480-145167-1
Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/18 10:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/18/18 10:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/18/18 10:09	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/18/18 10:09	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/18/18 10:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/18/18 10:09	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/18/18 10:09	1
1,2-Dichloroethene, Total	2.0	U	2.0	0.44	ug/L			11/18/18 10:09	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/18/18 10:09	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/18/18 10:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/18/18 10:09	1
2-Chloroethyl vinyl ether	1.0	U	1.0	0.43	ug/L			11/18/18 10:09	1
Acrolein	4.0	U	4.0	1.1	ug/L			11/18/18 10:09	1
Acrylonitrile	2.0	U	2.0	0.77	ug/L			11/18/18 10:09	1
Benzene	1.0	U	1.0	0.43	ug/L			11/18/18 10:09	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/18/18 10:09	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/18/18 10:09	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/18/18 10:09	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/18/18 10:09	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/18/18 10:09	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/18 10:09	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/18/18 10:09	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/18/18 10:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/18/18 10:09	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/18/18 10:09	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/18/18 10:09	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/18/18 10:09	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/18/18 10:09	1
Toluene	1.0	U	1.0	0.38	ug/L			11/18/18 10:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/18/18 10:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/18/18 10:09	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/18/18 10:09	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/18/18 10:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*60 - 140*		*11/18/18 10:09*	*1*
4-Bromofluorobenzene	*121*		*60 - 140*		*11/18/18 10:09*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 140*		*11/18/18 10:09*	*1*
Toluene-d8 (Surr)	*103*		*60 - 140*		*11/18/18 10:09*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	2.0	U	2.0	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
1,2-Dichlorobenzene	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
1,2-Diphenylhydrazine	10	U	10	0.37	ug/L		11/16/18 09:01	11/17/18 00:38	1
1,3-Dichlorobenzene	10	U	10	2.0	ug/L		11/16/18 09:01	11/17/18 00:38	1
1,4-Dichlorobenzene	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/16/18 09:01	11/17/18 00:38	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/16/18 09:01	11/17/18 00:38	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/16/18 09:01	11/17/18 00:38	1

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Client Sample ID: EAST BERM_11122018
Date Collected: 11/13/18 15:30
Date Received: 11/13/18 17:00

Lab Sample ID: 480-145167-1
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	10	U	10	0.23	ug/L		11/16/18 09:01	11/17/18 00:38	1
2,4-Dinitrophenol	20	U	20	2.0	ug/L		11/16/18 09:01	11/17/18 00:38	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/16/18 09:01	11/17/18 00:38	1
2,6-Dinitrotoluene	2.0	U	2.0	0.53	ug/L		11/16/18 09:01	11/17/18 00:38	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/16/18 09:01	11/17/18 00:38	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/16/18 09:01	11/17/18 00:38	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/16/18 09:01	11/17/18 00:38	1
3,3'-Dichlorobenzidine	10	U	10	1.6	ug/L		11/16/18 09:01	11/17/18 00:38	1
4,6-Dinitro-2-methylphenol	20	U	20	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/16/18 09:01	11/17/18 00:38	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/16/18 09:01	11/17/18 00:38	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
4-Nitrophenol	20	U	20	0.55	ug/L		11/16/18 09:01	11/17/18 00:38	1
Acenaphthene	10	U	10	1.1	ug/L		11/16/18 09:01	11/17/18 00:38	1
Acenaphthylene	10	U	10	0.82	ug/L		11/16/18 09:01	11/17/18 00:38	1
Anthracene	10	U	10	0.63	ug/L		11/16/18 09:01	11/17/18 00:38	1
Benzidine	10	U	10	0.92	ug/L		11/16/18 09:01	11/17/18 00:38	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/16/18 09:01	11/17/18 00:38	1
Benzo[a]pyrene	1.0	U	1.0	0.68	ug/L		11/16/18 09:01	11/17/18 00:38	1
Benzo[b]fluoranthene	2.0	U	2.0	1.4	ug/L		11/16/18 09:01	11/17/18 00:38	1
Benzo[g,h,i]perylene	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/16/18 09:01	11/17/18 00:38	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/16/18 09:01	11/17/18 00:38	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/16/18 09:01	11/17/18 00:38	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.0	ug/L		11/16/18 09:01	11/17/18 00:38	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/16/18 09:01	11/17/18 00:38	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/16/18 09:01	11/17/18 00:38	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.74	ug/L		11/16/18 09:01	11/17/18 00:38	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/16/18 09:01	11/17/18 00:38	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/16/18 09:01	11/17/18 00:38	1
Di-n-butyl phthalate	10	U	10	0.75	ug/L		11/16/18 09:01	11/17/18 00:38	1
Di-n-octyl phthalate	10	U	10	1.4	ug/L		11/16/18 09:01	11/17/18 00:38	1
Fluoranthene	10	U	10	0.84	ug/L		11/16/18 09:01	11/17/18 00:38	1
Fluorene	10	U	10	0.91	ug/L		11/16/18 09:01	11/17/18 00:38	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/16/18 09:01	11/17/18 00:38	1
Hexachlorobutadiene	1.0	U	1.0	0.13	ug/L		11/16/18 09:01	11/17/18 00:38	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/16/18 09:01	11/17/18 00:38	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/16/18 09:01	11/17/18 00:38	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/16/18 09:01	11/17/18 00:38	1
Isophorone	10	U	10	0.80	ug/L		11/16/18 09:01	11/17/18 00:38	1
Naphthalene	10	U	10	1.1	ug/L		11/16/18 09:01	11/17/18 00:38	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/16/18 09:01	11/17/18 00:38	1
N-Nitrosodimethylamine	10	U *	10	0.45	ug/L		11/16/18 09:01	11/17/18 00:38	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/16/18 09:01	11/17/18 00:38	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/16/18 09:01	11/17/18 00:38	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/16/18 09:01	11/17/18 00:38	1
Phenanthrene	10	U	10	0.58	ug/L		11/16/18 09:01	11/17/18 00:38	1
Phenol	10	U	10	0.29	ug/L		11/16/18 09:01	11/17/18 00:38	1
Pyrene	10	U	10	1.6	ug/L		11/16/18 09:01	11/17/18 00:38	1

Client Sample ID: EAST BERM_11122018

Lab Sample ID: 480-145167-1

Date Collected: 11/13/18 15:30

Matrix: Water

Date Received: 11/13/18 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*80*		*14 - 149*	*11/16/18 09:01*	*11/17/18 00:38*	*1*
2-Fluorobiphenyl	*75*		*44 - 129*	*11/16/18 09:01*	*11/17/18 00:38*	*1*
2-Fluorophenol	*38*		*10 - 76*	*11/16/18 09:01*	*11/17/18 00:38*	*1*
Nitrobenzene-d5	*87*		*15 - 314*	*11/16/18 09:01*	*11/17/18 00:38*	*1*
Phenol-d5	*25*		*8 - 424*	*11/16/18 09:01*	*11/17/18 00:38*	*1*
Terphenyl-d14	*76*		*28 - 150*	*11/16/18 09:01*	*11/17/18 00:38*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	10.0	U	10.0	4.1	ug/L		11/17/18 18:00	11/18/18 13:27	1
Arsenic	5.0	U	5.0	4.2	ug/L		11/17/18 18:00	11/18/18 13:27	1
Beryllium	2.0	U	2.0	1.5	ug/L		11/17/18 18:00	11/18/18 13:27	1
Cadmium	5.0	U	5.0	2.1	ug/L		11/17/18 18:00	11/18/18 13:27	1
Chromium	10.0	U	10.0	5.9	ug/L		11/17/18 18:00	11/18/18 13:27	1
Copper	**9.6**	**J**	25.0	5.5	ug/L		11/17/18 18:00	11/18/18 13:27	1
Lead	5.0	U	5.0	3.8	ug/L		11/17/18 18:00	11/18/18 13:27	1
Nickel	40.0	U	40.0	6.3	ug/L		11/17/18 18:00	11/18/18 13:27	1
Selenium	5.0	U	5.0	4.2	ug/L		11/17/18 18:00	11/18/18 13:27	1
Silver	10.0	U	10.0	1.3	ug/L		11/17/18 18:00	11/18/18 13:27	1
Thallium	10.0	U	10.0	8.7	ug/L		11/17/18 18:00	11/18/18 13:27	1
Zinc	**18.6**	**J**	30.0	5.4	ug/L		11/17/18 18:00	11/18/18 13:27	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/16/18 12:33	11/16/18 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0035**	**J**	0.010	0.0020	mg/L		11/19/18 08:52	11/19/18 11:53	1

Client Sample ID: WEST BERM_11122018
Date Collected: 11/13/18 15:45
Date Received: 11/13/18 17:00

Lab Sample ID: 480-145167-2
Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/18 10:35	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/18/18 10:35	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/18/18 10:35	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/18/18 10:35	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/18/18 10:35	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/18/18 10:35	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/18/18 10:35	1
1,2-Dichloroethene, Total	2.0	U	2.0	0.44	ug/L			11/18/18 10:35	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/18/18 10:35	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/18/18 10:35	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/18/18 10:35	1
2-Chloroethyl vinyl ether	1.0	U	1.0	0.43	ug/L			11/18/18 10:35	1
Acrolein	4.0	U	4.0	1.1	ug/L			11/18/18 10:35	1
Acrylonitrile	2.0	U	2.0	0.77	ug/L			11/18/18 10:35	1
Benzene	1.0	U	1.0	0.43	ug/L			11/18/18 10:35	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/18/18 10:35	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/18/18 10:35	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/18/18 10:35	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/18/18 10:35	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/18/18 10:35	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/18 10:35	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/18/18 10:35	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/18/18 10:35	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/18/18 10:35	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/18/18 10:35	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/18/18 10:35	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/18/18 10:35	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/18/18 10:35	1
Toluene	1.0	U	1.0	0.38	ug/L			11/18/18 10:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/18/18 10:35	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/18/18 10:35	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/18/18 10:35	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/18/18 10:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*60 - 140*		*11/18/18 10:35*	*1*
4-Bromofluorobenzene	*116*		*60 - 140*		*11/18/18 10:35*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 140*		*11/18/18 10:35*	*1*
Toluene-d8 (Surr)	*100*		*60 - 140*		*11/18/18 10:35*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	2.0	U	2.0	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
1,2-Dichlorobenzene	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
1,2-Diphenylhydrazine	10	U	10	0.37	ug/L		11/16/18 09:01	11/17/18 00:58	1
1,3-Dichlorobenzene	10	U	10	2.0	ug/L		11/16/18 09:01	11/17/18 00:58	1
1,4-Dichlorobenzene	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/16/18 09:01	11/17/18 00:58	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/16/18 09:01	11/17/18 00:58	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/16/18 09:01	11/17/18 00:58	1

Client Sample ID: WEST BERM_11122018
Date Collected: 11/13/18 15:45
Date Received: 11/13/18 17:00

Lab Sample ID: 480-145167-2
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	10	U	10	0.23	ug/L		11/16/18 09:01	11/17/18 00:58	1
2,4-Dinitrophenol	20	U	20	2.0	ug/L		11/16/18 09:01	11/17/18 00:58	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/16/18 09:01	11/17/18 00:58	1
2,6-Dinitrotoluene	2.0	U	2.0	0.53	ug/L		11/16/18 09:01	11/17/18 00:58	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/16/18 09:01	11/17/18 00:58	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/16/18 09:01	11/17/18 00:58	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/16/18 09:01	11/17/18 00:58	1
3,3'-Dichlorobenzidine	10	U	10	1.6	ug/L		11/16/18 09:01	11/17/18 00:58	1
4,6-Dinitro-2-methylphenol	20	U	20	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/16/18 09:01	11/17/18 00:58	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/16/18 09:01	11/17/18 00:58	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
4-Nitrophenol	20	U	20	0.55	ug/L		11/16/18 09:01	11/17/18 00:58	1
Acenaphthene	10	U	10	1.1	ug/L		11/16/18 09:01	11/17/18 00:58	1
Acenaphthylene	10	U	10	0.82	ug/L		11/16/18 09:01	11/17/18 00:58	1
Anthracene	10	U	10	0.63	ug/L		11/16/18 09:01	11/17/18 00:58	1
Benzidine	10	U	10	0.92	ug/L		11/16/18 09:01	11/17/18 00:58	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/16/18 09:01	11/17/18 00:58	1
Benzo[a]pyrene	1.0	U	1.0	0.68	ug/L		11/16/18 09:01	11/17/18 00:58	1
Benzo[b]fluoranthene	2.0	U	2.0	1.4	ug/L		11/16/18 09:01	11/17/18 00:58	1
Benzo[g,h,i]perylene	10	U	10	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/16/18 09:01	11/17/18 00:58	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/16/18 09:01	11/17/18 00:58	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/16/18 09:01	11/17/18 00:58	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.0	ug/L		11/16/18 09:01	11/17/18 00:58	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/16/18 09:01	11/17/18 00:58	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/16/18 09:01	11/17/18 00:58	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.74	ug/L		11/16/18 09:01	11/17/18 00:58	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/16/18 09:01	11/17/18 00:58	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/16/18 09:01	11/17/18 00:58	1
Di-n-butyl phthalate	10	U	10	0.75	ug/L		11/16/18 09:01	11/17/18 00:58	1
Di-n-octyl phthalate	10	U	10	1.4	ug/L		11/16/18 09:01	11/17/18 00:58	1
Fluoranthene	10	U	10	0.84	ug/L		11/16/18 09:01	11/17/18 00:58	1
Fluorene	10	U	10	0.91	ug/L		11/16/18 09:01	11/17/18 00:58	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/16/18 09:01	11/17/18 00:58	1
Hexachlorobutadiene	1.0	U	1.0	0.13	ug/L		11/16/18 09:01	11/17/18 00:58	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/16/18 09:01	11/17/18 00:58	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/16/18 09:01	11/17/18 00:58	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/16/18 09:01	11/17/18 00:58	1
Isophorone	10	U	10	0.80	ug/L		11/16/18 09:01	11/17/18 00:58	1
Naphthalene	10	U	10	1.1	ug/L		11/16/18 09:01	11/17/18 00:58	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/16/18 09:01	11/17/18 00:58	1
N-Nitrosodimethylamine	10	U *	10	0.45	ug/L		11/16/18 09:01	11/17/18 00:58	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/16/18 09:01	11/17/18 00:58	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/16/18 09:01	11/17/18 00:58	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/16/18 09:01	11/17/18 00:58	1
Phenanthrene	**0.67**	**J**	10	0.58	ug/L		11/16/18 09:01	11/17/18 00:58	1
Phenol	10	U	10	0.29	ug/L		11/16/18 09:01	11/17/18 00:58	1
Pyrene	10	U	10	1.6	ug/L		11/16/18 09:01	11/17/18 00:58	1

Client Sample ID: WEST BERM_11122018
Date Collected: 11/13/18 15:45
Date Received: 11/13/18 17:00

Lab Sample ID: 480-145167-2
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*90*		*14 - 149*	*11/16/18 09:01*	*11/17/18 00:58*	*1*
2-Fluorobiphenyl	*92*		*44 - 129*	*11/16/18 09:01*	*11/17/18 00:58*	*1*
2-Fluorophenol	*40*		*10 - 76*	*11/16/18 09:01*	*11/17/18 00:58*	*1*
Nitrobenzene-d5	*102*		*15 - 314*	*11/16/18 09:01*	*11/17/18 00:58*	*1*
Phenol-d5	*27*		*8 - 424*	*11/16/18 09:01*	*11/17/18 00:58*	*1*
Terphenyl-d14	*95*		*28 - 150*	*11/16/18 09:01*	*11/17/18 00:58*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	10.0	U	10.0	4.1	ug/L		11/17/18 18:00	11/18/18 13:30	1
Arsenic	5.0	U	5.0	4.2	ug/L		11/17/18 18:00	11/18/18 13:30	1
Beryllium	2.0	U	2.0	1.5	ug/L		11/17/18 18:00	11/18/18 13:30	1
Cadmium	5.0	U	5.0	2.1	ug/L		11/17/18 18:00	11/18/18 13:30	1
Chromium	10.0	U	10.0	5.9	ug/L		11/17/18 18:00	11/18/18 13:30	1
Copper	25.0	U	25.0	5.5	ug/L		11/17/18 18:00	11/18/18 13:30	1
Lead	5.0	U	5.0	3.8	ug/L		11/17/18 18:00	11/18/18 13:30	1
Nickel	40.0	U	40.0	6.3	ug/L		11/17/18 18:00	11/18/18 13:30	1
Selenium	5.0	U	5.0	4.2	ug/L		11/17/18 18:00	11/18/18 13:30	1
Silver	10.0	U	10.0	1.3	ug/L		11/17/18 18:00	11/18/18 13:30	1
Thallium	10.0	U	10.0	8.7	ug/L		11/17/18 18:00	11/18/18 13:30	1
Zinc	**9.7**	**J**	30.0	5.4	ug/L		11/17/18 18:00	11/18/18 13:30	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/16/18 12:33	11/16/18 14:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.011**		0.010	0.0020	mg/L		11/19/18 08:52	11/19/18 11:54	1

Surrogate Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
480-145167-1	EAST BERM_11122018	101	121	110	103
480-145167-2	WEST BERM_11122018	103	116	110	100
LCS 460-569376/3	Lab Control Sample	101	119	108	102
MB 460-569376/8	Method Blank	105	117	111	99

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHL
Lab Sample ID	Client Sample ID	(14-149)	(44-129)	(10-76)	(15-314)	(8-424)	(28-150)
480-145167-1	EAST BERM_11122018	80	75	38	87	25	76
480-145167-2	WEST BERM_11122018	90	92	40	102	27	95
LCS 460-568979/2-A	Lab Control Sample	82	78	51	90	36	77
MB 460-568979/1-A	Method Blank	108	95	53	113	36	102

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-569376/8
Matrix: Water
Analysis Batch: 569376

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/18 08:46	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/18/18 08:46	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/18/18 08:46	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/18/18 08:46	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/18/18 08:46	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/18/18 08:46	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/18/18 08:46	1
1,2-Dichloroethene, Total	2.0	U	2.0	0.44	ug/L			11/18/18 08:46	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/18/18 08:46	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/18/18 08:46	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/18/18 08:46	1
2-Chloroethyl vinyl ether	1.0	U	1.0	0.43	ug/L			11/18/18 08:46	1
Acrolein	4.0	U	4.0	1.1	ug/L			11/18/18 08:46	1
Acrylonitrile	2.0	U	2.0	0.77	ug/L			11/18/18 08:46	1
Benzene	1.0	U	1.0	0.43	ug/L			11/18/18 08:46	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/18/18 08:46	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/18/18 08:46	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/18/18 08:46	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/18/18 08:46	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/18/18 08:46	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/18 08:46	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/18/18 08:46	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/18/18 08:46	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/18/18 08:46	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/18/18 08:46	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/18/18 08:46	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/18/18 08:46	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/18/18 08:46	1
Toluene	1.0	U	1.0	0.38	ug/L			11/18/18 08:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/18/18 08:46	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/18/18 08:46	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/18/18 08:46	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/18/18 08:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*60 - 140*		*11/18/18 08:46*	*1*
4-Bromofluorobenzene	*117*		*60 - 140*		*11/18/18 08:46*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 140*		*11/18/18 08:46*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*11/18/18 08:46*	*1*

Lab Sample ID: LCS 460-569376/3
Matrix: Water
Analysis Batch: 569376

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	20.4		ug/L		102	70 - 130
1,1,2,2-Tetrachloroethane	20.0	17.6		ug/L		88	60 - 140
1,1,2-Trichloroethane	20.0	19.1		ug/L		95	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-569376/3
Matrix: Water
Analysis Batch: 569376

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	20.0	18.0		ug/L		90	70 - 130
1,1-Dichloroethene	20.0	18.4		ug/L		92	50 - 150
1,2-Dichlorobenzene	20.0	19.5		ug/L		97	65 - 135
1,2-Dichloroethane	20.0	20.1		ug/L		101	70 - 130
1,2-Dichloropropane	20.0	18.1		ug/L		91	35 - 165
1,3-Dichlorobenzene	20.0	19.2		ug/L		96	70 - 130
1,4-Dichlorobenzene	20.0	19.4		ug/L		97	65 - 135
2-Chloroethyl vinyl ether	20.0	18.3		ug/L		91	0.1 - 225
Benzene	20.0	18.3		ug/L		91	65 - 135
Bromoform	20.0	24.0		ug/L		120	70 - 130
Bromomethane	20.0	11.5		ug/L		57	15 - 185
Carbon tetrachloride	20.0	21.9		ug/L		110	70 - 130
Chlorobenzene	20.0	19.5		ug/L		98	65 - 135
Chlorodibromomethane	20.0	22.2		ug/L		111	70 - 135
Chloroethane	20.0	20.7		ug/L		103	40 - 160
Chloroform	20.0	19.6		ug/L		98	70 - 135
Chloromethane	20.0	17.2		ug/L		86	0.1 - 205
cis-1,3-Dichloropropene	20.0	18.3		ug/L		91	25 - 175
Dichlorobromomethane	20.0	20.2		ug/L		101	65 - 135
Ethylbenzene	20.0	18.5		ug/L		92	60 - 140
Methylene Chloride	20.0	17.7		ug/L		89	60 - 140
Tetrachloroethene	20.0	23.7		ug/L		118	70 - 130
Toluene	20.0	18.9		ug/L		95	70 - 130
trans-1,2-Dichloroethene	20.0	18.8		ug/L		94	70 - 130
trans-1,3-Dichloropropene	20.0	18.6		ug/L		93	50 - 150
Trichloroethene	20.0	20.4		ug/L		102	65 - 135
Vinyl chloride	20.0	18.2		ug/L		91	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*60 - 140*
4-Bromofluorobenzene	*119*		*60 - 140*
Dibromofluoromethane (Surr)	*108*		*60 - 140*
Toluene-d8 (Surr)	*102*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-568979/1-A
Matrix: Water
Analysis Batch: 569060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	2.0	U	2.0	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
1,2-Dichlorobenzene	10	U	10	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
1,2-Diphenylhydrazine	10	U	10	0.37	ug/L		11/16/18 09:01	11/16/18 17:16	1
1,3-Dichlorobenzene	10	U	10	2.0	ug/L		11/16/18 09:01	11/16/18 17:16	1
1,4-Dichlorobenzene	10	U	10	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/16/18 09:01	11/16/18 17:16	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/16/18 09:01	11/16/18 17:16	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-568979/1-A
Matrix: Water
Analysis Batch: 569060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/16/18 09:01	11/16/18 17:16	1
2,4-Dimethylphenol	10	U	10	0.23	ug/L		11/16/18 09:01	11/16/18 17:16	1
2,4-Dinitrophenol	20	U	20	2.0	ug/L		11/16/18 09:01	11/16/18 17:16	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/16/18 09:01	11/16/18 17:16	1
2,6-Dinitrotoluene	2.0	U	2.0	0.53	ug/L		11/16/18 09:01	11/16/18 17:16	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/16/18 09:01	11/16/18 17:16	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/16/18 09:01	11/16/18 17:16	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/16/18 09:01	11/16/18 17:16	1
3,3'-Dichlorobenzidine	10	U	10	1.6	ug/L		11/16/18 09:01	11/16/18 17:16	1
4,6-Dinitro-2-methylphenol	20	U	20	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/16/18 09:01	11/16/18 17:16	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/16/18 09:01	11/16/18 17:16	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
4-Nitrophenol	20	U	20	0.55	ug/L		11/16/18 09:01	11/16/18 17:16	1
Acenaphthene	10	U	10	1.1	ug/L		11/16/18 09:01	11/16/18 17:16	1
Acenaphthylene	10	U	10	0.82	ug/L		11/16/18 09:01	11/16/18 17:16	1
Anthracene	10	U	10	0.63	ug/L		11/16/18 09:01	11/16/18 17:16	1
Benzidine	10	U	10	0.92	ug/L		11/16/18 09:01	11/16/18 17:16	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/16/18 09:01	11/16/18 17:16	1
Benzo[a]pyrene	1.0	U	1.0	0.68	ug/L		11/16/18 09:01	11/16/18 17:16	1
Benzo[b]fluoranthene	2.0	U	2.0	1.4	ug/L		11/16/18 09:01	11/16/18 17:16	1
Benzo[g,h,i]perylene	10	U	10	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/16/18 09:01	11/16/18 17:16	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/16/18 09:01	11/16/18 17:16	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/16/18 09:01	11/16/18 17:16	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.0	ug/L		11/16/18 09:01	11/16/18 17:16	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/16/18 09:01	11/16/18 17:16	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/16/18 09:01	11/16/18 17:16	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.74	ug/L		11/16/18 09:01	11/16/18 17:16	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/16/18 09:01	11/16/18 17:16	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/16/18 09:01	11/16/18 17:16	1
Di-n-butyl phthalate	10	U	10	0.75	ug/L		11/16/18 09:01	11/16/18 17:16	1
Di-n-octyl phthalate	10	U	10	1.4	ug/L		11/16/18 09:01	11/16/18 17:16	1
Fluoranthene	10	U	10	0.84	ug/L		11/16/18 09:01	11/16/18 17:16	1
Fluorene	10	U	10	0.91	ug/L		11/16/18 09:01	11/16/18 17:16	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/16/18 09:01	11/16/18 17:16	1
Hexachlorobutadiene	1.0	U	1.0	0.13	ug/L		11/16/18 09:01	11/16/18 17:16	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/16/18 09:01	11/16/18 17:16	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/16/18 09:01	11/16/18 17:16	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/16/18 09:01	11/16/18 17:16	1
Isophorone	10	U	10	0.80	ug/L		11/16/18 09:01	11/16/18 17:16	1
Naphthalene	10	U	10	1.1	ug/L		11/16/18 09:01	11/16/18 17:16	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/16/18 09:01	11/16/18 17:16	1
N-Nitrosodimethylamine	10	U	10	0.45	ug/L		11/16/18 09:01	11/16/18 17:16	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/16/18 09:01	11/16/18 17:16	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/16/18 09:01	11/16/18 17:16	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/16/18 09:01	11/16/18 17:16	1
Phenanthrene	10	U	10	0.58	ug/L		11/16/18 09:01	11/16/18 17:16	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-568979/1-A
Matrix: Water
Analysis Batch: 569060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	10	U	10	0.29	ug/L		11/16/18 09:01	11/16/18 17:16	1
Pyrene	10	U	10	1.6	ug/L		11/16/18 09:01	11/16/18 17:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*108*		*14 - 149*	*11/16/18 09:01*	*11/16/18 17:16*	*1*
2-Fluorobiphenyl	*95*		*44 - 129*	*11/16/18 09:01*	*11/16/18 17:16*	*1*
2-Fluorophenol	*53*		*10 - 76*	*11/16/18 09:01*	*11/16/18 17:16*	*1*
Nitrobenzene-d5	*113*		*15 - 314*	*11/16/18 09:01*	*11/16/18 17:16*	*1*
Phenol-d5	*36*		*8 - 424*	*11/16/18 09:01*	*11/16/18 17:16*	*1*
Terphenyl-d14	*102*		*28 - 150*	*11/16/18 09:01*	*11/16/18 17:16*	*1*

Lab Sample ID: LCS 460-568979/2-A
Matrix: Water
Analysis Batch: 569060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	80.0	54.0		ug/L		67	44 - 142
1,2-Dichlorobenzene	80.0	51.4		ug/L		64	60 - 140
1,2-Diphenylhydrazine	80.0	77.2		ug/L		96	60 - 140
1,3-Dichlorobenzene	80.0	49.1		ug/L		61	60 - 140
1,4-Dichlorobenzene	80.0	48.7		ug/L		61	60 - 140
2,2'-oxybis[1-chloropropane]	80.0	66.1		ug/L		83	36 - 166
2,4,6-Trichlorophenol	80.0	71.7		ug/L		90	37 - 144
2,4-Dichlorophenol	80.0	67.6		ug/L		85	39 - 135
2,4-Dimethylphenol	80.0	65.5		ug/L		82	32 - 120
2,4-Dinitrophenol	160	155		ug/L		97	0.1 - 191
2,4-Dinitrotoluene	80.0	67.7		ug/L		85	39 - 139
2,6-Dinitrotoluene	80.0	73.9		ug/L		92	50 - 158
2-Chloronaphthalene	80.0	64.1		ug/L		80	60 - 120
2-Chlorophenol	80.0	61.3		ug/L		77	23 - 134
2-Nitrophenol	80.0	73.7		ug/L		92	29 - 182
3,3'-Dichlorobenzidine	80.0	70.0		ug/L		88	0.1 - 262
4,6-Dinitro-2-methylphenol	160	151		ug/L		94	0.1 - 181
4-Bromophenyl phenyl ether	80.0	70.9		ug/L		89	53 - 127
4-Chloro-3-methylphenol	80.0	62.4		ug/L		78	22 - 147
4-Chlorophenyl phenyl ether	80.0	65.1		ug/L		81	25 - 158
4-Nitrophenol	160	64.7		ug/L		40	0.1 - 132
Acenaphthene	80.0	65.0		ug/L		81	47 - 135
Acenaphthylene	80.0	71.4		ug/L		89	33 - 145
Anthracene	80.0	68.9		ug/L		86	27 - 133
Benzidine	80.0	49.6		ug/L		62	60 - 140
Benzo[a]anthracene	80.0	67.6		ug/L		85	33 - 143
Benzo[a]pyrene	80.0	72.0		ug/L		90	17 - 163
Benzo[b]fluoranthene	80.0	70.0		ug/L		88	24 - 159
Benzo[g,h,i]perylene	80.0	72.7		ug/L		91	0.1 - 219
Benzo[k]fluoranthene	80.0	72.2		ug/L		90	11 - 162
Bis(2-chloroethoxy)methane	80.0	69.5		ug/L		87	33 - 184
Bis(2-chloroethyl)ether	80.0	64.0		ug/L		80	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-568979/2-A
Matrix: Water
Analysis Batch: 569060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	80.0	78.0		ug/L		98	8 - 158
Butyl benzyl phthalate	80.0	77.7		ug/L		97	0.1 - 152
Chrysene	80.0	71.5		ug/L		89	17 - 168
Dibenz(a,h)anthracene	80.0	74.9		ug/L		94	0.1 - 227
Diethyl phthalate	80.0	70.3		ug/L		88	0.1 - 120
Dimethyl phthalate	80.0	65.1		ug/L		81	0.1 - 120
Di-n-butyl phthalate	80.0	74.0		ug/L		93	1 - 120
Di-n-octyl phthalate	80.0	78.2		ug/L		98	4 - 146
Fluoranthene	80.0	68.3		ug/L		85	26 - 137
Fluorene	80.0	65.2		ug/L		81	59 - 121
Hexachlorobenzene	80.0	69.1		ug/L		86	0.1 - 152
Hexachlorobutadiene	80.0	51.2		ug/L		64	24 - 120
Hexachlorocyclopentadiene	80.0	57.8		ug/L		72	60 - 140
Hexachloroethane	80.0	47.7		ug/L		60	40 - 120
Indeno[1,2,3-cd]pyrene	80.0	72.7		ug/L		91	0.1 - 171
Isophorone	80.0	61.2		ug/L		77	21 - 196
Naphthalene	80.0	59.5		ug/L		74	21 - 133
Nitrobenzene	80.0	63.0		ug/L		79	35 - 180
N-Nitrosodimethylamine	80.0	39.4	*	ug/L		49	60 - 140
N-Nitrosodi-n-propylamine	80.0	62.2		ug/L		78	0.1 - 230
N-Nitrosodiphenylamine	80.0	71.9		ug/L		90	60 - 140
Pentachlorophenol	160	142		ug/L		89	14 - 176
Phenanthrene	80.0	68.4		ug/L		86	54 - 120
Phenol	80.0	33.1		ug/L		41	5 - 120
Pyrene	80.0	72.7		ug/L		91	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*82*		*14 - 149*
2-Fluorobiphenyl	*78*		*44 - 129*
2-Fluorophenol	*51*		*10 - 76*
Nitrobenzene-d5	*90*		*15 - 314*
Phenol-d5	*36*		*8 - 424*
Terphenyl-d14	*77*		*28 - 150*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 460-569340/1-A
Matrix: Water
Analysis Batch: 569428

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 569340

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	10.0	U	10.0	4.1	ug/L		11/17/18 18:00	11/18/18 13:08	1
Arsenic	5.0	U	5.0	4.2	ug/L		11/17/18 18:00	11/18/18 13:08	1
Beryllium	2.0	U	2.0	1.5	ug/L		11/17/18 18:00	11/18/18 13:08	1
Cadmium	5.0	U	5.0	2.1	ug/L		11/17/18 18:00	11/18/18 13:08	1
Chromium	10.0	U	10.0	5.9	ug/L		11/17/18 18:00	11/18/18 13:08	1
Copper	25.0	U	25.0	5.5	ug/L		11/17/18 18:00	11/18/18 13:08	1
Lead	5.0	U	5.0	3.8	ug/L		11/17/18 18:00	11/18/18 13:08	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 460-569340/1-A
Matrix: Water
Analysis Batch: 569428

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 569340

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	40.0	U	40.0	6.3	ug/L		11/17/18 18:00	11/18/18 13:08	1
Selenium	5.0	U	5.0	4.2	ug/L		11/17/18 18:00	11/18/18 13:08	1
Silver	10.0	U	10.0	1.3	ug/L		11/17/18 18:00	11/18/18 13:08	1
Thallium	10.0	U	10.0	8.7	ug/L		11/17/18 18:00	11/18/18 13:08	1
Zinc	30.0	U	30.0	5.4	ug/L		11/17/18 18:00	11/18/18 13:08	1

Lab Sample ID: LCS 460-569340/2-A
Matrix: Water
Analysis Batch: 569428

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 569340

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	500	468.4		ug/L		94	85 - 115
Arsenic	2000	1890		ug/L		95	85 - 115
Beryllium	50.0	47.48		ug/L		95	85 - 115
Cadmium	50.0	49.48		ug/L		99	85 - 115
Chromium	200	191.4		ug/L		96	85 - 115
Copper	250	230.9		ug/L		92	85 - 115
Lead	500	481.4		ug/L		96	85 - 115
Nickel	500	476.2		ug/L		95	85 - 115
Selenium	2000	1956		ug/L		98	85 - 115
Silver	50.0	45.24		ug/L		90	85 - 115
Thallium	2000	1970		ug/L		99	85 - 115
Zinc	500	495.2		ug/L		99	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 460-569022/1-A
Matrix: Water
Analysis Batch: 569091

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 569022

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/16/18 12:33	11/16/18 14:21	1

Lab Sample ID: LCS 460-569022/2-A
Matrix: Water
Analysis Batch: 569091

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 569022

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.871		ug/L		87	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 460-569616/1-A
Matrix: Water
Analysis Batch: 569656

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 569616

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0020	mg/L		11/19/18 08:52	11/19/18 11:27	1

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: LCS 460-569616/2-A
Matrix: Water
Analysis Batch: 569656

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 569616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.101		mg/L		101	90 - 110

QC Association Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

GC/MS VOA

Analysis Batch: 569376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	624.1	
480-145167-2	WEST BERM_11122018	Total/NA	Water	624.1	
MB 460-569376/8	Method Blank	Total/NA	Water	624.1	
LCS 460-569376/3	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 568979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	625	
480-145167-2	WEST BERM_11122018	Total/NA	Water	625	
MB 460-568979/1-A	Method Blank	Total/NA	Water	625	
LCS 460-568979/2-A	Lab Control Sample	Total/NA	Water	625	

Analysis Batch: 569060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	625.1	568979
480-145167-2	WEST BERM_11122018	Total/NA	Water	625.1	568979
MB 460-568979/1-A	Method Blank	Total/NA	Water	625.1	568979
LCS 460-568979/2-A	Lab Control Sample	Total/NA	Water	625.1	568979

Metals

Prep Batch: 569022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	245.1	
480-145167-2	WEST BERM_11122018	Total/NA	Water	245.1	
MB 460-569022/1-A	Method Blank	Total/NA	Water	245.1	
LCS 460-569022/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 569091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	245.1	569022
480-145167-2	WEST BERM_11122018	Total/NA	Water	245.1	569022
MB 460-569022/1-A	Method Blank	Total/NA	Water	245.1	569022
LCS 460-569022/2-A	Lab Control Sample	Total/NA	Water	245.1	569022

Prep Batch: 569340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total Recoverable	Water	200.7	
480-145167-2	WEST BERM_11122018	Total Recoverable	Water	200.7	
MB 460-569340/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 460-569340/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Analysis Batch: 569428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total Recoverable	Water	200.7 Rev 4.4	569340
480-145167-2	WEST BERM_11122018	Total Recoverable	Water	200.7 Rev 4.4	569340
MB 460-569340/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	569340
LCS 460-569340/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	569340

QC Association Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

General Chemistry

Prep Batch: 569616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	Distill/CN	
480-145167-2	WEST BERM_11122018	Total/NA	Water	Distill/CN	
MB 460-569616/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 460-569616/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 569656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-145167-1	EAST BERM_11122018	Total/NA	Water	335.4	569616
480-145167-2	WEST BERM_11122018	Total/NA	Water	335.4	569616
MB 460-569616/1-A	Method Blank	Total/NA	Water	335.4	569616
LCS 460-569616/2-A	Lab Control Sample	Total/NA	Water	335.4	569616

Lab Chronicle

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Client Sample ID: EAST BERM_11122018

Lab Sample ID: 480-145167-1

Date Collected: 11/13/18 15:30

Matrix: Water

Date Received: 11/13/18 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	569376	11/18/18 10:09	XXC	TAL EDI
Total/NA	Prep	625			568979	11/16/18 09:01	DXB	TAL EDI
Total/NA	Analysis	625.1		1	569060	11/17/18 00:38	YAH	TAL EDI
Total Recoverable	Prep	200.7			569340	11/17/18 18:00	GAE	TAL EDI
Total Recoverable	Analysis	200.7 Rev 4.4		1	569428	11/18/18 13:27	CDC	TAL EDI
Total/NA	Prep	245.1			569022	11/16/18 12:33	RBS	TAL EDI
Total/NA	Analysis	245.1		1	569091	11/16/18 14:32	RBS	TAL EDI
Total/NA	Prep	Distill/CN			569616	11/19/18 08:52	IAA	TAL EDI
Total/NA	Analysis	335.4		1	569656	11/19/18 11:53	HTV	TAL EDI

Client Sample ID: WEST BERM_11122018

Lab Sample ID: 480-145167-2

Date Collected: 11/13/18 15:45

Matrix: Water

Date Received: 11/13/18 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	569376	11/18/18 10:35	XXC	TAL EDI
Total/NA	Prep	625			568979	11/16/18 09:01	DXB	TAL EDI
Total/NA	Analysis	625.1		1	569060	11/17/18 00:58	YAH	TAL EDI
Total Recoverable	Prep	200.7			569340	11/17/18 18:00	GAE	TAL EDI
Total Recoverable	Analysis	200.7 Rev 4.4		1	569428	11/18/18 13:30	CDC	TAL EDI
Total/NA	Prep	245.1			569022	11/16/18 12:33	RBS	TAL EDI
Total/NA	Analysis	245.1		1	569091	11/16/18 14:33	RBS	TAL EDI
Total/NA	Prep	Distill/CN			569616	11/19/18 08:52	IAA	TAL EDI
Total/NA	Analysis	335.4		1	569656	11/19/18 11:54	HTV	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-19

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11452	04-01-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	Copper
624.1		Water	1,2-Dichloroethene, Total
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
625.1	625	Water	4-Chlorophenyl phenyl ether

Method Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI
200.7 Rev 4.4	Metals (ICP)	EPA	TAL EDI
245.1	Mercury (CVAA)	EPA	TAL EDI
335.4	Cyanide, Total	MCAWW	TAL EDI
200.7	Preparation, Total Recoverable Metals	EPA	TAL EDI
245.1	Preparation, Mercury	EPA	TAL EDI
625	Liquid-Liquid Extraction	40CFR136A	TAL EDI
Distill/CN	Distillation, Cyanide	None	TAL EDI

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
None = None

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Parsons Corporation
Project/Site: Area 108

TestAmerica Job ID: 480-145167-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-145167-1	EAST BERM_11122018	Water	11/13/18 15:30	11/13/18 17:00
480-145167-2	WEST BERM_11122018	Water	11/13/18 15:45	11/13/18 17:00

TestAmerica Buffalo
10 Hazelwood Drive

Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Chain of Custody Record

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAm , Inc.

Client Contact	Project Manager: Jeffrey Poulsen	Site Contact: Jeffrey Poulsen	Date:	COC No: 480-145167 CO
Parsons	Tel/Fax:716-432-7685	J. Shove	Carrier:	____ of ____ COCs
40 LaRiviere Dr, Suite 350	**Analysis Turnaround Time**			Sampler:
Buffalo, NY 14202	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
716-432-7685	TAT if different from Below ____			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Honeywell Tonawanda	☐ 1 week			
Area 108	☑ 2 days			Job / SDG No.:
4400040329 Project 48014882	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Priority Pollutant VOCs (624)	Priority Pollutant SVOCs (625)	Priority Pollutant Metals (200.7)	Mercury	Cyanide	Sample Specific Notes:
East Berm_11122018	11/12/2018	1530	G	W	6	N	N	X	X	X	X	X	
West Berm_11122018	11/12/2018	1545	G	W	6	N	N	X	X	X	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 3.2 Corr'd: ____		Therm ID No.: #1
Relinquished by:	Company: Parsons	Date/Time: 11-13-18 700	Received by:	Company: TAB	Date/Time: 11/13/18 1700
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.11, dated 1/24/2017

11/20/2018

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 480-145167-1

Login Number: 145167
List Number: 1
Creator: Stopa, Erik S

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	PARSONS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 480-145167-1

Login Number: 145167
List Number: 2
Creator: Armbruster, Chris

List Source: TestAmerica Edison
List Creation: 11/15/18 10:44 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3°, 5.4°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Honeywell International Inc.

PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY 451470

SGS Job Number: JC89622

Sampling Date: 06/06/19

Report to:

Parsons Engineering Science

Lorraine.Weber@parsons.com

ATTN: Lorraine Weber

Total number of pages in report: **26**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp
General Manager

Client Service contact: Rocus Peters 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Sample Summary

Honeywell International Inc.

Job No: JC89622

PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY
Project No: 451470

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
JC89622-1	06/06/19	13:00		06/07/19	SO	Solid	TANK 1 TAR
JC89622-1A	06/06/19	13:00		06/07/19	SO	Solid	TANK 1 TAR
JC89622-2	06/06/19	10:00		06/07/19	SO	Solid	TANK 3 TAR
JC89622-2A	06/06/19	10:00		06/07/19	SO	Solid	TANK 3 TAR

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Honeywell International Inc.	**Job No**	JC89622
Site:	PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY	**Report Date**	6/25/2019 4:31:02 PM

On 06/07/2019, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC89622 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: LEACHATE **Batch ID:** V2V2432

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC89622-1LS, JC89622-1MS, JC89622-1MSD were used as the QC samples indicated.
- JC89622-1: Diluted due to high concentration of target and non-target compound.

MS Semi-volatiles By Method SW846 8270D

Matrix: LEACHATE **Batch ID:** OP21086

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC89749-5ALS, JC89749-5AMS, JC89749-5AMSD were used as the QC samples indicated.
- JC89622-2 for Nitrobenzene: Associated CCV outside of control limits low. Low level standard analyzed to demonstrate system suitability to detect affected analytes.
- JC89622-1 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC89622-1 for Nitrobenzene: Associated CCV outside of control limits low. Low level standard analyzed to demonstrate system suitability to detect affected analytes.
- JC89622-2 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.

GC/LC Semi-volatiles By Method SW846 8081B

Matrix: LEACHATE **Batch ID:** OP21076

- All samples were extracted within the recommended method holding time.
- Sample(s) JC89749-5ALS, JC89749-5AMS, JC89749-5AMSD, OP21076-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- OP21076-BS1 for Methoxychlor: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

GC/LC Semi-volatiles By Method SW846 8151A

Matrix: LEACHATE **Batch ID:** OP21087

- All samples were extracted within the recommended method holding time.
- Sample(s) JC89749-5ALS, JC89749-5AMS, JC89749-5AMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Metals Analysis By Method SW846 6010D

Matrix: LEACHATE **Batch ID:** MP15681

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC89749-5AMS, JC89749-5AMSD, JC89749-5ASDL were used as the QC samples for metals.
- Samples(s) JC89622-1, JC89622-2: New York does not offer 3010A certification for antimony and silver. The laboratory is certified for method 3010A (Acid Digestion for Total Metals) for all other metals and is certified for the associated analytical methods of 6010C (ICP Analysis) and 6020A (ICP-MS Analysis). New York does certify for method 3005A (Acid Digestion for Total Recoverable or Dissolved Metals) for antimony and silver and the laboratory holds that certification, but that provides total recoverable rather than total metals results.

Matrix: SO **Batch ID:** MP15650

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC89622-1AMSD, JC89622-1ASDL, JC89622-1AMS were used as the QC samples for metals.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for Sulfur are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

Metals Analysis By Method SW846 7470A

Matrix: LEACHATE **Batch ID:** MP15713

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC89749-5AMS, JC89749-5AMSD were used as the QC samples for metals.

General Chemistry By Method ASTM D240-92

Matrix: SO **Batch ID:** GP21854

- Sample(s) TD40247-1DUP were used as the QC samples for Heat Content, BTU.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC89622
Account: Honeywell International Inc.
Project: PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY
Collected: 06/06/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC89622-1	**TANK 1 TAR**					
Heat Content, BTU		13700	100		BTU/lb	ASTM D240-92
Benzene [a]		7.74	0.025	0.021	mg/l	SW846 8260C
2-Methylphenol		0.261	0.020	0.0089	mg/l	SW846 8270D
3&4-Methylphenol		0.738	0.020	0.0088	mg/l	SW846 8270D
Pyridine		0.0082 J	0.020	0.0039	mg/l	SW846 8270D
JC89622-1A	**TANK 1 TAR**					
Sulfur		1410	10		mg/kg	SW846 6010D
JC89622-2	**TANK 3 TAR**					
Heat Content, BTU		16000	100		BTU/lb	ASTM D240-92
Benzene		0.910	0.0025	0.0021	mg/l	SW846 8260C
2-Methylphenol		0.161	0.020	0.0089	mg/l	SW846 8270D
3&4-Methylphenol		0.374	0.020	0.0088	mg/l	SW846 8270D
JC89622-2A	**TANK 3 TAR**					
Sulfur		3150	9.6		mg/kg	SW846 6010D

(a) Diluted due to high concentration of target and non-target compound.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TANK 1 TAR		
Lab Sample ID:	JC89622-1	**Date Sampled:**	06/06/19
Matrix:	SO - Solid	**Date Received:**	06/07/19
Method:	SW846 8260C SW846 1311	**Percent Solids:**	n/a [a]
Project:	PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	2V59297.D	50	06/20/19 11:48	EH	06/18/19 10:00	GP21888	V2V2432
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	7.74	D018	0.50	0.025	0.021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	1.0	0.34	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.050	0.028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.050	0.028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.050	0.025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.050	0.025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.050	0.030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.050	0.030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.050	0.045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.050	0.026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.050	0.039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		76-120%
17060-07-0	1,2-Dichloroethane-D4	96%		64-135%
2037-26-5	Toluene-D8	94%		76-117%
460-00-4	4-Bromofluorobenzene	92%		72-122%

(a) All results reported on a wet weight basis.
(b) Diluted due to high concentration of target and non-target compound.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TANK 1 TAR		
Lab Sample ID:	JC89622-1	**Date Sampled:**	06/06/19
Matrix:	SO - Solid	**Date Received:**	06/07/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a [a]
Project:	PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M113068.D	1	06/24/19 18:20	HSS	06/20/19 17:20	OP21086	E2M5025
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	0.261	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	0.738	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol [b]	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene [c]	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	0.0082	D038	5.0	0.020	0.0039	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	23%		14-88%
4165-62-2	Phenol-d5	15%		10-110%
118-79-6	2,4,6-Tribromophenol	66%		39-149%
4165-60-0	Nitrobenzene-d5	50%		32-128%
321-60-8	2-Fluorobiphenyl	41%		35-119%
1718-51-0	Terphenyl-d14	62%		10-126%

(a) All results reported on a wet weight basis.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits low. Low level standard analyzed to demonstrate system suitability to detect affected analytes.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TANK 1 TAR		
Lab Sample ID:	JC89622-1	**Date Sampled:**	06/06/19
Matrix:	SO - Solid	**Date Received:**	06/07/19
Method:	SW846 8151A SW846 3510C	**Percent Solids:**	n/a [a]
Project:	PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G123465.D	1	06/21/19 12:39	MH	06/19/19 11:00	OP21087	G3G4332
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	88%		13-169%
19719-28-9	2,4-DCAA	86%		13-169%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TANK 1 TAR		
Lab Sample ID:	JC89622-1	**Date Sampled:**	06/06/19
Matrix:	SO - Solid	**Date Received:**	06/07/19
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a [a]
Project:	PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G960328.D	1	06/18/19 03:11	MH	06/17/19 18:10	OP21076	G4G2784
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		30-137%
877-09-8	Tetrachloro-m-xylene	78%		30-137%
2051-24-3	Decachlorobiphenyl	60%		10-137%
2051-24-3	Decachlorobiphenyl	68%		10-137%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TANK 1 TAR
Lab Sample ID: JC89622-1
Matrix: SO - Solid
Project: PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY

Date Sampled: 06/06/19
Date Received: 06/07/19
Percent Solids: n/a [a]

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]
Barium	< 1.0	D005	100	1.0	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]
Cadmium	< 0.020	D006	1.0	0.020	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]
Chromium	< 0.050	D007	5.0	0.050	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]
Lead	< 0.50	D008	5.0	0.50	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	06/17/19	06/17/19	EAL	SW846 7470A [1]	SW846 7470A [4]
Selenium	< 0.50	D010	1.0	0.50	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]
Silver	< 0.050	D011	5.0	0.050	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA46927
(2) Instrument QC Batch: MA46935
(3) Prep QC Batch: MP15681
(4) Prep QC Batch: MP15713

(a) All results reported on a wet weight basis.

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID:	TANK 1 TAR		
Lab Sample ID:	JC89622-1	**Date Sampled:**	06/06/19
Matrix:	SO - Solid	**Date Received:**	06/07/19
		Percent Solids:	n/a [a]
Project:	PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Heat Content, BTU	13700	100	BTU/lb	1	06/16/19	JOO	ASTM D240-92

(a) All results reported on a wet weight basis.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TANK 1 TAR		
Lab Sample ID:	JC89622-1A	**Date Sampled:**	06/06/19
Matrix:	SO - Solid	**Date Received:**	06/07/19
		Percent Solids:	n/a [a]
Project:	PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Sulfur	1410	10	mg/kg	1	06/14/19	06/14/19	ND	SW846 6010D [1]	SW846 3050B [2]

(1) Instrument QC Batch: MA46925
(2) Prep QC Batch: MP15650

(a) All results reported on a wet weight basis.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TANK 3 TAR		
Lab Sample ID:	JC89622-2	**Date Sampled:**	06/06/19
Matrix:	SO - Solid	**Date Received:**	06/07/19
Method:	SW846 8260C SW846 1311	**Percent Solids:**	n/a [a]
Project:	PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V59298.D	5	06/20/19 12:18	EH	06/18/19 10:00	GP21888	V2V2432
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	0.910	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	96%		64-135%
2037-26-5	Toluene-D8	95%		76-117%
460-00-4	4-Bromofluorobenzene	92%		72-122%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TANK 3 TAR		
Lab Sample ID:	JC89622-2	**Date Sampled:**	06/06/19
Matrix:	SO - Solid	**Date Received:**	06/07/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a [a]
Project:	PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M113069.D	1	06/24/19 18:47	HSS	06/20/19 17:20	OP21086	E2M5025
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	0.161	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	0.374	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol [b]	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene [c]	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		14-88%
4165-62-2	Phenol-d5	24%		10-110%
118-79-6	2,4,6-Tribromophenol	91%		39-149%
4165-60-0	Nitrobenzene-d5	72%		32-128%
321-60-8	2-Fluorobiphenyl	59%		35-119%
1718-51-0	Terphenyl-d14	82%		10-126%

(a) All results reported on a wet weight basis.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits low. Low level standard analyzed to demonstrate system suitability to detect affected analytes.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TANK 3 TAR		
Lab Sample ID:	JC89622-2	**Date Sampled:**	06/06/19
Matrix:	SO - Solid	**Date Received:**	06/07/19
Method:	SW846 8151A SW846 3510C	**Percent Solids:**	n/a [a]
Project:	PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G123466.D	1	06/21/19 13:08	MH	06/19/19 11:00	OP21087	G3G4332
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	118%		13-169%
19719-28-9	2,4-DCAA	98%		13-169%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TANK 3 TAR		
Lab Sample ID:	JC89622-2	**Date Sampled:**	06/06/19
Matrix:	SO - Solid	**Date Received:**	06/07/19
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a [a]
Project:	PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G960329.D	1	06/18/19 03:29	MH	06/17/19 18:10	OP21076	G4G2784
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		30-137%
877-09-8	Tetrachloro-m-xylene	73%		30-137%
2051-24-3	Decachlorobiphenyl	71%		10-137%
2051-24-3	Decachlorobiphenyl	94%		10-137%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TANK 3 TAR
Lab Sample ID: JC89622-2
Matrix: SO - Solid
Project: PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY

Date Sampled: 06/06/19
Date Received: 06/07/19
Percent Solids: n/a [a]

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]
Barium	< 1.0	D005	100	1.0	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]
Cadmium	< 0.020	D006	1.0	0.020	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]
Chromium	< 0.050	D007	5.0	0.050	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]
Lead	< 0.50	D008	5.0	0.50	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	06/17/19	06/17/19	EAL	SW846 7470A [1]	SW846 7470A [4]
Selenium	< 0.50	D010	1.0	0.50	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]
Silver	< 0.050	D011	5.0	0.050	mg/l	1	06/17/19	06/18/19	RP	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA46927
(2) Instrument QC Batch: MA46935
(3) Prep QC Batch: MP15681
(4) Prep QC Batch: MP15713

(a) All results reported on a wet weight basis.

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID:	TANK 3 TAR		
Lab Sample ID:	JC89622-2	**Date Sampled:**	06/06/19
Matrix:	SO - Solid	**Date Received:**	06/07/19
		Percent Solids:	n/a [a]
Project:	PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Heat Content, BTU	16000	100	BTU/lb	1	06/16/19	JOO	ASTM D240-92

(a) All results reported on a wet weight basis.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TANK 3 TAR		
Lab Sample ID:	JC89622-2A	**Date Sampled:**	06/06/19
Matrix:	SO - Solid	**Date Received:**	06/07/19
		Percent Solids:	n/a [a]
Project:	PESNYL: Tonawanda Coke, 3800 River Road, Tonawanda, NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Sulfur	3150	9.6	mg/kg	1	06/14/19	06/17/19	ND	SW846 6010D [1]	SW846 3050B [2]

(1) Instrument QC Batch: MA46932
(2) Prep QC Batch: MP15650

(a) All results reported on a wet weight basis.

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

PARSONS
40 LaRiviere Drive, Suite 350
Buffalo, NY 14202

SOL

SGS L

Regulatory Program:

Client Contact	Project Manager: Jeffrey Poulsen	Site Contact: J Poulsen	Date:	COC No:
Parsons	Tel/Fax:716-432-7686	Lab Contact:	Carrier:	____ of ____ COCs
40 LaRiviere Dr, Suite 350	Analysis Turnaround Time			Sampler:
Buffalo, NY 14202	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
716-432-7685	TAT if different from Below ____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: AREA 1087	☐ 1 week			Job / SDG No.: JC89622
Waste Sampling	☐ 2 days			
	☐ 1 day			Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TCLP VOC	TCLP SVOC	TCLP metals + Hg	TCLP PEST	TCLP Herb	BTU	Sulfur
-1 TANK 1 TAR	6/6/2019	1300	G	S	1			✓	✓	✓	✓	✓	✓	✓
-2 TANK 3 TAR	6/6/2019	1000	G	S	1			✓	✓	✓	✓	✓	✓	✓

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
COAL TAR PRODUCT

156

INITIAL ASESSMENT 3 Bc

LABEL VERIFICATION ____

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: 4.1 °C Corr'd: ____ IG	Therm ID No.:
Relinquished by:	Company:	Date/Time: 06/19 1440	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time: 6/7/19	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

FOREX # 8139 2024 9725

JC89622: Chain of Custody
Page 1 of 4

SGS Sample Receipt Summary

Job Number: JC89622 **Client:** **Project:**

Date / Time Received: 6/7/2019 9:50:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (4.1);

Cooler Temps (Corrected) °C: Cooler 1: (3.2);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

SGS Sample Receipt Summary

Job Number: JC89622 **Client:** PARSONS **Project:** AREA 1087

Date / Time Received: 6/7/2019 **Delivery Method:** FedEx **Airbill #'s:**

Cooler Temps (Raw Measured) °C:

Cooler Temps (Corrected) °C:

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:			
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☐
2. Trip Blank listed on COC:	☐		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify)

Comments Both samples are Coal tar product. Place in fume hood and use caution.

SM089-03
Rev. Date 12/7/17

Responded to by: CSR: N/A

Response Date: Response Date: 6/11/2019

Response:

Response: Proceed with analysis

JC89622: Chain of Custody
Page 4 of 4

6016 Centralcrest St. • Houston, TX 77092
Telephone (713) 316-1800 • Fax (877) 225-9953

May 31, 2019

Jeffery Poulsen,
Project Manager,
Parsons,
40 LaRiviere Dr, Suite 350.
Buffalo, NY 14202.

Re: PTS File No: 49052
Project Name: TCC Area 108 Tanks,
Project Number:
Site Location:

Subject: **Fluid Properties Package-(Density & Viscosity at 70°F, 100°F, 105°F, 130°F, 150°F, 180°F; IFT at Room Temperature) and Water Loss test at 105°F, 150°F & 180°F.**

Dear Jeffery Poulsen,

Please find enclosed report for Physical Properties analyses conducted upon samples received from your **TCC Area 108 Tanks** project. All analyses were performed by applicable ASTM, EPA, or API methodologies. The samples are currently in storage and will be retained for thirty days past the completion of testing at no charge. Please note that the samples will be disposed of at that time. You may contact me regarding storage, disposal, or return of the samples.

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information, please contact me or Emeka Anazodo at (713) 316-1800.

Sincerely,
PTS Laboratories, Inc.

C.A.Umeh

Chidi Umeh
Flow Laboratory Supervisor

Encl.

PTS Laboratories

Project Name: TCC Area 108 Tanks

PTS File No: 49052

Project Number:

Client: Parsons

TEST PROGRAM - 20190418

FLUID ID	Date	Time	Fluid Type		Fluid Properties Package (70°F, 100°F, 130°F) LNAPL & Water	Fluid Properties Package (105°F, 150°F, 180°F) LNAPL & Water	Fluid Cleaning	Water Loss	*BTU Value	*Sulphur Test	Comment
			Method:		ASTM D445, D1481, D971	ASTM D445, D1481, D971	Proprietary		ASTM D240-9	ASTM D4294	
Date Received: 20190415											
Tank 1_04112019	**4/11/2019**	**0930**	**DNAPL**		**X**	**X**	**X**	**X**	**X**	**X**	1.5 liters Coal tar
Tank 3_04112019	**4/11/2019**	**1030**	**DNAPL**		**X**	**X**	**X**	**X**	**X**	**X**	2.0 liters Coal tar
TOTALS:					**2**	**2**	**2**	**2**	**2**	**2**	

Laboratory Test Program Notes

Standard TAT for basic analysis is 10-15 business days. completion of analyses.

Fluid Properties Package - LNAPL & Water: Includes dynamic viscosity and fluid density at three temperatures (70, 100, 130°F), surface tension for each fluid, and interfacial tensions (three phase pairs; oil/water, oil/air, and water/air (at ambient laboratory temperature).

*BTU Value & Sulphur Test is to be conducted by a third-party lab.

PTS Laboratories

PTS File No: 49052
Client: Parsons
Report Date: 05/31/19

WATER /MOISTURE LOSS OF TAR SAND BY MASS

(Methodology: ASTM D 2216)

Project Name: TCC Area 108 Tanks
Project No:

SAMPLE ID.	Depth, ft	Temp °F	ANALYSIS DATE	ANALYSIS TIME	MATRIX	TARE WEIGHT, grams	WET SAMPLE + TARE WT., grams	DRY SAMPLE + TARE WT., grams	Moisture Loss by weight grams	MOISTURE CONTENT, % dry weight
Tank 1_04112019	N/A	105	20190507	1030	Coal Tar	76.13	125.94	125.38	0.56	1.1
	N/A	150	20190508	1000	Coal Tar	76.13	125.94	124.77	1.17	2.4
	N/A	180	20190514	1447	Coal Tar	76.13	125.94	122.65	3.29	7.1
Tank 3_04112019	N/A	105	20190507	1030	Coal Tar	75.45	138.94	138.78	0.21	0.3
	N/A	150	20190508	1000	Coal Tar	75.45	138.94	138.02	0.97	1.5
	N/A	180	20190514	1447	Coal Tar	75.45	138.94	134.70	4.29	7.2

PTS Laboratories

PTS File No: 49052
Client: Parsons
Report Date: 05/31/19

VISCOSITY, DENSITY, and SPECIFIC GRAVITY DATA
(METHODOLOGY: ASTM D445, ASTM D1481, API RP40)

Project Name: TCC Area 108 Tanks
Project No:

SAMPLE ID	MATRIX	TEMPERATURE, °F	SPECIFIC GRAVITY	DENSITY, g/cc	VISCOSITY	
					centistokes	centipoise
*Tank 1_04112019	DNAPL	70	1.3155	1.3152	*	*
		100	1.3112	1.3021	*	*
		130	1.3087	1.2904	*	*
*Tank 1_04112019	DNAPL	105	1.3015	1.3013	*	*
		150	1.2889	1.2799	*	*
		180	1.2634	1.2457	*	*
Tank 3_04112019	DNAPL	70	0.9800	0.9798	200000.00	195958.07
		100	0.9806	0.9738	3921.39	3818.54
		130	0.9706	0.9638	776.34	748.26
Tank 3_04112019	DNAPL	105	0.9722	0.9720	2664.37	2589.73
		150	0.9629	0.9562	336.70	321.94
		180	0.9594	0.9459	151.19	143.01

***Tank 1_04112019 coal tar was too thick that we couldn't get it flow through available viscosimeters.**
(Only Density & Specific gravity measurements were done).

QUALITY CONTROL DATA

Date:	05/10/19
FLUID TYPE:	Cannon® CVS S3
TEMPERATURE, °F:	70
DENSITY, MEASURED:	0.8616
DENSITY, PUBLISHED:	0.8615
RPD:	0.01
VISCOSITY, MEASURED:	4.50
VISCOSITY, PUBLISHED:	4.47
RPD:	0.59

CVS Lot #: 17301

CVS = Certified Viscosity Standard

PTS Laboratories

PTS File No: 49052
Client: Parsons
Report Date: 05/31/19

INTERFACIAL / SURFACE TENSION DATA
(METHODOLOGY: DuNuoy Method - ASTM D971)

Project Name: TCC Area 108 Tanks
Project No:

PHASE PAIR		TEMPERATURE,	INTERFACIAL TENSION,
SAMPLE ID / PHASE	SAMPLE ID / PHASE	°F	Dynes/centimeter
Houston_Tap Water	Air	74.0	71.1
Tank 3_04112019_DNAPL	Air	81.0	34.0
Houston_Tap Water	Tank 3_04112019_DNAPL	77.0	43.9

QUALITY CONTROL DATA

Date: **05/13/19**
PHASE PAIR: DIWATER / AIR
TEMPERATURE, °F: 72.0
IFT, MEASURED: 71.4
IFT, PUBLISHED: 72.4
RPD: -1.39

49052

Chain of Custody Record

PARSONS

PTS Job No: 49052

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Jeffrey Poulsen	Site Contact: Tom Abrams	Date:	COC No:
Parsons	Tel/Fax: 716-432-7685	Lab Contact:	Carrier:	_____ of _____ COCs
40 LaRiviere Dr, Suite 350	**Analysis Turnaround Time**			Sampler:
Buffalo, NY 14202	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
716-432-7685	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: TCC Area 108 TANKS	☐ 1 week			
	☐ 2 days			Job / SDG No.: 49052
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	8260 BTEX PKG	Water Lvl	Sgravity	Density	BTU Value	Sulfur	Sample Specific Notes:
1-5L Tank 1_04112019	4/11/2019	0930	G		2			1	1	1	1	1	1	CAUTION COAL TAR
2L Tank 3_04112019	4/11/2019	1030	G		2			1	1	1	1	1	1	CAUTION COAL TAR

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☑ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

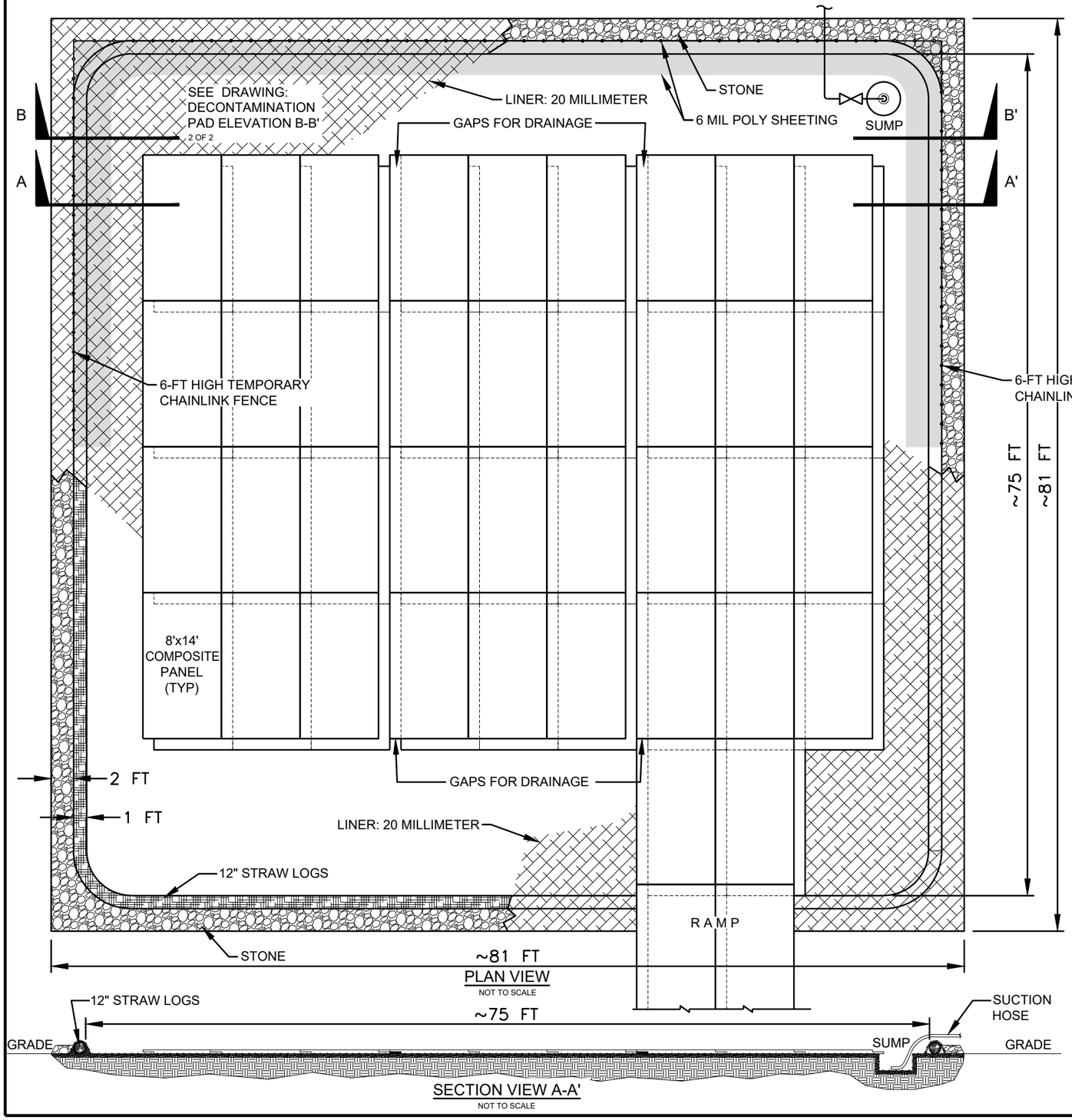
Special Instructions/QC Requirements & Comments:

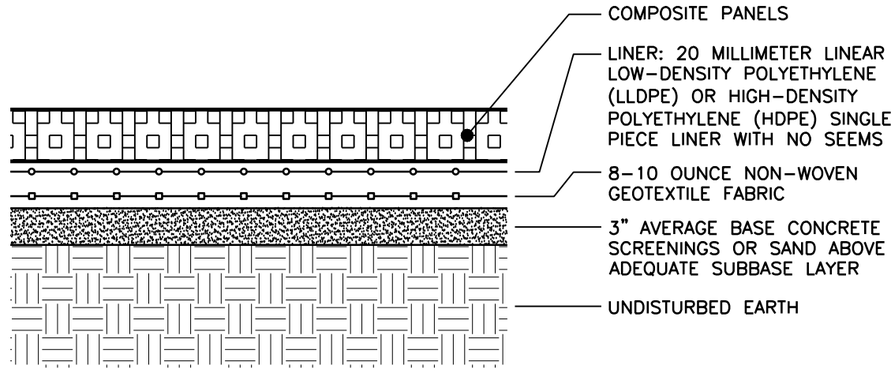
Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: BA	Company: PTS	Date/Time: 4/15/19

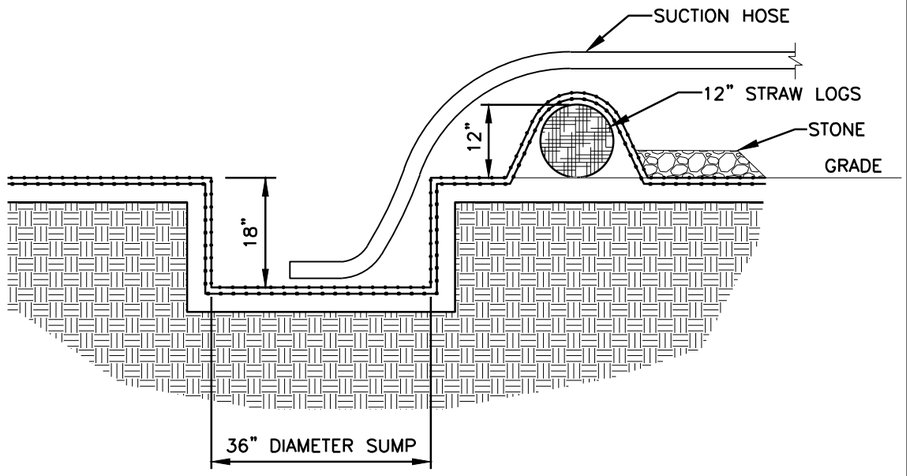
APPENDIX D

DECONTAMINATION PAD DETAIL





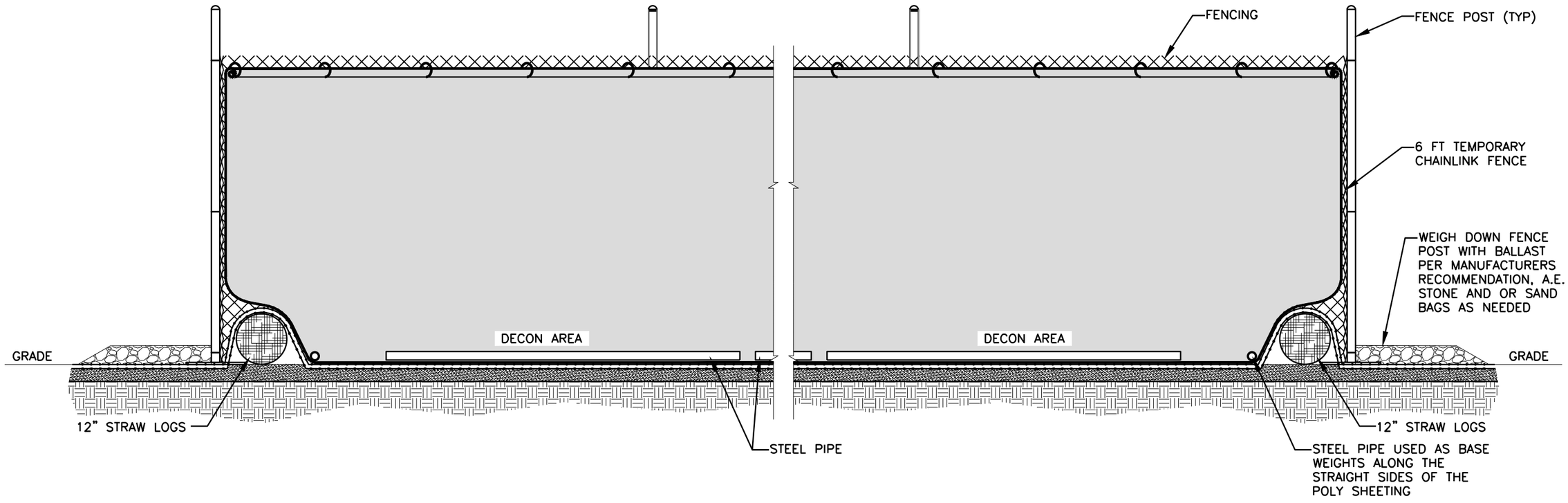
LINER DETAIL
NOT TO SCALE



SUMP DETAIL
NOT TO SCALE

DECONTAMINATION PAD DETAILS
1 OF 2

FILE NAME: P:\HONEYWELL -SYR\451586 TONAWANDA COKE\10.0 TECHNICAL CATEGORIES\CAD\DECONPAD.DWG
PLOT DATE: 6/27/2019 10:22 AM PLOTTED BY: GOLDTHWAIT, JAMES



PARTIAL FENCING WITH POLY SHEETING

NOT TO SCALE

DECONTAMINATION PAD ELEVATION B-B'

2 OF 2

FILE NAME: P:\HONEYWELL -SYR\451586 TONAWANDA COKE\10.0 TECHNICAL CATEGORIES\CAD\DECONPAD.DWG
PLOT DATE: 6/27/2019 10:38 AM PLOTTED BY: GOLDTHWAIT, JAMES

APPENDIX E

RUSMAR SPRAY FOAM SDS

SAFETY DATA SHEET

LONG DURATION FOAM AC-645

Section 1. Identification

GHS product identifier : LONG DURATION FOAM AC-645

Chemical name : Proprietary Surfactant.

Other means of identification : Aqueous anionic surfactant mixture.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Aqueous Surfactant. Spray application for VOC and Odor control.

Area of application : Industrial applications.

Supplier/Manufacturer : Rusmar, Inc.
216 Garfield Avenue
West Chester, PA 19380
Phone: 610-436-4314
Fax: 610-436-8436

e-mail address of person responsible for this SDS : info@rusmarinc.com
Website: www.rusmarinc.com

Emergency telephone number (with hours of operation) : 888 488 8044 or 212 682 1200
CHEMTREC 800 424 9300

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Chemical name : Proprietary Surfactant.

Other means of identification : Aqueous anionic surfactant mixture.

CAS number/other identifiers

CAS number : Not available.

Product code : Not available.

Ingredient name	Other names	%	CAS number
Proprietary Surfactant.	-	100	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Section 4. First aid measures

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Clear viscous liquid.]

Color : Translucent. White.

Odor : Odorless.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : 99°C (210.2°F)

Flash point : Not applicable.

Evaporation rate : Not available.

Flammability (solid, gas) : Not applicable.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : 3.3 kPa (25 mm Hg) [room temperature]

Vapor density : Not available.

Relative density : 1.01 to 1.06

Solubility : Easily soluble in the following materials: cold water and hot water.

Solubility in water : Easily soluble.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

SADT : Not available.

Viscosity : Not available.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid : Keep away from heat.

Incompatible materials : No specific data.

Hazardous decomposition products : Low levels of sulfur oxides on exposure to high temperatures (concentrate).

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Conclusion/Summary : Not expected.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Section 11. Toxicological information

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

United States

Section 12. Ecological information

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: Not determined.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

No products were found.

SARA 313

Not applicable.

State regulations

Massachusetts : This material is not listed.

New York : This material is not listed.

New Jersey : This material is not listed.

Pennsylvania : This material is not listed.

California Prop. 65

None of the components are listed.

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

United States

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	0
Flammability	0
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
Not classified.	

History

Date of issue/Date of revision : 05/28/2015

Date of previous issue : No previous validation

Version : 1

Prepared by : IHS

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Section 16. Other information

References : HCS (U.S.A.)- Hazard Communication Standard
International transport regulations

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

APPENDIX F

ASBESTOS INSPECTION REPORT

PARSONS

301 Plainfield Road, Suite 350 – Syracuse, New York 13212 – (315) 451-9560 – www.parsons.com

PRE-DEMOLITION BUILDING MATERIAL SAMPLING MEMORANDUM

March 11, 2019

TO: HONEYWELL TONAWANDA SITE

FROM: DAN DOUGLASS, Senior Scientist

SUBJECT: SAMPLING FOR ASBESTOS CONTENT IN BUILDING MATERIALS

Parsons conducted an asbestos survey of the small masonry pump house and piping associated with the aboveground storage tanks at Tonawanda Coke Corporation Site 108, 3800 River Road in the Town of Tonawanda, New York. The survey took place on February 28, 2019, by a NYSDOL-certified Asbestos Building Inspector.

The survey was completed in accordance with local, state and federal regulations, and conforms to sampling protocol detailed in the Asbestos Hazard Emergency Response Act (AHERA). Representative bulk samples of suspect-ACM were collected randomly from homogeneous surfaces. The number of samples collected was determined by the type and quantity of the material.

Laboratory services were provided by HSE Consulting Services, LLC, of Cicero, New York. HSE is accredited by the New York State Environmental Laboratory Approval Program (ELAP). Sample analysis was conducted using Polarized Light Microscopy with dispersion staining (PLM-DS) in accordance with the New York State ELAP 198.1 Method. Any building material that contains greater than one percent of asbestos is considered to be an ACM.

The pump house is a masonry block structure with a flat roof that appears to have been built in the 1940s or 1950s and is approximately 600 square feet. The building has a concrete floor and concrete panels on the ceiling. Nine suspect materials were sampled; each of the materials is considered ACM. Three additional materials were inaccessible and are Presumed ACM (PACM).

Building materials and pipe insulation determined to contain asbestos are:

- Gray window glazing found on windows; much of the material is cracked or broken and is in poor condition.

- Gray caulking on door and window frames – two similar, but separate materials, found around the perimeter of the metal door frames and the metal window frames. Materials are in poor condition.

- Pipe and fitting insulation – all pipe and fitting insulation at the building contains asbestos. Two types of black outer wrap / jacketing are ACM, as is the white, chalky, fibrous block insulation beneath the black covering. Gray, mudded fitting insulation is also ACM. ACM insulation is found on pipe sizes including 1-inch, 4-inch and 8-inch diameter lines, inside and outside the building. These materials are in poor condition.

- Debris of pipe and fitting insulation covered many surfaces in the building. Snow, ice and clutter prevented observation of the entire floor space, but ACM debris is estimated to be present on all interior surfaces; ACM debris may be present at the exterior but exterior surfaces were inaccessible under a covering of snow.

- Roofing and flashing materials are considered PACM. The roof was inaccessible on the day of the survey. It is believed to be constructed of built-up materials.

- Electric wire insulation was not sampled due to potential electrical hazard and is PACM.

- Gasket material is present on pumps and other equipment in the building. Gasket material was not accessible and any gasket at the building is PACM.

Materials that are considered non-suspect and were not sampled include brick, plastic and wood, in addition to other materials. Survey results are summarized on the following table; exterior quantities include piping at the exterior of the pump house, into the tank area to the south and on the overhead rack to the conveyor area to the northwest:

Material	Sample ID	Description / Location	Asbestos Content	For ACM only:	
				Condition, Friability	Approx. Quantity
Roofing materials	Inaccessible - presumed ACM	Built-up roofing and associated flashing	PACM	Unknown, Non-friable	600 SF
Electric wire insulation	Inaccessible - presumed ACM	Gray cloth material	PACM	Fair, Friable	Unknown
Gaskets	Inaccessible - presumed ACM	At pumps and other equipment	PACM	Fair, Non-friable	Unknown
Gray window glazing	HWT-WGZ-1-1 HWT-WGZ-1-2	Hard tan / gray material	1.2% Chrysotile	Poor, Non-friable	25 SF
Gray door caulk	HWT-DCK-2-1 HWT-DCK-2-2	Gray, at perimeter of door frames	12% Chrysotile	Poor, Non-friable	12 SF
Gray window caulk	HWT-WCK-3-1 HWT-WCK-3-2	Gray / tan, at perimeter of window frame	8.8% Chrysotile	Poor, Non-friable	14 SF
Pipe insulation on 1” and 2” lines	HWT-PI-4-1 HWT-PI-4-2 HWT-PI-4-3	Black cloth pipe jacket on pipes and fittings, smaller lines (over #5)	1.7% Amosite	Poor, Non-friable	Interior: 35 LF Exterior: 200 LF[a]
Pipe insulation on 1” and 2” lines	HWT-PI-5-1 HWT-PI-5-2 HWT-PI-5-3	White, chalky, fibrous material on smaller lines (under #4)	27% Amosite, Tr. Chrysotile	Poor, Friable	
Fitting insulation on 1” and 2” lines	HWT-FI-6-1 HWT-FI-6-2 HWT-FI-6-3	Gray, mudded material on all lines (under mtl. # 4 & #9)	5.6% Chrysotile	Poor, Friable	Interior: 28 each Exterior: 25 each
Pipe insulation on 4” and 8” lines	HWT-PI-7-1 HWT-PI-7-2 HWT-PI-7-3	Thick, black tar-paper-like outer layer over pipe and fitting ins., larger lines (over #8)	15% Chrysotile, 4.9% Amosite	Poor, Non-friable	Interior: 37 LF Exterior: 800 LF[a]
Pipe insulation on 4” and 8” lines	HWT-PI-8-1 HWT-PI-8-2 HWT-PI-8-3	White, chalky, fibrous material, larger lines (under #7)	29% Amosite, Tr. Chrysotile	Poor, Friable	
Fitting insulation on 4” and 8” lines	HWT-FI-9-1 HWT-FI-9-2 HWT-FI-9-3	Black tar-like wrap w/ chicken wire, larger lines (over #6)	13% Chrysotile, 4.3% Amosite	Poor, Non-friable	Interior: 9 each Exterior: 20 each
ACM debris	ACM	Debris from ACM pipe and fitting insulation	ACM	Poor, Friable	Interior: 600 SF Exterior: unknown

[a] Exterior quantities based on 150 feet distance between pump house and conveyor area via overhead rack; also 50 feet distance from pump house to tank area.
Condition: Fair is up to 10% localized damage or 25% distributed damage; Poor is >10 or >25%.
Tr indicates trace amount, <1%.
Condition, friability and quantity for inaccessible materials are estimated.

Photographs of the building materials are included with this report. A copy of the laboratory report for samples included in this document is attached, along with a copy of the NYSDOL certification of the laboratory, the building inspector certification and Parsons' corporate asbestos license.

Window glazing

Window caulk

Door caulk

Black cloth pipe wrap over white pipe and fitting insulation

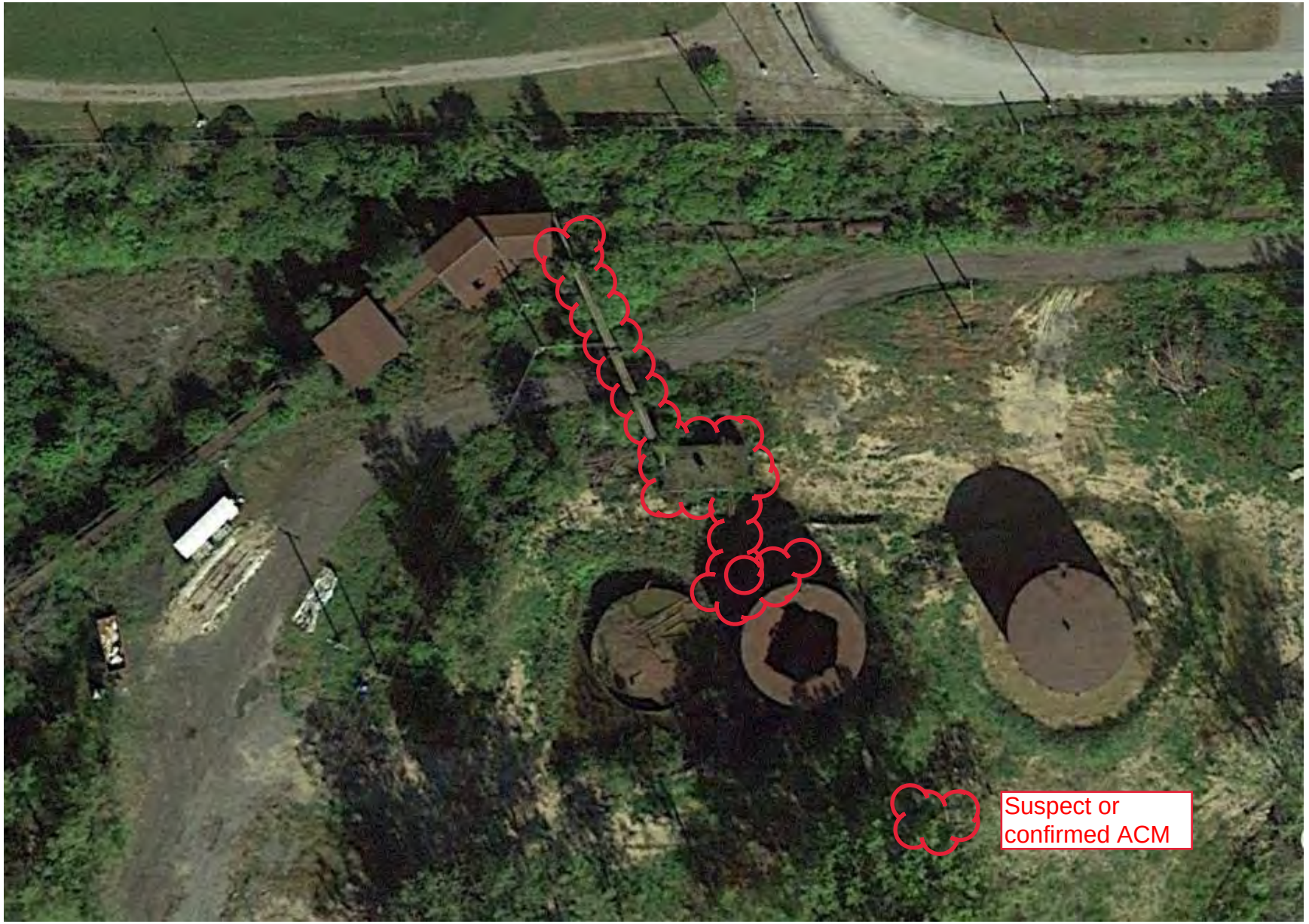
Black pipe wrap with wire (lower pipe) and tar-paper-like wrap on upper pipe

ACM pipe insulation debris on surfaces in many areas

ACM pipe and fitting insulation in poor condition near ceiling and at pump

PACM cloth wrap on electrical wiring

Exterior of building (at left) with ACM piping on overhead rack towards conveyor area


Suspect or
confirmed ACM

HSE Consulting Services, LLC

Air Quality
Asbestos / Lead / Mold
OSHA Compliance / Training
Environmental Services

ASBESTOS ANALYSIS REPORT

Non-Gravimetrically Reduced Samples

Analysis Method - NY State ELAP 198.1/EPA 600/M4/82/020

NYS DOH ELAP ID #11973

Parsons
301 Plainfield Road
Suite 350
Syracuse NY 13212

Attention: Mr. Dan Douglass

Tuesday, March 05, 2019

Batch Number: 9771
Date Received: 3/1/2019
Date Collected: 2/28/2019
Sampled By: Dan Douglass

Project # 451470.0571

Project Name: Tonawanda, NY, Site 108

Lab ID	Sample ID	Color	Total % Asbestos	% AM	% CH	% CR	% TM	% AC	% AN	% CE	% MW	% GW	% SY	% HH	% O	Other Type	%Non-Fibrous Material	Date Analyzed
82180	HWT-PI-5-1	White	27	27	<1.0												73	3/5/2019
82181	HWT-PI-5-2		SAFP															3/5/2019
82182	HWT-PI-5-3		SAFP															3/5/2019
82183	HWT-FI-6-2	Gray	5.6		5.6						34						60.4	3/5/2019
82184	HWT-FI-6-3		SAFP															3/5/2019
82185	HWT-PI-8-1	White	29	29	<1.0												71	3/5/2019
82186	HWT-PI-8-2		SAFP															3/5/2019
82187	HWT-PI-8-3		SAFP															3/5/2019

Reviewed and Approved By (and for questions regarding this report): _____

Douglas L. Gee, Technical Director

Abbreviations:

AM - Amosite
CH - Chrysotile
CR - Crocidolite
TM - Tremolite
AC - Actinolite
AN - Anthophyllite
CE - Cellulose
MW - Mineral Wool
GW - Glass Wool
SY - Synthetic
HH - Horse Hair
O - Other
TR - Trace asbestos detected at <1%
NAD- No Asbestos Detected
SAFP - Stop at First Positive (not analyzed)
N/A - Not Applicable
NA - Not Available
*Insufficient Sample for Analysis

HSE Consulting Services, LLC did not participate in the collection of the samples contained in this report, therefore, any information pertaining to the collection is based on information provided by the person submitting them. The results pertain only to the samples in this report.

8636 Brewerton Road
Cicero, New York 13039

Ph # (315) 698-1438
Fax # (315) 698-1441
www.hseconsultingservices.com

Air Quality
Asbestos / Lead / Mold
OSHA Compliance / Training
Environmental Services

ASBESTOS ANALYSIS REPORT
Gravimetrically Reduced Samples
Non-Friable Organically Bound Material

PLM Analysis Method - NY State ELAP 198.6/EPA 600/M4/82/020

NYS DOH ELAP ID #11973

Parsons
301 Plainfield Road
Suite 350
Syracuse NY 13212
Attention: Mr. Dan Douglass

Tuesday, March 05, 2019

Batch Number: 9772
Date Received: 3/1/2019
Date Collected: 2/28/2019
Sampled By: Dan Douglass

Project # 451470.0571
Project Name: Tonawanda, NY, Site 108

Lab ID	Sample ID	Color	% Residue	PLM ANALYSIS						TEM ANALYSIS						Total % Asbestos	Date Analyzed
				%	Type	%	Type	%	Type	%	Type	%	Type	%	Type		
82188	HWT-WGZ-1-1	Tan	2.9	1.2	CH					N/A						1.2	3/4/2019
82189	HWT-WGZ-1-2	Gray	2.7	SAFP						SAFP						SAFP	3/4/2019
82190	HWT-DCK-2-1	Gray	37.1	12	CH					N/A						12	3/4/2019
82191	HWT-DCK-2-2	Gray	36.9	SAFP						SAFP						SAFP	3/4/2019
82192	HWT-WCK-3-1	Gray/Tan	32.8	8.8	CH					N/A						8.8	3/4/2019
82193	HWT-WCK-3-2	Gray/Tan	32.5	SAFP						SAFP						SAFP	3/4/2019
82194	HWT-PI-4-1	Black	2.5	1.7	AM					N/A						1.7	3/4/2019
82195	HWT-PI-4-2	Black	10.2	SAFP						SAFP						SAFP	3/4/2019
82196	HWT-PI-4-3	Black	11.5	SAFP						SAFP						SAFP	3/4/2019
82197	HWT-FI-6-1	Black	54.3	18	CH					N/A						18	3/4/2019
82198	HWT-PI-7-1	Black	34.4	15	CH	4.9	AM			N/A						20	3/4/2019

Abbreviations:

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TM - Tremolite
AC - Actinolite
AN - Anthophyllite

N/A - Not Applicable
NA - Not Available
NAD - No Asbestos Detected
SAFP - Stop at First Positive (not analyzed)
NR - Not Required
<1.0% Residue Remaining

TR - Trace asbestos detected at less than 1%
*Insuffient sample for analysis **(Samples not analyzed must not be interpreted as being non-ACM)**
** - Inconclusive, No Asbestos Detected **(Samples with inconclusive results must not be interpreted as being non-ACM)**

***TEM analysis not performed per client's request. (Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-ACM.

NOTE: HSE Consulting Services, LLC did not participate in the collection of the samples contained in this report, therefore, any information pertaining to the collection is based on information provided by the person submitting them. The results pertain only to the samples in this report.

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HSE Consulting Services, LLC

Air Quality
Asbestos / Lead / Mold
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ASBESTOS ANALYSIS REPORT
Gravimetrically Reduced Samples
Non-Friable Organically Bound Material

PLM Analysis Method - NY State ELAP 198.6/EPA 600/M4/82/020

NYS DOH ELAP ID #11973

Parsons
301 Plainfield Road
Suite 350
Syracuse NY 13212
Attention: Mr. Dan Douglass

Tuesday, March 05, 2019

Batch Number: 9772
Date Received: 3/1/2019
Date Collected: 2/28/2019
Sampled By: Dan Douglass

Project # 451470.0571
Project Name: Tonawanda, NY, Site 108

Lab ID	Sample ID	Color	% Residue	PLM ANALYSIS						TEM ANALYSIS						Total % Asbestos	Date Analyzed
				%	Type	%	Type	%	Type	%	Type	%	Type	%	Type		
82199	HWT-PI-7-2	Black	35.9	SAFP						SAFP						SAFP	3/4/2019
82200	HWT-PI-7-3	Black	35.3	SAFP						SAFP						SAFP	3/4/2019
82201	HWT-FI-9-1	Black	29.9	13	CH	4.3	AM			N/A						17	3/4/2019
82202	HWT-FI-9-2	Black	18.9	SAFP						SAFP						SAFP	3/4/2019
82203	HWT-FI-9-3	Black	33.2	SAFP						SAFP						SAFP	3/4/2019

Reviewed and Approved By (and for questions regarding this report): _____

Douglas L. Gee, Technical Director

Abbreviations:

AM - Amosite
CH - Chrysotile
CR - Crocidolite
TM - Tremolite
AC - Actinolite
AN - Anthophyllite

N/A - Not Applicable
NA - Not Available
NAD - No Asbestos Detected
SAFP - Stop at First Positive (not analyzed)
NR - Not Required
<1.0% Residue Remaining

TR - Trace asbestos detected at less than 1%
*Insuffient sample for analysis **(Samples not analyzed must not be interpreted as being non-ACM)**
** - Inconclusive, No Asbestos Detected **(Samples with inconclusive results must not be interpreted as being non-ACM)**
***TEM analysis not performed per client's request. (Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-ACM.

NOTE: HSE Consulting Services, LLC did not participate in the collection of the samples contained in this report, therefore, any information pertaining to the collection is based on information provided by the person submitting them. The results pertain only to the samples in this report.

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Cicero, New York 13039

Ph # (315) 698-1438
Fax # (315) 698-1441
www.hseconsultingservices.com

Batch #9771 - 82180 - 82187 (198.1)
9772 - 82188 - 82203 (198.6)

HSE
8636 Brewerton Road
Cicero, NY 13039
315.698.1438

Chain Of Custody / Analysis Request

COC #:
Lab Use Only

Privileged & Confidential

Site Name: Tonawanda, NY, Site 108

Client Contact: (name, co., address)
Parsons
Dan Douglass (315-345-7974)
301 Plainfield Rd. Suite 350
Syracuse, NY 13212
dan.douglass@parsons.com

Sampler: D Douglass
P O #: 451470.0571

Job No: 451470.0571

Hardcopy Report To: Dan Douglass
Invoice To: Dan Douglass

Stop at 1st positive. 5 day TAT.

	Asbestos Bulk Sample Identification		Sample Date	Sample Description	Sample Type	Preservative														PLM / TEM	
	Field Sample ID					0	0	0	0	0	0	0	0	0	0	0					
1	HWT-WGZ-1-1	198.6	2/28/2019	Gray window glazing	Bulk															X	82188
2	HWT-WGZ-1-2		2/28/2019	Gray window glazing	Bulk															X	82189
3	HWT-DCK-2-1		2/28/2019	Gray door caulk	Bulk															X	82190
4	HWT-DCK-2-2		2/28/2019	Gray door caulk	Bulk															X	82191
5	HWT-WCK-3-1		2/28/2019	Gray window caulk	Bulk															X	82192
6	HWT-WCK-3-2		2/28/2019	Gray window caulk	Bulk															X	82193
7	HWT-PI-4-1		2/28/2019	Black pipe cloth wrap	Bulk															X	82194
8	HWT-PI-4-2		2/28/2019	Black pipe cloth wrap	Bulk															X	82195
9	HWT-PI-4-3		2/28/2019	Black pipe cloth wrap	Bulk															X	82196
10	HWT-PI-5-1	198.1	2/28/2019	Off-white chalky pipe insulation	Bulk															X	82180
11	HWT-PI-5-2		2/28/2019	Off-white chalky pipe insulation	Bulk															X	82181
12	HWT-PI-5-3		2/28/2019	Off-white chalky pipe insulation	Bulk															X	82182
13	HWT-FI-6-1	198.6	2/28/2019	Gray mud fitting insulation	Bulk															X	82197
14	HWT-FI-6-2	198.1	2/28/2019	Gray mud fitting insulation	Bulk															X	82183
15	HWT-FI-6-3		2/28/2019	Gray mud fitting insulation	Bulk															X	82184
16	HWT-PI-7-1	198.6	2/28/2019	Black tar / paper pipe layer	Bulk															X	82198
17	HWT-PI-7-2		2/28/2019	Black tar / paper pipe layer	Bulk															X	82199
18	HWT-PI-7-3		2/28/2019	Black tar / paper pipe layer	Bulk															X	82200
19	HWT-PI-8-1	198.1	2/28/2019	White, chalky pipe insulation	Bulk															X	82185
20	HWT-PI-8-2		2/28/2019	White, chalky pipe insulation	Bulk															X	82186
21	HWT-PI-8-3		2/28/2019	White, chalky pipe insulation	Bulk															X	82187
22	HWT-FI-9-1	198.6	2/28/2019	Black tar-like fitting layer	Bulk															X	82201
23	HWT-FI-9-2		2/28/2019	Black tar-like fitting layer	Bulk															X	82202
24	HWT-FI-9-3		2/28/2019	Black tar-like fitting layer	Bulk															X	82203

	Company	Parsons	Received by:	Company		Condition	Custody Seals Intact
	Date/Time			Date/Time		Cooler Temp.	
Relinquished by	Company		Received by	Company		Condition	Custody Seals Intact
	Date/Time 3/1/19 1125		Khaliyah Flowers	Date/Time	3/1/19 1125	Cooler Temp.	

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2019
Issued April 01, 2018

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. BRIAN C. KING
HSE CONSULTING SERVICES, LLC
8636 BREWERTON ROAD
CICERO, NY 13039

NY Lab Id No: 11973

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)

Serial No.: 58069

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Parsons Engineering Of New York, Inc.
Attn: Licensing
4701 Hedgemore Drive

Charlotte, NC 28209

FILE NUMBER: 00-0769
LICENSE NUMBER: 29234
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 05/31/2018
EXPIRATION DATE: 05/31/2019

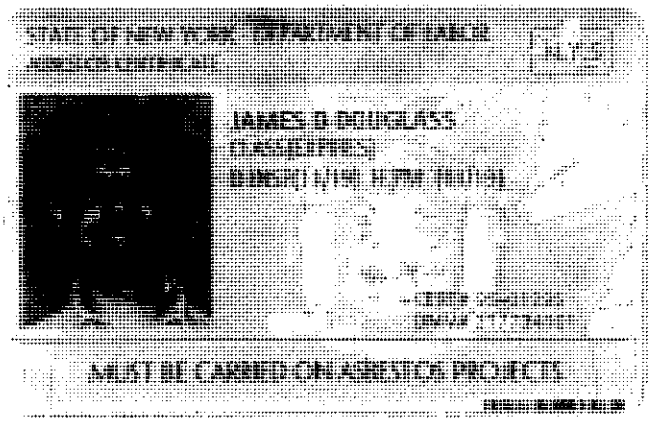
Duly Authorized Representative – Thomas H Abrams:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)



EYES BLU
HAIR BRO
HGT 6' 00"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

APPENDIX G

TOWN OF TONAWANDA INDUSTRIAL SEWER CONNECTION APPLICATION AND PERMIT

Permit No. 711

TOWN OF TONAWANDA

INDUSTRIAL SEWER CONNECTION PERMIT

Company Name: Honeywell
Division Name (if Applicable)

Mailing Address: 115 Tabor Rd.
Street or P.O. Box
Morris Plains, NJ 07590
City, State and Zip Code

Facility Address: 3800 River Rd.
Street or P.O. Box
Tonawanda, New York 14150
City, State and Zip Code

The above Industrial User is authorized to discharge industrial wastewater to the Town of Tonawanda sewer system in compliance with the Town's Sewer Use Ordinance Number 2-2000, any applicable provisions of Federal or State law or regulation, and in accordance with discharge point(s), effluent limitations, monitoring requirements, and other conditions set forth herein.

This permit is granted in accordance with the application filed on February 19, 2019 in the office of the Pretreatment Administrator, and in conformity with plans, specifications, and other data submitted to the Town in support of the above application.

Effective Date: 5/15/2019

Expiration Date: 5/14/2022

Permit No. 711

Date: 5/13/19 Signed: Paul Morrow

Paul Morrow
Town of Tonawanda
Pretreatment Coordinator

Permit No. 711

Modified Date:

WASTEWATER STREAMS AUTHORIZED FOR DISCHARGE

WASTEWATER STREAM	APPROXIMATE FLOW(GPD)	YES	NO
A. Sanitary Discharge			
B. Cooling Water			
C. Boiler Blowdown			
D. Process Wastewater			
E. Stormwater	**100 GPM or less**	**x**	
F. Other			

PART 1 - WASTEWATER DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

A. **LOCALLY DERIVED LIMITATIONS**

The industrial user shall comply with the following locally derived effluent limitations effective as of: ***5/15/19***

MONITORING LOCATION: Bermed Area around tanks

SAMPLE TYPE: Grab from bermed area(s) around above ground tanks

PARAMETERS	SAMPLE FREQUENCY	LIMIT	PURPOSE
Priority Pollutants less Asbestos and Dioxin	Annually	*	Monitoring/Compliance
Oil and Grease	"	300 mg/l	Compliance
Ammonia	"		Monitoring
Total Phosphorus	"	6 mg/l	Surcharge
BOD	"	250 mg/l	"
TSS	"	250 mg/l	"
pH	Once per Discharge	5.0-9.5	Compliance
Flow	Monthly		

*Limits may apply depending on parameter. See Town Sewer Use Ordinance

Note: The complete list of discharge limitations for dischargers to the Town Treatment Plant is contained in the Town's Local Law 2-2000. On the basis of the application and previous monitoring, parameters deemed applicable to this discharge have been excerpted and their limitations included above. The discharger should be aware that all other limitations apply and should consider all such limitations when considering process changes or plant modifications.

PART II - SPECIAL CONDITIONS/COMPLIANCE SCHEDULE

1. *There is no sanitary discharge manhole at 3800 River Road, Tonawanda. Permittee plans on discharging to a manhole on an adjoining property. It is the responsibility of the permittee to obtain permission from the property owner of the adjoining property to discharge to this manhole.*

PART III - REPORTING REQUIREMENTS

1. *All Industries requiring submittal of self-monitoring reports (SMR's) must submit all laboratory results on all discharged samples. If a lab analysis was performed using an EPA approved test method, then those results must be included in the SMR.*
   Persons signing SMR's must be a responsible company official, ie; owner, corporate manager, or supervise more than two hundred fifty (250) employees. Any of the above may appoint a company representative to sign SMR's but written notice must be supplied to this office authorizing said employee to sign.

The following statement will be required on all SMR's and baseline monitoring reports (BMR):

" I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violation."

2. *If an Industrial User knows in advance of the need for a bypass, it shall submit prior notice to the Town, if possible at least ten days before the date of the bypass. An Industrial User shall submit oral notice of an unanticipated bypass or slug discharge that exceeds applicable Pretreatment Standards to the Town within 24 hours from the time the Industrial User becomes aware of the bypass or slug discharge. A written submission shall also be provided within 5 days of the time the Industrial User becomes aware of the bypass or slug discharge. The written submission shall contain a description of the bypass or slug discharge and its cause; the duration of the bypass/ slug discharge , including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass/ slug discharge. The Town may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.*

3. *The Industrial User shall notify the Town 30 days prior to the introduction of new wastewater or pollutants or any substantial change in the volume or characteristics of the wastewater being introduced into the POTW from the User's industrial processes. The Industrial User Is required to notify the Town immediately of any changes to its facility affecting it potential for slug discharge.*

4. *Any upset experienced by the Industrial User of its treatment that places it in a temporary state of non-compliance with wastewater discharge limitations contained in this permit or other limitations specified in the Town's Ordinance shall be reported to the Town within 24 hours of first awareness of the commencement of the upset. Immediate resampling for the non-compliance pollutant shall begin. A detailed report shall be filed within 5 days.*

5. *The Industrial User is required to submit to the Town reports on the results of its sampling of the pollutants specified in Part I of this Permit. This report shall also contain monthly flows.*

6. *Analytical procedures must be performed in accordance with 40 CFR Part 136. Additional pollutants not contained in Part 136 must be performed using validated analytical methods approved by EPA (40 CFR 403.12 [g] [4]).*

7. *All self-monitoring reports shall be submitted to the following address by the 25th day of the month following the reporting period:*

Paul Morrow, Pretreatment Coordinator
Wastewater Treatment Facility
Two Mile Creek Road
Tonawanda, New York 14150

PART IV - STANDARD CONDITIONS

1. *The Industrial User shall comply with all the general prohibitive discharge standards in Article IV of the Local Law 2-2000.*

   a. *BOD 250 mg/l, SS 250 mg/l, P 6 mg/l are not to be construed as discharge limits of the above pollutants but as a baseline for generating abnormal sewer charges. Permitees that sample more frequently than required for surchargeable parameters and have a greater then 30% variation in flow per reportable day will have a flow averaged used for surcharge calculation.*

2. RIGHT OF ENTRY

The Industrial User shall, after reasonable notification by the Town, allow the Town or its representatives, exhibiting proper credentials and identification, to enter upon the premises of the User, at all reasonable hours, for the purposes of inspection, sampling, or records inspection. Reasonable hours in the context of inspection and sampling includes any time the Industrial User is operating any process which results in a process wastewater discharge to the Town's sewerage system.

3. RECORDS RETENTION

The Industrial User shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence and all summaries thereof, relating to monitoring, sampling and chemical analysis made by or in behalf of the User in connection with its discharge.

a) *All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the Town shall be retained and preserved by the Industrial User until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.*

4. CONFIDENTIAL INFORMATION

Except for data determined to be confidential under Article VII, Section 4 of the Town's Ordinance, all reports required by this permit shall be available for public inspection at the office of the Pretreatment Coordinator, Wastewater Treatment Facility, Two Mile Creek Road, Tonawanda, New York 14150.

5. RECORDING OF RESULTS

For each measurement or sample taken pursuant to the requirements of this permit, the user shall record the following information:

a) *The exact place, date and time of sampling;*
b) *The dates the analyses were performed;*
c) *The person(s) who performed the analyses;*
d) *The analytical techniques or methods used, and*
e) *The results of all required analyses.*
f) Where sanitary sewer discharge is measured by a mechanical or electronic device, accuracy of device shall be certified correct every year.
g) Where sanitary sewer discharge is measured as consumed water, the water meter must be certified as per the following schedule: meter size 5/8 to 1 inch every ten years, meter size 1 inch to 4 inch every five years, and meter size 4 inches and larger every year.

6. DILUTION

No Industrial User shall increase the use of potable or process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit

7. PROPER DISPOSAL OF PRETREATMENT SLUDGES AND SPENT CHEMICALS

The disposal of sludges and spent chemicals generated shall be done in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

8. TOXIC SUBSTANCES

All waters shall be maintained free of toxic substances in concentrations that are toxic to or produce detrimental physiological responses in human, plant, animal, or aquatic life.

9. SIGNATORY REQUIREMENTS

All reports required by this permit shall be signed by a principal executive officer of the User, or his designee.

10. REVOCATION OF PERMIT

The permit issued to the Industrial User by the Town may be revoked when after inspection, monitoring or analysis it is determined that the discharge of wastewater to the sanitary sewer is in violation of Federal, State, or local laws, ordinances, or regulations. Additionally, falsification or intentional misrepresentation of data or statements pertaining to the permit application or any other required reporting form, shall be cause for permit revocation.

11. LIMITATIONS ON PERMIT TRANSFER

Transfer of permit. Industrial waste permits are issued to a specific user for a specific operation. In the event of any change in ownership of the industrial facility, the permittee shall notify the new owner of the existence of the permit by letter, a copy of which shall be forwarded to the Pretreatment Administrator 30 days prior to change of ownership. A new industrial waste permit must be issued to the new owner.

12. FALSIFYING INFORMATION OR TAMPERING WITH MONITORING EQUIPMENT

Knowingly making any false statement on any report or other document required by this permit or knowingly rendered any monitoring device or method inaccurate, may result in punishment under the criminal law of the Town, as well as being subjected to civil penalties and relief.

13. MODIFICATION OR REVISION OF THE PERMIT

a) *The terms and conditions of this permit may be subject to modification by the Town at any time as limitations or requirements as identified the Town's Ordinance, are modified or other just cause exists.*
b) *This permit may also be modified to incorporate special conditions resulting from the issuance of a special order.*
c) *The terms and conditions may be modified as a result of EPA promulgating a new federal Pretreatment standard.*
d) *Any permit modifications which result in new conditions in the permit shall include a reasonable time schedule for compliance if necessary.*

14. DUTY TO REAPPLY

The Town shall notify a User sixty (60) days prior to the expiration of the User's Permit. Within thirty (30) days of the notification, the User shall reapply for re- issuance of the permit on a form provided by the Town.

15. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

16. LIMITATIONS

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of Federal, State or Local regulations.

17. ENFORCEMENT OF THE SEWER USE LAW AND PERMITS

The Town has developed and received USEPA approval of its Enforcement Response Plan which details the standard responses to be taken by the Town when it encounters various violations of the Sewer Use Law or the terms of this permit. Copies of this document are available at the office of the Pretreatment Administrator. Town of Tonawanda Sewer Use Ordinance 2-2000 Article VI 165-33 allows for punitive Administrative fines of up to $5,000 per day. The Town of Tonawanda may also maintain an action or proceeding in the name of the Town of Tonawanda in a court of competent jurisdiction for injunctive relief of any violation Article 6 of the Town Sewer Use Ordinance 2-2000

FOR OFFICE USE ONLY
Date Application Rec'd._____
Industrial Number:_____
Investigator:_____

TOWN OF TONAWANDA INDUSTRIAL PRETREATMENT PROGRAM
PART A - GENERAL INFORMATION/PERMIT APPLICATION
INDUSTRIAL WASTE QUESTIONNAIRE

A1. Applicant Business Name Honeywell

A2. Address of premises discharging wastewater:

3800 RIVER ROAD, TONAWANDA, NY, 14150

Street City Zip

A3a. Business Address (if different than above):

115 Tabor Road Morris Plains NJ 07950

Street City Zip

b. Mailing Address (if different than above):

Street City Zip

A4. Chief Business Official:

Name: Steve Coladonato Title: Remediation Manager

A5. Facility Representative:

Name: Steve Coladonato Title: Remediation Manager Phone: 302-791-6738
Email: steven.coladonato@honeywell.com Fax: Cell Phone: 973-216-2438

A6. Person to be contacted about this application, if different than above:

Name: Jeffrey Poulsen Title: Site Manager Phone:
Email: jeffrey.poulsen@parsons.com Fax: Cell Phone:716-432-7685

A7. Person to be contacted in case of emergency, if different than above:

Name: Day Phone: Cell Phone:

A8. Confidentiality:
Please indicate those sections of this questionnaire that you wish to remain confidential and your basis for requesting confidentiality.

I have personally examined and am familiar with the information submitted in this document and attachments. Based upon my inquiry of those individuals immediately responsible for obtaining the information reported herein, I believe that the submitted information is true, accurate and complete. I am aware there are significant penalties for submitting false information.

Date Signature of Official (Seal if Applicable)

PART B - BUSINESS DESCRIPTION

PURPOSE - The business description is primarily used to determine the substance which may enter into the wastewater discharge from the business activity.

B1. Brief Description: Requesting to discharge collected rain water from within the bermed area of three out-of-service ASTs to maintain necessary free board. Tanks contain solidified tar-like material. Water within the berms may be in contact with the tar. Attached analytical data represents quality of water proposed to be discharged. Discharge would be batch and would generally correlate to times of precipitation. Flow rates would not exceed 100 GPM.

B2. Business Activity: Standard Industrial Classification (SIC) Codes for Principal Products or Services:

Activity	SIC Code (4 Digits)	Production (Monthly Avg.)*
NA		

B3 Is there an Oil/Water Separator installed at your place of business? Yes _____ No X

If yes, please provide the following information: Holding capacity : _____

How often is it cleaned? _____

If yes, are the records of cleaning kept at your place of business? Yes _____ No _____

B4 Is there a grease interceptor (trap) installed at your place of business ? Yes _____ No X

If yes, please provide the following information: Holding capacity : _____

How often is it cleaned? _____

If yes, are the records of cleaning kept at your place of business? Yes_____ No _____

B5 Is there a garbage grinder (disposal) installed at your place of business? Yes _____ No X

B6 On average, how many gallons of fresh water are you billed for each month? Gallons NA

B7 Average number of employees per shift: 1st NA 2nd _____ 3rd _____

Shift start times: 1st _____ 2nd _____ 3rd _____

Shift end times: 1st _____ 2nd _____ 3rd _____

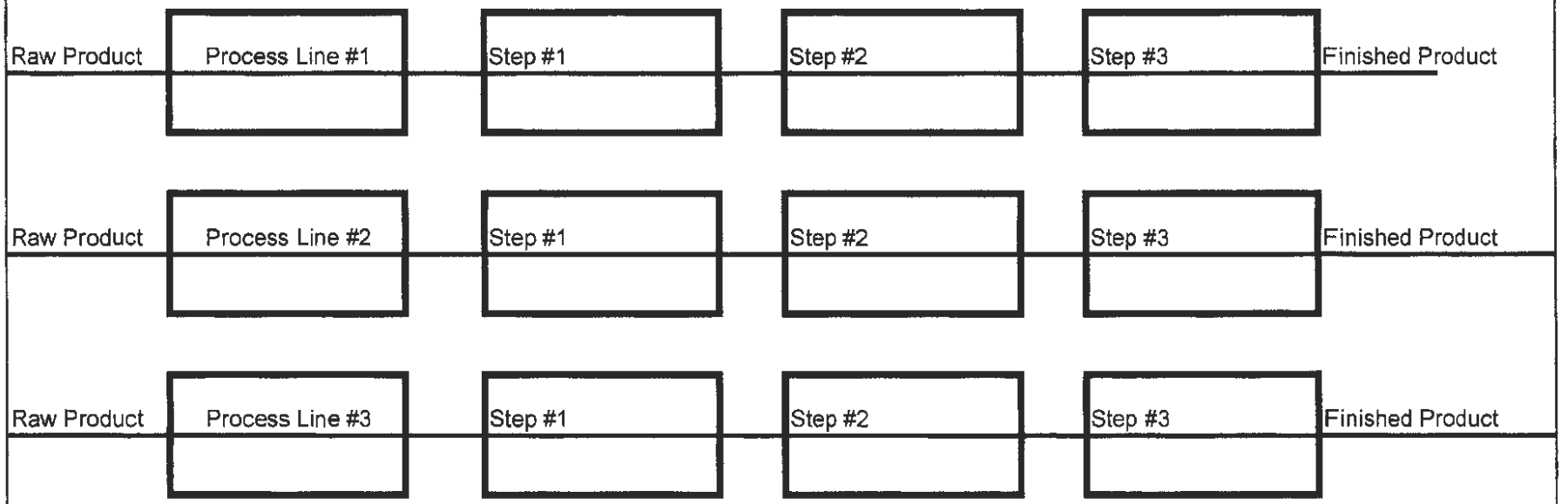
Shifts normally worked each day:

	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
1st							
2nd							
3rd							

Is there a scheduled shutdown? Yes _____ No____ If yes, explain when? _____

Process Description Diagram For Permit Application

Company_____



USE ADDITIONAL DIAGRAMS IF NECESSARY

PART C - WATER SOURCE AND USE

PURPOSE -The Water Source and Use Information will enable us to determine the volumes and sources of wastewater discharged to the Town of Tonawanda sewer.

WATER/WASTEWATER DATA **(PLEASE NOTE: YOU MAY WANT TO COMPLETE PART (F) FIRST TO ASSIST YOU IN COMPLETING THE FOLLOWING.)**

C1. Water Sources

	Average Volume (Gallons per Day)	Peak flow? Estimated Duration (Gallons per Minute/Time)
Municipal System		
Recycled		
Private Wells		
Other (Specify)____		
Water Account No.(s)		

C2. Water Usage

	Average Volume (Gallons per Day)	Peak Flow/Estimated Duration (Gallons per Minute/Time)
Cooling Water		
Boiler Makeup		
Process Water		
Sanitary Purposes		
Other (Specify)____		

C3. Waste Water Discharge

	Average Discharge (Gallons per Day)	Peak Discharge/Estimated Duration (Gallons per Minute/time)
Municipal Sewer/Sanitary		
- Process		
- Sanitary		
- Cooling		

Non-Sewered Discharges

- Natural Receiving Water _____
- Storm Drain
- Waste Hauler
- Evaporation
- Contained in Product
- Recycled
- Other (Specify_____

C4. Is your facility permitted to discharge Liquid wastes under a State (S.P.D.E.S.) Permit?

Yes _____ No __X__ Permit No._____

If the answer to the above is yes, then in accordance with the Town Sewer Use Ordinance, a current copy of this Permit must be kept on file at the Pretreatment Coordinators office.

Does your facility have a wastewater discharge from any air pollution control equipment?

Yes _____ No __X__

C5. If the answer to the above is yes please describe process and nature of discharge:

PART D - SUBSTANCES OF CONCERN

(Refer to Attached table 1)

Complete all information for those substances your facility has used, produced, stored, distributed, listed under the TRI report or otherwise disposed of since last application. Do not include chemicals used in analytical laboratory work. Enter the name and code from Table 1. If facility uses a substance in any of the Classes A-M which is not specified in the list, enter it as code class plus 99, e.g. 899 with name, usage, etc.

Name of Substance	Class	Average Annual Usage	Amount Now on Hand	Purpose of Use (State whether produced, reacted, blended, packaged, distributed, no longer used)
Coal tar in storage tanks	E01	NA	~380,000 Gallons	Product storage

If you use chemicals of unknown composition, list trade name or other identification, name of supplier and complete information.

Name of Substance	Class	Average Annual Usage	Amount Now on Hand	Purpose of Use (State whether produced, reacted, blended, packaged, distributed, no longer used)
NA				

Are you presently permitted to discharge radiological waste by the N.Y.S.D.E.C? Yes ____ No X

PART E

E1. Do you have automatic sampling equipment or continuous wastewater flow monitoring equipment currently in use or included in future plans?

Current: Flow Metering Yes ____ No X Sampling Equipment Yes ____ No X

Planned: Flow Metering Yes ____ No X Sampling Equipment Yes ____ No X

E2. Does your facility pretreat any wastewater prior to discharge to a sanitary sewer? Yes ____ No X

If so, please show locations of pretreatment processes on attached schematic process diagram and describe below:

_____

_____

_____

E3. Do you have a spill prevention, containment and control plan (SPCC) for your plant? Yes ____ No X

E4. Do you have a Solvent Management Plan or a Toxic Organic Management Plan? Yes ____ No X

E5. Do you generate any liquid or solid waste such as solvents, electroplating sludges, thinners, oils, still bottoms, fly ash, filler, or any other listed (F,K,P,U,D) waste? Yes ____ No X. If yes, please fill out the following table:

Type of Waste	If this waste is produced by pretreatment check here	Amount per year (Specify lbs., Tons or Gals)	Method of Disposal Check Each method Used)				
			On-Site	Sanitary Landfill	Hazardous Waste facility	Reclaimed or Reused	Other

E6. Description of Disposal Method:

a. Disposal Site

b. Hazardous Waste Hauler - Please give name and address

c. Reclaimed or Reused - Please describe process, if on-site, or give name and address of reclaimer

d. Other - Please describe

E7. Do you store any Hazardous wastes on-site? Yes ____ No X

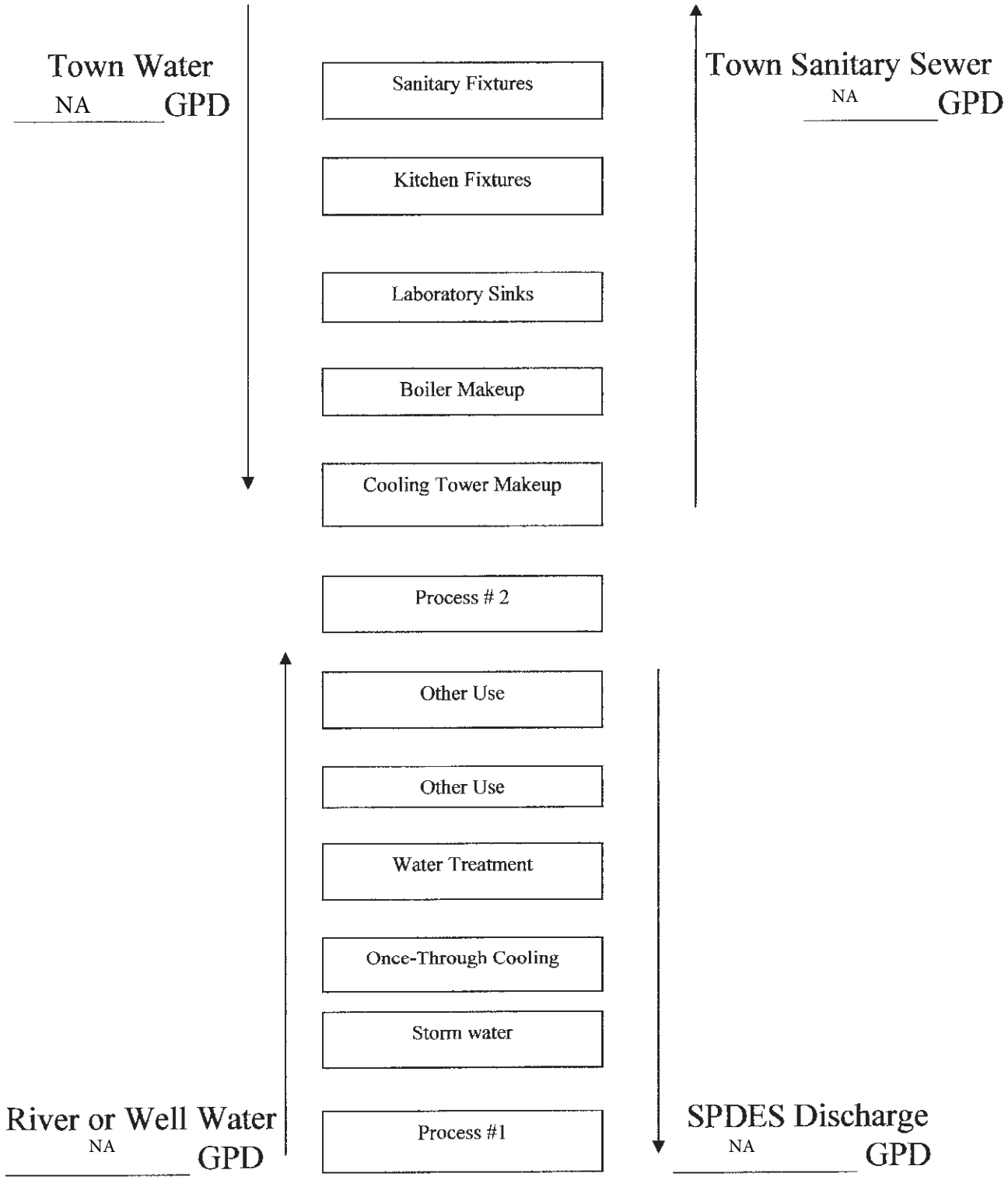
E8. Have you filed an EPA form 8700-12 (Notification of Hazardous Waste Activity? Yes ____ No X
If yes, please attach.

E9. What is your Hazardous Waste Number? NA

E10. Do you discharge into the Town of Tonawanda Wastewater Plant a waste identified by 40 cfr 261 a hazardous waste?
Yes ____ No X

E11. If your facility is discharging a hazardous waste, have you properly notified the Town of Tonawanda Wastewater Plant?
Yes ____ No ____

PART - F WATER BALANCE DIAGRAM



INSTRUCTIONS
FOR COMPLETING WATER BALANCE DIAGRAM

This diagram is for use in reconciling the amounts of Town water purchased with the amount of water discharged to the sewer system. Please complete the following:

1. Look up the amount of water purchased per month from the Town. Calculate the average monthly usage and divide it by the average number of production days per month. Enter the average daily Town water purchase at the top left of the diagram. All amounts should be inserted in US gallons per day.

2. Draw lines connecting the city water line to those areas within your facility where city water is used. Enter the approximate gallons per day used in each area. For sanitary use, a number of 20-25 gallons per day per employee is considered reasonable. For kitchen or cafeteria use, another 5-10 gallon per day would be reasonable.

3. Draw lines connecting the right side of each box using town water to show the wastewater discharged to the Town sewer. Unless water is lost to evaporation etc., the amount into the box would equal the amount out of the box. For boiler and cooling tower use, subtract the amount lost to evaporation, and enter the difference.

4. At the bottom left, enter the average daily amount of river or well water used in your facility.

5. Draw lines connecting the well or river water supply to those uses in your facility where well or river water is used, and enter the average daily amount used in the box

6. Draw lines connecting the right side of each box to either the Town sewer or to the SPDES discharge line to show where the wastewater is routed.

7. For each use, enter the approximate volume discharged to the SPDES outfall. Again, unless there is an evaporative loss, the amount leaving should equal the amount entering each box

8. If you have other uses than those shown, describe that use in the box labeled "Other" and connect the lines as appropriate

9, Enter the peak daily amount of storm water runoff that is discharged from your facility and enter that value. Route the storm water discharge to the appropriate discharge point.

10. In the lower right hand corner, insert the total daily flow discharged through your SPDES outfall.

Please call Paul Morrow at 716- 693-4900 if you have questions. The Questionnaire and Diagram may be faxed to my office at 716- 743-8911.

Table 1

Substances of Concern

Class A – HALOGENATED	C12. Kelthane	CLASS G – MISCELLANEOUS
Hydrocarbons	C13. Diazinon	
	C15. Carbaryl	G01. Asbestos
A01. Methyl Chloride	C16. Silvex	G02. Acrolein
A02. Methylene Chloride	C17. Dithlocarbamates	G03. Acrylonitrile
A03. Chloroform	C18. Maneb	G04. Isophorone
A04. Carbon Tertrachloride	C19. Dioxathion	G05. Nitrosamines
A05. Freon/Genatron	C20. Tandex/Karbutilate	G06. Ethyleneimine
A06. Other Halomethanes	C21. Carbofurans	G07. Propiolacetone
A07. 1,1,1-Trichloroethane	C22. Pentac	G08. Nitrosodimethylamine
A08. Other Haloethanes	C23. Folpet	G09. Dimethyl Hydrazine
A09. Vinyl Fluoride	C24. Dichlone	G10. Maleic Anhydride
A10. Vinyl Chloride	C25. Rotenone	G11. Methyl Isocyanate
A11. Dichloroethylene	C26. Lindane/Isotox	G12. Epoxides
A12. Trichloroehtylene	C27. Simazine	G13. NitroFurans
A13. Tetrachloroethylene	C28. Methoprene	G14. Cyanide
A14. Chlorinated Propane	C99. Pesticides not specified above	
A15. Chlorinated Propene		CLASS M – METALS AND THEIR COMPOUNDS
A16. Hexachlorobutadiene	CLASS D – AROMATIC HYDROCARBONS	
A17. Hexachlorocyclopentadiene		M01. Antimony
A18. Chlorinated Benzene	D01. Benzene	M02. Arsenic
A19. Chlorinated Toluene	D02. Toluene	M03. Beryllium
A20. Fluorinated Toluene	D03. Xylene	M04. Cadmium
A21. Polychlorinated Biphenyl (PCB)	D04. Biphenyl	M05 Chromium
A22. Chlorinated Napthalene	D05. Napthalene	M06. Copper
A23. Dechlorene ($C_{10}CL_{13}$)	D06. Ethylbenzene	M07. Lead
A99. Halogenated Hydrocarbons not	D07. Styrene	M08. Mercury
Specified above	D08. Acenapthene	M09. Nickel
	D09. Fluranthene	M10. Selenium
CLASS B – Halogenated Organics	D99. Aromatic Hydrocarbons not specified above	M11. Silver
(other than Hydrocarbons)		M12. Thallium
	CLASS E – TARS	M13. Zinc
B01. Phosgene		M14. Boron
B02. Methyl Chloromethyl Ether	E01. Coal Tar	M15. Manganese
B03. Bis-Chloromethyl Ether	E02. Petroleum Tar	M18. Titanium
B04. Other Chloroalkyl Ethers		M21. Tungsten
B05. Benzoyl Chloride	CLASS F – SUBSTITUTED AROMATICS	M22. Gold
B06. Chlorothymol	(other than hydrocarbons and non-halogenated)	M83. Palladium
B08. Chlorinated Cresols or Xylenols		M84. Platinum
B10. Chlorendic Acid	F01. Phenol, Cresol, or Xylenol	M99. Metals not specified above
B11. Dichlorophene or Hexachlorophene	F02. Catechol, Resorcinol, or Hydroquine	
B12. Chlorinated Aniline (including	F03. Nitrophenols	
Methylene bis (2-chloroaniline))	F04. Nitrobenzenes	
B13. Dichlorobenzidene	F05. Nitrotoluenes	
B14. Chlorinated Diphenyl Oxide	F06. Aniline	
B15. Chlorinated Toluidine	F07. Toluidines	
B16. Kepone ($C_{10}Cl_{10}O$)	F08. Nitroanilines	
B17. Dichlorovinyl Sulfonyl Pyridine	F09. Nitroanisole	
B18. Chloropicrin	F10. Toluene Dilsocyanate	
B20. Trichloro-propylsulfonyl Pyridine	F11. Dimethylaminoazobenzene	
B21. Tetrechloro-methylsulfonyl Pyridine	F12. Benzoic Acid (and Benzoate salts)	
B22. Tetrachloro-isopthalonitrile	F13. Phtalic, Isophthalic, Terephthalic Acid	
B99. Halogenated Organics not specified above	F14. Phthalic Anhydride	
	F15. Phthalate Esters	
CLASS C – Pesticides (including herbicides,	F16. Phenoxyacetic Acid	
algecides, biocides, slimicides and mildeweides)	F17. Phenylphenols	
	F18. Nitrobiphenyls	
C01. Aldrin/Dieldrin	F19. Aminobiphenyls (including Benzidine)	
C02. Chlordane and metabolites	F20. Diphenythydrazine	
C03. DDT and metabolites	F21. Napthylamines	
C04. Endosulfan/Thiodan and metabolites	F22. Carbazole	
C05. Endrin and metabolites	F23. Acetylaminofluorene	
C06. Heptachlor and metabolites	F24. Dyes and organic pigments	
C07. Malathion	F25. Pyridine	
C08. Methoxychlor	F99. Substituted aromatics not specified above	
C09. Parathion		
C10. Toxaphene		
C11. Sevin		

APPENDIX H

CONTRACTOR HEALTH AND SAFETY PLAN

Health and Safety Plan

Honeywell

TONAWANDA COKE
Tank Demolition

TONAWANDA, NY

Submitted to:

PARSONS
301 Plainfield Road
Syracuse, NY 13221

Submitted by:

333 Ganson Street
Buffalo, NY 14203

August 2019

V2

TABLE OF CONTENTS

Authorization Signatures

This site Health and Safety Plan (HASP) has been reviewed and approved by the individuals below. The undersigned certify that to the best of their knowledge this HASP meets the safety requirements as defined by the project specifications and all known applicable governing regulatory requirements.

John Yensan, President OSC	Date
Alen Trpevski, Project Manager OSC	Date
Matt Reardon, Superintendent OSC	Date
Donald Dustin CIH, CSP, Director HS&E OSC	Date

Conformance Signatures

All Individuals working on this Project, including subcontractors must read and sign

The following personnel have read and fully understand the contents of this site Health and Safety Plan and further agree to all requirements contained herein.

Name	Affiliation	Date	Signature

Emergency Contact List

Tonawanda Coke Tank Demo

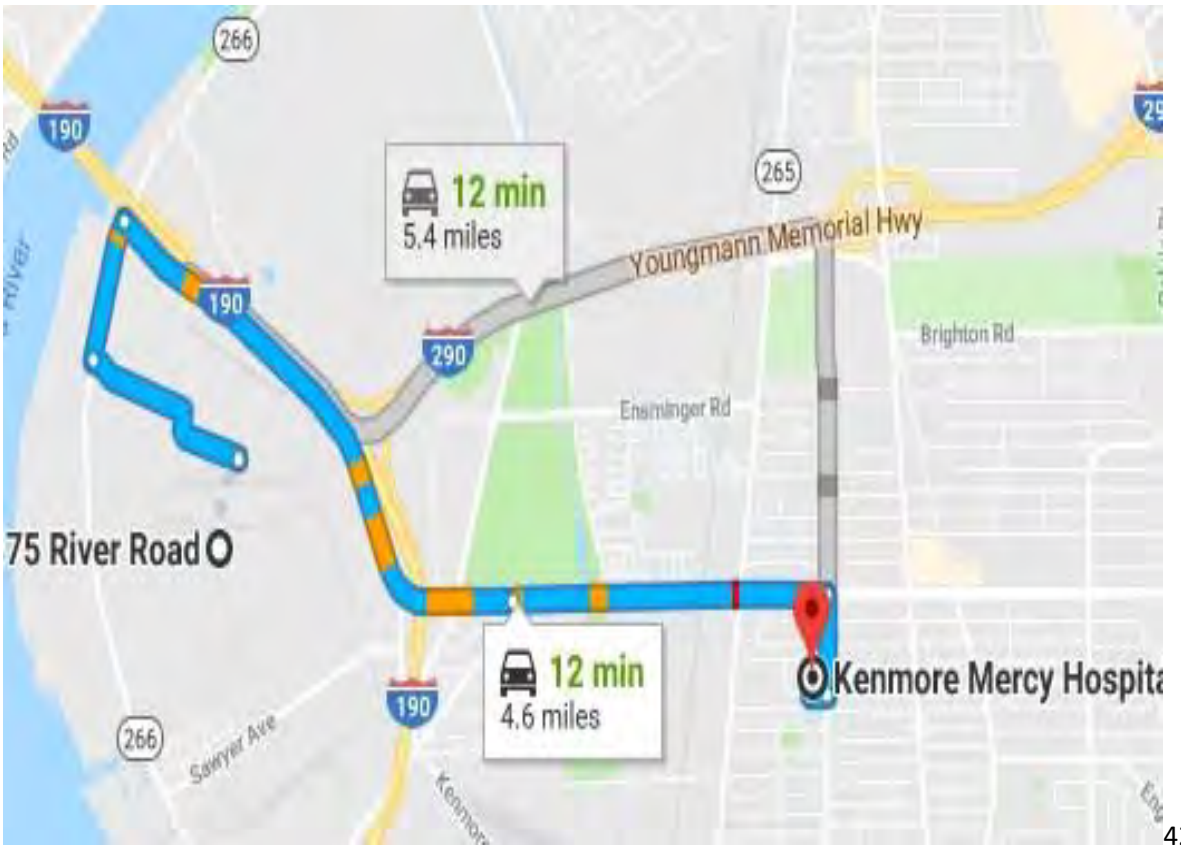
3875 River Road

Tonawanda, New York 14150

AGENCY	Contact	Phone Number
PARSONS Owner's Representative	Tom Abrams Project Manager	315-263-5109
OSC	Matt Reardon Superintendent	716-570-0717
	Alen Trpevski Project Manager	716-818-3390
	John Yensan President	716-583-4400
	Donald Dustin Director HS&E	716-560-7542
Kenmore Mercy Hospital	Medical Emergency	911 (direct) 716-447-6100
Fire, Police, Ambulance	Dispatch	911
Utilities	Water Gas Electric	911

AGENCY	Contact	Phone Number
Site Emergency	Police, Fire Dept., Ambulance	911
Fire Department		911
Police Department & Security		911
Ambulance		911
Poison Control	American Association of Poison Controls	1-800-222-1222
US EPA Release Report Number	National Response Center	1-800-424-8802
HAZARDOUS MATERIALS	CHEMTREC	1-800-424-9300

LOCAL MEDICAL: KENMORE MERCY HOSPITAL, 2950 ELMWOOD AVE 14127 (DIAL 911 FOR EMERGENCY) (716) 447-6100



4217

- Turn right onto River Road
- Turn right onto Grand Island Blvd (about 2 miles)
- Merge onto Sheridan Dr.
- Go about 1.5 miles and turn right onto Elmwood Ave.
- Make a sharp right and hospital is on left

OSC Medical Consultant:

Medcor, Inc.
4805 W. Prime Parkway
McHenry, Illinois 60050
800-775-5866

Non-medical Emergency:

Company Health
1173 Sheridan Drive
Tonawanda, NY 14150
(716) 875-5495

INTRODUCTION

SITE/PROJECT BACKGROUND AND SCOPE

Honeywell International has contracted OSC, Inc. for the removal of three above ground storage tanks and the remaining contents (tar and water) at Site 108 of the Tonawanda Coke Corporation (TCC) property in Tonawanda, NY. Parsons is providing construction management for the project.

The work includes, but is not limited, to the following:

- Mobilization
- Installation of erosion and sediment control
- Installation of site temporary features (waste decon pads, equipment decon pads, temporary access roads, and temporary utilities)
- Asbestos removal on fittings and debris
- Stabilization and removal of tank contents
- Load out of stabilized tar into waste shipping containers
- Cleaning of remaining tank contents
- Demolition of tanks
- removal of “surface tar” within the berm areas
- load out of covered soil piles
- Restoration and seed stabilization
- Demobilization

APPLICABILITY AND REFERENCES

OSC has developed the following site Health and Safety Plan (HASP) in accordance with the project contract requirements and all Federal, State and Local regulations. All operations and equipment used in conjunction with this contract shall, at a minimum, comply with the following:

- Project Contract Specifications
- Project Health and Safety Plan (This HASP)
- OSC Technical Work Plan
- OSHA 29 CFR 1910: Occupational Safety and Health Standards – General Industry
- OSHA 29 CFR 1926: Safety and Health Regulations for Construction
- EPA 9285.1-03: Office of Emergency and Remedial Response – Standard Operating Safety Guides
- OSC Corporate Health, Safety and Environmental Program Manual
- Orientation and Training (Supervision, Laborers, Operators & Visitors)
- Activity Hazard Analysis (AHA)
- Standard Operating Procedures; Emergency Response, Reporting, Accident Investigation, Inspections, Audits, Work Procedures, Hazard Communication, Hot Work, Confined Space,

Fire Prevention, Control of Hazardous Energy (Lockout, Tagout, Tryout), Excavations, Controlled Work Zones including decontamination, Ladders, Steps, Stairs, Scaffolding Contractor/Vendor Safety Checklist, Heavy Equipment Operation, Forklift Operation, Powered Aerial Platforms

- Substance Abuse Policy
- Receive site orientation training regarding the project requirements contained in this HASP. Site orientation will be conducted by OSC's Health and Safety Officer (HSO) named in Section 2.0 of this HASP.
- Acknowledge in writing, on page 4 of this HASP titled Conformance Signatures that they have received the site-specific orientation and; therefore, have been trained in and understand the contents of this HASP and the general site safety requirements.

The health and safety protocol that is established in this HASP is based upon the known site conditions and or conditions anticipated to be present from established site data. This HASP is a living document that shall be updated and or revised over the term of this contract as warranted by change in site conditions, scope of work, methods and improvement measures. A copy of this HASP shall be maintained at the project site.

DEFINITIONS

The Owner: Honeywell International

The Engineer: PARSONS (Owner Representative)

The Contractor: OSC – Company retained by owner to conduct the Project.

The Project: Tonawanda Coke Tank Demolition, 3875 River Road, Tonawanda, NY

The Project Site: The area designated as the Contractor work area.

Contractor Work Area: An area of the Project site which includes the support zones, access roads, staging areas, contamination reduction zones and exclusion zones.

Active Full Time Project Personnel: All personnel who are permanently assigned to the project and required to perform work. Does not include visitors or vendors visiting the site temporarily who are required to be escorted always by an authorized and trained project employee.

Qualified Person: A person with a recognized degree, or professional certificate, along with extensive knowledge and experience in the subject field who can do design, analysis, evaluation and specifications.

Competent Person: A person who can identify existing any predictable hazards in their surroundings/working conditions which are unsanitary, hazardous or dangerous to employees, and who has both knowledge and authorization to take prompt corrective measures to eliminate them.

Authorized Personnel: A person that is approved or assigned by OSC to perform a specific type of duty/duties, or to be at a specific location(s) at the project site.

Stop Work Authority: HS&E personnel, qualified and competent persons, owner representatives and *all project employees* shall have the authority to stop work in any situation deemed unsafe to those working on the project site, or in any situation that poses a risk to the environment. Work will remain stopped until the involved parties correct their impact or conditions as per the requirements of this HASP.

Contamination Reduction Zone (CRZ) *(not anticipated for this project)*: The CRZ is the transitional area between the identified contaminated and clean areas. The CRZ will be provided for the transfer of equipment and materials to and from the exclusion zone; the decontamination of personnel and equipment existing in the exclusion zone; and the physical segregation of the clean and contaminated work areas.

Exclusion Zone (EZ) *(not anticipated for this project)*: The exclusion zone encompasses the areas of contaminates of concern (COCs); as well as any areas being utilized for the temporary storage of salvaged materials [ex. valves] and spoils to be discarded as waste. The purpose of the EZ is to limit access to only qualified and necessary personnel and manage the potential spread of COCs.

SITE VISTIOR REQUIREMENTS

A safe location, where all visitors can observe site activities of interest will be identified by the HSO. Anyone visiting the site will receive site-specific instructions from the HSO. All visitors shall be escorted by site trained personnel after signing in and completing orientation. Visitor training will include, at a minimum;

- OSC Project Safety Orientation and Honeywell general site orientation
- Project Hazard Communication system
- Activity Hazard Analysis (AHA) review (as needed)
- Work Permit Process (as needed)
- Safety Meetings and Inspections
- PPE requirements;
- Decontamination procedures (as needed);
- Emergency procedures, and
- Any other site-specific information that the HSO deems necessary.

Any visitor wishing to enter an established contamination reduction zone (CRZ) or exclusion zone *(not anticipated for this project)* will be required to provide the HSO with documentation of medical monitoring and training equivalent to the requirements of this HASP for that area. Only authorized visitors with written proof that they have been medically certified and trained in accordance with project requirements will be permitted to enter the CRZ and/or exclusion area.

The only exception to this rule is for emergency personnel whom may enter the work area without fully complying with the requirements of this subsection. Emergency crews will be quickly briefed as to site conditions and hazards by the HSO.

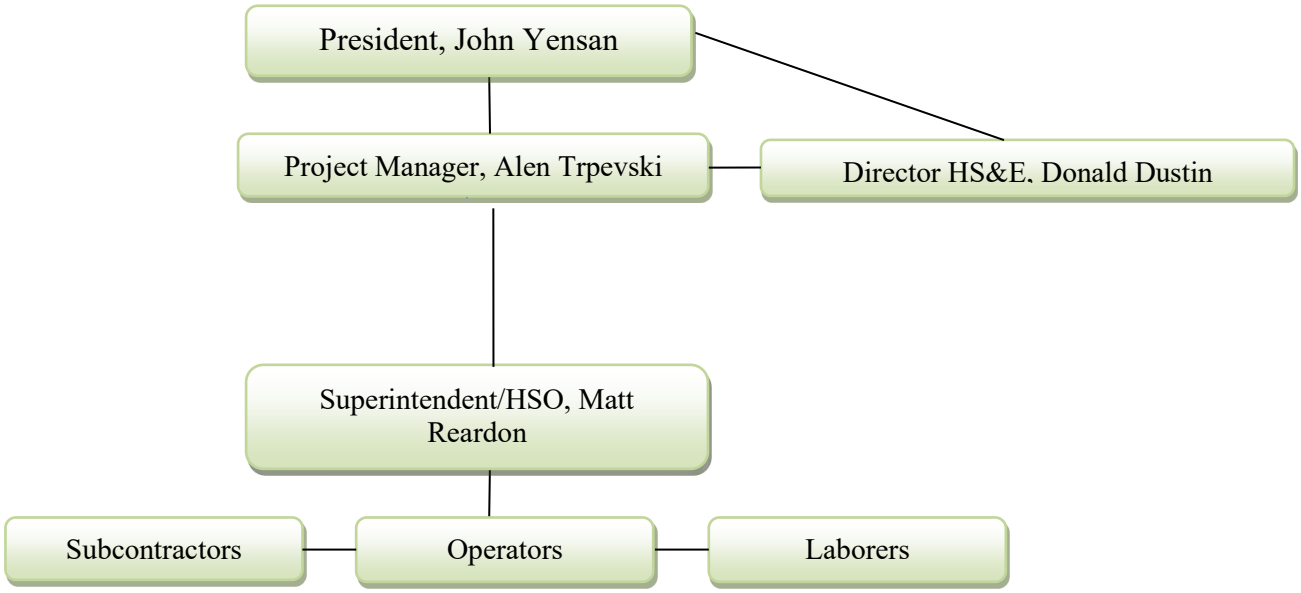
HEALTH and SAFETY ORGANIZATION

The following *OSC* management personnel will be assigned to this Project:

- President – John Yensan
- Project Manager – Alen Trpevski
- Superintendent – Matt Reardon
- On Site Health & Safety Officer – Matt Reardon
- Director HS&E – Donald Dustin

In addition to the above listed management, *OSC* will provide the appropriate number of operators and laborers; as well as the required subcontractors for this project.

ORGANIZATION CHART



PERSONNEL RESPONSIBILITIES

PROJECT MANAGERS AND SUPERINTENDENTS

The Project Manager will be responsible for the overall direction and completion of this contract. The Project Manager reports to the President and will be responsible for managing and coordinating all project related activities; as well as serving at *OSC*'s primary contact with the Owner and/or Owner's Representative. The Site Superintendent will be responsible for overseeing contractor and subcontractor operations in the field. The Site Superintendent will report directly to the Project Manager.

Project Managers and Superintendents will be responsible for the following:

- Assure daily compliance with the Corporate HS&E Manual and this HASP during the project.
- Implement the procedures and guidelines outlined in this HASP throughout the project.
- Perform incident investigations. The Site Superintendent will notify PARSONS site management and the OSC Director HS&E immediately. Documentation will be maintained on OSC's Incident Report (see attachment I) as well as draft the Honeywell Contractor Near Miss/Incident Investigation Report. The Incident Report will be submitted to Honeywell by PARSONS. The HSO will conduct the incident investigation with support from the Director.
- Perform and support site safety audits and address all deficiencies.
- Provide incentive and motivation for safe work practices; as well as discipline for unsafe work practices.
- Ensuring a copy of this HASP is onsite always.
- Conduct initial site orientation meetings.

HEALTH AND SAFETY OFFICER (HSO)

The HSO will handle health and safety management on the project and will report to the Director HS&E. Specific duties of the HSO include:

- Overall implementation, enforcement and maintenance of this HASP.
- Act as a point of contact for all project site health and safety concerns.
- Conduct initial training of the contents of this HASP; as well periodic training for when rules/regulations change, new equipment or procedures are introduced, additional skills are needed, and new hazards are presented. Report observations in the daily safety meetings and update AHAs and training accordingly.
- Conduct daily meetings regarding health and safety.
- Supervising any additional HS&E requirements that are needed for this project.

The HSO will monitor the jobsite health and safety via inspection at the start and completion of each day's work; as well as monitoring the jobsite for this purpose throughout the day. The initial daily inspection will be recorded on OSC's inspection and audit form (Attachment I). Corrective actions and end-of-the-day inspection results will be recorded in the HSO's project safety log book.

Any deficiencies will be promptly corrected. All corrective and improvement measures will be reviewed with project personnel at the morning daily safety briefing. Intentional violations of the site HS&E regulations will be grounds for disciplinary action, which could include temporary suspension or termination of personnel and/or expulsion of vendor and/or subcontractor personnel from the site.

HS&E TECHNICIANS (not anticipated for this project)

The HSO will assign qualified technicians (air monitoring, material sampling, equipment specific and job design professionals) to each work crew or task in hazardous areas as warranted.

OSC CORPORATE MEDICAL CONSULTANT AND NON-EMERGENCIES

The Medical Consultant will be available to provide call-in emergency medical consulting to *OSC* personnel on an around-the-clock basis. Medical emergencies occurring during normal work hours will be provided by the local hospital (see above). Non-emergency medical support and OSC's Medical Consultant are:

Medcor, Inc.
4805 W. Prime Parkway
McHenry, Illinois 60050
800-775-5866

Company Health
1173 Sheridan Drive
Tonawanda, NY 14150
716-875-5495

SUBCONTRACTORS

All subcontractors shall be prequalified according to the OSC subcontractor/vendor prequalification requirements including Certificates of Insurance that meet or exceed the project contract requirements (See Honeywell/PARSONS Project Subcontractor Insurance Requirements Under Separate Cover).

All subcontractor employees shall be required to attend a project safety orientation prior to starting work on site (See Training and Orientation Requirements of this HASP). Subcontractors are responsible for health and safety as it pertains to their operations at the project site and shall provide the required Honeywell/OSC HS&E supporting documentation. Documented proof of training shall be provided for all subcontractor employees. All subcontractors are responsible for providing their employees with the proper site-specific PPE required to perform their work as well as ensure that all tools and equipment are properly inspected and maintained. Subcontractors are responsible for ensuring that their employees conform to all HS&E project requirements and applicable government regulations.

TRAINING and ORIENTATION

Personnel, including subcontractors, shall be provided with the training required to comply with this HASP. Training documentation (training certificates, attendance rosters) will be filed and maintained onsite by the HSO and will be made available for inspection upon request. Training documentation will be kept in an organized manner for each individual worker.

Full time active project personnel working onsite must have received the following;

- Required safety training as defined by OSHA CFR 1926.21 for construction
- OSHA 1910.120, Hazwoper (employees potentially exposed to hazardous chemicals)
- Medical clearance - fit for work, (includes medical surveillance for specific occupations and probable contaminants) negative drug screen, clearance for respirator use, fit test and training for the type of respirator required.

Supervisor Training – in addition to the above all designated supervisors shall have as a minimum received training that covers competent person training for the specific operation they are responsible for (i.e. excavation trenching and shoring, confined space, rigging, hot work, etc.), first aid and CPR, record keeping, incident investigation, employee substance abuse i.e., reasonable suspicion), HS&E documentation requirements.

SITE SPECIFIC TRAINING

Documentation of training, provided by a qualified safety professional, will be maintained as necessary for the following topics;

- PARSONS/OSC Site Specific Orientation
- Activity Hazard Analysis & Safe work procedures (AHA Review)
- Project Hazard Awareness Training
- PPE requirements & possible decontamination procedures
- Heat/Cold Stress
- Fall Protection (not anticipated for this project but will be made available as needed)
- Heavy Equipment Operation (Authorized, Unauthorized)
- Powered Industrial Fork Truck Operation (Authorized, Unauthorized) as needed
- Control of Hazardous Energy Lockout/Tagout and Air Gapping Requirements (1 ft visible air gap) *(not anticipated for this project)*.
- Incident reporting
- Emergency response & available services (medical, fire, inclement weather, tornado, bomb threat, signals and procedures)
- Hoisting and Rigging (as needed)
- Respirator use, maintenance, inspection, medical clearance and fit test (as applicable).
- Excavation hazards and protective measures
- Confined Space (will be made available as needed)

- Dust, Erosion and sediment control
- Noise control measures
- OSC's STAC program
- Authority to stop work (all employees) and the buddy system "No One Works Alone".

JOB SPECIFIC SPECIALIZED TRAINING & MEDICAL CLEARANCE

OSC employees will all participate in the company's annual medical surveillance program which evaluates "fit for duty" condition. These evaluations will be provided by a licensed health care professional.

Employees that may be exposed to elevated levels of contaminates (to be determined) or that wish to use tight-fitting respirators on a voluntary basis will require a current medical evaluation and be respiratory qualified in compliance with OSHA 1910.134.

MEETINGS

Attendance at all HS&E meetings will be documented and filed onsite.

- Daily Morning Safety Brief prior to the start of work "Tool Box Talk".
- Prior to the beginning of each work task, all involved workers shall be required to attend a task-specific HS&E meeting to review task-specific health and safety requirements pertinent to the days tasks (AHA review - job hazards and protective measures).

Weekly HS&E Meetings

All onsite Supervisory personnel shall be required to attend a weekly HS&E meeting, conducted by the owner representative, to review project and/or task specific procedures. Topics to be discussed at these weekly meetings include, but are not limited to;

- AHA – review for all definable features of work, hazards and controls
- STAC - employee work observations and recommendations
- Audit/Inspection findings, and recommendations for improvement
- Necessary training requirements and site work rules;
- Change in work practices and/or work conditions, incident reports;
- Precautions and work practices related to scheduled site activities;
- New or modified site wide procedures or requirements;
- Discussion of potential hazards or hazardous operations;
- Procedures on restricted areas;
- Equipment rules and requirements;
- Restrictions on the handling of materials;
- PPE requirements;

- Delegation of responsibility (emergency backup personnel, competent persons, etc.);
- Review of emergency response for anticipated situations (medical, fire, inclement weather, tornado, bomb threat, environmental release/spill) and communication methods (alarms, radio, voice, and hand signals).

HS&E Audits

The OSC Director, HSE will make project site visits to assure compliance with this HASP and provide assistance as needed. Site audits will be made minimally on a quarterly basis using the company's audit criteria (see Appendix I Forms). An audit finding report will be submitted to the project manager and superintendent within 3 days of the site visit. Highlighted deficiencies must be corrected immediately if not done so during the site visit.

SUBSTANCE ABUSE SCREENING

OSC maintains a drug free workplace. The company prohibits the use, manufacture, sale, possession, or transfer of illegal drugs, alcohol, and controlled substances on project sites.

OSC requires pre-employment, reasonable suspicion and random substance abuse testing (random testing for project-assigned personnel only as required by contractual agreement). Post injury screening may also be conducted in conjunction with reasonable suspicion. Employees as a minimum will undergo a NIDA 10 panel drug screen for illegal drugs 2 weeks before working on the project. Only substance abuse test results that are within fourteen days from site admittance shall be considered valid. Drug and alcohol screens shall be managed by OSC using laboratories certified by HHS under the National Laboratory Certification Program (NLCP).

Reasonable suspicion testing may be triggered by direct observations of employee behavior or drug-related paraphernalia. Site personnel who have been observed using alcohol or controlled substances on site or during breaks at off-site locations after which they will return to work will be requested to take an alcohol or drug test. Reasonable suspicion includes possession (on person or in vehicles) of alcohol or controlled substances on site as well as paraphernalia that suggest drug use. Site personnel who exhibit signs, symptoms, or behaviors of drug or alcohol use as interpreted by a reasonable person will also be requested to take a drug and/or alcohol test.

NOTE - Prescription drugs taken without an authorized prescription for use is considered an illegal drug. Also, in case of any injury, incident, or emergency, employees may be required to undergo a 10-panel screen for illegal drugs, alcohol (breath), or prescribed medication. Submission to substance abuse testing is a condition of employment. Failure or refusal to submit to substance abuse testing is treated the same as a positive result. All reports will be maintained at the main office. Any positive results will be referred to OSC Senior Management and PARSONS for further action.

PROJECT OVERVIEW AND TASK RISK ANALYSIS

TASK/RISK ANALYSIS

An Activity Hazard Analysis (AHA) shall be developed for significant features of work which break jobs down into individual tasks defining the potential hazard of that task and the proper protective and control measures that shall be taken to minimize the hazard. AHA's shall be submitted with any required daily work permit to the PARSONS representative for their review. AHA's shall be modified as warranted by safe work observations, audit and incident investigation. Assessment of the work hazards associated with the scope of work for this project is provided in the Table 1.0 below. PPE requirements for all work shall be primarily in level D; ANSI approved hard hat, safety glasses, hearing protection with elevated noise exposures (i.e., working with power tools or near sources of loud noises), abrasion resistant gloves, safety toed boots or safety toed rubber boots (dependent on hazard exposure), high visibility traffic vest or equivalent high visibility clothing, and/or disposable coveralls (modified D). Specific information relating to the potential chemical, physical, biological and radiological hazards is provided in Table 1.1.

TABLE 1.0
OVERALL JOB HAZARD EXPOSURE (See also attachment II (AHA's))

	Potential Exposure
Mobilization and temporary facilities and controls; office/equipment trailer setup, establishment of work zones: hazard warning signs, OSC designated work area signage including barricades and area delineation, address safe work surface needs, add lighting, traffic controls, dust, fire and erosion controls.	Low
Installation of erosion and sediment control	Moderate
Installation of site temporary features (waste and equipment decon pads)	Moderate
Asbestos removal on fittings and debris	Moderate/High
Stabilization and removal of tank contents	Moderate/High
Load out of stabilized tar into waste shipping containers	Moderate/High
Cleaning of remaining tank contents	Moderate/High
Demolition of tanks	Moderate
Removal of "surface tar" within the berm areas	Moderate/High
Load out of covered soil piles	Low
Restoration and seed stabilization	Low
Demobilization	Low

Low: Non-intrusive work – Minimal hazard/chance of exposure. Slight: Non-intrusive work / Possible HS&E hazards with tools. – Little chance of exposure. Moderate: Non-intrusive work / Possible HS&E hazards with powered tools, heavy equipment and/or working near or in water – Little chance of exposure to contaminants. Moderate/High: Intrusive work / Possible HS&E hazards with equipment – Exposure to contaminants is possible. High: Intrusive work / Possible HS&E hazards with equipment – Exposure to contaminants is probable.

CONTAMINATE/CHEMICAL HAZARDS

Existing Site Hazards

Based on information provided in the bid documents and nature of the project (coal tar tank emptying and demolition) there are several possible contaminates with zero to minimal likely exposure potential. Asbestos is known to be contained in pipe/fitting insulation and will be removed by a competent subcontractor.

Although several coal tar constituent chemicals of concern are volatile, the product has been standing open in the tanks for an extended period time. Much of the volatile and semi-volatile fraction is expected to have been released to the atmosphere minimizing the air pathway (inhalation).

Of the remaining constituent chemicals of concern, the likely exposures are skin absorption/contact and ingestion. These exposure pathways will be controlled using PPE (barrier) and proper hygiene (decontamination).

Analysis of the tank coal tar residual does not indicate it to be highly ignitable. Furthermore, there is a layer of water (rain?) covering the coal tar which further reduces the likelihood of ignition.

The following table, taken from the Parsons' Tonawanda Coke Site 108, Project Safety, Health, and Environmental Plan, lists the coal tar constituents of concern.

Chemical of Concern	*Soil or Coal Tar (mg/kg)*	*Monitoring Equipment*	*Action Levels*	*Routes of Exposure[7]*
Benzene	*0-500 in soil Component of waste product in tank*	*Solid Sorbent Tube Or PID with 10.6 eV bulb*	**OSHA:** PEL = 1 ppm **ACGIH:** TLV/TWA =10 ppm **NIOSH:** IDLH = 3000 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact
Toluene	*0-500 in soil Component of waste product in tank*	*Solid Sorbent Tube Or PID with 10.6 eV bulb*	**OSHA:** PEL = 200 ppm C=300 ACGIH: TLV/TWA = 20 ppm NIOSH: IDLH = 800 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact
Ethylbenzene	*0-500 in soil Component of waste product in tank*	*Solid Sorbent Tube Or PID with 11.7eV bulb*	**OSHA:** PEL = 100 ppm ACGIH: TLV/TWA = 100 ppm NIOSH: IDLH = 800 ppm	inhalation, ingestion, skin and/or eye contact
Xylenes	*0-500 in soil Component of waste product in tank*	*Solid Sorbent Tube Or PID with 10.6 eV bulb*	**OSHA:** PEL = 100 ppm ACGIH: TLV/TWA = 100 ppm NIOSH: IDLH = 900 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact
Methylene Chloride	*0-500 in soil Component of waste product in tank*	*PID with 11.7eV bulb*	**OSHA:** PEL = 25 ppm **ACGIH:** TLV/TWA =50 ppm **NIOSH:** IDLH = 5,000 ppm TLV-STEL = 125 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact

1-2 Dichlorethene (and isomers)	*0-500 in soil Component of waste product in tank*	*PID with 11.7eV bulb*	**OSHA:** PEL = 200 ppm ACGIH: TLV/TWA = 200 ppm NIOSH: IDLH = 1000 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact
2-Methylnapthalene	*0-500 in soil Component of waste product in tank*	*Solid Sorbent Tube Or PID with 11.7eV bulb*	**OSHA:** PEL = 10 ppm ACGIH: TLV/TWA = 0.5 ppm NIOSH: IDLH = **NA**	inhalation, ingestion, skin and/or eye contact
Polyaromatic Hydrocarbons (PAHs/petroleum pitch) (covers PAH related analytes listed above)	*0-500 in soil Component of waste product in tank*	*Semi-volatile Sorbent tubes with pre-filter PID with 10.6 eV bulb*	**OSHA:** PEL = 0.2 mg/M3 ACGIH: TLV/TWA = 0.2 Mg/M3 IDLH = 80 mg/M3 (CA)	inhalation, ingestion, skin and/or eye contact
Dibenzofuran	*0-500 in soil Component of waste product in tank*	*NA – solid*	**NA**	May cause, eye, skin and lung irritation

Chemicals Brought Onsite

The use of chemical products onsite will follow the requirements set forth in OSHA 29 CFR 1910.1200 (OSHA's Hazard Communication Standard), applicable Federal, State and Local regulations and the project procedure provided in this HASP. The potential hazards associated with these products will be mitigated through site specific training, administrative controls (e.g. labeling and storage) and use of the prescribed PPE.

Safety Data Sheets (SDS) for all chemicals brought onsite, will be available for review in OSC's field office at the project site. Chemical products shall be labeled which shall include, product name, manufacturers name, hazard warning, identifier and hazard pictogram.

The following table provides exposure guidelines for common hazardous chemicals that may be brought to the site, if required, for use during this project. The HSO will be notified before any new chemicals (chemicals not listed on the below table) are brought onsite.

HAZARD SUMMARY FOR CHEMICALS BROUGHT ONSITE					
Substance	Route of Entry	Exposure Symptoms	Treatment	8 Hour TWA	STEL and IDLH
Diesel Fuel	• Skin contact • Eye contact • Inhalation • Ingestion	• Harmful if comes in contact with or is absorbed throughout the skin. • Contact may cause skin and eyes irritation. • Prolonged or repeated exposure may cause liver or blood forming organ damage. • May cause skin irritation or dermatitis.	• Eyes: Irrigate immediately. • Skin: Flush with soap and water. • Inhalation: Remove victim to fresh air and provide respiratory support if needed. • Ingestion: Seek medical attention.	300 ppm	STEL: 500 ppm
Grease, Oil and Hydraulic Fluids	• Skin contact • Eye contact • Inhalation • Ingestion	• May be slightly irritating to skin and eyes. • Inhalation may cause headaches. • Ingestion could result in nausea and vomiting.	• Eyes: Irrigate immediately. • Skin: Flush with soap and water. • Inhalation: Remove victim to fresh air and provide respiratory support if needed. • Ingestion: Seek medical attention.	N/A	N/A
Gasoline Petroleum Distillates	• Skin contact • Eye contact • Inhalation • Ingestion	• Acute: Central nervous system effects. Chemical pneumonitis if aspirated into the lungs. • Chronic: Benzene is a confirmed carcinogen. Long term exposure caused kidney and liver cancer in rats/Chemical.	• Eyes: Irrigate immediately. • Skin: Flush with soap and water. • Inhalation: Remove victim to fresh air and provide respiratory support if needed. • Ingestion: Seek medical attention.	300ppm	500ppm STEL

GENERAL PHYSICAL HAZARDS AND STANDARD PROTECTIVE MEASURES

(See Attachment I, AHA for more specific detail):

Activity: *All general work activities* (manual ground laboring, operating equipment, supervising, inspecting).
Potential Hazard: noise, slips, trips and falls, struck by, pinched, falling debris, shock, heat/cold stress
Procedures to Mitigate Hazard: Minimum standard site required PPE (Level D ANSI rated hard hat, eye protection, safety boots, high visibility traffic vest or equivalent clothing, cut/abrasion resistant gloves. Hearing protection (when "you need to raise your voice to hear yourself talk") is required whenever using powered hand tools, when operating heavy equipment with no enclosed cab or near loud noise sources. Inspect work area for hazards, overhead power lines, obstructions, slip, trip, fall hazards, uneven surfaces, and vermin. Manage work area; flag, mark, delineate and cover, identify with appropriate hazard warning signs. Clearly label open pits, wells and other fall hazards (soft barricade 15 feet back, hard barricade 2 feet back). Practice extreme caution in all work

areas including vegetation covered areas. Watch footing during equipment access/egress and when moving through the work area, walk with purpose, pick feet up and setup down, keep hands out of pockets, use handrails, stay on designated paths, and don't take short cuts through the site. Avoid stepping or standing on uneven or unsteady surfaces. In high heat situations stay well hydrated. Personnel will adhere to the heat and cold stress precautions provided in this HASP. All employees have stop work responsibility and authority for safety concerns.

Activity: *Manual Material Handling*
Potential Hazard: Strain, pinched, struck by, lacerations,
Procedures to Mitigate Hazard: Hands and feet clear of pinch points, standard site required PPE and gloves with hazard exposure (i.e. barrier gloves), Observe the OSC lifting program (50 lbs maximum on this project). Use good body mechanics when lifting, lift objects with your legs and not your back, keep the back straight and object lifted the power zone. Do not twist, pick your feet up and turn. Utilize equipment whenever possible - forklift, drum cart or other appropriate equipment. Seek assistance if it is needed.

Activity: *General traffic from operations* (heavy equipment, trucks, pedestrian, etc.)
Potential Hazard: Struck by, crush, fire, and burn
Procedures to Mitigate Hazard: Standard site required PPE. Traffic barricades and directional signs provide ground spotters/flagman equipment traffic, with high visibility, traffic vests or equivalent clothing. Minimum 35 ft. clearance from heavy equipment operations, leveling, compacting, separating and loading out. Develop and implement a traffic control program when site activities occur adjacent to non-OSC vehicular traffic.

Activity: *Site maintenance, materials storage and house keeping*
Potential Hazard: Slip, trip, fall, fire, burn, chemical hazards, eye, skin, struck by
Procedures to Mitigate Hazard: Personnel will properly store all equipment. Remove all scrap material from the work area and place in designated storage/lay down areas for disposal. Delineate work areas and identify with appropriate Hazard Warning Signs. Handling of materials per products SDS and developed proper storage of all flammable and combustible materials; > 20 feet from ignition sources or protected with ½ hour fire barrier (indoors). Likewise, all flammable/combustible liquid will be segregated from the ignition source >20 ft. Store all hazardous materials in approved containers. Keep all solvent wastes, oily rags and liquids in fire resistant containers. One 20 lb. ABC Extinguisher should be provided in storage areas (within 75 ft. away no closer than 20 ft.).

Activity: *Operation of hand and or power tools*
Potential Hazard: Eye, hand, face, foot injuries, electrocution, noise, fire, burn.
Procedures to Mitigate Hazard: Tool use per Mfg.'s guidelines. Inspect tools before use; verify that guards and safety devices are in place before, during and after operation. Only use a power tool that you have been trained. Use GFCI plugged in at source for all corded tools. Red tag and remove all defective tools from service. Maintain and inspect the tools per the manufacturer's recommendations. All personnel will utilize the proper eye protection and hearing protection.

Activity: *Operating Heavy Equipment* (Excavators, Compactors, Dozers, Skid Steers, Rough Terrain Fork Trucks, Powered Aerial Platforms and Trucks.
Potential Hazard: Struck by, caught between, crushed, rollover, fire, burn
Procedures to Mitigate Hazard: Equipment operation only by trained and authorized operators. Before use, any machinery or mechanized equipment will be inspected by a competent person and certified to be in safe operating condition. OSC will designate competent persons to be responsible for the inspection of machinery and equipment, daily and during use, to ensure its safe operating condition. Any machinery found to be unsafe will be dead lined; its use will be prohibited until the unsafe conditions have been corrected. Inspection of the machine/equipment will be conducted at the beginning of each shift, during which the equipment may be used, to determine that the brakes and operating systems are in proper working condition. All inspections will be documented. Only designated personnel, with appropriate training and authorization shall operate machinery and mechanized equipment. Any observed equipment deficiencies, that will affect their safe operation, will be corrected before continuing operations. A controlled work zone shall be established for demolition, sorting and loading operations. Likewise, a trained ground spotter shall be provided to assure personnel stay clear when an operator's rear view is obstructed. Dust control measures (active water misting during intrusive activities with water hose or equivalent misting equipment). Utilize the appropriate warning signs and backup alarms. All site personnel working near heavy machinery will use reflective clothing (i.e. vests) to alert operator of their whereabouts. See appropriate AHA for details (hoisting, heavy equipment operation, etc.).

Activity: *Excavating and Working in Excavations*:
Potential Hazard: Cave in, collapse, chemical exposure, struck by, entrapment
Procedures to Mitigate Hazard: Per OSHA requirements, provide protective systems of trenches when deeper than 5 feet and entry is necessary. Inspect the excavations/trenches regularly for changing conditions. Ensure that the material from the excavations/trenches is being placed away from the edge, to prevent cave-ins and pit (instability (> 2 feet back). Backfill the excavations as require by the approved contract requirements, to minimize the number of open excavations and control zones.
All excavation work shall be supervised by a competent person who will determine what protective measures are required, what those controls will be and how they will be implemented (testing, monitoring, benching, sloping, shoring, means of egress, dewatering, etc.). The competent person will inspect the excavations and controls to ensure reinforced structures are barricaded or marked, with barricade tape or traffic cones, during active excavations. If an excavation must remain open prior to backfill, those excavations must be fenced or barricaded (> 6 ft. from edge). Compliance with OSHA 29 CFR 1926 Subpart P will be maintained.
Atmosphere monitoring will be conducted prior to entry and during work activities in excavations/trenches.

Activity: *Working around or near utilities* (Utilities hazards overhead and or underground).
Potential Hazard: Stored Energy Hazards (electrical, gas, water, sewer, etc.).
Procedures to Mitigate Hazard: Request utility mark out, notify FPO utility authority a minimum of three days prior to performing any intrusive or demolition activities. Prior to work beginning, ensure that all utility lines are not energized. Stay a minimum of 10-feet away from energized lines.

Activity: *Servicing equipment*.
Potential Hazard: Uncontrolled release of hazardous energy (electrical, mechanical, kinetic, pressure, heat, chemical, any type of stored or potential energy).
Procedures to Mitigate Hazard: The lock-out/tag-out procedure provided in this HASP will be followed when working on machines and equipment in which the unexpected energizing / start-up of the machines or equipment, or release of stored energy could cause injury to employees.

Activity: *Working from elevated heights* (> 6 feet) with an open edge to the next lowest.
Potential Hazard: Fall
Procedures to Mitigate Hazard: Not anticipated for this project however, all work form elevated heights shall be performed as supervised by a competent person. In all cases proper fall protection shall be utilize; personal fall restraint systems. Maintain 100% tie-off.

BIOLOGICAL HAZARDS

Bites and Stings

Animal bites or stings are usually irritants that cause localized swelling, itching and minor pain and can be handled with first aid treatment. The bites of certain snakes, lizards and spider can contain sufficient poison to warrant medical attention. Diseases, that may require medical attention, can be transmitted from some animal bites. Examples are rabies (mainly from dogs, skunks, raccoons and foxes), Lyme disease (transmitted from ticks) and encephalitis (transmitted from mosquitoes).

Personnel with known allergic reactions to bee stings should carry the appropriate medication and must notify the Director HS&E and HSO of his/her condition prior to reporting for work at the site.

Ticks, Chiggers and Lyme disease

Ticks and chiggers may be present in vegetated areas during the spring, summer and fall seasons. Preventative measures include protective clothing that covers the entire body, tucking pant legs into boots or socks and tucking a long-sleeved shirt into pants; head/hair protection; and the use of insect repellant containing DEET on all exposed areas and coveralls. Project personnel should check their bodies thoroughly for ticks and should bathe soon after returning home. Remove any ticks carefully, using a gentle firm, tugging motion with fine tweezers. **Do not kill the tick before it has been removed.** Save the tick (place in zip lock bag for freezing and lab test) and monitor their bites, checking for a rash and any other symptoms for up to eight weeks after the bite. If site employees feel they have been bitten they should notify the HSO immediately.

Snakes

If project personnel encounter a potentially dangerous snake – stop work, remove yourself and other workers from the immediate area and notify the Superintendent. The supervisor will contact an appropriate site representative to request that the hazard be removed. Do not re-enter the work area until you have been cleared by the HSO to do so.

Toxic Plants

Poison Ivy, poison sumac and poison oak may be present during the spring, summer and fall seasons. Avoid contact with these plants. If a project worker has come in contact, the affected area should be washed thoroughly with soap and cool water. Notify the HSO immediately.

Bloodborne Pathogens

29 CFR 1910.1030 requires that all first aid responders who may come in contact with potentially infectious materials be trained and protected from exposure. Furthermore, there is a risk for any site employee to be exposed from discarded needles and/or contaminated sharps.

All employees on this project will;

- Avoid contact with any blood or potentially contaminated object;
- Use caution when picking up or moving objects (stones, brush, debris, etc.);
- Wear leather gloves and not touch suspect objects; and
- Contact the HSO who will contact the PARSONS manager to remove suspect objects.

In addition to the above requirements, the following will apply;

- All personnel will be required to receive bloodborne pathogen awareness training.
- No eating, drinking, smoking, or applying lip balm will be permitted in the designated work, decontamination and first aid areas.
- All first aid kits will be equipped with the proper PPE (i.e. gloves, CPR shields and respirators).
- If a garment (gloves included) is contaminated by blood, or other potentially infectious materials, the garment(s) will be removed as soon as possible.
- After an exposure incident, a confidential medical evaluation and follow-up will be conducted and immediately available to the employee. The HSO will coordinate all medical arrangements.

Radiological Hazards

No radiological hazards are expected during this project.

SITE SECURITY

All onsite personnel and visitors will be required to sign-in and sign-out, at the project support trailer, before entering designated work sites. OSC will maintain, onsite, all records of site access. Visitors will be required to be knowledgeable of and conform to this HASP, prior to accessing work zones. Vehicular traffic will be permitted in the designated parking area as permitted by the owner. Access to the controlled work and traffic zones is restricted to authorized vehicles only.

SITE LAYOUT

See project work plan submitted separately.

BUDDY SYSTEM

Working alone is prohibited. All field personnel will be assigned a co-worker who will watch for hazards or problems his/her co-worker might encounter. Communication between employees must be maintained always. Workers will pre-determine hand signals, or other means of emergency signals, for communication when respiratory protection or distance makes communication difficult. Visual contact must remain between the two co-workers; they must remain near each other in order to assist in case of an emergency.

SITE COMMUNICATIONS PLAN

Each work crew, operator and manager will be equipped with a two-way radio. In the event of an emergency, and two-way radio communication is not available, oral and visual safety signals have been established to protect project personnel. These signals will be presented to personnel for all phases of operation before conducting any task. These safety signals will ensure quick communication during adverse or emergency situations. Examples of established signals, and their meanings, are provided below.

Visual Signal	Indication
Hand gripping throat	Out of air; can't breathe
Wave hands over head from side to side	Attention: stand by for next signal
Swing hands from the direction of person receiving the signal to directly overhead and through a circle	Come here
Pointed finger with extended arm	Look in that direction
Grip partner's wrist with one or both hands	Leave the area immediately
Hand on top of head	Need assistance
Thumbs up	Ok, I'm alright, I understand
Thumbs down	No, negative
Audio Signal	**Indication**
Short blast of air or vehicle horn	Caution look here
Three long blasts of air or vehicle horn	Leave the area

PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE will be selected, used, maintained and stored in accordance with OSHA 29 CFR 1926 Subpart E, and applicable manufacturer recommendations. Engineering, administrative and/or work practice controls to minimize hazards will be implemented where feasible, followed by PPE.

MINIMUM LEVELS OF PROTECTION

Level D personal protective equipment that is to be worn always by project personnel at the site includes;

- ANSI approved safety glasses with side shields;
- Leather safety boots (ANSI or ASTM)
- Rubber boots w/wet hazards or disposable booties
- Hardhat (ANSI Rated)
- High visibility vest or equivalent high visibility clothing
- Appropriate clothing (long sleeve shirts and pants) and Tyvek coveralls as required
- Gloves (leather always), nitrile as required
- Hearing protection (around powered equipment or using powered hand tools)
- Tick protection when working near water or when grubbing

Modified D PPE will be used when the possibility of dermal hazardous chemical contact, but not inhalation exposure exists and includes;

- The above minimum PPE
- Mono-goggles with face shield in chemical splash situations
- Impermeable chemical barrier gloves (i.e., nitrile) if handling contaminated material
- Coated disposable coveralls (Tyvek or equivalent) if exposure to hazardous chemicals exits
- Face shield and safety glasses with work where the potential for flying debris hazards is present (i.e., chipping, grinding, steel on steel impact activities)

Level C PPE, *(not anticipated for this project)* will be used if there is the possibility of inhalation of hazardous concentrations (or unknown concentrations) of vapors or fumes at or above OSHA PELs. Level C PPE includes;

- Modified level D PPE
- Air purifying respirator (half-face)
- Appropriate filtering media (particulate, mercury, organic, or combination cartridge)

NOTE: OSC employees are given the option of using an air purifying respirator for voluntary use.

Level B is not anticipated for this project but may be made available if necessary.

Levels D and Modified Level D are the only anticipated PPE during this project. These minimum levels of protection are considered preliminary and may change based upon initial exposure assessment and routine assessments as work progresses. No change to the specified level of protection will be made without the approval of the HSO and in agreement with the Director HS&E and PARSONS.

SELECTION OF PROTECTION LEVELS

PPE will be used when project and support activities involve known, or suspected, contamination; when vapors, gases or particulates may be generated by site activities; or when direct contact with skin may occur. Respirators protect the lungs against airborne toxicants. Chemical resistant clothing protects skin from contact with harmful and absorbable chemicals.

Level D: Protection will be used when no airborne contaminant exposure is likely and job functions do not require the use of respiratory equipment or chemical resistive clothing. The equipment for this level of protection is described above and is expected to be the minimum for the project.

Level D Modified: Protection will be modified when additional contact hazards have been identified such as splash hazards and contaminated or nuisance dust. See the description above.

Level C: Protection that will be provided when airborne contaminants have been identified and which require the use of air purifying respiratory equipment to keep exposures below health-based limits. Examples of respiratory protection for this project are half or full-face air purifying respirators with appropriate cartridges (i.e. P-100 cartridges for lead particulate, Black Organic Vapor – VOC, Brown/Gold Acid Gas, etc.). Likewise, excavation work may require an approved P100/vapor combination cartridge.

Level B: Protection that will be provided when the highest level of respiratory protection is needed with partial body or skin protection. Equipment for this level of protection will include a minimum of the following:

- SCBA, PAPR or airline respirator depending on contaminate and situation
- Chemical resistant protective clothing for hazards identified.
- Hardhat or helmet for hazards identified.
- Chemical resistant gloves with liners for hazards identified.
- Chemical resistant safety shoes or boot covers for hazards identified.

Level C and B are not expected for this project.

HEARING PROTECTION

Project personnel will be provided hearing protection and required to use it whenever conducting tasks where exposures may exceed 90 dB as indicated in the following table;

	Sound Level at Operator		
Equipment	Average, dB	Range	TWA, dBA
Earth Moving:			
Front End Loader	88	85-91	
Back Hoe	86.5	79-89	
Bull Dozer	96	89-103	
Roller	90	79-93	
Scraper	96	84-102	
Excavator	86	83-92	89.6*
Truck	96	89-103	
Paver	101	100-102	
Power Units:			
Generators	<85		
Compressors	<85		
Impact:			
Pile Driver (diesel/pneum.)	98	82-105	
Pile Driver (gravity)	82.5	62-91	
Pneumatic Breaker	106	94-111	
Hydraulic Breaker	95.5	90-100	
Pneumatic Chipper	109		
Other Equipment			
Compactor/Vibrator	94.5	85-98	86.1
Compressed Air Blower	104		
Power Saw	88.5	78-95	
Electric Drill	102		

Noise Standards	Noise Level
OSHA (at worker's ear)	90 dB (A) TWA
Day Time Community (at property line)	65 dB (A)

*Open windows

OSC has monitored sound levels for various tasks and operations conducted during the project to both verify that the levels cited above are accurate and to serve as exposure indicators. Sound levels have been measured for each task or operation reasonably expected of having noise levels that could result in exposures above 90 dB as an 8-hr. TWA. Regardless of the results however, OSC employees will be required to use hearing protection under pre-defined conditions.

Hearing protection will be required whenever an employee is either using a powered tool or working near loud noises (excavators, sheet driving, or working in heavy equipment with windows open). Hearing protection may be obtained from the HSO. Each employee is responsible for wearing hearing protection when required. Replacements may be obtained from the HSO, if necessary. Employees are encouraged to use hearing protection voluntarily if communications are not compromised.

RESPIRATORY PROTECTION (*NOT ANTICIPATED FOR THIS PROJECT)*

Project personnel may be required, if necessary, to use respiratory protection to reduce their exposure to airborne hazardous substances. The standard requirements that determine the selection and use of respirators depend on the hazards present. Respirators will also be made available, at the project work area, for emergencies.

Only respirators that are approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupation Safety and Health (NIOSH) are allowed. Use must follow the regulatory requirements set forth by OSHA 29 CFR 1910.134 and OSHA 29 CFR 1926.103.

OSC employees may voluntarily use a filtering facepiece in conditions when respiratory protection is not mandatory. Employees that are medically cleared to use an APR may wear any type respirator voluntarily.

Medical Clearance & Fit Testing

All personnel, which are assigned to tasks where a respirator is needed, must have prior medical clearance. Medical evaluations and fit testing are provided by OSC. Fit test records and all project personnel medical documentation will be filed and maintained onsite, by the HSO.

Medical limitations and restrictions will be strictly enforced. No employee will be permitted to use a respirator if he/she has any facial abnormality or facial hair that may affect the fit or seal of their respirator

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Training

All personnel who are required to wear a respirator will receive training (in addition to required annual training) from the HSO on the use, maintenance, proper care and inspection of their respirators. Attendance at all training will be documented. Attendance records will be maintained onsite by the HSO and will be available for inspection upon request.

Inspection

All respirators to be used at the jobsite will be inspected for damage by the employee, prior to use. After they are trained, every employee will be responsible for inspection of their own respirator. The following elements will be inspected;

- Tightness of the connections
- Face piece
- Headbands
- Inhalation valve
- Cartridge or filter fittings
- Signs of deterioration

Any malformation, distortion, missing parts, cracks, etc. in the respirator will cause the equipment to be deemed useless until a qualified technician can properly repair the respirator. If necessary, a new respirator will be issued.

Respirator Type

The type of respirator, and who is required to wear them, will be identified on a task specific level by the HSO, in consultation with the Director HS&E, based on the type of work that will be performed and the potential for exposure to airborne contaminants.

Standard Procedure for Use

All personnel will adhere to the following standard operating procedure for respirator use;

- Carefully inspect the respirator prior to entering potentially contaminated work areas
- Conduct positive and negative pressure leak tests each time the respirator is to be used
- Do not remove the respirator in contaminated work areas
- Wear a respirator with straps inside disposable garment hood (if equipped)

Cleaning and disinfecting

Any reusable respirator must be cleaned after each use. The steps required to clean a respirator after use are;

- Remove the cartridge and headbands
- Disassemble all respirator parts
- Wash all parts, except for the cartridge and headband, in a cleaner-disinfectant solution or use soap and hot water
- Rinse all parts completely in clean, warm water
- Air dry in a clean, sanitary area
- Re-assemble the respirator
- Store the cleaned respirator in a sealed bag.

Storage

Respirators will be stored in a sealed bag to protect against dust, sunlight, extreme temperature, moisture and abrasives. Inhalation holes will be covered with duct tape immediately after leaving a contaminated area. The tape will be left on until the respirator is donned for the next entry into a contaminated area. This tape will prevent any contaminants from being dislodged from the cartridge. Respirators should be stored so that the face piece and exhalation valve will rest in a normal position and function will not be impaired by the elastic setting in an abnormal position. The respirator should not be hung to store or air dried by its straps.

STANDARD OPERATING PROCEDURES (SOPs)

General

- Ensure that all safety equipment and protective clothing is kept clean and well maintained.
- Ensure that all prescription eyeglasses are safety glasses and are compatible with respirators. No contact lenses are allowed at this Project site.
- Ensure that all disposable or reusable gloves are approved by the HSO
- Respirator filters will be changed daily.
- At the end of each day, decontaminate or dispose of all PPE used onsite. The HSO is responsible for ensuring decontamination before PPE reuse.
- All Project personnel will have vision or corrected vision to at least 20/40 in one eye.
- Onsite personnel that are found to be disregarding any provision of this HASP will be barred, at the request of the HSO, from this Project.
- Do not reuse disposable outerwear such as coveralls, gloves and boots. Used disposable outerwear will be removed upon leaving the exclusion zone and placed inside disposable containers that are provided for this sole purpose. The containers will be stored at the project site, at the designated staging area, and OSC will coordinate with PARSONS for the proper disposal of these materials at the completion of the project.
- When working, immediately replace protective coveralls that have become torn or badly soiled.
- Eating, drinking, smoking, chewing gum and tobacco use shall be in designated areas.
- All personnel must thoroughly wash their hands, face and forearms prior to using the facilities, eating, drinking and smoking.
- NO alcohol, drugs (without prescriptions) or firearms will be allowed onsite at any time.

All personnel who are on medication with a safety-sensitive affect will report it to the HSO, prior to work start-up, The HSO will require a letter from the individual's personal physician stating what limitations, if any; the medication may impose on the individual.

EXCAVATION SAFETY (*NOT ANTICIPATED FOR THIS PROJECT)*

OSC maintains strict procedure for soil excavations. The safety of all employees during these operations depends on the soil structure and stability, contamination, weather conditions, buried utilities and structures and superimposed loads.

When excavating within a wet, sandy area, or if the area has been backfilled at any time, it is likely to be very unstable. All personnel working in these conditions must be cautious and provide extra sloping, if possible. A change in weather conditions, such has heavy rain or snow, can loosen the soil and increase the risk of a collapse. If the area of excavation is prone to collapse precautions, such as covering the area, should be taken. Heavy equipment or materials should be kept as far away as possible from the excavation area because they can also increase the risk of collapse. All excavated soil should be removed from the rim of the area and contained if possible.

An excavation competent person must be on site anytime entry into an excavation is necessary. Any person entering an excavation must be trained in the hazards and safe work practices of excavations.

To eliminate the impact on buried pipelines or cables, before any excavation begins OSC personnel will notify all utility companies to locate their lines. If such a hazard exists, the lines will be carefully marked (potting, hand digging, etc.) prior to the start of the excavation activities.

When deeper than five feet, to prevent collapsing soil the excavation must be sloped, shored or somehow contained before any personnel may enter. A ladder will be provided for employees who are working in depths for more than four feet and spacing between will not exceed 25 feet. The ladder will not be removed until all employees have exited the excavation site.

All excavation sites will be inspected daily by an OSC designated competent person. All activity will cease if the competent person, site superintendent, and/or the HSO find the site hazardous. The competent person will make an inspection any time there is a change in conditions (i.e., weather, water, heavy equipment operation, etc.).

EXTERIOR PRECAUTIONS

OSC requires that all exterior structures (sidewalks, bridges, etc.) be protected and clear of excavated materials. Sidewalks will be shored to carry a load of at least 125 pounds/sf. Planks, which are being used for temporary walkways, will be laid parallel to the length of the walkway and will be fastened together. If possible, guard rails or fences will be erected to protect employees and vehicle traffic from the edge of excavation sites.

LOCKOUT/TAGOUT POLICY

For repairs or maintenance, equipment will be locked out. This procedure ensures the health and safety of all personnel by deactivating any movable, electrical or pressurized equipment. This policy applies to all machinery or equipment that can be moved either using electrical power, hydraulic power, compressed air, steam or energy stored in springs/suspension devices. Damaged tags will be placed on all movable equipment and machinery.

Only project personnel and supervisors are authorized to lockout machinery/equipment. Every employee is responsible for his/her own equipment and nobody else is permitted to remove a lock or tag except the authorized employee. Any violation of this policy is cause for strict disciplinary action.

Lockout Procedures

Lockout devices are used to prevent the accidental re-energizing of equipment.

De-energizing Circuits and Equipment: Disconnect the circuits and equipment, to be worked on, from all electrical sources and release stored energy that could accidentally re-energize equipment.

Application of Locks and Tags: Only authorized personnel are allowed to place a lock and tag on each disconnecting – means used to de-energize the circuits or equipment before the work begins. A lock prevents unauthorized personnel from re-energizing the equipment or circuits. A tag prohibits unauthorized operation of the disconnecting device.

Verification of De-energized Condition of Circuits/Equipment: Prior to work on equipment, OSC requires that a "qualified" employee verify that the equipment is de-energized and cannot be restarted. This is typically done by a visible break in the conductors (i.e. air gap) of one foot or more.

Re-energizing Circuits and Equipment: Before circuits or equipment are re-energized, the following steps must be taken in the following order:

- A "qualified" employee conducts tests and verified that all tools and devices have been removed.
- All exposed employees are warned to stay clear of the circuits and equipment.
- Authorized personnel will remove their own locks and tags.
- The HSO will conduct a visual inspection of the area to be sure all employees are clear of the circuits and equipment.

ELECTRICAL

Only qualified and authorized personnel may work on or around electrical equipment. OSC personnel are not permitted to work on energized lines or equipment. Live or hot work must be contracted to a qualified third party unless specific authorization is given by the OSC President or Director HS&E. The following shall be observed;

- The working space around all electrical equipment will be large enough to permit access to all parts of the equipment. The working space will never be used for the storage of other materials so that immediate access can be gained.
- Only NEC certified electrical tools may be used.
- A ground fault circuit interrupter (GFCI) shall be utilized with all portable electric tools; plugged in at the source and tested prior to use. All electrical equipment shall be properly grounded or guarded (double insulated tools, GFCI).
- Single phase electrical tools must be plugged into properly grounded receptacles.
- The use of extension cords is discouraged. If their use is necessary, extension cords must never be used in traffic areas where they may be a hazard, or where they may become unplugged. Extension cords will always be grounded.
- Any energized electrical equipment, operating at 50 volts or higher, must be protected by a cabinet or other approved enclosure with warning signs that are immediately visible.

FALL PROTECTION

All work form elevated heights > 6 ft. with an open edge to the next lowest level shall be performed as supervised by a competent person. In all cases proper fall protection systems shall be utilized as determined by the competent person for fall protection; restraint systems (PFRS, guard rails, and warning lines (restricted for unprotected edge work where traditional systems are not practical).

Whenever possible, fall restraint shall be used over fall arrest. OSC observes a policy of 100% tie-off at all times.

INCIDENT PREVENTION PROCEDURES

SAFETY TASK ANALYSIS CARD

The Safety Task Analysis Card (STAC) process is a required component of all OSC projects. The STAC is a pre-printed, bi-fold card that must be completed by each employee at least once per week. The card is used by the employee as a reference tool throughout their work shift. STAC card observations are used to address new work tasks and/or potential hazards.

STAC's are used in addition to safe work permits and/or approved work procedures. The STAC is designed to be an ongoing learning tool. By breaking jobs into small parts, workers can identify hazards and eliminate or control them. It is intended as a tool to help employees make observations and correct fellow employee at risk behaviors.

The STAC must be completed by each employee at least once per week. This is the minimum requirement. Project personnel found participating in or observing risky actions without submitting a properly completed STAC will be re-trained on the need to do so.

Project supervisors and/or the HSO will review submitted STACs with employees during tailgate safety meetings and identify corrective actions.

FIRE PREVENTION AND PROTECTION

Emergency response and contingency procedures provided this HASP will be in effect throughout all phases of work. Included are firefighting equipment, alarm systems, the location of the closest fire departments and procedures for handling fire emergencies. Firefighting equipment will be inspected on a regular basis, maintained in proper working condition and will be in an accessible place, at the site, at all times.

All heavy equipment will be equipped with a fire extinguisher.

Fire extinguishers will be immediately available when working with or near combustible or flammable items.

A fire extinguisher, rated 2A or greater, will be provided for every 3,000 sf of protected building area, or major fraction thereof, on every floor and they will be placed no more than 100 feet from any point within the building. Fire extinguishers will be placed adjacent to stairways in multi-story buildings. This condition is not expected on the project.

SITE HOUSEKEEPING

The following housekeeping guidelines apply at this site:

- All excess material and debris will be kept clear from all working areas.
- Combustible materials will be removed at regular intervals and all wastes will be properly disposed of at frequent intervals.
- Containers will be provided for the collection and separation of all discarded materials and refuse. Covers and identification will be provided for all containers used for flammable or harmful substances.

MECHANICAL EQUIPMENT

The following guidelines apply when dealing with the inspection and operation of all mechanical equipment;

- All vehicles and equipment, used on the site, must be checked at the beginning of each shift to assure that all parts that affect safe operation are in proper working condition and are free from defects. An inspection form must be completed and filed with the HSO.
- Personnel will not be permitted to operate equipment when there is an obstructed view to the rear or sides, unless there is a spotter.
- Employees will not work or walk under or between any equipment that had parts which are suspended or held aloft unless/until the parts are substantially blocked to prevent falling and shifting.
- Hydraulic leaks must be addressed immediately by stopping the equipment, preventing further leaking and cleaning any hydraulic fluid spills/leaks. Notify the HSO immediately for proper corrective actions to be determined.

HIGH PRESSURE WASHERS

OSC requires that only trained and authorized personnel operate high pressure washers. This policy is intended to protect both *OSC* employees as well as any property where the equipment will be used. The following guidelines apply:

- The lance must always be pointed at the specific work area.
- Personnel will remain at least 25 feet away from the washer; and the item being washed.
- Care should be taken to ensure the proper footing of the operator.
- The operator will wear the following personal protective equipment: Hard hat with face shield, goggles, safety boots with metal foot and shin guards, hearing protection, PVC rain or chemical resistant suit and heavy gloves; as well as any additional equipment to protect against chemicals, as needed.
- OSC requires that all operators be trained in the emergency shutdown procedures and general equipment maintenance of high-pressure washers.

- Under no circumstances will an operator be allowed to make modifications to a power washer while on a job.

VEHICLE AND EQUIPMENT SAFETY

Only trained and qualified personnel may operate equipment and vehicles. This policy is intended to protect all employees and client properties. The guidelines for this policy are as follows;

- Each unit is to be inspected prior to its use on site and then inspected periodically depending on the equipment involved and the manufacturer's specifications.
- No repair work, or refueling, will be done while the vehicles or equipment are in operation. The engine is to be turned off and all buckets, blades, gates or booms must be lowered to the ground, or a substantial support.
- Equipment backup alarms must be operational and audible over the surrounding noise levels. If this is not the case, an assistant must be assigned to the operator and he/she will be required to clear the way.
- Only authorized personnel are permitted to ride in company vehicles and equipment.
- Under no circumstances will an employee be permitted to get on or off a moving vehicle.
- Operators must wear the following PPE: Boots/sturdy work shoes, ear protection devices when the noise level is excessive (see hearing protection section), heavy work gloves. Hardhats and safety eyewear with side shields are required whenever outside of an enclosed cab. Safety glasses and hearing protection are required when cab windows are open.
- The operator must wear seatbelts at all times.
- To ensure the proper visibility all windshields, side windows, mirrors and lights will be cleaned as often as necessary.

Trucks

The following guidelines apply to truck operators;

- A current driver's license must be carried always
- Drivers will check loaded material to ensure against loss or shifting during transit
- All DOT regulations will be followed
- When towing trailers, safety chains (grade 70) must be in used
- Non-OSC drivers must receive site-specific instructions upon arrival such as remaining in the truck, where to tarp loads, required PPE if allowed to exit truck, proper entry procedures, etc.

Heavy Equipment

OSC has the following requirements for operating front end loaders, excavators, dozers and tractors;

- Prior to their use onsite, the equipment's brakes, cables and hoses must be checked and in good working order.
- When the equipment is moving, all blades, buckets and bowls will be carried close to the ground but high enough to avoid any obstacles on the ground. If not in motion, they must be lowered to the ground or to a substantial support.
- No employees are permitted to ride on a boom, bucket, bowl or any other heavy equipment extension.
- All safety equipment must be properly installed, and in good working condition, before a piece of equipment will be used on this project.

SANITATION

Except for mobile crews having transportation readily available, all work sites will have toilets provided that adhere to the following requirements: One toilet for 20 or less employees; one toilet seat and one urinal per 40 employees; if there are 200+ employees, on toilet seat and one urinal per 50 workers.

Adequate washing/showering facilities will be provided on site where there are harmful substances, and they will be in close proximity to the site. An acceptable supply of portable water will be provided onsite, and it will be clearly marked as such. Portable water containers will have tightly sealed tops and a tap.

DAILY INSPECTIONS

The HSO will monitor jobsite hazard mitigation through inspections at the start and throughout each workday. Results of these daily inspections will be recorded on a daily safety log and provided to PARSONS as needed.

Any safety violations will be recorded and corrected by the Project Manager. All observed safety violations will be immediately corrected, explained to the person responsible, and reviewed at the next safety meeting. If an employee has excessive violations of the site safety rules, it will be grounds for disciplinary action which could lead to; termination of OSC personnel or expulsion if an onsite subcontractor personnel.

INCIDENT REPORTING

OSC will prepare and maintain (on site) incident reports that include corrective actions. These reports will be provided to PARSONS within 48 hours of the incident and as needed. Each incident report will be reviewed by the OSC Director HS&E. Verbal notification shall be within 2 hours.

Any occupational incident, which results in the death of one or more employees will be reported to OSHA within 8 hours. The inpatient hospitalization an employee and all amputations or loss of an eye will be reported within 24 hours. All such incidences will be reported by OSC to the nearest OSHA Area Director during normal business hours or at the National Hotline (800-321-OSHA (6742).

In addition to OSC's internal reporting requirements, Honeywell requires all incidents (adverse events) to be investigated and based on the severity, requires notification of the incident within specified timelines. Adverse events are divided into three tiers: Tier 1 events are the most significant and serious events, followed by Tier 2, which are significant events but not as serious as Tier 1 events, and Tier 3 events are essentially all other events that do not meet the criteria for Tier 1 or Tier 2 events. Tier 1 events are to be reported within 2 hours, Tier 2 events are to be reported within 24 hours, and Tier 3 events are to be reported when possible.

Adverse events include the following:

Tier 1:

- A release to air, water or soil that has an actual or potential off-site adverse environmental impact.
- One or more on-site fatalities;
- Three or more employees, contractors or visitors admitted to a hospital;
- Any off-site fatalities, injuries, or harmful exposures resulting from Honeywell products or operations;
- Any security incident that may be immediately dangerous to life or property, including fires, explosions, bomb threats, chemical release, radiation release, release of a biological or chemical agent (aerosolized or gaseous form);
- Suspicious materials, package or letter that poses immediate risk to employees and has been;
- Government representatives alleging or suggesting criminal non-compliance of any kind;
- Receipt or notice of any regulatory agency directive or other type of injunctive device designed to curtail or restrict operations; and,
- Community injuries or diagnoses of illnesses allegedly associated with a company-related incident, event or release to air, water or soil.

Tier 2:

- Employee or contractor lost workday injuries/illnesses.

- Employee, contractor or visitor recordable injuries/illnesses (Criteria: "Honeywell Global Recordkeeping Requirements").
- An environmental excursion that does not also trigger Tier 1 reporting.
- A release to air, water or soil that only narrowly avoided an adverse environmental impact or had the potential to be an excursion.
- Discovery of potential or actual evidence of contaminated groundwater from current or former operations that does not otherwise meet the definition of a Tier 1 Event.
- Suspicious activities in or around Honeywell facilities or processes that may present a potential security risk.
- Allegations of previously unknown health/safety/environmental effects caused by products, processes, emissions or discharges (Reference: Risk Management and Reporting (Pstew-3)).
- Written notification from a governmental agency alleging non-compliance of any kind.
- Proposal or imposition of an HSER fine, penalty or corrective action.
- Receipt of a non-routine request for information from a governmental agency.
- A non-routine regulatory agency inspection.
- Audits (Peer review, Self-assessments, SBU, Third party findings and recommendations)
- Significant community activism or adverse media coverage not associated with an episodic event.
- A product recall imposed by a regulatory agency.
- Transportation-related event that results in Tier 2 impacts.
- Notice of an allegation from a third party or regulatory agency of environmental impacts from operations on current or formerly operated Honeywell facilities.
- Demands, including voluntary agreements, to conduct a site investigation or remedial measures to respond to environmental impacts from operations on current or formerly operated Honeywell facilities.

Tier 3:

The following Tier 3 events shall be entered into the event tracking system within seven (7) calendar days:

- On-site or off-site employee, contractor employee or visitor injuries/illnesses where first-aid treatment or evaluation is provided by a Medical or Para-Medical Professional.
- A regulatory agency inspection (which is not a Tier 1 or Tier 2 Event and may still be underway) with no notice of fine, penalty or corrective action.

Adverse events must be reported to the PM, the PARSONS engineering and construction manager, the RM, as soon as possible following the event. All Tier 1 and Tier 2 adverse events must be investigated, and a written investigation report must be prepared and submitted to the Honeywell Event Reporting System.

MEDICAL SURVEILLANCE

MEDICAL EXAMINATIONS

OSC field personnel are provided with a thorough, initial medical examination to assess fitness for the project and to provide baseline health data for subsequent reference. Examinations are conducted by a qualified health care provider and repeated annually (unless abnormal test results, annual "questionnaire" answers or other problems dictate more frequent observation). A copy of the physician's statement certifying each employee's ability to work at task specific operations will be maintained in the project file by the HSO.

During the medical examination employees will be evaluated for their ability to wear respiratory protection. This evaluation will include, at a minimum, an examination of the cardiopulmonary system; including forced vital capacity (FVC) and forced expiratory volume C 1 second (FEV 1.0). When indicated by the physician, other tests of the respiratory and cardiovascular systems will be performed on the basis of an individual's past history, findings of the above below evaluation, and/or the type of equipment the individual may be required to use.

Following is an example of a baseline yearly medical examination:

Medical Monitoring Protocol				
Exam Components	**Baseline**	**Annual**	**Interim**	**Exit**
Vital Signs	Yes	Yes	Yes	Yes
Vision Screening (Includes Peripheral and Color)	Yes	Yes	Yes	Yes
Urine Drug Screen	Yes	Yes	As needed	As needed
DOT hearing	Yes	Yes	No	Yes
Spirometry	Yes	Yes	Yes	Yes
Chest X-Ray (asbestos work only)	Yes	3	No	3
Review of History	Yes	Yes	Yes	Yes
Physical Exam	Yes	Yes	Yes	Yes
Notes: Only do an X-ray if not done within the last 12 months Only do an X-ray if not done within the last 3 years For medical indications only				

NOTE: Any employee who develops a lost time injury or illness, during the period of this contract will be evaluated by the OSC medical consultant. The project supervisor will be provided with a written statement that indicated the employee's fitness and ability to return to work, signed by the medical consultant prior to allowing the employee to re-enter the work zone.

AIR MONITORING:

Lower Explosive Limit (LEL) monitoring will be conducted around each tank containing coal tar prior to beginning work each day and when coal tar is being handled. Concentrations greater than 10% of the LEL will result in work stopping immediately for further evaluation. When LEL concentrations are zero, the HSO shall determine the need for additional monitoring.

Volatile Organic Compound monitoring (breathing zone) shall be performed when odors are detected. Monitoring will be conducted using a MultiRAE Lite with a 11.7 lamp. Work resulting in readings of 0.6 ppm TWA after four hours shall stop and the OSC Director, HSE contacted for further evaluation.

CONFINED SPACE ENTRY PROCEDURES (*NOT ANTICIPATED FOR THIS PROJECT)*

The following guidelines outline the minimum acceptable criteria that will be utilized by *OSC* and subcontractor personnel for all confined space entry operations.

All project specific confined space entries will be thoroughly reviewed by the designated HSO. Confined Space Permits shall be issued and approved in conjunction with the PARSONS Project Manager. Personnel entering and working in confined spaces will be required to adhere to the OSHA Permit-Required Confined Space Standard 29 CFR 1926.1200 and the OSHA General Duty Clause. Affected project personnel are instructed in these OSHA regulations as part of the OSC employee training program.

The HSO will be responsible for reviewing the applicable entry protocol with the field team, prior to confined space entry.

DEFINITIONS

CONFINED SPACE: There are two types of confined spaces: permit required and non-permit required. OSHA's "PRCS Evaluation Procedures and Decision Flow Chart" will be used to evaluate the potential for permit require confined space.

PERMIT REQUIRED CONFINED SPACE (PRCS): The space contains, or has the potential to contain;

- A hazardous atmosphere. A hazardous atmosphere is defined as any space where the oxygen is below 19.5% or above 23.5%, combustible vapors are above 10% LEL, or high

toxic concentrations are present which may cause death, incapacitation or an impaired ability to self-rescue.
- The space contains a material that may engulf an entrant.
- The space has an internal configuration that may trap or asphyxiate entrants.
- The space contains any other serious heal, safety or environmental hazard.

NON-PERMIT REQUIRED CONFINED SPACES: OSHA defined a non-permit required confined space as a PRCS in which all serious hazards have been eliminated. Non-permit required confined spaces will be re-evaluated by the HSO using the "PRCS Evaluation Procedure and Decision Flow Chart" (see attached) whenever they or their characteristics change in a way that could lead to reclassification as a PRCS.

PERSONNEL RESPONSIBILITIES

Entry Supervisors

OSC will designate an entry supervisor to oversee the confined space entry and ensure that personnel engaged in PRCS entry operations will comply with this procedure. Entry supervisors will:
- Verify that all tests, specified by the permit, have been conducted and that all procedure and equipment specified by the permit are in place before endorsing the permit and allowing the entry to begin.
- Terminate the entry and cancel the permit when the entry operations covered by the entry permit have been completed, or whenever a condition that is not allowed under the entry permit arises in or near the PRCS.
- Verify that rescue services are available and that the means for summoning them are operable.
- Remove all unauthorized individuals who enter, or attempt to enter, the PRCS during entry operations.
- Determine that the entry operations are consistent with the terms of the entry permit and that acceptable entry conditions are maintained.

Attendants

The entry supervisor will designate a qualified attendant for each PRCS operation. To be qualified, an attendant must know the hazards that authorized entrants may encounter during an entry (including information on the mode, signs and symptoms, and consequences of exposure) and must be aware of the behavioral symptoms of hazard exposure. Attendants will;

- Remain outside the PRCS during entry operations until relieved by another attendant.
- Warn all unauthorized entrants that they must stay clear of the PRCS, or that they must immediately exit if they have entered the PRCS.

- Inform the entry supervisor, if unauthorized personnel have entered the PRCS.
- Continuously maintain an accurate count of entrants in the PRCS and ensure that the means used to identify authorized entrants accurately identifies the entrants.
- Communicate with authorized entrants, as necessary, to monitor entrant status and to alert entrants of the need to evacuate the PRCS.
- Monitor the activities both inside and outside the PRCS.
- Immediately order evacuation of the PRCS if a prohibited condition is detected, the behavioral effects of hazard exposure in an authorized entrant are observed, or a situation outside the PRCS is found that could endanger the authorized entrants; or if the attendant cannot effectively and safely perform his/her duties and responsibilities.
- Perform non-entry rescues, as specified by the Confined Space Entry Permit; summon rescue and other emergency services as soon as it is determined that authorized entrants may need assistance to escape from PRCS hazards.

Attendants will NOT, under any circumstances;

- Monitor more than one occupied PRCS at any given time;
- Perform any duty that might interfere with their primary duty to monitor and protect the authorized entrant; or
- Enter the PRCS for rescue purposes.

Entrants

Authorized PRCS entrants will be identified on each Confined Space Entry Permit. Authorized entrants will;

- Know the hazards, including information on the mode, signs or symptoms, and consequences of exposure.
- Properly use the PPE provided for the PRCS entry.
- Communicate with the attendant, as necessary, so the attendant can monitor entrant status and alert entrants of any need to evacuate the PRCS.
- Evacuate the PRCS and alert the attendant whenever they recognize any warning signs or symptoms of exposure to a dangerous situation; or they detect a prohibited condition; or whenever the attendant or entry supervisor orders the evacuation; or when an evacuation alarm is activated.

TRAINING

All project personnel will be instructed not to enter PRCSs without the proper permit and without following the procedure and practices outline in this SOP and in the Confined Space Entry Permit. Personnel, who are required to enter a PRCS, or act as an attendant or entry supervisor, will be

trained to acquire the understanding, knowledge and skills necessary for the safe performance of their assigned responsibilities and duties.

Entrants will receive training on;

- The means and methods used to communicate with attendants; as well as the means attendants will use to notify them of emergencies.
- The operation of any specialized equipment that is expected to be used, including monitoring and rescue equipment.
- Evacuation signals and procedures; as well as the need for entrants to notify the attendant and evacuate the PRCS if they detect any dangerous conditions.

Attendants will receive training on:

- The procedures for monitoring inside and outside the PRCS and recognizing the conditions that might be hazardous to entrants;
- Procedures for communicating with entrants;
- Procedures for evacuating entrants from the PRCS and when evacuation is required;
- Procedures for controlling access to the PRCS;
- Their responsibility to remain outside the PRCS during entry, unless they are relieved by another attendant, and
- Non-entry rescue procedures.

Entry Supervisors will receive training on;

- Verifying that the Confined Space Entry Permit has been completed properly;
- Procedures for verifying that all tests specified by the Permit have been conducted;
- Requirements for verifying that all the procedures and equipment specified by the Permit are in place before allowing entry to begin;
- Procedures for determining if conditions are acceptable for entry;
- Authorizing entry operations, and
- Terminating entry.

All training will be conducted:

- Before the employee is first assigned confined space duties (initial training);
- Before a change in assigned duties;
- Whenever there is a change in permit space operations that presents a hazard about which employee has not previously been trained, and
- Whenever project management comment, involved regulatory officials, or the project engineer has reason to believe that there are inadequacies in the knowledge or use of these procedures.

When complete, training will be certified by the instructor. The certification will list the names of the personnel presenting and receiving training and the dates of training. Training certification documentation will be maintained as part of the Project file kept at the site and in the individual's personnel files in the home office.

PRCS ENTRY PROCEDURE

Atmospheric Testing

Before an employee enters any confined space, the entry supervisor will test the internal atmosphere with a calibrated, direct reading instrument to determine if acceptable entry conditions exist for the following conditions, in the given order:

	Condition	Acceptable Parameter(s)
A.	Oxygen Content	Above 19.5% and Below 23.5%
B.	Flammable Gases and Vapors	Less than 10% LEL
C.	Potential Toxic Air Contaminants	Below Action Levels for PPE

Continuous systems which cannot be isolated (i.e. sewers) or activities which generate significant airborne contaminants (i.e. welding) will be continuously monitored during entry, unless forced mechanical ventilation is used and has been shown to maintain an acceptable atmosphere.

Entry

The HSO will use the "PRCS Evaluation Procedures and Decision Flow Chart" to verify the presence of a PRCS. If it is determined that a PRCS does exist, the HSO will review the confined space entry procedures with entry personnel; post OSHA required danger signs at the entrances to the PRCS and notify Project personnel of the PRCS location(s); notify offsite emergency response services of the PRCS; and prepare a Confined Space Entry Permit.

Confined Space Permit

The entry supervisor will be responsible for completing the Confined Space Entry Permit. All items on the Permit must be completed. The entry supervisor will verify that all entry personnel are aware of the specific hazards that are associated with the PRCS; that all necessary safety equipment and materials are in place; that all emergency response procedures are in place; and that the pre-entry air monitoring results indicate acceptable entry conditions, before signing the permit.

Pre-entry Briefing

The entry supervisor will conduct a pre-entry briefing with the attendants and authorized entrants to discuss the requirements of the Permit and to ensure that all involved personnel understand their responsibilities and the specific hazards associated with the PRCS. A pre-entry briefing will be conducted, for each attendant and entrant, prior to entry and whenever new hazards are identified.

Entry Authorization

The entry supervisor will sign the Confined Space Entry Permit after the Permit has been completed, all safety equipment is in place, air monitoring results are acceptable, the pre-entry briefing has been conducted and the rescue procedures have been established. Once the permit has been signed:

- Entrants will wear all necessary safety and rescue equipment;
- The Permit will be posted at , or near, the PRCS entrance, and
- Entry procedures will begin.

Permit Exit and Cancellation

Each Entry Permit will be valid for one shift only. Expired and canceled Permits will be returned to the Site Superintendent who will file them with the Project documents. Permits will be canceled if;

- A new hazard is identified or encountered;
- An entrant is seriously injured and requires evacuation and/or rescue; or if
- A change in the scope of work required new activities which may create previously unanticipated hazards that could cause serious death or injury.

RESCUE/EMERGENCY RESPONSE

Offsite Rescue and Emergency Services

Offsite rescue and emergency service personnel will be informed by the HSO of the hazards they may confront when called to the jobsite to perform services. These services will be identifies and notified prior to any entry. Entry will not be performed if emergency rescue services are not available. The rescue/emergency service personnel will be provided access to all permit spaces from which the rescue may be necessary, so that the emergency responders can develop appropriate rescue plans and conduct rescue operations.

Non-entry Rescue

Non-entry rescues, retrieval systems or methods will be used whenever an authorized entrant enters a PRCS, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant.

Each authorized entrant will use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level or above the entrant's head. Retrieval lines will be attached to a mechanical device or a fixed point outside the Permit space, in such a manner that rescues can begin as soon as the rescuer becomes aware of the necessity. The mechanical device will be ready to retrieve personnel from vertical PRCSs more than five feet deep.

DECONTAMINATION PROCEDURES

Decontamination of equipment and personnel will be performed as necessary and as defined in the project scope. All equipment and personnel will be decontaminated before leaving the property.

Personnel and equipment decontamination procedures to be employed are summarized in the following subsections.

PERSONNEL HYGENE AND DECONTAMINATION

Personnel will be made aware of any personal habit that may allow contaminants into or onto their body. All personnel will check that regularly worn PPE (i.e. hardhats and liners, eye protection, etc.) is clean and in good condition. A storage area for decontaminated PPE will be provided and used outside the contaminated zone. Any products used for personal consumption are prohibited in any work area. Break areas will be limited to specific areas where eating, drinking, smoking, etc. and the storage of these materials will be allowed.

A typical personnel decontamination sequence is presented below.

- Step 1: Scrape the gross contamination from boots and outer gloves. Wash them using soap in a water solution and rinse with water into a designated container in the contamination reduction zone.
- Step 2: Remove the tape from and around boots an outer gloves and deposit in a collection drum (if disposable) or store on a rack (if reusable). Remove the over boots and outer gloves and place in a collection drum (if disposable) or wash and place on a rack (if reusable).
- Step 3: Remove respirator cartridge and place in a collection drum.
- Step 4: Remove disposable coveralls and place in a collection drum. Remove boots and store in an appropriate location. Remove disposable inner gloves and dispose of them in a collection drum.
- Step 5: Remove hardhat and safety glasses: Decontaminate as necessary (wash with sanitizing solution [MSA sanitizing solution or equivalent], rinse with potable water and allow to dry at the end of each day).
- Step 6: Remove respirator, if used, and deposit in a plastic liner. Avoid touching face with fingers. Respirators will be washed in a sanitizing solution (MSA sanitizer or equivalent), rinsed with portable water and allowed to air dry at the end of each day.

- Step 7: Thoroughly wash and rinse any exposed skin with water and biodegradable soap using bucket 1. Rinse in bucket 2. Re-rinse in bucket 3. Shower and launder all personal clothing as soon as possible upon completing daily activities.

Personnel hygiene, hand and face washing, following decontamination will take place in the project support area.

EQUIPMENT DECONTAMINATION

The HSO will be responsible for inspecting decontaminated vehicles, equipment and material contaminated work areas, to ensure proper decontamination. The users and HSO will verify that each piece of equipment utilized in the exclusion zone has been properly decontaminated.

Decontamination personnel will be required to use Modified Level D PPE as specified in this HASP. The standard operating procedure for the use of high-pressure washers, also provided, will be strictly followed to prevent injury.

HEAVY EQUIPMENT DECONTAMINATION

As a general practice, equipment, such as excavators, bulldozers, etc. will remain within the work zone for the duration of the excavation activities. This ensures the minimization of the potential migration of contaminants outside the project limits. In addition, the sequence of excavation has been designed to avoid the movement of machinery and personnel over areas within the work zones that have been excavated.

Generally heavy equipment, and large materials used in potentially contaminated areas equipment, will be decontaminated as outlined below;

- Conduct gross removal of solids at point use.
- Degrease as necessary.
- Move to the equipment decontamination pad for decontamination via pressure washing.
- Collect and handle resultant liquids/solids.

TOOLS AND SMALL EQUIPMENT DECONTAMINATION

Tools and smaller equipment that may have come in contact with potentially contaminated materials will be decontaminated using the procedures outlined below;

- Flush and wipe components to remove debris and other gross contamination.
- Clean with potable water and non-phosphate detergent (i.e. Alconox) using a brush or high-pressure washer, as necessary, to remove particulate matter and surface films.
- Rinse thoroughly with potable water.

- Allow to air dry for as long as possible.

NON-DISPOSABLE SAMPLING EQUIPMENT

Non-disposable sampling equipment that may have come into contact with potentially contaminated materials will be decontaminated prior to collecting each sample as follows;

- Clean with potable water and non-phosphate detergent using a brush, if necessary, to remove all visible foreign matter.
- Rinse thoroughly with potable water.
- Rinse thoroughly with de-ionized water.
- Visually inspect the openings and treads for solid materials.
- Allow to air dry as long as possible on a clean polyethylene sheet or aluminum foil.

DISPOSAL OF DECONTAMINATION WASTES

All equipment and solvents used for decontamination will be decontaminated or disposed of properly through PARSONS. All aqueous liquids generated in the personnel and equipment decontamination process will be collected, characterized and appropriately disposed of. All disposable PPR will be containerized in drums and properly disposed of.

EMERGENCY EQUIPMENT and FIRST AID REQUIREMENTS

Emergency and first aid equipment to be maintained onsite will include the following;

- Approved, portable, emergency eye wash units in accordance with ANSI Standard Z358.1
- At least one industrial first aid kit will be provided and maintained at an easily accessible, uncontaminated location chosen by the HSO. Additional first aid kits will be provided as needed
- First aid and CPR kit locations will be specifically marked by the HSO and stocked with adequate water and other supplies necessary to cleanse and decontaminate burns, wounds or lesions.
- 10#A: B: C type dry chemical fire extinguishers will be provided at all project site locations where flammable materials present a fire risk. Mobile equipment will be equipped with 2-pound extinguishers.

Agencies and medical facilities that need to be contacted in the event of an onsite emergency, as well as directions to the nearest hospital, are identified at the beginning of this HASP. The tables stating the emergency contact information and hospital location will be posted in a prominent location(s) onsite.

If a site worker becomes injured or ill, Red Cross/American Heart Association recommended first aid procedures shall be followed. First aid, or other appropriate initial reactions, will be provided by the certified first aid technician that is closest to the incident.

NOTE: When protective clothing has been grossly contaminated during an incident, contaminants may be transferred to the treatment personnel or the wearer and cause injuries. Unless severe medical problems have occurred simultaneously with splashes, protective clothing should be washed off as quickly as possible and removed. If the worker can be moved, he/she will be taken to the personnel decontamination station where decontamination procedures, additional first aid or preparation for transport to the hospital will be accomplished. In the event that the victim could not be decontaminated, the rescue service provider must be notified of the situation.

If the injury to the worker is of a chemical nature, the procedures listed below are to be followed;

Eye Exposure: If contaminated solids or liquids get into the eyes, wash eyes immediately using large amounts of water while lifting the lower and upper eyelids occasionally. Wash for at least 15 minutes. Obtain medical attention.
Skin Exposure: If contaminated solids or liquids get on the skin, promptly wash the contaminated skin using soap and water. Immediately obtain medical attention.
Respiratory Exposure: Immediately move the victim to fresh air. Obtain immediate medical attention.
Ingestion Exposure: Identify what contaminant was swallowed. Follow the appropriate procedure described in the SDS and obtain medical attention as soon as possible.

NOTE: Any person who is transported to the hospital for treatment related to an exposure injury will take with them the appropriate information (i.e. SDSs) on the chemical to which he/she has been exposed. SDSs for known or suspected chemicals to exist onsite will be stored in OSC's project field office and maintained by the HSO.

MEDICAL EMERGENCY RESPONSE

REPORTING AN EMERGENCY

The HSO will immediately notify the Site Superintendent stating the points that are listed under a minor injury. However, with a major emergency the HSO must state that this is a major emergency. Concurrently the HSO must direct that 911 be called if not already done so. The Site Superintendent will react as follows:

- Call OSC's Corporate Director HS&E
- Call fire department (if necessary)
- Call police
- Call PARSONS Project Manager

PRE-PLANNING

All work will be coordinated with the PARSONS Project Manager. Arrangements for emergency services will be made prior to initiating onsite operations. Emergency response procedures will be covered as part of the project training.

EMERGENCY CHAIN OF COMMAND

In the event of an emergency, personnel will immediately notify the HSO, using available communications. The HSO will assess the situation and take appropriate action which can include ceasing all work; ordering evacuation of the work zone; requesting emergency medical treatment; and/or administering first aid.

WEATHER

In the event of severe weather (lightning, high winds, etc.), the HSO will notify project personnel. As the storm approaches, all work will stop, loose object will be secured, and site personnel will take shelter at a location pre-arranged by the HSO. After the severe weather has passed, and prior to work startup, the HSO will inspect the site for hazards.

Lightning – Any visual sighting of lightning will result in stopping outside work activities. Work will not commence until 30 minutes after the last observed strike.

High Winds – Winds higher than 30 mph will cause all exterior hoisting and lifting to cease. Crane operators have the authority to stop lifts at lower wind speeds based on their discretion.

Project Tornado Shelter (not anticipated for this project) - To be determined with initial hazard exposure assessments and site mobilization. All reasonable efforts should be made to access this location in the event of a tornado. Recognizing imminent tornado signs include seeing an unusually dark sky, possibly with some green or yellow clouds. You may hear a roaring or rumbling sound like a train, or a whistling sound like a jet. Large hail may also be falling. You may be able to see funnels, or they may be hidden by rain or hail.

Listen to the radio for tornado warnings during bad thunderstorms. If a tornado warning is issued, don't panic. Instead, listen and look. Quickly but calmly follow directions for getting to shelter. Take cover. Indoors you should go down into the basement and crouch down under the stairs, away from windows. Do not take an elevator. If you can't get to a basement, go into a closet or bathroom and pull a mattress over you or sit underneath a sturdy piece of furniture on the ground floor near the center of the building. Pull your knees up under you and protect your head with your hands. A bad place to be in a tornado is in a building with a regular freestanding roof such as a gymnasium, arena, auditorium, church or shopping mall. If you are caught in such a building, take cover under something sturdy. More than half of tornado deaths occur in mobile homes. If a tornado threatens, get out and go to a building with a good foundation, or lay down in a ditch away from vehicles and other objects.

If you are driving, get to a shelter, lie down in a ditch or seek cover up under the girders of an overpass or bridge. Stay as close to the ground as you can. Protect your head and duck flying debris. Stay away from metal and electrical equipment because lightning accompanies tornadoes.

If you have time before the tornado strikes, secure objects such as garbage cans and lawn furniture which can injure people. While most tornado damage is a result of the violent winds, most injuries and deaths actually result from flying debris.

SPILL CONTAINMENT PROCEDURES

The purpose of this section is two-fold; to prevent and control accidental discharge of polluting materials to surface soils and waterways (or groundwater); and to minimize and abate the hazards to human health and the environment from hazardous waste releases to air, soil or surface water. These procedures will be reviewed with project personnel prior to startup and thereafter as necessary during regular weekly HS&E meetings and daily briefings.

EMERGENCY NUMBERS

The names and phone numbers of emergency services and offices to be contacted in the event of a spill, or any other onsite emergency, is provided in the Contact Information portion located at the beginning of this HASP. These phone numbers will be posted by the HSO in prominent positions throughout the Project site.

DEFINITIONS

For the purposes of this plan, spoils are defined as any material that is accidentally or intentionally leaked, pumped, poured, dumped or emitted onto the ground, surface water, groundwater or air. All spilled material will be considered hazardous; cleaned up following the established spill response procedures; and reported as required.

Spills will be categorized as: Priority 1 or Priority 2.

Priority 1 Spills: Result in a significant release of contamination into the air, or onto the ground, outside the exclusion zone.

Priority 2 Spills: Result in minor spill, less than five (5) gallons and not reportable, which can be easily cleaned up.

POTENTIAL SOURCES and PREVENTATIVE MEASURES

The contracted work has potential spill sources. These include, but are not limited to:

Potential Spill Source	Preventative Measure(S)
Transporting waste material to selected on and offsite disposal facilities	In general PARSONS will be require to verify that all transportation vehicles used in support of this contract are equipped with the appropriate spill response equipment, and that the drivers have received the proper spill response training and maintain all their require federal and state licenses and certifications. Loads will be secured, tied down and covered, and transport vehicles will be checked prior to release from the site.
Re-fueling onsite equipment	*OSC* will prohibit the long term storing of diesel fuel. *OSC* will limit the amount of fuel kept onsite to only that required for weekly equipment usage.
General spill prevention requirements	Easily accessible spill response stations will be set up containing absorbent pillows, floor dry, shovels and brushes to be used in the event of a spill. The location will be known to all project personnel.

SPILL RESPONSE PROCEDURES

Initial Containment and Response

In the event of a spill, the following initial containment and response procedure must be implemented immediately.

- **Administer first aid to injured person(s).** Any employee that observes a spill will act immediately to remove and /or protect the injured person from a life-threatening situation. First aid and/or decontamination procedure will be implemented as appropriate.
- **Warn other persons and/or vehicles of the hazard.** Personnel will act to prevent any unsuspecting persons from coming in contact with the spilled materials by alerting nearby people and by obtaining assistance of other personnel who are familiar with spill control and clean up training.

- **Stop the spill at the source, if possible**. Without taking unnecessary risks, personnel will attempt to stop the spill at the source. This may involve activities such as up-righting a drum, closing a valve or temporarily sealing a hole with a plug. *OSC* personnel will not expend more than a brief effort, prior to notifying the HSO.
- **Notify the HSO**. Using available onsite communication systems, or other rapid communication procedures, the HSO will be notified of the spill, including information on the material spilled, quality, personnel injuries and immediate life-threatening hazards. The HSO will notify the PARSONS representative and emergency contacts immediately (See Emergency Contact List).

NOTE: If a flammable liquid is involved in the spill, remove all ignition sources and monitor for explosive conditions with an LEL meter during cleanup. Also, remove any surrounding materials that might chemically react with the spill materials.

Spill Containment

The HSO will make a rapid assessment of any spill at the site; apply the appropriate HS&E considerations to the use of PPE in the spill release zone; and direct primary containment measures. Depending on the nature of the spill, primary containment measures may include, but are not limited to;

- Constructing a temporary containment berm to control the horizontal flow of the spill using absorbent pads, booms, sandbags, sand and/or other inert materials
- Placing drums under the leak to collect the spilling material before it flows onto the ground
- Digging a sump, installing a polyethylene liner and diverting the spilled material to the sump
- Transferring the material from its original container to another container

Spills that occur between the project site and the offsite disposal facility will be initially contained by the driver using on-board spill response equipment.

Spill Cleanup

The HSO and PARSONS Project Manager will develop an incident-specific spill clean-up plan for Priority 1 spills that will take into consideration the associated hazards, quantity of spilled material, disposal methods and costs. The incident specific spill clean-up plan will be reviewed for acceptance by the PARSONS representative and/or other Federal, State or Local oversight personnel. Once approved, the spill clean-up plan will be implemented under the direct supervision of the OSC site superintendent.

Generally, all visually detectable spills, leaks or releases of fuel oil will be collected and cleaned up using absorbent pads, booms, sandbags, sand and/or other inert materials as practicable using the response procedures outline below.

Spill Type	Response
Waste oil on the ground	Contain the spill and excavate the visually contaminated soils. Containerize, sample for classification purposes and dispose offsite.
Building/paved surfaces	Contain the spill. Power wash the contaminated are(s). Collect and containerize the resultant wastewater for onsite treatment.
Vehicle	Power wash the vehicle. Collect, contain and treat the resultant decontamination fluids.
Heavy Equipment hydraulic fluid leak	Stop equipment immediately. Clean up spill and/or leaking fluid. Contact HSO for repair approach.
Waste from truck spilled on roadway	Contain the spilled material. Collect, containerize and remove the spilled material. Sample for waste classification purposes. Dispose of material offsite.

Post-spill Inspection

The HSO, site superintendent and PARSONS representative will jointly inspect the spill site to determine that the spill has been cleaned up to the satisfaction of all involved parties.

Reporting

In the event of a spill incident, the HSO will immediately contact the site superintendent and PARSONS Representative; initiate the emergency procedure steps that are provided in this HASP and complete a Spill Report for submittal to the PARSONS project Representative.

OSC will be responsible for reporting any Priority 1 spills immediately following the incident. A written report will be submitted within seven days after the telephone call reporting the incident. The written report will include the item spilled, quantity, identification and manifest numbers, whether the amount spilled is EPA/State/District reportable, exact location of occurrence, containment procedures used, anticipated clean-up and disposal procedures and disposal of spill residue.

HEAT/COLD STRESS

HEAT

The HSO will visually monitor the Project personnel for signs of heat overexposure. The HSO will be responsible for implementing the following program when the ambient air temperature exceeds 85°F (heat stress monitoring).

Symptoms

Weakness, dizziness, fainting, nausea, headaches, cool and clammy skin, profuse sweating, slurred speech, weak pulse and dilated pupils.

Procedure

Personnel who wear PPE allow their body heat to be accumulated with and elevation of the body temperature. Heat, heat exhaustion and heat stroke can be experienced which, if not remedied, can threaten health and life. A current edition of the American Red Cross Standard First Aid book or equivalent will be maintained onsite at all times so that the HSO and all personnel will be able to recognize the symptoms of heat emergency and be capable of controlling them.

When PPE is worn (especially level C) the suggested guidelines for ambient temperature and maximum wear time per excursion are as follows:

Ambient Temperature (°F)	Maximum Wear Time Per Excursion (Minutes)
Above 90	15
85 – 90	30
80 – 85	60
70 – 80	90
60 – 70	120
50 – 60	180

One method for measuring the effectiveness of employees' rest-recovery regime is by monitoring their heart as follows:

- During a 3-minute period, count the pulse rate for the last 30 seconds of the first minute, the last 30 seconds of the second minute and the last 30 seconds of the third minute.
- Double that count.
- If the recovery rate during the last 30 seconds of the first minute is at 110 beats per minute or less and the deceleration between the first, second and third minute is at least 10 beats/minute, the work recovery regime is acceptable. If the employee's rate is above the specified, longer rest period is required, and accompanied by and increased intake of fluids.

COLD

Whole body protection will be provided to all Project personnel who will have prolonged exposure to cold air. The HSO will use the equivalent chill temperature when determining the combined cooling effect of wind and low temperatures on exposed skin or when determining the proper clothing insulation requirements. The following clothing will be used as deemed necessary, by the HSO.

Appropriate underclothing (wool or other cloth)

Outer coats that repel wind and moisture

Face, head and ear coverings

Extra pairs of socks

Insulated safety boots

Wool glove liners or wind and water repellant gloves

Personnel who are working in continuous cold weather are required to warm themselves on a regular basis in the onsite trailer. Drinks will be provided to personnel to prevent dehydration. The HSO will follow the work practices and recommendations for cold stress threshold limit values as stated by the current edition of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices by the American Conference of Governmental Industrial Hygienists, or equivalent cold stress prevention methods.

LOGS, REPORTS and RECORDKEEPING

The following reports will be prepared and submitted as indicated below. Copies of the field logs, permits and forms required for this Project are provided in Attachment 1.

Type	Frequency
AHA Pre-plan for High Risk Work	Prior to start of work
Employee Daily Safety Brief Site Log	Daily, minimum
Air Monitoring Reports	N/A
Incident Report	As required, within 48 hours

The above logs and reports will be prepared by the HSO, or the designated representative, at the frequency noted above. Completed logs and reports will be maintained stored on site in the project field office. Copies shall be provided to the PARSONS Project Manager.

Hot Work Permit Procedures (Welding, Cutting, Open Flame Work & Sparking)

OSC will follow specific procedures to assure all hot work activities, welding, burning, cutting, sparking and other ignition source work is completed safely without incident (no fires, injuries or property damage). All hot work shall require an approved hot work permit issued by the OSC HSO prior to commencing work. The hot work permit shall define the minimum acceptable procedures and precautions that shall be taken for all phases of the hot work; prior to start of work, as well as during and after hot work is completed. A permit shall be issued daily for each specific location, type of hot work, protective measures, date, time duration and completion time. Hot work permits will be available for review by the PARSONS Project Manager. Completed and signed permits shall be returned to the HSO at the end of the workday. Copies of completed permits shall be maintained in the OSC field office for review.

Authorization of Equipment Operators

All heavy equipment operators working on site will be approved competent either through OSC's in-house program or through local labor union process. Training requirements for approval are as follows;

Heavy Equipment Operators

- Formal classroom with written qualification
- Determination of proficiency by a certified operator
- On-the-job mentoring for 40-hour minimum under a competent person

The formal classroom and mentoring may be adjusted based on an operator's previous experience. In addition, operators may need to obtain state-specific crane licenses/permits.

Crane Operators

- Formal classroom with written qualification
- Determination of proficiency by a certified operator
- On-the-job mentoring for 80-hour minimum under a competent person

The formal classroom and mentoring may be adjusted based on an operator's previous experience. In addition to the certification, operators may need to obtain state-specific licenses/permits.

ATTACHMENT I: Forms

ACTIVITY HAZARD ANALYSIS (AHA)

Activity:
Project:

Date:
Revision: 0

Work Plan Summary:

PREREQUISITES		
EQUIPMENT TO BE USED	**INSPECTION REQUIREMENTS**	**TRAINING REQUIREMENTS**

ACTIVITY	POTENTIAL HAZARD	PROTECTIVE METHODS AND CONTROLS
	•	•
		•
		•

Special Notes and Instructions: This AHA shall be reviewed by all project employees prior to commencing work and as warranted by; AHA revisions, safe work observations and improvement measures. All employees have the authority to stop work for safety concerns.

AHA Review and Training Acknowledgement:

Employees print name, sign and date in spaces provided below.

PRINT NAME	SIGNATURE	DATE

EMPLOYEE DAILY SIGN IN SHEET

DAY:_____DATE ____/____/____ PROJECT NAME: _____

				CHECK OFF TRADE CLASSIFICATION			
	Workers Name [Print}	TIME IN	TIME OUT	OPERATOR	LABORER	BURNER	PROJECT SUPERVISION
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

DESCRIPTION OF TODAY'S WORK ACTIVITIES:

_____

_____

_____

_____

DAILY SAFE WORK PERMIT

Supervisor Name		**H&S Worker Rep**		**Job Number**	
Lead Hand		**Client**		**Date**	
Job Description:					

Hazard Assessment

Ergonomic Hazards		Environmental Hazards Cont'd		Activity Hazards Continued		Access/Egress Hazards	
	Working in Tight Area		Ventilation Required		Sensitive Equipment in Area		Partially Obstructed
	Parts of Body in Line of Fire		Heat Stress/Cold Exposure		Burn / Heat Sources		Slip/Trip Potential Identified
	Working Above Head Height		Other Workers in Area		Compressed Gasses		Excavations
	Pinch Points Identified		Inadequate Lighting		Energized Equipment in Area		Scaffold - Inspected and Tagged
	Repetitive Motion		Asbestos		Airborne Particles - ie; Chipping		Overhead/Underground Obstruction
	Repetitive Awkward Work		Lead		Electrical Cords/Tools-Condition		Other
Environmental Hazards			Mould		Equipment/Tools - Inspected	**Other Site Hazards**	
	Spill Potential		PCB___Liquid___Ballasts___		Electrical Disconnects		
	Weather Conditions	**Activity Hazards**			Mechanical Disconnects		
	MSDS Reviewed		Lockout Procedure in Place		Utilities Disconnects		
	Poor Housekeeping		Welding / Grinding				

Hazard Control - PPE Requirement

Eyes		Ears		Respiratory		Body				Other PPE Required	
	Safety Glasses		Ear Plugs		Full Face Mask		Hard Hat		Fire Rated Coveralls		Harness
	Goggles		Ear Muffs		Half Face Mask		Traffic Vest		Tyvex Suit		Lanyard
	Face Shield				Cartridge _____		Gloves		Long Sleeves		
					Dust Mask		Foot Protection				

Hazard Control - Job Site

	Spotters		Negative Air Machine (s)		Air Monitoring		Locates/ Disconnects		Spill Kits		Signage
	Guardrails		Decontamination Facility		GFCI Cords/Panels		Safe Work Plan		Enclosure		Fall Protection
	Lighting		Material Handling Proc.		Hot Work Permit		Communication (radios)		Dust Control		Portable Water
	Scaffold		Good Housekeeping		Lockout/Tagout		Inspections Completed		Scrubbers		Safety Shower
	Fire Watch		Overhead Protection		Fall Protection Plan		Engineering Controls		Barricades		Warning Signs
	Traffic Control		Perimeter Fencing		Proper Trenching		Confined Space Plan		Eye Wash		

Equipment

	Skid Steer		Bulldozer		Ladders		Crane		Mini Excavator		Power Washer		PEWP: Aerial or Scissor Lift
	Excavator		Lift Truck		Scaffold		High Reach		Generator		Hepa Vacuum		Vacuum Truck

Job Task Analysis

Job Step	Hazard	Control

All workers must sign below after they have read and understand the Daily Safe Work Permit

Print Name	Signature	Print Name	Signature

SUBCONTRACTOR DAILY SIGN IN SHEET

DAY:_____DATE ____/____/____

PROJECT NAME: _____

Company Name:_____

				CHECK OFF TRADE CLASSIFICATION			
	Workers Name [Print}	TIME IN	TIME OUT	OPERATOR	LABORER	ASBESTOS HANDLER	PROJECT SUPERVISION
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

DESCRIPTION OF TODAY'S WORK ACTIVITIES:

_____

_____

_____

_____

CO-WORKER OBSERVATIONS

- ◯ **COMPLACENT**
- ◯ **REPETITIVE MOTION**
- ◯ **POOR LIFTING POSTURE**
- ◯ **REACHING/STRETCHING**
- ◯ **TWISTING**
- ◯ **NEEDS ASSISTANCE**
- ◯ **OPERATOR NOT TRAINED**
- ◯ **BALANCE TRACTION**
- ◯ **BENDING**
- ◯ **LIFTING TOO MUCH**

DISCUSSED WITH CO-WORKER? **Y** **N** (Circle one)

OTHER/COMMENTS: _____

_____

_____

_____

_____

SAFETY TASK ANALYSIS CARD

NAME: _____

DATE: _____

PROJECT:

TASK (i.e. Burning, Equipment Operating, Lifting Etc.)

_____

DID YOU REVIEW A JSA? **Y** **N** (Circle One)

WHAT PPE IS REQUIRED?

- ◯ **HARD HAT**
- ◯ **HI-VIS VEST**
- ◯ **SAFETY SHOES**
- ◯ **FALL PROTECTION**
- ◯ **SAFETY GLASSES**
- ◯ **RESPIRATOR**

HAVE YOU INSPECTED YOUR EQUIPMENT & PPE? **Y** **N** (Circle one)

HAVE YOU TRAINED FOR THE TASK? **Y** **N** (Circle one)

DO YOU BELIEVE ALL HAZARDS HAVE BEEN ADEQUATELY ADDRESSED? **Y** **N** (Circle one)

SELF AWARENESS

WHAT OTHER HAZARDS ARE YOU WORRIED ABOUT?

_____

_____

IS YOUR PPE/EQUIPMENT FUNCTIONING OK? **Y N**

DID YOU NOTIFY YOUR SUPERVISOR? **Y N**

WAS IT CORRECTED? **Y N**

HOW? _____

_____

_____

DO YOU BELIEVE ALL HAZARDS HAVE BEEN ADEQUATELY ADDRESSED? **Y N** (Circle one)

IF NOT, STOP WORK AND REPORT TO SUPERVISOR.

CO-WORKER OBSERVATIONS

- ◯ **PPE USED INCORRECTLY**
- ◯ **RUSHING**
- ◯ **TOO... HOT COLD NOISY** (circle as appropriate)
- ◯ **EQUIPMENT: UNSAFETY CONDITION**
- ◯ **EQUIPMENT: INAPPROPRIATE FOR TASK**
- ◯ **EQUIPMENT: CAPACITY EXCEEDED/UNKNOWN**
- ◯ **MISSING/DEFICIENT SAFETY GUARD** (Guard Rail, Retainer, Fire Extin.)
- ◯ **ENERGY ISOLATION NEEDED** (Electricity, Hydraulic, Pneumatic, Etc.)
- ◯ **POOR WORKING SURFACE**
- ◯ **DUSTY**
- ◯ **ODORS SMELLED**
- ◯ **POOR HOUSEKEEPING**
- ◯ **DISTRACTED**
- ◯ **FATIGUED**

Daily Equipment Inspection

Contractor:_____ **Checked By**:_____

Type of Equipment:_____ **Date**:_____

Items Inspected/Maintained Daily	Mn	Tu	Wd	Th	Fri	St	Sn	**Remarks/Service**
As equipped check condition of tires or tracks								
Check all hoses/hydraulics/air								
Grease all fittings as required								
Check fluids(coolant, oil/hydraulic)								
Check brake function/steering and linkage								
Check for physical damage (welds, covers/guards)								
Check emergency brakes/stops/lockouts								
Check horn & backup alarm								
Safety belt (seated equip.)/tie-off point(man lifts)								
Check all windows and mirrors (if equipped)								
Check warning decals (legible in place)								
Equipment Warm-up (check instruments/indicator lights)								
Check control levers for proper operation								
Is Maintenance schedule current (see next scheduled maintenance hours)								

NOTES:

Powered Aerial Lift Inspection Form (Inspect Applicable Items Per Type of Lift)

CONTRACTOR	
RENTAL COMPANY	
JOBSITE	
INSPECTED BY (PRINT NAME)	
MAKE (Fuel Type) /SERIAL OR UNIT No.	
DATE (S) –WEEK ENDING	

ITEMS (= SATISFACTORY, X = NEEDS ATTENTION, NA = Not Applicable for type of lift)	MON	TUE	WED	THU	FRI	SAT	SUN
Brakes							
Operating Controls Labeled							
Operating and Emergency Controls							
Fuel System							
Guards and Handrails							
Entrance Gate (Safety Chain, Bar or Gate)							
Batteries							
Load Charts & Labels							
Muffler/Exhaust Pipes							
Operating Manual							
Engineered Tie Off Points							
Tires, Wheels or Tracks, Outriggers							
Cylinders, Lines, Hoses, Wires (air, fluid leaks, electrical wires cables intact)							
Loose, Missing/Damaged Parts, Physical Condition							
Air System Leaks Signs of Damage							

REMARKS:

Daily Safety Brief

Focused Safety Topic – _____

Attach focused safety topic material or use back of page for additional space "See Attached or Reverse" ➡

Summary of today's activities, identified hazards and protective measures.

ACTIVITIES: _____

_____

_____

EQUIPMENT REQUIRED: _____

_____

HAZARDS (circle, highlight or list): Traffic Struck by Caught Between/Pinched Head Eye Hand/Arm/Leg/Foot Slips/Trips/Falls Overhead/Drop Collapse/Cave-In Stored Energy Electrical/Shock Impalement Fire Weather Heat Cold Asphyxiation CO Lung Irritants Dust Asbestos LOPC Chemical PCB CO VOC's Gas Lightning Noise Vermin/Pests Rollover Other: _____

_____

PROTECTIVE MEASURES (circle, highlight or list): See Hot Work Permit See Confined Space Permit See AHA STAC MSDS Guards Barricades GFCI PPE Signs Spotter Alarms Warning Line Life Line Net Seat Belts ROP Shoring/Bracing Inspect "Auth. Stop Work" Fire Ext. Water/Misting Controlled Work Zone Ventilation Add Lighting Cones Covers De-energize Lockout/Tagout Air Gap Heat/Cold Stress Monitoring, Air Monitoring, Other/Remarks:

_____

APPROVED PPE REQUIRED (circle, highlight or list): Hardhat Safety Glasses Foot Protection Gloves High Visibility Vest or Equivalent High Visibility Clothing Hearing Protection Face Shield Mono-Goggles Respirator Special Protective Clothing (Burning Jacket & Shield, Gloves, Boots) Personal Fall Arrest/Restraint System Welding Hood Life Vest Metatarsals, Other: _____

Participants Print Name	Participants Print Name	Participants Print Name

Safety Talk Give by: _____ **DATE:** _____

Project/Location: _____

INCIDENT REPORT

Document Revision 6/16/15

GENERAL INFORMATION

Project Name: _____

Project Address: _____

Site Manager: _____ Phone No. _____ Work Shift: _____

Date of Incident: _____ Time: _____

Type of Incident: ☐ Injury ☐ Property Damage ☐ Spill ☐ Fire ☐ Other: _____

AFFECTED EMPLOYEE OR PROPERTY OWNER INFORMATION

Employee/Owner Name: _____

Date of Birth: _____ Male/Female: _____

Address: _____

Department: _____ Years/date Employed: _____

MEDICAL INFORMATION (NA If Not Applicable)

Name and Address of Doctor: _____

Hospital and Phone Number: _____

Substance Abuse Testing: As a result of this incident, was this employee?

Substance Abuse Tested? ☐ Yes ☐ No Alcohol Tested? ☐ Yes ☐ No

Was this a First Aid only incident? ☐ Yes ☐ No

Has the Employee returned to work? ☐ Yes ☐ No If Yes, Date: _____

INCIDENT DESCRIPTION (Facts and Findings)

What activity or task was performed at time of incident? (Please be specific, what was the employee doing, identify equipment or material the employee was using.)

_____

_____

_____

_____

INCIDENT REPORT

Document Revision 6/16/15

How did the incident occur? (Please describe fully the events that resulted in the incident. Tell what and how it happened. Employee and witness statements, finds fact, contributing factors, Use a separate sheet if necessary.)

Object or substance that directly injured the employee: _____

Object or substance that damaged property: _____

OSHA 300 INFORMATION (To be completed by Corporate Safety Department)

Does Incident Involve Fatality:	☐ Yes ☐ No	Was the Incident Medical Only:	☐ Yes ☐ No
Has the Employee Returned to Work:	☐ Yes ☐ No	Is Incident OSHA Recordable:	☐ Yes ☐ No
Date: _____		Involve Lost/Restricted Work Days:	☐ Yes ☐ No

Current Work Status: _____ OSHA File No. (or N/A): _____

CORRECTIVE ACTION AND COMMENTS:

IMPLEMENTATION DATE: _____

_____ _____

Completed by: Supervisor Print & Sign Name **Date**

_____ _____

Reviewed By – Corp. Safety **Date**

JOB SAFETY INSPECTION AND AUDIT

LOCATION/PROJECT: **Date:**

Audit and Inspection Report by:

OSC Summary of Findings and Improvement Measures:

DESCRIPTION	YES	NO	N/A	COMMENTS/ACTIONS
SAFETY ADMINISTRATION, POSTINGS, FIRST AID & EMG RESPONSE				
1. OSHA 300A form posted between February 1 and April 30				
2. LABOR POSTINGS (ALL IN ONE FEDERAL & STATE)				
3. Emergency Phone number for the nearest medical center posted				
4. Safety Briefs/Talks & AHA's current and up to date.				
5. Work areas properly delineated (barricaded) and hazard warning signs				
6. Appropriate First Aid Supplies and Trained Personal Available				
7. Training Documentation Complete (40 Hour, OSC BASIC 10/OSHA 10, NYS Asbestos Hard Card Supervisors/Handlers)				
HOUSEKEEPING				
1. Work area neat, debris picked up and free of trip hazards				
2. Projection and impalement hazards eliminated/protected (removed,				
3. Waste containers provided and used				
4. Passageways and walkways clear				
5. Cords and leads off of the floor				
6. Spill Kit Available & Stocked				
FIRE PREVENTION				
1. Adequate firefighting equipment (hoses, extinguishers, fire blanket)				Need additional fire extinguishers (Minimum 2A Rating).
2. Appropriate Flammable and Combustible Storage				
3. "No Smoking" signs posted and enforced near flammables				
ELECTRICAL AND CONTROL OF HAZARDOUS ENERGY				
1. Extension cords with bare wires or missing ground prongs taken out of				
2. Ground fault circuit interrupters being used				
3. Terminal boxes accessible and equipped with required covers				
4. Temporary Lighting (Guarded, Covered, No Exposed Sockets)				Corrected, light guard/cage closed, open sockets plugged.
5. Equipment wiring				Corrected, Romex connector for hot water tank missing.
6. Proper Hazardous Energy Controls (LOTO, Air Gapping, Blanks)				
HAND, POWER & POWDER-ACTUATED TOOLS				
1. Hand tools inspected regularly				
2. Guards in place on equipment				
3. Right tool being used for job at hand				

DESCRIPTION	YES	NO	N/A	COMMENTS/ACTIONS
4. Operators of powder-actuated tools are licensed				
FALL PROTECTION				
1. Safety guard rails properly installed and inspected.				
2. Employees exposed to fall hazards are protected (PFAS 100% Tie-off Guards, Covers, Nets)				Observed Burner torch cutting duct work from step ladder properly tied off. Observed abatement worker installing hard barricade on 2nd floor
3. Employees below protected from falling objects (Toe Boards or Guards)				Area barricaded from entry below with spotter.
LADDERS				
1. Straight Ladders extended at least 36 inches above the landing, proper				
2. Ladders inspected & properly use (secured, proper angel, type)				
3. Ladders with split or missing rungs taken out of service (tagged out)				
4. Stepladders used in fully open position				
SCAFFOLDING				
1. All scaffolding inspected daily by a competent person				
2. Erected on sound rigid footing				
3. Tied to structure as required				
4. Guardrails, intermediate rails, toe boards and screens in place				
5. Planking is sound and sturdy				
6. Baseplates and mudsills in place				
7. Proper access provided				
8. Employees below protected from falling objects				
FLOOR & WALL OPENINGS				
1. All floor or deck openings are planked over or barricaded				
2. Perimeter protection is in place				
3. Deck planks are secured				
4. Materials stored away from edge				
TRENCHES, EXCAVATION & SHORING				
1. Competent person on hand				
2. Excavation proper protective system (shored or sloped/benched)				
3. Materials and spoil piles are stored at least two feet from trench				
4. Ladders provided every 25 feet in trench > 4 ft depth				
5. Equipment safe distance from edge of trench or excavation				

DESCRIPTION	YES	NO	N/A	COMMENTS/ACTIONS
6. Warning system in place if operator cannot see edge of trench				
MATERIAL HANDLING & HAZARD COMMUNICATION				
1. Materials are properly stored or stacked				
2. Employees are using proper lifting methods				
3. MSDS/SDS Available/Proper Containers & Labels Noted				
4. Chemical Products properly used and stored per MSDS/SDS				
WELDING & BURNING				
1. Gas cylinders stored upright, securely, and in good condition				
2. Proper separation (20 ft) between fuels & oxygen or fire barrier				
3. Burning/welding/cutting goggles or shields are used				
4. Fire extinguishers are nearby (< 75ft				
5. Equipment & Hoses are in good condition. Flash arrestor equipped.				
RIGGING, HOISTING/LIFTING & PLACING ACTIVITIES (HOISTS, CHAINFALLS, CRANES & FORK TRUCKS)				
1. Proper setup of lifting/hoisting equipment, controlled work zone established, swing radius barricaded & spotter provided				Observed proper lifting of metal debris box by rough terrain fork truck to upper level for load out of copper wire.
2. Operator familiar with load chart (lifting capacity, weight of load <75% Max capacity of lifting/hoisting equipment & rigging components)				
3. Proper communication (radio communication, hand signals)				
4. Equipment & rigging inspected. Hoisting/Rigging by competent person.				
5. Employees kept from under suspended loads				
6. Chains and slings inspected (ANSI rated & properly tagged).				
7. Pick plan available and reviewed with crew				See AHA
8. Competent operator, rigger and flagman				
POWERED EQUIPMENT (Earth Moving, Fork Trucks, Aerial Lifts, ATV's				
1. Equipment Physical Condition, daily inspection current with equipment (Guards, Lights, Glass/Cage, Tires/Tracks, Lights, Frame)				
2. Operational and Safety Controls Functional				
3. Proper Operation and Use Observed				

DESCRIPTION	YES	NO	N/A	COMMENTS/ACTIONS
4. Operators Manual Available and Inspection Check List Available with Equipment				
PERSONAL PROTECTIVE EQUIPMENT				
1. Proper Head Protection used given task (ANSI Rated Hard Hats, Properly Worn)				
2. Proper Eye Protection given task (ANSI Rated Eye and Face Protection)				
3. Required Respirators given task (Proper Use, Care, Training & Medical)				
4. Proper Hearing protection is being worn as required (NR Rating)				
5. High-visibility vests or equivalent high vis clothing are being worn				
6. Proper Hand, Foot, Leg, face & Skin Protection given task (Gloves, Safety Boots, Chaps, Metatarsals, Clothing - FR, Chemical)				
ABATEMENT				
1. Decontamination unit properly installed and functioning (Shower, Filtration, Dirty Room, Clean Room & Waste Out).				
2. Proper negative air established, # units, monometer, backup units, temporary power, lighting, GFCI, exhaust, barricades & waste storage				
3. Containment properly installed (air locks, EMG egress, hazard signs)				
4. Proper abatement methods observed (PPE, Wet Methods & Handling)				
5. Entry exit log in use and properly completed				
6. Supervisors log and inspections current				

Select Site Photos

Select Site Photos Continued

ATTACHMENT II RESERVED: Site-Specific Activity Hazard Analysis

(To be revised and re-inserted as needed)

OSC	**ACTIVITY HAZARD ANALYSIS (AHA)**

Activity: Asbestos removal **Date:**
Project: Tonawanda Coke Tank Demolition **Revision:**

Work Plan Summary:

PREREQUISITES		
EQUIPMENT TO BE USED/SITE ENTRY	**INSPECTION REQUIREMENTS**	**TRAINING REQUIREMENTS**
THIS AHA TO BE PREPARED BY ABATEMENT CONTRACTOR		

OSC	**ACTIVITY HAZARD ANALYSIS (AHA)**

ACTIVITY	POTENTIAL HAZARD	PROTECTIVE METHODS AND CONTROLS

Special Notes and Instructions: This AHA shall be reviewed by all project employees prior to commencing work and as warranted by; AHA revisions, safe work observations and improvement measures. All employees have the authority to stop work for safety concerns.

AHA Review and Training Acknowledgement:

OSC	**ACTIVITY HAZARD ANALYSIS (AHA)**

Employees print name, sign and date in spaces provided below.

PRINT NAME	SIGNATURE	DATE

ACTIVITY HAZARD ANALYSIS (AHA)

Activity: **Tank de-watering & contents removal** **Date: August 2019**
Project: **Tonawanda Coke** **Revision: 0**

Work Plan Summary: **Pump water from tank, remove solid contents, clean for demolition**

PREREQUISITES		
EQUIPMENT TOOLS TO BE USED	**INSPECTION REQUIREMENTS**	**TRAINING REQUIREMENTS**
Gas and diesel water pumps 2” and 6”	Daily per manufacturer	Only trained personnel familiar with the pumps, excavator competent person, and power washer will be permitted to operate the equipment.
Hoses 2” and 6”	Daily	
Excavator with bucket	Daily per manufacturer	
Power washer	Daily per manufacturer	
PPE: Hard hat, coated coveralls, safety shoes, hearing protection, leather and nitrile gloves, high visibility clothing, face shield and goggles	Daily	
4-gas PID meter	Calibrated per manufacturer	

ACTIVITY HAZARD ANALYSIS (AHA)

ACTIVITY/STEP	POTENTIAL HAZARD	PROTECTIVE AND CONTROL MEASURES
Hooking up hoses, draining hoses, and pumping water	• Contact with contaminated water • Fire • Leaks • Hearing damage • Eye exposure • Inhalation • Slips Trip and Falls • Strains and sprains • Pinch points	• Wear modified Level D PPE and protective gloves. Wear face shield, nitrile gloves, and poly coated coveralls • Turn off pumps and allow cooling before refueling. • Secure all hose connections to prevent leaks and prevent exposure/spills Visually inspect all hoses and fittings before starting the pump. Check caps and tanks for cracks and leaks. • Wear hearing protection • Eye wash/shower in place for emergency use • Monitor VOCs with PID • Keep walkways clear • Use buddy system when moving objects over 50# • Good hand and body placement • Keep out of line of fire
Remove solid tank contents	• Struck by	• Do not approach excavator without eye contact of operator. Stay out of swing radius/line of fire. Delineate unsafe work zone around operation
Tank cleaning with power washer (in situ or on decon pad TBD)	• Slips, trips, falls • Pinch points • Laceration • Carbon monoxide exposure • Fire	• PPE: Coated coveralls, goggles, face shield, gloves, hearing protection • Personnel to remain at least 25 feet away from the washer when in use. • Never point wand at skin. Keep away from nozzle. DANGEROUS • Power washer to be located downwind of tank • Fire extinguisher in area of power washer at all times.

ACTIVITY/STEP	POTENTIAL HAZARD	PROTECTIVE AND CONTROL MEASURES
Refueling of equipment	• Fire • Spills • Fire	• Shutdown equipment during refueling. • Allow equipment to cool down before refueling. • Refuel from OSHA-compliant portable fuel container. • Personnel performing the refueling operation will exercise caution to avoid spillage. Place pads on the ground to prevent contact from drips and spills while refiling • Spill kits will be kept near the refueling operations. • Prior to fueling, personnel shall bond the equipment to fueling container. • A 10 lb. fire extinguisher will be in the immediate area during refueling operations.

ACTIVITY HAZARD ANALYSIS (AHA)

SPECIAL NOTES AND INSTRUCTIONS: This AHA shall be reviewed by all project employees prior to commencing work and as warranted by; AHA revisions, safe work observations and improvement measures. All employees have authority to stop work for safety concerns.

AHA REVIEW AND TRAINING ACKNOWLEDGEMENT

DATE	NAME	SIGNATURE

ACTIVITY HAZARD ANALYSIS (AHA)
Heavy Equipment Operation

Activity: Heavy Equipment Operation & Dirt Moving
Project: Tonawanda Coke Tank Demo

Date: Dec 2018
Revision: 0

PREREQUISITES		
EQUIPMENT TO BE USED	**INSPECTION REQUIREMENTS**	**TRAINING REQUIREMENTS**
Heavy Equipment: Excavators, Loaders, Dozers, Skid Steer, Rollers, etc. 5 – 20 lb. ABC Dry Chemical Fire Extinguishers.	Daily heavy equipment inspection prior to operation. Complete and turn in OSC inspection form to site superintendent. Deficiencies must be corrected prior to operation. Inspect all PPE equipment and extinguishers prior to operation/work.	Trained employees per the site HASP. OSC authorized and competent designated equipment operators

WORK ACTIVITY	POTENTIAL HAZARD	PROTECTIVE AND CONTROL MEASURES
Equipment operations; • Material handling • Grading • Rolling/compacting, • Excavating, moving & loading • Hauling	• Struck by • Roll over • Crush, • Fire/burn • Caught between	• Only OSC authorized and qualified personnel shall operate equipment. • Complete and submit daily inspections on the "Daily Equipment Inspection Checklist." • Back up alarms must be functional. • Equipment in need of repair, defective, or unsafe in any way, shall be taken out of service. Equipment shall not be placed back into service until repaired and inspected by competent person/operator. • UFPO clearance and mark out of underground utilities (see below). • Weather assessment for acceptable working conditions, no high winds, excessive rain, snow, ice or lighting/thunder. • Equipment, setup and operation and inspection by company trained and authorized operator. Step and walk with purpose, watch where you are placing your feet (pick them up and set them down). Use machine grips, rails and footsteps when accessing and leaving equipment (3 points of contact). • Ground personnel shall be kept clear of operating equipment and make eye contact with operator before entering line-of-fire.

		• Spotters must be used when moving into blind-spots or when overhead obstructions are present (see OSC Spotter Policy). • Personnel shall not pass under operating equipment attachments at any time, whether loaded or not. • Loads shall be lowered, and power shut off when equipment is left unattended. • Only stable, safely arranged loads, which do not exceed the equipment capacity, shall be handled.
	• Collision with personnel/property	• The operator shall slow down and sound the horn in areas of reduced visibility. Safe speeds shall be maintained. Speed shall be reduced in high traffic areas and across rough roadways.
	• Driving off elevated surface	• A safe distance shall be maintained from any edge such as berms, platforms or loading docks. If not visible to the operator, a spotter shall be used. • Seatbelts shall be worn when equipment is in operation.
Operation and refueling.	• Fire • Splash/eye contact	• Fire extinguishers shall be mounted on all powered mobile equipment as well as 20 lb ABC dry chemical in refueling area, w/ spill kit. • Splash shield shall be worn when handling liquid fuels. • Equipment shall be shut-off prior to refueling. • Flammable fuel containers must be grounded and bonded before fueling. • No smoking or spark sources shall be allowed near refueling or battery maintenance areas.
	• Electric shock	• No work may be performed within 20 ft of energized electrical lines. • Contact OSC superintendent if any work is to be conducted within 20ft of an energized electrical source.

Hand shoveling to uncover buried lines	• Slip, trip fall • Struck by • Strain • Electrocution • Fire, burn	• Use care during foot travel, and clear the area of slip and trip hazards, cover holes, make use of barricades, and guard rails as appropriate • Use good body mechanics when lifting and manual material handling; keep back straight, lift with legs, don't twist. Observe lifting limits & keep dead lifts < 40 lbs., get help when you need it, use the equipment. • When hand auger is required, use proper hand auguring techniques – do not over-force any auguring – auger using a smooth and easy pace – avoid contacting subsurface materials when not wearing protective clothing – leather work gloves with hand auger – nitrile gloves when touching potentially contaminated materials • UFPO identified lines shall be carefully hand shoveled (remove material in flat and angled layers without straight down picking to damage buried line, excavator digging is prohibited in these areas (UFPO mark outs & flagging/buried line tape).

AHA Review and Training Acknowledgement:

Employees print name, sign and date in spaces provided below.

PRINT NAME	SIGNITURE	DATE

OSC	**ACTIVITY HAZARD ANALYSIS (AHA)** **Enhanced Equipment Decontamination**

Date: August, 2019
Activity: Decontamination of Equipment **Revision No.** 2

Work Plan Summary:
The need for this extended procedure shall be determined by the superintendent in conjunction with the project manager and client representative. Setup up controlled work zone for decontamination work area and containment system for collecting wash and rinse from decontamination process. The following double wash rinse process shall be followed:

1. First Wash – cover with (wipe, brush or spray) phosphate detergent and scrub with brush and pad, 1 minute per square foot
2. First Clean water rinse - 1 gallon per square foot
3. Second wash – cover with hexane solvent (small hand spray bottle or brush), scrub or brush, 1 minute per square foot
4. Second rinse – wet entire surface with clean hexane solvent for 1 minute.

PREREQUISITES		
EQUIPMENT TO BE USED	**INSPECTION REQUIREMENTS**	**TRAINING REQUIREMENTS**
Excavator w/attachments Various hand tools (shovels, rakes) ABS Dry Chemical Fire Extinguisher PPE – ANSI approved hard hat, safety glasses and face protection (face shield). Disposable poly coated tyvek coverall or equivalent disposable protective clothing. Hard toed rubber safety boots or equivalent protective footwear, impermeable cut resistant gloves or equivalent (Kevlar or Nitrile). Hearing protection as needed, Eye wash and washing station.	Work area inspection and work process inspection by competent person. Replace any defective equipment from use. Inspect hand tools, corded tools, GFCI, PPE, and extinguisher daily prior to use. Replace any defective PPE, extinguishers and tools. Daily equipment inspection (per MFG guidelines) prior to use by authorized and trained operator. Repair and or replace any defective equipment prior to use.	Trained operator and laborer. Site required training per SHSP. OSHA applicable training requirements (1926.20 - 1926.21); hazard awareness training, medical clearance, fit test/training for respirator use, and AHA review prior to start of the job. Use of detergent solvent.

WORK ACTIVITY	**POTENTIAL HAZARD**	**PROTECTIVE AND CONTROL MEASURES**
Establish controlled work zone for decontamination work and install collection system.	Slip, trip, fall, struck by, pinched, traffic, heat stress, cold stress, fire, burn, strain.	• Trained/authorized employees and site required modified level D PPE as defined above. Inspect equipment and tools before each use as required. Traffic spotter provided during loading, unloading operations and setup (back alarm equipped vehicles). • Fire extinguisher in immediate work area. Heat stress, drink before you get thirsty, stay well hydrated, heat stress monitoring per OSC HASP. Cold stress (< 30 degrees), dress in layers, recognize early symptoms – blue discolored tone, lips fingernails, shivering, and lethargic behavior. Take frequent breaks out of the cold and seek warm shelter. Maintain the buddy system, no one works alone, always working within line of sight of supervisor, all employees have stop work authority. Observe good body mechanics when lifting get help when needed, use equipment. Keep work area clear and uncluttered, free of debris and trip hazards.

OSC	**ACTIVITY HAZARD ANALYSIS (AHA)** **Enhanced Equipment Decontamination**

Date: August, 2019

Activity: Decontamination of Equipment **Revision No.** 2

WORK ACTIVITY	**POTENTIAL HAZARD**	**PROTECTIVE AND CONTROL MEASURES**
Washing and rinsing 1st and 2nd.	Slip, trip, fall, struck by, pinched, traffic, heat stress, cold stress, chemical, eye, skin, hazards,	• Trained/authorized employees and site required modified level D PPE as defined above. Inspect equipment and tools before each use as required. Product use per SDS (see attached) • All decontamination to be done in prepared location (equipment decon pad or waste decon pad)
Special Notes and Instructions: This AHA shall be reviewed by all project employees prior to commencing work and as warranted by; AHA revisions, safe work observations and improvement measures. All employees have the authority to stop work for safety concerns. Any questions concerning the content of this AHA contact OSC Safety, Donald Dustin 716-560-7542.		

Field Notes:

Date: August, 2019
Activity: Decontamination of Equipment **Revision No.** 2

AHA Review and Training Acknowledgement:

Employees print name, sign and date in spaces provided below.

PRINT NAME	SIGNATURE	DATE

ACTIVITY HAZARD ANALYSIS (AHA)

Activity: General Procedures & Mobilization
Project: Tonawanda Coke Tank Demolition

Date: August 2019
Revision: 1

Work Plan Summary: Standard procedures & administrative controls

PREREQUISITES		
EQUIPMENT TO BE USED/SITE ENTRY	**INSPECTION REQUIREMENTS**	**TRAINING REQUIREMENTS**
Project specific equipment: excavators and/or loaders, skid steers, forklifts, dozers, aerial lift	All equipment shall be inspected before use per manufacturer's specification. Inspections shall be documented and maintained on site.	Any equipment operator must be OSC certified competent for each specific class of equipment.
PPE: Hard hat, safety glasses w/side shield, safety shoes with boot covers or rubber over boots in wet conditions, gloves, including barrier/nitrile, hearing protection, splash shield as needed, coated disposable coveralls	PPE shall be inspected daily.	Per OSC HASP

ACTIVITY	POTENTIAL HAZARD	PROTECTIVE METHODS AND CONTROLS
General Construction Related Activities (see task specific AHA for detailed procedures)	• Lack of training	• All site workers will have completed OSHA 40-hour HAZWOPER training with yearly updates. • Worker will be trained prior to performing new activities. • OSC will hold daily tailgate safety meetings prior to starting each shift. • New employees will be assigned a mentor per OSC Short Service Employee Program
	Stress/strain when lifting	• Workers will be instructed in safe lifting techniques (i.e., back straight, bend at knees, load close to body, lift smoothly, and do not twist. • Workers will utilize material handling devices such as forklifts, come-along, etc. • Two workers will be required for manual lifts of **over 50 pounds**. • Workers are encouraged to get help with any lift that appears excessive or awkward. • Split heavy loads into smaller loads whenever possible. • Make sure the path of travel is clear prior to the lift.
	Refueling of equipment	• Shutdown equipment during refueling. • Allow equipment to cool down before refueling. • Refuel from OSHA-compliant portable fuel container. • Personnel performing the refueling operation will exercise caution to avoid spillage. • Spill kits will be kept near the refueling operations. • A 10 lb. (minimum) fire extinguisher will be located in the immediate area during refueling operations.
	Injuries associated with hand tools	• Tools shall be carried in a safe and proper manner. • Tools shall not be carried up a ladder by hand; tools should be raised or lowered in a tool bag. • Defective tools shall be tagged immediately and removed from service. • Tools shall be used correctly and only for their intended purpose. • Hand tools to be inspected for mushroomed heads, broken/cracked handles, or loose heads prior to use. • Clean tools after every use when used in the regulated area to minimize contamination
General Construction Related Activities (see task specific AHA for detailed procedures)	Injuries associated with power tools	• Worker will inspect tools and electrical cords before use. • Defective tools will be tagged and removed from service. • A GFCI will protect all electrical cords and tools. • Portable generators of 5kW or larger, if used, will be grounded. • Electrical tools shall be unplugged when changing attachments or performing maintenance. • Electric tools with missing ground prongs, cut or frayed cords shall be removed from service. • Electric tools used in highly conductive locations, such as where employees may contact water, shall be approved for use in these locations. • Pneumatic tools shall be disconnected, and air pressure released before repairs are made. • Extension cords shall be inspected prior to and after use. Damaged cords will be tagged and taken out of service.

	Heavy equipment operations	• Operators are to know where the operations manual is kept for each piece of machinery they will use (typically in job trailer). • Operators will inspect machinery before use and complete the Daily Inspection checklist. • All operators will be certified for equipment operation. • Use three-point contact when climbing onto equipment. • All heavy equipment will be equipped with a functional backup alarm. • Operators will be instructed to maintain visual contact with personnel working in the immediate equipment area. • Passengers will be prohibited from equipment. • Seat belts shall be used in accordance with manufacturer's specifications. • Fire extinguishers will be mounted on all equipment. • Hearing protection will be worn by equipment operators when working in open cab equipment, or when doors/windows are open.	
	Chemical exposure	• SDSs are required for all chemicals brought to the site. • The SDS book will be kept at the field office trailer and will be available to all employees.	
	Airborne dust exposure	• OSC will use wet methods when activities occur to prevent airborne dust from being generated or when visible dust has been generated. If dust become visible, workers will notify the supervisor. • Workers will work-up wind whenever intrusive activities occur to minimize exposure (body or inhalation) to airborne dust. • Workers are to follow good hygiene procedures to prevent skin exposure and to prevent incidental ingestion of any contaminated materials.	
	Ingestion exposure	• Wear barrier gloves (nitrile or latex) when working with contaminated soil, hardware, equipment, or water. • Replace torn or damaged gloves immediately. Use proper technique when removing contaminated gloves • Always wash face and hands before eating, drinking or touching the mouth area.	
	Medical emergencies	• Maintain at least one person on each shift who has first aid, cardiopulmonary resuscitation and bloodborne pathogens training. • Ensure radio or phone communications capabilities area available to summon emergency response or report spills/ releases. • Ensure all personnel are familiar with emergency procedures and egress routes. • For emergency call 911	

Special Notes and Instructions: This AHA shall be reviewed by all project employees prior to commencing work and as warranted by; AHA revisions, safe work observations and improvement measures. All employees have the authority to stop work for safety concerns.

AHA Review and Training Acknowledgement:

Employees print name, sign and date in spaces provided below.

PRINT NAME	SIGNATURE	DATE

OSC	**ACTIVITY HAZARD ANALYSIS (AHA)**

Activity: Install sediment controls **Date: August 2019**
Project: Tonawanda Coke Tank Demolition **Revision: 1**

Work Plan Summary: Install project erosion and sediment controls using filter sock

PREREQUISITES		
EQUIPMENT TO BE USED/SITE ENTRY	**INSPECTION REQUIREMENTS**	**TRAINING REQUIREMENTS**
Filter sock material in 100-foot roll	NA	NA
Skid steer	Inspected before use per manufacturer's specification.	Equipment operator must be OSC certified competent for each specific class of equipment.
PPE: Level D	PPE shall be inspected daily.	Per OSC HASP

ACTIVITY	POTENTIAL HAZARD	PROTECTIVE METHODS AND CONTROLS
Handlling filter sock	Stress/strain when lifting	• Use safe lifting techniques (i.e., back straight, bend at knees, load close to body). Two for manual lifts of over 50 pounds, make sure the path of travel is clear prior to the lift.
	Slips, trips, falls	• Check work area for hazards and unsmooth walking surface. Avoid distractions.
	Struck by	• Maintain eye contact and communication with skid steer operator. Use spotter when operator's view is blocked. Stay out of line-of-fire

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PRINT NAME	SIGNATURE	DATE

ACTIVITY HAZARD ANALYSIS
Sediment Control

ACTIVITY: Sediment control
DATE: 8/15/19

Date: August 2019
Revision: 0

WORK PLAN SUMMARY: Trench, install, and back fill silt fence, install filter sock, put in stakes

PREREQUISITES		
EQUIPMENT TOOLS TO BE USED	**INSPECTION REQUIREMENTS**	**TRAINING REQUIREMENTS**
Ditchwitch trencher Mini excavator Hand tools Skid steer Mapping	OSC pre-use inspection OSC pre-use inspection Visual inspection OSC pre-use inspection	OSC designated competency OSC designated competency OSC designated competency

ACTIVITY/STEP	POTENTIAL HAZARD	PROTECTIVE AND CONTROL MEASURES
Haul material to specific location on site with skid steer	• Pinch points • Struck by / Line of Fire • Slips trips and falls • Loss of elevated load / Rollover • Injury due to lack of training • Equipment noise • Equipment fires • Blind spot injuries • Struck by from excavator • Swing radius • Inclement weather	• Communication between Ground crew and equipment operator • Body placement / know your surroundings / Eye Contact with operator - bucket or blade is locked out and secured. • Seatbelts to be used to manufacturers specifications at all time. No cell phone use or texting at any time while operating equipment. • 3 points of contact to enter - exit equipment • Maintain lowest possible lift prior to travel • OSC operators to be certified / evaluated prior to equipment operation – Certs will be submitted to Honeywell / Jacobs • Hearing protection will be worn by operators in open cab equipment or when doors and windows are propped in the open position • Fire Extinguishers to be equipped and certified in all equipment with monthly Inspections. Additional ABC 20 lb. fire Extinguisher shall be placed near the work area. Monthly inspections to be completed and reviewed • Eye contact and communication with equipment operator and utilize equipment spotter when necessary. Functional backup alert system on all equipment required • Manage non-essential / untrained personnel from entering the swing radius of any moving equipment • Refer to AHA General

ACTIVITY HAZARD ANALYSIS

Sediment Control

ACTIVITY/STEP	POTENTIAL HAZARD	PROTECTIVE AND CONTROL MEASURES
Trenching, digging, hand clearing surfaces for silt fence	• Buried utilities • Equipment failure • Property damage • Obstacles • Subsurface structures, findings • Line of fire • Swing radius • Uneven terrain • Trip hazards • Open trench • Pedestrians • Communication	• ALL PARTIES MUST REVIEW AND UNDERSTAND UTILITY MARK OUT REPORT BEFORE ANY SUBSURFACE WORK BEGANS • Daily Inspection performed before use – while in operation operators will monitor, gauges, and look for indications of failure to hydraulic hoses and guards • Stay clear of all heavy equipment in your work area. If you can relocate do so, until work is complete • Use spotters when the operator's visibility is impaired, or equipment is approaching congested areas or blind corners. As needed. • Review the Blood hound utility information – if the trencher or mini E • Keep clear of moving parts on equipment stay clear of chance of flying debris or line of fire • Do not stand directly in front of the trencher or either side follow all operating • If the chain needs to be cleaned with a shovel shut off the trencher and lock it out • Keep 20 ft away from any part of the equipment • Plan your path, make sure you have proper footing before carrying or walking in uncleared areas • Pick up your feet walk with purpose, remove any trip hazards needed to be safe • Secure your work area with a delineated barrier or spotter to keep unauthorized personnel out • Personnel not covered under the AHA are not permitted in the work area • Use your radios, keep everyone aware of upcoming hazards you have prepared for during your task.
Installing silt fence	• Splinters • Pinch points • Sprains and strains • Ergonomics • Trip hazards • punctures • Tight/remote areas • Damaged materials • Biologicals	• Wear leather gloves while handling wooden stakes • Watch hand placement when swinging hammer to post • Position yourself correctly with firm grip on hammer • Keep feet planted firmly use fabric to hold stake in place • Again, plan your path keep footing clear while carrying materials or tools • Stakes have pointed edges keep them away from your body and keep points to the ground • Give yourself as much space as possible when swinging hammer if area is congested take small swings with the hammer • Weathered or rotten stakes may be in your bundle please keep an eye out for them replace when needed or discard bundle and notify supervisor immediately

ACTIVITY HAZARD ANALYSIS

Sediment Control

ACTIVITY/STEP	POTENTIAL HAZARD	PROTECTIVE AND CONTROL MEASURES
Backfilling trench line/burying silt fabric	• Incorrect install • Sprains and strains • Dehydration • Trips and falls • House keeping	• Make sure the silt fence stakes are installed correctly, water flow goes against the fabric then stakes are driven behind • Proper ergonomics when shoveling fill material back into trench, use equipment properly and when possible let the machine do the work • Take breaks make sure you stay hydrated, watch out for your fellow man ask when the last time was you had a water. • Keep all tools and equipment clear and free of debris, your work area must be clutter free as well. Housekeeping is a must with all task
Refueling Equipment	• Ignition source • Fire • Leaks due to faulty container • Slips, Trips, Falls • Spills	• Shutdown equipment during refueling. • Allow equipment to cool down before refueling. • Refuel from OSHA-compliant portable fuel container. • Personnel performing the refueling operation will exercise caution to avoid spillage. • Spill kits will be kept near the refueling operations. • Prior to fueling, personnel shall bond the heavy equipment to fueling equipment. • A minimum 10 lb. (minimum) fire extinguisher will be located in the immediate area during refueling • Spill kit

ACTIVITY HAZARD ANALYSIS
Sediment Control

SPECIAL NOTES AND INSTRUCTIONS: This AHA shall be reviewed by all project employees prior to commencing work and as warranted by; AHA revisions, safe work observations and improvement measures. All employees have authority to stop work for safety concerns.

AHA REVIEW AND TRAINING ACKNOWLEDGEMENT

DATE	NAME	SIGNATURE

ACTIVITY HAZARD ANALYSIS (AHA)

Activity: Tank Demolition
Project: Tonawanda Coke

Date: August 2019
Revision: 1

Work Plan Summary: Load existing soil pile material into trucks for off-site disposal

PREREQUISITES		
EQUIPMENT TO BE USED/SITE ENTRY	**INSPECTION REQUIREMENTS**	**TRAINING REQUIREMENTS**
Excavators equipped with bucket	All equipment shall be inspected before use per manufacturer's specification. Inspections shall be documented and maintained on site.	Any equipment operator must be OSC certified competent for each specific class of equipment.
Over-the-road haul trucks (subcontractor). Trucks to be equipped with ground level tarping system and pre-lined	Trucks shall be inspected before leaving site for lose material that may become dislodged off site.	Each driver upon initial site entry shall be instructed on safety requirements, signals, and traffic controls
PPE: Hard hat, high visibility clothing, safety glasses w/side shield, safety shoes with boot covers or rubber over boots in wet conditions, gloves, hearing protection.	PPE shall be inspected daily.	PPE basic training

ACTIVITY HAZARD ANALYSIS (AHA)

ACTIVITY	POTENTIAL HAZARD	PROTECTIVE METHODS AND CONTROLS
Truck arrives on-site and goes through bed lining inspection	Collision with object Collision with pedestrian Driver distraction/injury Liner not installed properly Fall	• Site shall be laid out in advance for truck maneuvering and traffic controls • All site personnel shall have hi-visibility clothing • Driver shall be instructed on site rules; remain in truck except designated area, PPE, signals • OSC to inspect bed for proper liner installation • Maintain 3-points of contact on ladder during inspection
Truck loading	Collision with object Material spill	• Spotter to direct truck as needed (i.e., blind spot, tight maneuvering/quarters) • Excavator operator to signal truck for correct position and when load is completed
Truck tarping	Fall Struck by	• Only ground-level tarp system to be used. Driver to maintain 3-points of contact entering & exiting cab. • Tarping and pre-departure inspection only to be done in designated area •
		•

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AHA Review and Training Acknowledgement:

Employees print name, sign and date in spaces provided below.

PRINT NAME	SIGNATURE	DATE

ACTIVITY HAZARD ANALYSIS (AHA)

Activity: Tank Demolition
Project: Tonawanda Coke

Date: August 2019
Revision: 1

Work Plan Summary: Activities, hazards and associated hazard control with respect to the cleaning and demolition of storage tanks

PREREQUISITES		
EQUIPMENT TO BE USED/SITE ENTRY	**INSPECTION REQUIREMENTS**	**TRAINING REQUIREMENTS**
Project specific equipment: excavators equipped with mechanical shears & grapple. Hand saw for cold cuts.	All equipment shall be inspected before use per manufacturer's specification. Inspections shall be documented and maintained on site.	Any equipment operator must be OSC certified competent for each specific class of equipment.
Aerial lifts. Users to be equipped with fall restraint.	Pre-use inspection (daily) per manufacturer	Per manufacturer on lift. Fall protection.
PPE: Hard hat, high visibility clothing, safety glasses w/side shield, safety shoes with boot covers or rubber over boots in wet conditions, gloves, hearing protection. For power washing will upgrade to coated disposable coveralls, rubber boots, nitrile gloves, and face shield w/goggles	PPE shall be inspected daily.	PPE basic training
4-gas MultiRAE lite	Unit must be calibrated per manufacturer	Per manufacturer

ACTIVITY	POTENTIAL HAZARD	PROTECTIVE METHODS AND CONTROLS
Work zone preparation	Slips, trips, and falls Vermin Struck by Inhalation contaminates Skin contact	• Walk work area slowly and without distraction. • In high vegetation use stick to probe ahead. Remain upright and make noise. • Delineate work zone and mark out traffic patterns. Use spotters. • Monitor tank air for VOCs per HASP • Use barrier gloves (w/leather) when handling contaminated material
Fueling of equipment	Splash Burns Fire Spill	• Use face shield with PPE • Shutdown equipment during refueling. • Allow equipment to cool down before refueling, refuel from OSHA-compliant container. Have fire extinguisher (10 lb. minimum) available. • Spill kits will be kept near the refueling operations.
Cold cut openings in tank roof from aerial for shear access	Fall from basket Shock Vapor inhalation/explosion Hand injury Debris in eye Noise exposure Dropped items	• Use fall restraint (harness with tether). Do not lean outside of basket. Keep feet on platform • Assure power tool is grounded and plugged to GFCI. Check electric power cord. No work within 10-feet of overhead power lines • Monitor tank for LEL and VOC levels. See HASP for action limits. • Use leather gloves. Tie off cord to relieve weight. • Use face shield and safety glasses with side shields • Use hearing protection • Barricade area below aerials. Tie off hand tools to basket.
Shear cut tank using excavators	Struck by Fire/explosion Dropped items/hydraulic failure Noise exposure	• Maintain eye contact with operator, do not approach within 35-feet, use spotters • Before shearing check interior tank atmosphere for LEL • Never get below boom/stick, stay outside swing radius. Do not approach until load is on ground or decontamination pad • Use hearing protection near excavators. Operators use hearing protection if doors/windows of cab are opened

OSC	**ACTIVITY HAZARD ANALYSIS (AHA)**

Special Notes and Instructions: This AHA shall be reviewed by all project employees prior to commencing work and as warranted by; AHA revisions, safe work observations and improvement measures. All employees have the authority to stop work for safety concerns.

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Employees print name, sign and date in spaces provided below.

PRINT NAME	SIGNATURE	DATE

ATTACHMENT III: Safety Data Sheets

Safety Data Sheet (SDS)

Date Prepared/Revised: 1/6/2015 Version no.: 02 Supersedes: (9/11/2014)

1.) Identification of the Mixture and of the Company

Product identifier**: Aervoe Construction Marking Paint - Aerosol**

Product name: **Construction Marking Paint**

Fluorescent Colors	Non-Fluorescent Colors	16 oz. I.A.C.
246 Red 247 Orange 248 Green 249 Pink 250 Blue 253 Yellow 283 Red-Orange	251 Black 252 Yellow 254 Blue 255 White 256 Red 257 Orange 258 Hi Vis Yellow 259 Green 260 Purple	261 Red 262 Yellow 263 Blue 265 Orange 267 White 270 Fluorescent Red 272 Fluorescent Orange 274 Fluorescent Green 275 Fluorescent Red/Orange 279 Fluorescent Pink

Relevant identified uses of the substance: Designed to adhere to most surfaces, including pavement, gravel, and soil.
Uses advised against: Do not apply if surface is wet, or if rain is imminent within 4 hours of application.

CAS No:	**Not Applicable (mixture)**
EC No:	**Not Applicable (mixture)**
Index No:	**Not Applicable (mixture)**
Manufacturer/Supplier:	**Aervoe Industries Incorporated**
Street address/P.O. Box:	**1100 Mark Circle**
Country ID/Postcode/Place	**Gardnerville, Nevada 89410**
Telephone number:	**001 (0) 1-775-782-0100**
e-mail:	**mailbox@aervoe.com**
National contact:	**Aervoe Industries Incorporated**
For Product Information:	001 **(0) 1-800-227-0196**
Emergency telephone number:	**001 (0) 1-800-424-9300 (CHEMTREC – 24 hrs)** **English Language Service**

2. Hazards identification

Classifications

Physical Hazards: Aerosol - Category 1
Flam. Gas. 1
Press. Gas
Flam. Liq. 2

Health Hazards:
Car 1B
Muta 1B
Asp Tox. 1

Eye Irrit. - 2
Rep. 2
Skin. Irr. 2
STOT SE3

Environmental Hazards: Aquatic Chronic 2

Labeling

Signal Word: Danger

Hazard Statements:
H220 – Extremely flammable gas
H222 – Extremely flammable aerosol
H225 – Highly flammable liquid and vapour.
H229 - Pressurized container: may burst if heated
H304 – May be fatal if swallowed and enters airways.
H315 – Causes skin irritation.
H319 – Causes serious eye irritation.
H336 – May cause drowsiness or dizziness.
H340 – May cause genetic defects
H350 – May cause cancer
H361 – Suspected of damaging fertility or the unborn child .
H373 – May cause damage to organs through prolonged or repeated exposure
H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements:
P101 - If medical advice is needed, have product container or label at hand
P102 - Keep out of reach of children
P103 - Read label before use
P210 - Keep away from heat/sparks/open flames/hot surfaces - no smoking
P211 - Do not spray on an open flame or other ignition source
P251 - Pressurized container: Do not pierce or burn, even after use
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P262 - Do not get in eyes, on skin, or on clothing
P264 - Wash … thoroughly after handling
P280 - Wear protective gloves/eye protection/face protection

P303+P361+P353 - If on skin or hair, remove/takeoff immediately all contaminated clothing. Rinse skin with water/shower.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50ºC/122ºF
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation

Date Prepared/Revised: 1/6/2015 Version no.: 02 Supersedes: (9/11/2014)

Symbols/Pictograms:

3. Composition / Information on Ingredients

Composition

Chemical	Synonyms	CAS Number	EINECS Number	Weight Percent	Hazard Category	H-Code
Hydrocarbon Propellant	LPG	68476-86-8	270-705-8	10-30%	Press. Gas Flam. Gas 1 Carc. 1B Muta. 1B	H220 H350 H340
Hexane	n-Hexane	110-54-3	203-777-6	5-10%	Flam. Liq. 2 Repr. 2 Asp. Tox. 1 STOT RE 2 * Skin Irrit. 2 STOT SE 3 Aquatic Chronic 2	H225 H361f *** H304 H373 ** H315 H336 H411
Aliphatic Petroleum Distillates	Solvent Naphtha	64742-89-8	265-192-2	5-10%	Carc. 1B Muta. 1B Asp. Tox. 1	H350 H340 H304
Aliphatic Petroleum Distillates	Solvent Naphtha	64742-88-7	265-191-7	1-5%	Asp. Tox. 1	H304
Aliphatic Petroleum Distillates	Solvent Naphtha	8032-32-4	232-453-7	1-5%	Carc. 1B Muta. 1B Asp. Tox. 1	H350 H340 H304
Non-fluorescent colors also contain:						
Acetone	Propanone	67-64-1	200-662-2	1-5%	Flam. Liq. 2 Eye Irrit. 2 STOT SE 3	H225, H319, H336

Date Prepared/Revised: 1/6/2015 Version no.: 02 Supersedes: (9/11/2014)

Other Product Information

Chemical Identity: Mixture

4.) First Aid Measures

General Advice:	If symptoms persist, always call a doctor.
Inhalation First Aid:	Remove victim to fresh air and provide oxygen if breathing is difficult. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention immediately.
Skin Contact First Aid:	Wash with soap and water. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse.
Eye Contact First Aid:	If contact with eyes, immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids open. Get medical attention immediately.
Ingestion First Aid:	If swallowed, wash out mouth with water provided the person is conscious. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Most Important Symptoms/Effects:	Exposure may cause slight irritation to the skin, eyes, and respiratory tract. Excessive exposure may cause central nervous system effects.

5. Fire Fighting Measures

Flammable Properties:	Aerosol
Auto Ignition Temperature:	Not Available
Suitable extinguishing media:	Carbon dioxide, dry chemical, water spray.
Unsuitable extinguishing media:	None known
Special hazards arising from the substance or mixture:	None known
Hazardous combustion products:	Carbon dioxide, Carbon monoxide
Fire & Explosion Hazards:	Closed Containers may rupture due to the buildup of pressure from extreme temperatures.
Precautions for fire-fighters:	Use water spray to cool containers exposed to heat or fire to prevent pressure build up. In the event of a fire, wear full protective clothing and NIOSH- approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

PERSONAL PRECAUTIONARY MEASURES:

1) Follow personal protective equipment recommendations found in section 8.
2) Maintain adequate ventilation.

SPILL CLEAN-UP PROCEDURES:
1.) Evacuate unprotected personnel from the area.
2.) Remove sources of ignition if safe to do so.
3.) Pickup spilled materials using non-sparking tools and place in an appropriate container for disposal.
4.) Contain spill to prevent material from entering sewage or ground water systems.
5.) Always dispose of waste materials in accordance with all EU, National and Local Regulations.

7. Handling and Storage

Handling:

Flammable Aerosol, use in a well ventilated area.
Do not use near sources of ignition.
Do not to eat, drink and smoke while working with this material.
Wash hands after use.

Conditions for safe storage, including any incompatibilities:

Store out of direct sunlight.
Storage Temperature: 32° to 120°F (0° to 49°C).
No known incompatibilities.

8. Exposure Controls / Personal Protection

Appropriate engineering controls:
Ensure adequate ventilation. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits.
Keep away from sources of ignition.
Take precautionary measures against static discharge.

Personal Protection:
Eye & face protection devices such as safety glasses, safety goggles or face shield are recommended.

Skin protection
Wear the appropriate protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection:
Use only in an adequately ventilated area. For unknown vapor concentrations use a positive-pressure, pressure-demand, self-contained breathing apparatus (SCBA).

Hazardous Ingredient	CAS Number	ACGIH TLV (TWA)	ACGIH TLV (STEL)	OSHA PEL (TWA)	OSHA PEL (STEL)

Aliphatic Petroleum Distillates	64742-88-7	N/AV	N/AV	N/AV	N/AV
Aliphatic Petroleum Distillates	64742-89-8	N/AV	N/AV	N/AV	N/AV
Hydrocarbon Propellant	68476-86-8	N/AV	N/AV	N/AV	N/AV
Aliphatic Petroleum Distillates	8032-32-4	200ppm	300ppm	200ppm	N/AV
Hexane	110-54-3	50ppm	N/AV	500ppm	N/AV
Acetone	67-64-1	500ppm	750ppm	1000ppm	N/AV

***Values are based on the 2014 Guide to Occupational Exposure Values by ACGIH**

9. Information on Basic Physical and Chemical Properties

Appearance: Color varies by product.	Odor: Hydrocarbon Odor
Odor Threshold: N/AV	pH: Not Applicable (solvent Base)
Melting Point: N/AV	Freezing Point: N/AV
Initial Boiling Point: N/AV	Boiling Point Range: N/AV
Flash Point: <0° F (-18° C)	Evaporation Rate: Faster than n-Butyl Acetate
Flammability Solid/Gas: Flammable gas	LEL: 0.9% UEL: 13%
Vapor Pressure: N/AV	Vapor Density: Heavier Than Air
Relative Density: N/AV	Solubility: Negligible
Partition Coefficient: n-octanol/ water: N/AV	Auto-ignition Temperature: N/AV
Decomposition Temperature: N/AV	Viscosity: N/AV
Explosive Properties: N/AV	Oxidizing Properties: N/AV

10. Stability & Reactivity

Possibility of hazardous reactions: Hazardous polymerization will not occur under normal conditions
Chemical stability: Stable under normal conditions
Conditions to avoid: Heat and ignition sources
Incompatible materials: Strong Oxidizing Agents
Hazardous decomposition products: Will not occur

11. Toxicological Information

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. Repeated overexposure can also damage kidneys, lungs, liver, heart and blood

Routes of exposure: Eyes, skin, ingestion, and/or inhalation

Acute toxicological data: (Acetone) Acute oral LD50: 5800mg/kg(rat)

	(Acetone) LC50: 21000 ppm / 8 hr (rat) (Hexane) LD50: 2870 mg/kg (Rat-Oral)
Eye irritation data:	N/AV
Skin irritation/sensitization/absorption data:	N/AV
Reproductive toxicity data:	N/AV
Mutagenicity data:	Muta 1B
Symptoms associated with physical contact:	N/AV
Acute/chronic effects from short/long term exposure:	Irritating to skin. Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis. Not expected to be a skin sensitizer.
Known reportable carcinogens via the following agencies:	
NTP:	N/AV
IARC:	IARC3:Classification not possible from current data
OSHA:	TLV-A4

* Petroleum distillates may contain chemical carcinogens in limited quantities (< 0.01%). These quantities are determined by the supplier/fraction/purity of the distillate during the manufacturing process. Chemicals that may be present within distillates are listed on California's prop 65 list such as ETHYLBENZENE, BENZENE, and TOLUENE.

12. Ecological Information

Ecotoxicity: **No Data Available**
Persistence and degradability: **No Data Available**
Bioaccumulative potential: **No Data Available**
Mobility in soil: **No Data Available**
Results of PBT and vPvB assessment: **No Data Available**
Other adverse effects: **No Data Available**

13. Disposal Considerations

Waste Disposal: Dispose of material in accordance with EU, national and local requirements. For proper disposal of used material, an assessment must be completed to determine the proper and permissible waste management options permitted under applicable rules, regulations and/or

laws governing your location.
Product / Packaging disposal: Dispose of packaging in accordance with federal, state and local requirements, regulations and/or laws governing your location.

14. Transportation Information

US DOT

UN Number	Proper Shipping Name	Hazard Class	Packing Group	Marine Pollutant	Special Provisions
UN1950	Aerosols	2.1	Not Applicable	Not Applicable	Reference 49 CFR 172.101

IMDG

UN Number	Proper Shipping Name	Hazard Class	Packing Group	Marine Pollutant	Special Provisions
UN1950	Aerosols	2.1	Not Applicable	Not Applicable	Reference IMDG code part 3

IATA:

UN Number	Proper Shipping Name	Hazard Class	Packing Group	Marine Pollutant	Special Provisions
UN1950	Aerosols, Flammable	2.1	Not Applicable	Not Applicable	Reference IATA Dangerous Goods Regulation

15. Regulatory Information

Workplace classification:
This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200). The Occupational Safety and Health Administration's interpretation of the product's hazard to workers.
SARA Title 3:
Section 311/312 Categorizations (40 CFR 372): This product is a hazardous chemical under 29 CFR 1910.1200, and is categorized as an immediate and delayed health, and flammability physical hazard. Superfund Amendment and Reauthorization Act (SARA) category. SARA requires reporting any spill of any hazardous substance.
TSCA status: All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.
WHMIS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the (M)SDS contains all of the information required by the CPR.
PROP 65 (CA): WARNING: This product may contain chemicals know to the state of California to cause cancer, birth defects or other reproductive harm.

16. Other Information

Safety Data Sheet (SDS)

Date Prepared/Revised: 1/6/2015 Version no.: 02 Supersedes: (9/11/2014)

This SDS has been completed in accordance with GHS Rev04 (2011): U.S OSHA, CMA, ANSI, Canadian WHMIS standards, and European Directives.

Date of Preparation/Revision: 1-6-2015
Supersedes: (9/11/2014)

To the best of our knowledge, the information contained herein is believed to be accurate. However, the above data does not imply any guarantee or warranty of any kind, expressed or implied. The final determination of the suitability of any material is the sole responsibility of the user. All materials made present un-known hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee these are the only hazards existing.

Safety Data Sheet

Material Name: Diesel Fuel, All Types

SDS No. 9909
US GHS

Synonyms: Ultra Low Sulfur Diesel; Low Sulfur Diesel; No. 2 Diesel; Motor Vehicle Diesel Fuel; Non-Road Diesel Fuel; Locomotive/Marine Diesel Fuel

* * * Section 1 - Product and Company Identification * * *

Manufacturer Information

Hess Corporation
1 Hess Plaza
Woodbridge, NJ 07095-0961

Phone: 732-750-6000 Corporate EHS
Emergency # 800-424-9300 CHEMTREC
www.hess.com (Environment, Health, Safety Internet Website)

* * * Section 2 - Hazards Identification * * *

GHS Classification:

Flammable Liquids - Category 3
Skin Corrosion/Irritation – Category 2
Germ Cell Mutagenicity – Category 2
Carcinogenicity - Category 2
Specific Target Organ Toxicity (Single Exposure) - Category 3 (respiratory irritation, narcosis)
Aspiration Hazard – Category 1
Hazardous to the Aquatic Environment, Acute Hazard – Category 3

GHS LABEL ELEMENTS

Symbol(s)

Signal Word

DANGER

Hazard Statements

Flammable liquid and vapor.
Causes skin irritation.
Suspected of causing genetic defects.
Suspected of causing cancer.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May be fatal if swallowed and enters airways.
Harmful to aquatic life.

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking
Keep container tightly closed.
Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash hands and forearms thoroughly after handling.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing fume/mist/vapours/spray.

Response
In case of fire: Use water spray, fog or foam to extinguish.
IF ON SKIN (or hair): Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.
If swallowed: Immediately call a poison center or doctor. Do NOT induce vomiting.
IF exposed or concerned: Get medical advice/attention.

Storage
Store in a well-ventilated place. Keep cool.
Keep container tightly closed.
Store locked up.

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

* * * Section 3 - Composition / Information on Ingredients * * *

CAS #	Component	Percent
68476-34-6	Fuels, diesel, no. 2	100
91-20-3	Naphthalene	<0.1

A complex mixture of hydrocarbons with carbon numbers in the range C9 and higher.

* * * Section 4 - First Aid Measures * * *

First Aid: Eyes
In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 min. Hold eyelids open to ensure adequate flushing. Seek medical attention.

First Aid: Skin
Remove contaminated clothing. Wash contaminated areas thoroughly with soap and water or with waterless hand cleanser. Obtain medical attention if irritation or redness develops. Thermal burns require immediate medical attention depending on the severity and the area of the body burned.

First Aid: Ingestion
DO NOT INDUCE VOMITING. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Monitor for breathing difficulties. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.

First Aid: Inhalation

Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties.

Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

Hazardous Combustion Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

Extinguishing Media

SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO2, water spray, fire fighting foam, and other gaseous agents.

LARGE FIRES: Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

Unsuitable Extinguishing Media

None

Fire Fighting Equipment/Instructions

Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other fire fighting equipment. Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing. Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam.

* * * Section 6 - Accidental Release Measures * * *

Recovery and Neutralization

Carefully contain and stop the source of the spill, if safe to do so.

Materials and Methods for Clean-Up

Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal. Caution, flammable vapors may accumulate in closed containers.

Emergency Measures

Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact.

Personal Precautions and Protective Equipment

Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

Environmental Precautions

Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of fire fighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection.

Prevention of Secondary Hazards

None

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Handle as a combustible liquid. Keep away from heat, sparks, excessive temperatures and open flame! No smoking or open flame in storage, use or handling areas. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion.

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil) is loaded into tanks previously containing low flash point products (such as this product) - see API Publication 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents."

Storage Procedures

Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers. Keep containers closed and clearly labeled. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition.

Store in a well-ventilated area. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". Avoid storage near incompatible materials. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks."

Incompatibilities

Keep away from strong oxidizers.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Component Exposure Limits

Fuels, diesel, no. 2 (68476-34-6)

ACGIH: 100 mg/m3 TWA (inhalable fraction and vapor, as total hydrocarbons, listed under Diesel fuel)
Skin - potential significant contribution to overall exposure by the cutaneous route (listed under Diesel fuel)

Naphthalene (91-20-3)

ACGIH: 10 ppm TWA
15 ppm STEL
Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA: 10 ppm TWA; 50 mg/m3 TWA
NIOSH: 10 ppm TWA; 50 mg/m3 TWA
15 ppm STEL; 75 mg/m3 STEL

Engineering Measures

Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces.

Personal Protective Equipment: Respiratory

A NIOSH/MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited.

Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

Personal Protective Equipment: Hands

Gloves constructed of nitrile, neoprene, or PVC are recommended.

Personal Protective Equipment: Eyes

Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.

Personal Protective Equipment: Skin and Body

Chemical protective clothing such as of E.I. DuPont TyChem®, Saranex® or equivalent recommended based on degree of exposure. Note: The resistance of specific material may vary from product to product as well as with degree of exposure. Consult manufacturer specifications for further information.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Clear, straw-yellow.	**Odor:**	Mild, petroleum distillate odor
Physical State:	Liquid	**pH:**	ND
Vapor Pressure:	0.009 psia @ 70 °F (21 °C)	**Vapor Density:**	>1.0
Boiling Point:	320 to 690 °F (160 to 366 °C)	**Melting Point:**	ND
Solubility (H2O):	Negligible	**Specific Gravity:**	0.83-0.876 @ 60°F (16°C)
Evaporation Rate:	Slow; varies with conditions	**VOC:**	ND
Percent Volatile:	100%	**Octanol/H2O Coeff.:**	ND
Flash Point:	>125 °F (>52 °C) minimum	**Flash Point Method:**	PMCC
Upper Flammability Limit (UFL):	7.5	**Lower Flammability Limit (LFL):**	0.6
Burning Rate:	ND	**Auto Ignition:**	494°F (257°C)

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources.

Incompatible Products

Keep away from strong oxidizers.

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

* * * Section 11 - Toxicological Information * * *

Acute Toxicity

A: General Product Information

Harmful if swallowed.

B: Component Analysis - LD50/LC50

Naphthalene (91-20-3)

Inhalation LC50 Rat >340 mg/m3 1 h; Oral LD50 Rat 490 mg/kg; Dermal LD50 Rat >2500 mg/kg; Dermal LD50 Rabbit >20 g/kg

Potential Health Effects: Skin Corrosion Property/Stimulativeness

Practically non-toxic if absorbed following acute (single) exposure. May cause skin irritation with prolonged or repeated contact. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are repeatedly exposed.

Potential Health Effects: Eye Critical Damage/ Stimulativeness

Contact with eyes may cause mild irritation.

Potential Health Effects: Ingestion

Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest, and death may occur.

Potential Health Effects: Inhalation

Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

WARNING: the burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of combustion products, including carbon monoxide, and inadequate oxygen levels, which may cause unconsciousness, suffocation, and death.

Respiratory Organs Sensitization/Skin Sensitization

This product is not reported to have any skin sensitization effects.

Generative Cell Mutagenicity

This material has been positive in a mutagenicity study.

Carcinogenicity

A: General Product Information

Suspected of causing cancer.

Studies have shown that similar products produce skin tumors in laboratory animals following repeated applications without washing or removal. The significance of this finding to human exposure has not been determined. Other studies with active skin carcinogens have shown that washing the animal's skin with soap and water between applications reduced tumor formation.

B: Component Carcinogenicity

Fuels, diesel, no. 2 (68476-34-6)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans (listed under Diesel fuel)

Naphthalene (91-20-3)

ACGIH: A4 - Not Classifiable as a Human Carcinogen
NTP: Reasonably Anticipated To Be A Human Carcinogen (Possible Select Carcinogen)
IARC: Monograph 82 [2002] (Group 2B (possibly carcinogenic to humans))

Reproductive Toxicity

This product is not reported to have any reproductive toxicity effects.

Specified Target Organ General Toxicity: Single Exposure

This product is not reported to have any specific target organ general toxicity single exposure effects.

Specified Target Organ General Toxicity: Repeated Exposure

This product is not reported to have any specific target organ general toxicity repeat exposure effects.

Aspiration Respiratory Organs Hazard

The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

Keep out of sewers, drainage areas and waterways. Report spills and releases, as applicable, under Federal and State regulations.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Fuels, diesel, no. 2 (68476-34-6)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	35 mg/L [flow-through]	

Naphthalene (91-20-3)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	5.74-6.44 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	1.6 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	0.91-2.82 mg/L [static]	
96 Hr LC50 Pimephales promelas	1.99 mg/L [static]	

96 Hr LC50 Lepomis macrochirus	31.0265 mg/L [static]
72 Hr EC50 Skeletonema costatum	0.4 mg/L
48 Hr LC50 Daphnia magna	2.16 mg/L
48 Hr EC50 Daphnia magna	1.96 mg/L [Flow through]
48 Hr EC50 Daphnia magna	1.09 - 3.4 mg/L [Static]

Persistence/Degradability
No information available.

Bioaccumulation
No information available.

Mobility in Soil
No information available.

* * * Section 13 - Disposal Considerations * * *

Waste Disposal Instructions
See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Disposal of Contaminated Containers or Packaging
Dispose of contents/container in accordance with local/regional/national/international regulations.

* * * Section 14 - Transportation Information * * *

DOT Information
Shipping Name: Diesel Fuel
NA #: 1993 **Hazard Class:** 3 **Packing Group:** III
Placard:

* * * Section 15 - Regulatory Information * * *

Regulatory Information

Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Naphthalene (91-20-3)

CERCLA: 100 lb final RQ; 45.4 kg final RQ

SARA Section 311/312 – Hazard Classes

Acute Health	Chronic Health	Fire	Sudden Release of Pressure	Reactive
X	X	X	--	--

SARA SECTION 313 - SUPPLIER NOTIFICATION

This product may contain listed chemicals below the de minimis levels which therefore are not subject to the supplier notification requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act (EPCRA) of 1986 and of 40 CFR 372. If you may be required to report releases of chemicals listed in 40 CFR 372.28, you may contact Hess Corporate Safety if you require additional information regarding this product.

State Regulations

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Fuels, diesel, no. 2	68476-34-6	No	No	No	Yes	No	No
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	Yes	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

Additional Regulatory Information

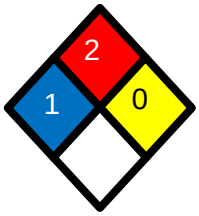
Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Fuels, diesel, no. 2	68476-34-6	Yes	DSL	EINECS
Naphthalene	91-20-3	Yes	DSL	EINECS

* * * Section 16 - Other Information * * *

NFPA® Hazard Rating

Health	1
Fire	2
Reactivity	0



HMIS® Hazard Rating

Health	1*	Slight
Fire	2	Moderate
Physical	0	Minimal
		*Chronic

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; AS = Standards Australia; DFG = Deutsche Forschungsgemeinschaft; DOT = Department of Transportation; DSL = Domestic Substances List; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EU = European Union; HMIS = Hazardous Materials Identification System; IARC = International Agency for Research on Cancer; IMO = International Maritime Organization; IATA = International Air Transport Association; MAK = Maximum Concentration Value in the Workplace; NDSL = Non-Domestic Substances List; NFPA = National Fire Protection Association; NOHSC = National Occupational Health & Safety Commission; NTP = National Toxicology Program; STEL = Short-term Exposure Limit; TDG = Transportation of Dangerous Goods; TLV = Threshold Limit Value; TSCA = Toxic Substances Control Act; TWA = Time Weighted Average

Literature References

None

Other Information

Information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgment.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in their use of the material.

End of Sheet

Conforms to HazCom 2012/United States

SAFETY DATA SHEET

131 Neutra™ Fuel Stabilizer

Section 1. Identification

GHS product identifier : 131 Neutra™ Fuel Stabilizer

Other means of identification : Not available.

Product type : Liquid.

Identified uses

Fuel additive for gasoline, diesel and biodiesel fuels.

Supplier's details : Schaeffer Mfg. Company
102 Barton Street
Saint Louis, Missouri 63104
Tel: 314-865-4100
Fax: 314-865-4107
Toll Free: 1-800-325-9962
E-Mail: safety@schaefferoil.com
Web: http://www.schaefferoil.com

Emergency telephone number (with hours of operation) : +1 314 865-4105 (24-hour response number)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : Flammable liquid and vapor.
Causes serious eye irritation.
Causes skin irritation.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Wash hands thoroughly after handling.

Section 2. Hazards identification

Response : IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Butan-1-ol	10 - 30	71-36-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : Irritating to mouth, throat and stomach.

Section 4. First aid measures

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No known significant effects or critical hazards.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet or water-based fire extinguishers.

Specific hazards arising from the chemical : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Butan-1-ol	**ACGIH TLV (United States, 6/2013).** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 4/2013). Absorbed through skin.** CEIL: 150 mg/m³ CEIL: 50 ppm **OSHA PEL (United States, 2/2013).** TWA: 300 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Clear.

Odor : Amine-like.

Odor threshold : Not available.

pH : 9.5 to 10.7

Melting point/ Dropping Point : Not available.

Boiling point : 64.44 to 92.22°C (148 to 198°F)

Flash point : Closed cup: 38°C (100.4°F) [Pensky-Martens.]

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : 0.2 kPa (1.5 mm Hg) [room temperature]

Vapor density : >1 [Air = 1]

Relative density : 0.896

Solubility : Insoluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials and reducing materials.
Slightly reactive or incompatible with the following materials: organic materials, acids and alkalis.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Butan-1-ol	LC50 Inhalation Vapor LD50 Dermal LD50 Oral	Rat Rabbit Rat	24000 mg/m³ 3400 mg/kg 790 mg/kg	4 hours - -

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Butan-1-ol	Eyes - Severe irritant Skin - Moderate irritant Eyes - Severe irritant	Rabbit Rabbit Rabbit	- - -	0.005 mL 24 hours 20 mg 24 hours 2 mg	- - -

Sensitization

There is no data available.

Carcinogenicity

There is no data available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Butan-1-ol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No known significant effects or critical hazards.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No known significant effects or critical hazards.

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral Dermal	7232.4 mg/kg 31127 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Butan-1-ol	Acute EC50 1983000 to 2072000 µg/l Fresh water Acute LC50 1910000 µg/l Fresh water	Daphnia - Daphnia magna Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	48 hours 96 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Butan-1-ol	1	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Butan-1-ol	71-36-3	Listed	U031

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN1993	FLAMMABLE LIQUIDS, N. O.S. (Contains Butan-1-ol) RQ (Butan-1-ol)	3	III		This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity. **Reportable quantity** At all time please check for possible RQ (Reportable Quantities)
IMDG Class	UN1993	FLAMMABLE LIQUIDS, N. O.S. (Contains Butan-1-ol)	3	III		-
IATA-DGR Class	UN1993	FLAMMABLE LIQUIDS, N. O.S. (Contains Butan-1-ol)	3	III		-

PG* : Packing group

AERG : 128

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR**: Naphthalene

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Water Act (CWA) 307: Phenol; Naphthalene; Ethylbenzene

Clean Water Act (CWA) 311: P-cresol; M-cresol; Xylenol; O-cresol; Phenol; Naphthalene; Xylene; Ethylbenzene

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
O-cresol	0.1 - 1	Yes.	1000 / 10000	-	100	-
Phenol	0 - 0.1	Yes.	500 / 10000	-	1000	-

SARA 304 RQ : 96153.8 lbs / 43653.8 kg [12870.7 gal / 48720.8 L]

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Butan-1-ol	10 - 30	Yes.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Butan-1-ol	71-36-3	10 - 30
Supplier notification	Butan-1-ol	71-36-3	10 - 30

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: Butan-1-ol

New York : The following components are listed: Butan-1-ol

Section 15. Regulatory information

New Jersey : The following components are listed: Distillates (petroleum), hydrotreated heavy naphthenic; Butan-1-ol

Pennsylvania : The following components are listed: Butan-1-ol

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Ethylbenzene	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.
Naphthalene	Yes.	No.	Yes.	No.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * **Flammability :** 2 **Physical hazards :** 0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health : 2 **Flammability :** 2 **Instability :** 0

US Tariff Heading Number : 3811.90.0000

Schedule B Code : 3811.90.0000

History

Date of issue mm/dd/yyyy : 05/15/2014

Version : 1

Revised Section(s) : Not applicable.

Prepared by : KMK Regulatory Services Inc.

SAFETY DATA SHEET

SDS ID NO.: 0298MAR019
Revision Date: 05/22/2015

1. IDENTIFICATION

Product Name: Marathon Petroleum Premium AW II Hydraulic Oil

Synonym: Premium AW II ISO 32 Hydraulic Oil; Premium AW II ISO 46 Hydraulic Oil; Premium AW II ISO 68 Hydraulic Oil; Premium AW II ISO 100 Hydraulic Oil; ISO 32 Premium AW II Hydraulic Oil; ISO 46 Premium AW II Hydraulic Oil; ISO 68 Premium AW II Hydraulic Oil; ISO 100 Premium AW II Hydraulic Oil

Chemical Family: Hydrocarbon Mixture

Recommended Use: Hydraulic Fluid.
Use Restrictions: All others.

Supplier Name and Address:

MARATHON PETROLEUM COMPANY LP
539 South Main Street
Findlay, OH 45840

SDS information: 1-419-421-3070

Emergency Telephone: 1-877-627-5463

2. HAZARD IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3

Hazards Not Otherwise Classified (HNOC)
Not applicable

Label elements

EMERGENCY OVERVIEW

Harmful to aquatic life with long lasting effects

Appearance Clear Liquid **Physical State** Liquid **Odor** Petroleum

Precautionary Statements - Prevention
Avoid release to the environment

Precautionary Statements - Response
Not applicable

Precautionary Statements - Storage
Not applicable

Precautionary Statements - Disposal
Dispose of contents/container at an approved waste disposal plant

Additional Information
Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Lube oil is a complex mixture of highly refined lubricating base stocks and additives.

Composition Information:

Name	CAS Number	Weight %
Solvent Refined, Hydrotreated Heavy Paraffinic Distillate	64742-54-7	98-99
2,6-di-tert-butylphenol	128-39-2	0.1-1

4. FIRST AID MEASURES

First Aid Measures

General advice In case of accident or if you feel unwell, seek medical advice immediately (show directions for use or safety data sheet if possible).

Inhalation: Remove to fresh air. If not breathing, institute rescue breathing. If breathing is difficult, ensure airway is clear, give oxygen and continue to monitor. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If symptoms occur get medical attention.

Skin Contact: Wash skin with plenty of soap and water. If irritation or other symptoms occur get medical attention. Wash contaminated clothing and clean shoes before reuse. Any injection injury from high pressure equipment should be evaluated immediately by a physician as potentially serious (See NOTES TO PHYSICIAN).

Eye Contact: Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Gently remove contacts while flushing. Get medical attention if irritation persists.

Ingestion: Rinse mouth out with water. If spontaneous vomiting occurs, keep head below hips, or if patient is lying down, turn body and head to side to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person. Keep affected person warm and at rest. If symptoms develop, seek medical attention.

Most important signs and symptoms, both short-term and delayed with overexposure

Adverse Effects: Preexisting skin conditions and/or respiratory disorders may be aggravated by exposure to this product.

Indication of any immediate medical attention and special treatment needed

NOTES TO PHYSICIAN: SKIN: Leaks or accidents involving high-pressure equipment may inject a stream of material through the skin and initially produce an injury that may not appear serious. Only a small puncture wound may appear on the skin surface but, without proper treatment and depending on the nature, original pressure, volume, and location of the injected material, can compromise blood supply to an affected body part. Prompt surgical debridement of the wound may be necessary to prevent irreversible loss of function and/or the affected body part. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

Unsuitable extinguishing media
Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical
The product is not combustible per the OSHA Hazard Communication Standard, but will ignite and burn at temperatures exceeding the flash point.

Hazardous combustion products
Smoke, carbon monoxide, and other products of incomplete combustion.

Explosion data
Sensitivity to Mechanical Impact No.
Sensitivity to Static Discharge No.

Special protective equipment and precautions for firefighters
Avoid using straight water streams. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Use water spray to cool exposed surfaces from as far a distance as possible. Keep run-off water out of sewers and water sources.

NFPA:	Health 1	Flammability 1	Instability 0	Special Hazards -

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Keep public away. Isolate and evacuate area. Shut off source if safe to do so.

Protective Equipment: Use personal protection measures as recommended in Section 8.

Emergency Procedures: Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate.

Environmental precautions: Avoid release to the environment. Avoid subsoil penetration.

Methods and materials for containment: Prevent further leakage or spillage if safe to do so.

Methods and materials for cleaning up: Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids. Recover and return free product to proper containers.

7. HANDLING AND STORAGE

Safe Handling Precautions: Avoid contact with skin, eyes and clothing. Do not swallow. Avoid breathing vapors or mists. Use good personal hygiene practices. Wash thoroughly after handling. Use personal protection measures as recommended in Section 8. Do not cut, drill, grind or weld on empty containers since explosive residues may remain. Refer to applicable EPA, OSHA, NFPA and consistent state and local requirements.

High-pressure injection of any material through the skin is a serious medical emergency even though the small entrance wound at the injection site may not initially appear serious. These injection injuries can occur from high-pressure equipment such as paint spray or grease or guns, fuel injectors, or pinhole leaks in hoses or hydraulic lines and should all be considered serious. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES (See First Aid Section 4).

Storage Conditions: Store in properly closed containers that are appropriately labeled and in a cool, well-ventilated area. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store away from incompatible materials.

Incompatible materials Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	ACGIH TLV	OSHA PELS:	OSHA - Vacated PELs	NIOSH IDLH
Solvent Refined, Hydrotreated Heavy Paraffinic Distillate 64742-54-7	Mineral oil, highly/severely refined, inhalable fraction 5 mg/m³ TWA	-	-	-
2,6-di-tert-butylphenol 128-39-2	-	-	-	-

Notes: The manufacturer has voluntarily elected to provide exposure limits contained in OSHA's 1989 air contaminants standard in its SDSs, even though certain of those exposure limits were vacated in 1992.

Engineering measures: Local or general exhaust required when using at elevated temperatures that generate vapors or mists.

Personal protective equipment

Eye protection: Use goggles or face-shield if the potential for splashing exists.

Skin and body protection: Wear neoprene, nitrile or PVA gloves to prevent skin contact. Glove suitability is based on workplace conditions and usage. Contact the glove manufacturer for specific advice on glove selection and breakthrough times. Wear appropriate protective clothing.

Respiratory protection: Use an approved organic vapor chemical cartridge or supplied air respirators when material produces vapors that exceed permissible exposure limits or excessive vapors are generated. Observe respirator assigned protection factors (APFs) criteria cited in federal OSHA 29 CFR 1910.134. Self-contained breathing apparatus should be used for fire fighting.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear Liquid
Color	Clear
Odor	Petroleum
Odor Threshold	No available data.

Property	Values (Method)
Melting Point / Freezing Point	No available data.
Initial Boiling Point / Boiling Range	No available data.
Flash Point	> 220 °C / > 428 °F (Cleveland Open-Cup)
Evaporation Rate	No available data.
Flammability (solid, gas)	Not applicable.
Flammability Limit in Air (%)	
Upper Flammability Limit:	No available data.
Lower Flammability Limit:	No available data.
Vapor Pressure	No available data.
Vapor Density	No available data.
Specific Gravity / Relative Density	0.86-0.88
Water Solubility	No available data.
Solubility in other solvents	No available data.
Partition Coefficient	No available data.
Decomposition temperature:	No available data.
pH:	No available data.
Autoignition Temperature	No available data.
Kinematic Viscosity	≥ 28.8 mm2/s @ 40°C / 104°F (ASTM D445)
Dynamic Viscosity	No available data.
Explosive Properties	No available data.
Softening Point	No available data.
VOC Content (%)	0.12-37.7 (w/w)
Density	No available data.
Bulk Density	Not applicable.

10. STABILITY AND REACTIVITY

Reactivity The product is non-reactive under normal conditions.

Chemical stability Stable under recommended storage conditions.

Possibility of hazardous reactions None under normal processing.

Hazardous polymerization Will not occur.

Conditions to avoid Sources of heat or ignition.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products None known under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Potential short-term adverse effects from overexposures

Inhalation Overheating may produce vapors which may cause respiratory irritation, dizziness and nausea.

Eye contact Exposure to vapor or contact with liquid may cause mild eye irritation.

Skin contact Prolonged or repeated exposure may cause dermatitis, folliculitis or oil acne.

Ingestion May cause irritation of the mouth, throat and gastrointestinal tract.

Acute Toxicological data

Name	Oral LD50	Dermal LD50	Inhalation LC50

Solvent Refined, Hydrotreated Heavy Paraffinic Distillate 64742-54-7	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.5 mg/l (Rat) 4 h
2,6-di-tert-butylphenol 128-39-2	> 5000 mg/kg (Rat)	> 10 g/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

This product is considered to have a low order of acute and chronic oral and dermal toxicity.

Adverse effects related to the physical, chemical and toxicological characteristics

Signs & Symptoms Repeated or prolonged skin contact may cause drying, reddening, itching and cracking.

Sensitization Not expected to be a skin or respiratory sensitizer.

Mutagenic effects None known.

Carcinogenicity Cancer designations are listed in the table below.

Name	ACGIH (Class)	IARC (Class)	NTP	OSHA
Solvent Refined, Hydrotreated Heavy Paraffinic Distillate 64742-54-7	Mineral oil, poorly/mildly refined Suspected Human Carcinogen (A2) Mineral oil, highly/severely refined, inhalable fraction Not Classifiable (A4)	Mineral oil, untreated or mildly treated Carcinogenic to humans (1) Mineral oil, highly refined Not Classifiable (3)	Mineral oil, poorly/mildly refined Known to be human carcinogen	Not Listed
2,6-di-tert-butylphenol 128-39-2	Not Listed	Not Listed	Not Listed	Not Listed

Reproductive toxicity None known.

Specific Target Organ Toxicity (STOT) - single exposure Not classified.

Specific Target Organ Toxicity (STOT) - repeated exposure Not classified.

Aspiration hazard Not classified.

12. ECOLOGICAL INFORMATION

Ecotoxicity Harmful to aquatic life with long lasting effects.

Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Solvent Refined, Hydrotreated Heavy Paraffinic Distillate 64742-54-7	-	96-hr LC50 = 5000 mg/L Rainbow trout	-	48-hr EC50 = 1000 mg/L Daphnia magna
2,6-di-tert-butylphenol 128-39-2	-	-	-	48-hr EC50 = 0.45 mg/l Daphnia magna

Persistence and degradability No information available.

Bioaccummulation Contains component(s) with the potential to bioaccumulate.

Mobility in soil No information available.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Description of Waste Residues
No information available.

Safe Handling of Wastes
Handle in accordance with applicable local, state, and federal regulations. Use personal protection measures as required.

Disposal of Wastes / Methods of Disposal
The user is responsible for determining if any discarded material is a hazardous waste (40 CFR 262.11). Dispose of in accordance with federal, state and local regulations.

Methods of Contaminated Packaging Disposal
Empty containers should be completely drained and then discarded or recycled, if possible. Do not cut, drill, grind or weld on empty containers since explosive residues may be present. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT (49 CFR 172.101):

UN Proper shipping name:	Not Regulated
UN/Identification No:	Not applicable
Transport Hazard Class(es):	Not applicable
Packing group:	Not applicable

TDG (Canada):

UN Proper shipping name:	Not Regulated
UN/Identification No:	Not applicable
Transport Hazard Class(es):	Not applicable
Packing group:	Not applicable

15. REGULATORY INFORMATION

US Federal Regulatory Information:

US TSCA Chemical Inventory Section 8(b): This product and/or its components are listed on the TSCA Chemical Inventory.

EPA Superfund Amendment & Reauthorization Act (SARA):

SARA Section 302: This product may contain component(s) that have been listed on EPA's Extremely Hazardous Substance (EHS) List:

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
Solvent Refined, Hydrotreated Heavy Paraffinic Distillate	NA
2,6-di-tert-butylphenol	NA

SARA Section 304: This product may contain component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	CERCLA/SARA - Hazardous Substances and their Reportable Quantities
Solvent Refined, Hydrotreated Heavy Paraffinic Distillate	NA
2,6-di-tert-butylphenol	NA

SARA: The following EPA hazard categories apply to this product:

None

SARA Section 313: This product may contain component(s), which if in exceedance of the de minimus threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).

Name	CERCLA/SARA 313 Emission reporting:
Solvent Refined, Hydrotreated Heavy Paraffinic Distillate	None
2,6-di-tert-butylphenol	None

State and Community Right-To-Know Regulations:
The following component(s) of this material are identified on the regulatory lists below:

Solvent Refined, Hydrotreated Heavy Paraffinic Distillate

Louisiana Right-To-Know:	Not Listed.
California Proposition 65:	Not Listed.
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.
Florida Substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed.
Michigan Critical Materials Register List:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed.
California - Regulated Carcinogens:	Not Listed.
Pennsylvania RTK - Special Hazardous Substances:	Not Listed.
New Jersey - Special Hazardous Substances:	Carcinogen
New Jersey - Environmental Hazardous Substances List:	Not Listed.
Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed.

2,6-di-tert-butylphenol

Louisiana Right-To-Know:	Not Listed.
California Proposition 65:	Not Listed.
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.
Florida Substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed.
Michigan Critical Materials Register List:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed.
California - Regulated Carcinogens:	Not Listed.
Pennsylvania RTK - Special Hazardous Substances:	Not Listed.
New Jersey - Special Hazardous Substances:	Not Listed.
New Jersey - Environmental Hazardous Substances List:	Not Listed.
Illinois - Toxic Air Contaminants	Not Listed.
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed.

Canada DSL/NDSL Inventory: This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

Canadian Regulatory Information: "This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the (M)SDS contains all the information required by the Controlled Products Regulations."

Name	Canada - WHMIS: Classifications of Substances:	Canada - WHMIS: Ingredient Disclosure:
2,6-di-tert-butylphenol	D2B	1%

NOTE: Uncontrolled product according to WHMIS classification criteria.

16. OTHER INFORMATION

Prepared By Toxicology and Product Safety
Revision Date: 05/22/2015

Revision Note:

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is intended as guidance for safe handling, use, processing, storage, transportation, accidental release, clean-up and disposal and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Safety Data Sheet

Material Name: Hess 10W30 Motor Oil

SDS No. 8957
US GHS

Synonyms: Valvoline Product Code 52670413

* * * Section 1 - Product and Company Identification * * *

Manufacturer Information

Hess Corporation
1 Hess Plaza
Woodbridge, NJ 07095-0961

Phone: 732-750-6000 Corporate EHS
Emergency # 800-424-9300 CHEMTREC
www.hess.com (Environment, Health, Safety Internet Website)

* * * Section 2 - Hazards Identification * * *

GHS Classification:

Skin Corrosion/Irritation – Category 2
Specific Target Organ Toxicity – Category 3 (narcosis)
Carcinogenicity - Category 1B

GHS LABEL ELEMENTS

Symbol(s)

Signal Word

WARNING

Hazard Statements

Causes skin irritation.
May cause cancer.
May cause drowsiness or dizziness.

Precautionary Statements

Prevention

Wash hands and forearms thoroughly after handling.
Wear protective gloves/protective clothing/eye protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing fume/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.

Response

If on skin: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
If exposed or concerned: Get medical advice/attention.
If inhaled: Remove person to fresh air and keep in a position comfortable for breathing. Call poison center or doctor if you feel unwell.

Storage
Store locked up.
Store in a well-ventilated place.
Keep container tightly closed.

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

* * * Section 3 - Composition / Information on Ingredients * * *

CAS #	Component	Percent
64742-65-0	Petroleum distillates, solvent dewaxed heavy paraffinic	83-93

Petroleum-based lubricating oil with detergent/dispersant engine oil package with zinc compounds.

* * * Section 4 - First Aid Measures * * *

First Aid: Eyes
If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is visual difficulty, seek medical attention.

First Aid: Skin
Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

First Aid: Ingestion
Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

First Aid: Inhalation
Remove person to fresh air. If person is not breathing provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

First Aid: Notes to Physician
Acute aspiration of large amounts of oil-laden material may produce a serious aspiration hazard. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards
See Section 9 for Flammability Properties.
Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. No special fire hazards are known to be associated with this product. Dense smoke may be generated while burning.

Hazardous Combustion Products

May form: carbon dioxide and carbon monoxide, oxides of sulfur, nitrogen and phosphorous, various hydrocarbons.

Extinguishing Media

SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO2, water spray, fire fighting foam, or gaseous extinguishing agent.

LARGE FIRES: Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

Unsuitable Extinguishing Media

None

Fire Fighting Equipment/Instructions

Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other fire fighting equipment. Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing. Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam.

* * * Section 6 - Accidental Release Measures * * *

Recovery and Neutralization

Carefully contain and stop the source of the spill, if safe to do so.

Materials and Methods for Clean-Up

Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal. Caution, flammable vapors may accumulate in closed containers.

SMALL SPILL: Absorb liquid on vermiculite, floor absorbent or other absorbent material. Persons not wearing proper personal protective equipment should be excluded from area of spill.

LARGE SPILL: Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify authorities as required, that a spill has occurred. Persons not wearing proper personal protective equipment should be excluded from area of spill until clean-up has been completed.

Emergency Measures

Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact.

Personal Precautions and Protective Equipment

Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

Environmental Precautions

Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of fire fighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection.

Prevention of Secondary Hazards

None

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Handle as a combustible liquid. Keep away from heat, sparks, and open flame! Electrical equipment should be approved for classified area. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion.

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil) is loaded into tanks previously containing low flash point products (such as this product) - see API Publication 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents.

Storage Procedures

Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers. Keep containers closed and clearly labeled. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition.

Store in a well-ventilated area. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". Avoid storage near incompatible materials. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks."

Incompatibilities

Avoid contact with: acids, halogens, strong oxidizing agents.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Engineering Measures

Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces.

Personal Protective Equipment: Respiratory

A NIOSH/MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited.

Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

Personal Protective Equipment: Hands

Not normally required. However, wear resistant gloves such as nitrile rubber to prevent irritation which may result from prolonged or repeated skin contact with product.

Personal Protective Equipment: Eyes

Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.

Personal Protective Equipment: Skin and Body

To prevent repeated or prolonged skin contact, wear impervious clothing and boots. Wear normal work clothing covering arms and legs.

Hygiene Measures

Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use solvents or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Dry, clear and bright	**Odor:**	None
Physical State:	Liquid	**pH:**	ND
Vapor Pressure:	ND	**Vapor Density:**	ND
Boiling Point:	>425 °F (218.3°C) @ 760.00 mmHg	**Melting Point:**	ND
Solubility (H2O):	Negligible	**Specific Gravity:**	0.881 @ 60°F (16°C)
Evaporation Rate:	Slower than ethyl ether	**VOC:**	ND
Viscosity:	<= 3300.0 cps @ -20°C; 10.0 - 11.0 cst @ 100°C	**Octanol/H2O Coeff.:**	ND
Flash Point:	430 °F (221.1 °C)	**Flash Point Method:**	COC
Upper Flammability Limit (UFL):	ND	**Lower Flammability Limit (LFL):**	ND
Burning Rate:	ND	**Auto Ignition:**	ND

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

None

Incompatible Products

Avoid contact with: acids, halogens, strong oxidizing agents.

Hazardous Decomposition Products

May form: aldehydes, carbon dioxide and carbon monoxide, hydrogen sulfide, oxides of sulfur, nitrogen and phosphorus, toxic fumes, various hydrocarbons.

* * * Section 11 - Toxicological Information * * *

Acute Toxicity

A: General Product Information

Harmful if large amounts are swallowed.

B: Component Analysis - LD50/LC50

Petroleum distillates, solvent dewaxed heavy paraffinic (64742-65-0)

Inhalation LC50 Rat >4.7 mg/L 4 h; Oral LD50 Rat >5000 mg/kg; Dermal LD50 Rabbit >5000 mg/kg

Potential Health Effects: Skin Corrosion Property/Stimulativeness

May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms include redness, burning, drying and cracking of the skin, and skin burns. Additional symptoms of skin contact include: acne. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Potential Health Effects: Eye Critical Damage/ Stimulativeness

May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

Potential Health Effects: Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Potential Health Effects: Inhalation

It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits.

Respiratory Organs Sensitization/Skin Sensitization

This product is not reported to have any skin sensitization effects.

Generative Cell Mutagenicity

This product is not reported to have any mutagenic effects.

Carcinogenicity

A: General Product Information

May cause cancer.

Used motor oil has been shown to cause skin cancer in laboratory animal continually exposed by repeated applications.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Reproductive Toxicity

This product is not reported to have any reproductive toxicity effects.

Specified Target Organ General Toxicity: Single Exposure

This product is not reported to have any specific target organ general toxicity single exposure effects.

Specified Target Organ General Toxicity: Repeated Exposure

This product is not reported to have any specific target organ general toxicity repeat exposure effects.

Aspiration Respiratory Organs Hazard

Acute aspiration of large amounts of oil-laden material may produce a serious aspiration hazard.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

Keep out of sewers, drainage areas and waterways. Report spills and releases, as applicable, under Federal and State regulations.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Petroleum distillates, solvent dewaxed heavy paraffinic (64742-65-0)

Test & Species	Conditions
96 Hr LC50 Oncorhynchus mykiss	>5000 mg/L
48 Hr EC50 Daphnia magna	>1000 mg/L

Persistence/Degradability

No information available.

Bioaccumulation

No information available.

Mobility in Soil

No information available.

* * * Section 13 - Disposal Considerations * * *

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Disposal of Contaminated Containers or Packaging

Dispose of contents/container in accordance with local/regional/national/international regulations.

* * * Section 14 - Transportation Information * * *

DOT Information

Shipping Name: Not Regulated

* * * Section 15 - Regulatory Information * * *

Regulatory Information

Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

SARA Section 311/312 – Hazard Classes

Acute Health	Chronic Health	Fire	Sudden Release of Pressure	Reactive
X	X	--	--	--

SARA SECTION 313 - SUPPLIER NOTIFICATION

ZINC C1-C14 ALKYLDITHIOPHOSPHATE (CAS No. 68649-42-3)

State Regulations

Component Analysis - State

None of this product's components are listed on the state lists from CA, MA, MN, NJ, PA, or RI.

Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

Additional Regulatory Information

Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Petroleum distillates, solvent dewaxed heavy paraffinic	64742-65-0	Yes	DSL	EINECS

* * * Section 16 - Other Information * * *

NFPA® Hazard Rating

Health	1
Fire	1
Reactivity	0

HMIS® Hazard Rating

Health	1*	Slight
Fire	1	Slight
Physical	0	Minimal
		*Chronic

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

Literature References

None

Other Information

Information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgment.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in their use of the material.

End of Sheet

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200

OFF!® DEEP WOODS® INSECT REPELLENT VIII (DRY)

Version *2*.0 Print Date 09/08/2016

Revision Date 07/12/2016 SDS Number 350000015104

1. PRODUCT AND COMPANY IDENTIFICATION

Product information

Product name : **OFF!® DEEP WOODS® INSECT REPELLENT VIII (DRY)**

Recommended use : Insect Repellent

Manufacturer, importer, supplier : S.C. Johnson & Son, Inc.
1525 Howe Street
Racine WI 53403-2236

Telephone : +18005585252
Emergency telephone number : 24 Hour Medical Emergency Phone: (866)231-5406
24 Hour International Emergency Phone: (703)527-3887
24 Hour Transport Emergency Phone: (800)424-9300

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Globally Harmonized System (GHS) Classification

Hazard classification	Hazard category	Hazards identification
Aerosol	Category 1	Extremely flammable aerosol.
Eye irritation	Category 2A	Causes serious eye irritation.
Gases under pressure	Liquefied gas	Contains gas under pressure; may explode if heated.

Labelling

Hazard symbols
Flame
Gas cylinder
Exclamation mark

Signal word
Danger

Hazard statements
Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.

Precautionary statements
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Protect from sunlight. Store in a well-ventilated place.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Wash hands thoroughly after handling.
Other hazards : None identified

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Weight percent
N,N-Diethyl-m-toluamide	134-62-3	10.00 - 30.00
Ethyl alcohol	64-17-5	10.00 - 30.00
Butane	106-97-8	10.00 - 30.00
Corn starch	9005-25-8	10.00 - 30.00
Propane	74-98-6	5.00 - 10.00
Isobutane	75-28-5	5.00 - 10.00
Isopropyl Myristate	110-27-0	1.00 - 5.00
Magnesium carbonate	546-93-0	1.00 - 5.00

The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

For additional information on product ingredients, see www.whatsinsidescjohnson.com.

4. FIRST AID MEASURES

Eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

Skin contact	:	If you suspect a reaction to this product, discontinue use and remove contaminated clothing.
Inhalation	:	No special requirements.
Ingestion	:	No special requirements

5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Specific hazards during firefighting	:	Aerosol Product - Containers may rocket or explode in heat of fire. Do not allow run-off from fire fighting to enter drains or water courses.
Further information	:	Fight fire from maximum distance or protected area. Cool and use caution when approaching or handling fire-exposed containers. Wear full protective clothing and positive pressure self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.
NFPA Classification	:	NFPA Level 2 Aerosol

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	Remove all sources of ignition. Wear personal protective equipment. Wash thoroughly after handling.
Environmental precautions	:	Do not flush into surface water or sanitary sewer system. Use appropriate containment to avoid environmental contamination. Outside of normal use, avoid release to the environment.
Methods and materials for containment and cleaning up	:	If damage occurs to aerosol can: Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

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Use only non-sparking equipment.
Dike large spills.
Clean residue from spill site.

7. HANDLING AND STORAGE

Handling

Precautions for safe handling : Avoid contact with eyes and lips.
For personal protection see section 8.
Use only as directed.
KEEP OUT OF REACH OF CHILDREN AND PETS.
Pressurized container.
Do not pierce or burn, even after use.
Wash thoroughly after handling.

Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking.
Do not spray on an open flame or other ignition source.

Storage

Requirements for storage areas and containers : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Keep away from food, drink and animal feedingstuffs.
Keep in a dry, cool and well-ventilated place.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Components	CAS-No.	mg/m3	ppm	Non-standard units	Basis
Ethyl alcohol	64-17-5	1,900 mg/m3	1,000 ppm	-	OSHA TWA
Ethyl alcohol	64-17-5	-	1,000 ppm	-	ACGIH STEL
Butane	106-97-8	-	1,000 ppm	-	ACGIH STEL
Corn starch	9005-25-8	5 mg/m3	-	-	OSHA TWA
Corn starch	9005-25-8	15 mg/m3	-	-	OSHA TWA
Corn starch	9005-25-8	10 mg/m3	-	-	ACGIH TWA
Propane	74-98-6	1,800 mg/m3	1,000 ppm	-	OSHA TWA
Propane	74-98-6	-	-	-	ACGIH TWA
Isobutane	75-28-5	-	1,000 ppm	-	ACGIH STEL
Magnesium carbonate	546-93-0	15 mg/m3	-	-	OSHA TWA
Magnesium carbonate	546-93-0	5 mg/m3	-	-	OSHA TWA

Personal protective equipment

Respiratory protection : Do not spray in enclosed areas.

Hand protection : No special requirements.

Eye protection : Safety glasses with side-shields

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Skin and body protection	:	No special requirements.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	:	aerosol
Form	:	Compressed gas
Color	:	white
Odor	:	pleasant
Odour Threshold	:	No data available
pH	:	10.3 (as aqueous solution)
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	< -7 °C < 19.4 °F Propellant
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Sustains combustion
Upper/lower flammability or explosive limits	:	No data available

Vapour pressure	:	No data available
Vapour density	:	No data available
Relative density	:	0.82 g/cm3
Solubility(ies)	:	dispersible
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	Test not applicable for this product type
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Oxidizing properties	:	No data available
Volatile Organic Compounds Total VOC (wt. %)*	:	52.6 % - additional exemptions may apply *as defined by US Federal and State Consumer Product Regulations
Other information	:	None identified :

10. STABILITY AND REACTIVITY

Possibility of hazardous	:	If accidental mixing occurs and toxic gas is formed, exit area

reactions immediately. Do not return until well ventilated.

Conditions to avoid : Heat, flames and sparks.

Incompatible materials : Strong oxidizing agents
Do not mix with bleach or any other household cleaners.
Strong bases

Hazardous decomposition products : Thermal decomposition can lead to release of irritating gases and vapours.

11. TOXICOLOGICAL INFORMATION

Emergency Overview : Danger

Acute oral toxicity :
Acute inhalation toxicity :

Acute dermal toxicity :

GHS Properties	Classification	Routes of entry
Acute toxicity	No classification proposed	-
Skin corrosion/irritation	No classification proposed	-
Eye irritation	Category 2A	-
Skin sensitisation	No classification proposed	-
Respiratory sensitisation	No classification proposed	-
Germ cell mutagenicity	No classification proposed	-
Carcinogenicity	No classification proposed	-
Reproductive toxicity	No classification proposed	-
Specific target organ	No classification proposed	-

toxicity - single exposure		
Specific target organ toxicity - repeated exposure	No classification proposed	-
Aspiration hazard	No classification proposed	-

Aggravated Medical Condition : Do not apply to cuts or irritated skin.

12. ECOLOGICAL INFORMATION

Product : The product itself has not been tested.

Toxicity
The ingredients in this formula have been reviewed and no adverse impact to the environment is expected when used according to label directions.

Toxicity to fish

Components	End point	Species	Value	Exposure time
N,N-Diethyl-m-toluamide	static test LC50	Oncorhynchus mykiss (rainbow trout)	71.25 mg/l	96 h
Ethyl alcohol	LC50	Fish	11,200 mg/l	96 h
Butane	LC50 QSAR	Fish	27.98 mg/l	96 h
Corn starch	static test LC50 Measured No information	Fish	5,000 mg/l	96 h

	available.			
Propane	LC50	Fish	27.98 mg/l	96 h
Isobutane	LC50 QSAR	Fish	27.98 mg/l	96 h
Isopropyl Myristate	LC50	Danio rerio (zebra fish)	8,400 mg/l	96 h
Magnesium carbonate	static test LC50	Pimephales promelas (fathead minnow)	2,800 mg/l	96 h

Toxicity to aquatic invertebrates

Components	**End point**	**Species**	**Value**	**Exposure time**
N,N-Diethyl-m-toluamide	LC50	Daphnia magna (Water flea)	75 mg/l	51 h
	semi-static test NOEC Measured OECD Guideline 211 (Daphnia magna Reproduction Test)	Daphnia magna	3.7 mg/l	21 d
Ethyl alcohol	static test LC50	Ceriodaphnia dubia		48 h

	NOEC	Daphnia magna	5,012 mg/l 9.6 mg/l	9 d
Butane	No data available			
Corn starch	No data available			
Propane	LC50	Daphnid	14.22 mg/l	48 h
Isobutane	LC50 QSAR	Daphnid	16.33 mg/l	48 h
Isopropyl Myristate	EC50	Daphnia magna (Water flea)	100 mg/l	48 h
Magnesium carbonate	No data available			

Toxicity to aquatic plants

Components	End point	Species	Value	Exposure time
N,N-Diethyl-m-toluamide	NOEC	Pseudokirchneriella subcapitata (green algae)	0.521 mg/l	96 h
Ethyl alcohol	Static EC50	Chlorella vulgaris (Fresh water algae)	275 mg/l	72 h

Butane	EC50 QSAR	Green algae	7.71 mg/l	96 h
Corn starch	No data available			
Propane	No data available			
Isobutane	EC50 QSAR	Green algae	8.57 mg/l	96 h
Isopropyl Myristate	EC50	Desmodesmus subspicatus	> 100 mg/l	72 h
Magnesium carbonate	static test EC50 Read-across (Analogy)	Desmodesmus subspicatus (green algae)	> 100 mg/l	72 h

Persistence and degradability

Component	Biodegradation	Exposure time	Summary
N,N-Diethyl-m-toluamide	83.8 %	28 d	Readily biodegradable
Ethyl alcohol	97 %	28 d	Readily biodegradable
Butane	100 %	385.5 h	Readily biodegradable
Corn starch	No data available		Readily biodegradable
Propane	70 %	< 10 d	Readily biodegradable
Isobutane	70 %	< 10 d	Readily biodegradable
Isopropyl Myristate	91.4 %	28 d	Readily biodegradable
Magnesium carbonate	No data available		

Bioaccumulative potential

Component	Bioconcentration	Partition Coefficient n-

	factor (BCF)	Octanol/water (log)
N,N-Diethyl-m-toluamide	21.9 estimated	2.4
Ethyl alcohol	3.2 estimated	-0.35 Measured
Butane	No data available	2.89
Corn starch	No data available	No data available
Propane	No data available	2.36
Isobutane	1.57 - 1.97	2.8
Isopropyl Myristate	1,220.1	7.71
Magnesium carbonate	0.89 QSAR	-2.12 QSAR

Mobility

Component	End point	Value
N,N-Diethyl-m-toluamide	Koc	43.3
Ethyl alcohol	No data available	
Butane	No data available	
Corn starch	No data available	
Propane	No data available	
Isobutane	No data available	
Isopropyl Myristate	log Koc	4.08
Magnesium carbonate	No data available	

PBT and vPvB assessment

Component	Results
N,N-Diethyl-m-toluamide	Not fulfilling PBT and vPvB criteria
Ethyl alcohol	Not fulfilling PBT and vPvB criteria
Butane	Not fulfilling PBT and vPvB criteria
Corn starch	Not fulfilling PBT and vPvB criteria
Propane	Not fulfilling PBT and vPvB criteria
Isobutane	Not fulfilling PBT and vPvB criteria
Isopropyl Myristate	Not fulfilling PBT and vPvB criteria

Magnesium carbonate	Not fulfilling PBT and vPvB criteria

Other adverse effects : No data available

13. DISPOSAL CONSIDERATIONS

PESTICIDAL WASTE:
For disposal information, please read and follow Disposal instructions on the pesticide label.
Consumer may discard empty container in trash, or recycle where facilities exist.

14. TRANSPORT INFORMATION

Please refer to the Bill of Lading/receiving documents for up-to-date shipping information.

	Land transport	**Sea transport**	**Air transport**
UN number	1950	1950	1950
UN proper shipping name	AEROSOLS, Flammable	AEROSOLS, Flammable	AEROSOLS, Flammable
Transport hazard class(es)	2.1	2	2.1
Packing group	-	-	-
Environmental hazards	-	-	-
Special precautions for user	Limited quantities derogation may be applicable to this product, please check transport documents.	Limited quantities derogation may be applicable to this product, please check transport documents.	Limited quantities derogation may be applicable to this product, please check transport documents.

15. REGULATORY INFORMATION

FIFRA Labeling

OFF!® DEEP WOODS® INSECT REPELLENT VIII (DRY)

Version *2*.0 Print Date 09/08/2016

Revision Date 07/12/2016 SDS Number 350000015104

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals.

Following is the hazard information as required on the pesticide label:

WARNING:
Causes substantial but temporary eye injury.
Harmful if swallowed.
Use of this product may cause skin reactions in rare cases.
Extremely flammable
Contents under pressure.
Exposure to temperatures above 120° F may cause bursting.

Notification status : All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Notification status : All ingredients of this product comply with the New Substances Notification requirements under the Canadian Environmental Protection Act (CEPA).

California Prop. 65 : This product is not subject to the reporting requirements under California's Proposition 65.

Registration # / Agency
4822-572/US/EPA
30598/PMRA

OFF!® DEEP WOODS® INSECT REPELLENT VIII (DRY)

Version *2*.0 Print Date 09/08/2016

Revision Date 07/12/2016 SDS Number 350000015104

16. OTHER INFORMATION

HMIS Ratings

Health	2
Flammability	4
Reactivity	0

NFPA Ratings

Health	2
Fire	4
Reactivity	0
Special	-

This information is being provided in accordance with the Occupational Safety and Health Administration (OSHA) regulation (29 CFR 1910.1200). The information supplied is designed for workplaces where product use and frequency of exposure exceeds that established for the labeled consumer use.

Further information

This document has been prepared using data from sources considered to be technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use are beyond the seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

Prepared by	SC Johnson Global Safety Assessment & Regulatory Affairs (GSARA)

Safety Data Sheet

Material Name: Gasoline All Grades

SDS No. 9950
US GHS

Synonyms: Hess Conventional (Oxygenated and Non-oxygenated) Gasoline; Reformulated Gasoline (RFG); Reformulated Gasoline Blendstock for Oxygenate Blending (RBOB); Unleaded Motor or Automotive Gasoline

* * * Section 1 - Product and Company Identification * * *

Manufacturer Information

Hess Corporation
1 Hess Plaza
Woodbridge, NJ 07095-0961

Phone: 732-750-6000 Corporate EHS
Emergency # 800-424-9300 CHEMTREC
www.hess.com (Environment, Health, Safety Internet Website)

* * * Section 2 - Hazards Identification * * *

GHS Classification:

Flammable Liquid - Category 2
Skin Corrosion/Irritation - Category 2
Germ Cell Mutagenicity - Category 1B
Carcinogenicity - Category 1B
Toxic to Reproduction - Category 1A
Specific Target Organ Toxicity (Single Exposure) - Category 3 (respiratory irritation, narcosis)
Specific Target Organ Toxicity (Repeat Exposure) - Category 1 (liver, kidneys, bladder, blood, bone marrow, nervous system)
Aspiration Hazard - Category 1
Hazardous to the Aquatic Environment – Acute Hazard - Category 3

GHS LABEL ELEMENTS

Symbol(s)

Signal Word

DANGER

Hazard Statements

Highly flammable liquid and vapour.
Causes skin irritation.
May cause genetic defects.
May cause cancer.
May damage fertility or the unborn child.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Causes damage to organs (liver, kidneys, bladder, blood, bone marrow, nervous system) through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.
Harmful to aquatic life.

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash hands and forearms thoroughly after handling.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mist/vapours/spray.
Use only outdoors or in well-ventilated area.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.

Response

In case of fire: Use water spray, fog, dry chemical fire extinguishers or hand held fire extinguisher.
IF ON SKIN (or hair): Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing and wash before reuse. If skin irritation occurs, get medical advice/attention.
IF exposed or concerned: Get medical advice/attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
Get medical advice/attention if you feel unwell.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting.

Storage

Store in a well-ventilated place.
Keep cool. Keep container tightly closed.
Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

* * * Section 3 - Composition / Information on Ingredients * * *

CAS #	Component	Percent
86290-81-5	Gasoline, motor fuel	100
108-88-3	Toluene	1-25
106-97-8	Butane	<10
1330-20-7	Xylenes (o-, m-, p- isomers)	1-15
95-63-6	Benzene, 1,2,4-trimethyl-	<6
64-17-5	Ethyl alcohol	0-10
100-41-4	Ethylbenzene	<3
71-43-2	Benzene	0.1-4.9

110-54-3	Hexane	0.5-4

A complex blend of petroleum-derived normal and branched-chain alkane, cycloalkane, alkene, and aromatic hydrocarbons. May contain antioxidant and multifunctional additives. Non-oxygenated Conventional Gasoline and RBOB do not have oxygenates (Ethanol). Oxygenated Conventional and Reformulated Gasoline will have oxygenates for octane enhancement or as legally required.

* * * Section 4 - First Aid Measures * * *

First Aid: Eyes

In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 min. Hold eyelids open to ensure adequate flushing. Seek medical attention.

First Aid: Skin

Remove contaminated clothing. Wash contaminated areas thoroughly with soap and water or with waterless hand cleanser. Obtain medical attention if irritation or redness develops.

First Aid: Ingestion

DO NOT INDUCE VOMITING. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Monitor for breathing difficulties. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.

First Aid: Inhalation

Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties.

Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. Flowing product may be ignited by self-generated static electricity. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

Hazardous Combustion Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke). Contact with nitric and sulfuric acids will form nitrocresols that can decompose violently.

Extinguishing Media

SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO2, water spray, fire fighting foam, or gaseous extinguishing agent.

LARGE FIRES: Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

Firefighting foam suitable for polar solvents is recommended for fuel with greater than 10% oxygenate concentration.

Unsuitable Extinguishing Media

None

Fire Fighting Equipment/Instructions

Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other fire fighting equipment. Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing. Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam.

* * * Section 6 - Accidental Release Measures * * *

Recovery and Neutralization

Carefully contain and stop the source of the spill, if safe to do so.

Materials and Methods for Clean-Up

Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal. Caution, flammable vapors may accumulate in closed containers.

Emergency Measures

Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact.

Personal Precautions and Protective Equipment

Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

Environmental Precautions

Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of fire fighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection.

Prevention of Secondary Hazards

None

* * * Section 7 - Handling and Storage * * *

Handling Procedures

USE ONLY AS A MOTOR FUEL.
DO NOT SIPHON BY MOUTH

Handle as a flammable liquid. Keep away from heat, sparks, and open flame! Electrical equipment should be approved for classified area. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion.

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil) is loaded into tanks previously containing low flash point products (such as this product) - see API Publication 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents."

Storage Procedures

Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers. Keep containers closed and clearly labeled. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition.

Store in a well-ventilated area. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". Avoid storage near incompatible materials. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks".

Incompatibilities

Keep away from strong oxidizers.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Component Exposure Limits

Gasoline, motor fuel (86290-81-5)

ACGIH: 300 ppm TWA
500 ppm STEL

Toluene (108-88-3)

ACGIH: 20 ppm TWA
OSHA: 200 ppm TWA; 375 mg/m3 TWA
150 ppm STEL; 560 mg/m3 STEL
NIOSH: 100 ppm TWA; 375 mg/m3 TWA
150 ppm STEL; 560 mg/m3 STEL

Butane (106-97-8)

ACGIH: 1000 ppm TWA (listed under Aliphatic hydrocarbon gases: Alkane C1-4)
OSHA: 800 ppm TWA; 1900 mg/m3 TWA
NIOSH: 800 ppm TWA; 1900 mg/m3 TWA

Xylenes (o-, m-, p- isomers) (1330-20-7)

ACGIH: 100 ppm TWA
150 ppm STEL
OSHA: 100 ppm TWA; 435 mg/m3 TWA
150 ppm STEL; 655 mg/m3 STEL

Benzene, 1,2,4-trimethyl- (95-63-6)

NIOSH: 25 ppm TWA; 125 mg/m3 TWA

Ethyl alcohol (64-17-5)

ACGIH: 1000 ppm STEL
OSHA: 1000 ppm TWA; 1900 mg/m3 TWA
NIOSH: 1000 ppm TWA; 1900 mg/m3 TWA

Ethylbenzene (100-41-4)

ACGIH: 20 ppm TWA
OSHA: 100 ppm TWA; 435 mg/m3 TWA
125 ppm STEL; 545 mg/m3 STEL
NIOSH: 100 ppm TWA; 435 mg/m3 TWA
125 ppm STEL; 545 mg/m3 STEL

Benzene (71-43-2)

ACGIH: 0.5 ppm TWA
2.5 ppm STEL
Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA: 5 ppm STEL (Cancer hazard, Flammable, See 29 CFR 1910.1028, 15 min); 0.5 ppm Action Level; 1 ppm TWA
NIOSH: 0.1 ppm TWA
1 ppm STEL

Hexane (110-54-3)

ACGIH: 50 ppm TWA
Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA: 500 ppm TWA; 1800 mg/m3 TWA
NIOSH: 50 ppm TWA; 180 mg/m3 TWA

Engineering Measures

Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces.

Personal Protective Equipment: Respiratory

A NIOSH/MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited.

Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

Personal Protective Equipment: Hands

Gloves constructed of nitrile, neoprene, or PVC are recommended.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes

Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.

Personal Protective Equipment: Skin and Body

Chemical protective clothing such as of E.I. DuPont TyChem®, Saranex® or equivalent recommended based on degree of exposure. Note: The resistance of specific material may vary from product to product as well as with degree of exposure. Consult manufacturer specifications for further information.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Translucent, straw-colored or light yellow	**Odor:**	Strong, characteristic aromatic hydrocarbon odor. Sweet-ether like
Physical State:	Liquid	**pH:**	ND
Vapor Pressure:	6.4 - 15 RVP @ 100 °F (38 °C) (275-475 mm Hg @ 68 °F (20 °C)	**Vapor Density:**	AP 3-4
Boiling Point:	85-437 °F (39-200 °C)	**Melting Point:**	ND
Solubility (H2O):	Negligible to Slight	**Specific Gravity:**	0.70-0.78
Evaporation Rate:	10-11	**VOC:**	ND
Percent Volatile:	100%	**Octanol/H2O Coeff.:**	ND
Flash Point:	-45 °F (-43 °C)	**Flash Point Method:**	PMCC
Upper Flammability Limit (UFL):	7.6%	**Lower Flammability Limit (LFL):**	1.4%
Burning Rate:	ND	**Auto Ignition:**	>530°F (>280°C)

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources.

Incompatible Products

Keep away from strong oxidizers.

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke). Contact with nitric and sulfuric acids will form nitrocresols that can decompose violently.

* * * Section 11 - Toxicological Information * * *

Acute Toxicity

A: General Product Information

Harmful if swallowed.

B: Component Analysis - LD50/LC50

Gasoline, motor fuel (86290-81-5)

Inhalation LC50 Rat >5.2 mg/L 4 h; Oral LD50 Rat 14000 mg/kg; Dermal LD50 Rabbit >2000 mg/kg

Toluene (108-88-3)

Inhalation LC50 Rat 12.5 mg/L 4 h; Inhalation LC50 Rat >26700 ppm 1 h; Oral LD50 Rat 636 mg/kg; Dermal LD50 Rabbit 8390 mg/kg; Dermal LD50 Rat 12124 mg/kg

Butane (106-97-8)

Inhalation LC50 Rat 658 mg/L 4 h

Xylenes (o-, m-, p- isomers) (1330-20-7)
Inhalation LC50 Rat 5000 ppm 4 h; Inhalation LC50 Rat 47635 mg/L 4 h; Oral LD50 Rat 4300 mg/kg; Dermal LD50 Rabbit >1700 mg/kg

Benzene, 1,2,4-trimethyl- (95-63-6)
Inhalation LC50 Rat 18 g/m3 4 h; Oral LD50 Rat 3400 mg/kg; Dermal LD50 Rabbit >3160 mg/kg

Ethyl alcohol (64-17-5)
Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h

Ethylbenzene (100-41-4)
Inhalation LC50 Rat 17.2 mg/L 4 h; Oral LD50 Rat 3500 mg/kg; Dermal LD50 Rabbit 15354 mg/kg

Benzene (71-43-2)
Inhalation LC50 Rat 13050-14380 ppm 4 h; Oral LD50 Rat 1800 mg/kg

Hexane (110-54-3)
Inhalation LC50 Rat 48000 ppm 4 h; Oral LD50 Rat 25 g/kg; Dermal LD50 Rabbit 3000 mg/kg

Potential Health Effects: Skin Corrosion Property/Stimulativeness

Practically non-toxic if absorbed following acute (single) exposure. May cause skin irritation with prolonged or repeated contact. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are repeatedly exposed.

Potential Health Effects: Eye Critical Damage/ Stimulativeness

Moderate irritant. Contact with liquid or vapor may cause irritation.

Potential Health Effects: Ingestion

Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest, and death may occur.

Potential Health Effects: Inhalation

Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

WARNING: the burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of combustion products, including carbon monoxide, and inadequate oxygen levels, which may cause unconsciousness, suffocation, and death.

Respiratory Organs Sensitization/Skin Sensitization

This product is not reported to have any skin sensitization effects.

Generative Cell Mutagenicity

This product may cause genetic defects.

Carcinogenicity

A: General Product Information

May cause cancer.

IARC has determined that gasoline and gasoline exhaust are possibly carcinogenic in humans. Inhalation exposure to completely vaporized unleaded gasoline caused kidney cancers in male rats and liver tumors in female mice. The U.S. EPA has determined that the male kidney tumors are species-specific and are irrelevant for human health risk assessment. The significance of the tumors seen in female mice is not known. Exposure to light hydrocarbons in the same boiling range as this product has been associated in animal studies with effects to the central and peripheral nervous systems, liver, and kidneys. The significance of these animal models to predict similar human response to gasoline is uncertain.

This product contains benzene. Human health studies indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood-forming system (particularly bone marrow), and serious blood disorders such as aplastic anemia and leukemia. Benzene is listed as a human carcinogen by the NTP, IARC, OSHA and ACGIH.

B: Component Carcinogenicity

Gasoline, motor fuel (86290-81-5)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

Toluene (108-88-3)

ACGIH: A4 - Not Classifiable as a Human Carcinogen
IARC: Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

Xylenes (o-, m-, p- isomers) (1330-20-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen
IARC: Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

Ethyl alcohol (64-17-5)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC: Monograph 100E [in preparation] (in alcoholic beverages); Monograph 96 [2010] (in alcoholic beverages) (Group 1 (carcinogenic to humans))

Ethylbenzene (100-41-4)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC: Monograph 77 [2000] (Group 2B (possibly carcinogenic to humans))

Benzene (71-43-2)

ACGIH: A1 - Confirmed Human Carcinogen
OSHA: 5 ppm STEL (Cancer hazard, Flammable, See 29 CFR 1910.1028, 15 min); 0.5 ppm Action Level; 1 ppm TWA
NIOSH: potential occupational carcinogen
NTP: Known Human Carcinogen (Select Carcinogen)
IARC: Monograph 100F [in preparation]; Supplement 7 [1987]; Monograph 29 [1982] (Group 1 (carcinogenic to humans))

Reproductive Toxicity

This product is suspected of damaging fertility or the unborn child.

Specified Target Organ General Toxicity: Single Exposure

This product may cause drowsiness or dizziness.

Specified Target Organ General Toxicity: Repeated Exposure

This product causes damage to organs through prolonged or repeated exposure.

Aspiration Respiratory Organs Hazard

The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

Very toxic to aquatic life with long lasting effects. Keep out of sewers, drainage areas and waterways. Report spills and releases, as applicable, under Federal and State regulations.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Gasoline, motor fuel (86290-81-5)

Test & Species		Conditions
96 Hr LC50 Alburnus alburnus	119 mg/L [static]	
96 Hr LC50 Cyprinodon variegatus	82 mg/L [static]	
72 Hr EC50 Pseudokirchneriella subcapitata	56 mg/L	
24 Hr EC50 Daphnia magna	170 mg/L	

Toluene (108-88-3)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	15.22-19.05 mg/L [flow-through]	1 day old
96 Hr LC50 Pimephales promelas	12.6 mg/L [static]	
96 Hr LC50 Oncorhynchus mykiss	5.89-7.81 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	14.1-17.16 mg/L [static]	
96 Hr LC50 Oncorhynchus mykiss	5.8 mg/L [semi-static]	
96 Hr LC50 Lepomis macrochirus	11.0-15.0 mg/L [static]	
96 Hr LC50 Oryzias latipes	54 mg/L [static]	
96 Hr LC50 Poecilia reticulata	28.2 mg/L [semi-static]	
96 Hr LC50 Poecilia reticulata	50.87-70.34 mg/L [static]	
96 Hr EC50 Pseudokirchneriella subcapitata	>433 mg/L	
72 Hr EC50 Pseudokirchneriella subcapitata	12.5 mg/L [static]	
48 Hr EC50 Daphnia magna	5.46 - 9.83 mg/L [Static]	
48 Hr EC50 Daphnia magna	11.5 mg/L	

Xylenes (o-, m-, p- isomers) (1330-20-7)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	13.4 mg/L [flow-through]	

96 Hr LC50 Oncorhynchus mykiss	2.661-4.093 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	13.5-17.3 mg/L
96 Hr LC50 Lepomis macrochirus	13.1-16.5 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	19 mg/L
96 Hr LC50 Lepomis macrochirus	7.711-9.591 mg/L [static]
96 Hr LC50 Pimephales promelas	23.53-29.97 mg/L [static]
96 Hr LC50 Cyprinus carpio	780 mg/L [semi-static]
96 Hr LC50 Cyprinus carpio	>780 mg/L
96 Hr LC50 Poecilia reticulata	30.26-40.75 mg/L [static]
48 Hr EC50 water flea	3.82 mg/L
48 Hr LC50 Gammarus lacustris	0.6 mg/L

Benzene, 1,2,4-trimethyl- (95-63-6)

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	7.19-8.28 mg/L [flow-through]
48 Hr EC50 Daphnia magna	6.14 mg/L

Ethyl alcohol (64-17-5)

Test & Species	Conditions
96 Hr LC50 Oncorhynchus mykiss	12.0 - 16.0 mL/L [static]
96 Hr LC50 Pimephales promelas	>100 mg/L [static]
96 Hr LC50 Pimephales promelas	13400 - 15100 mg/L [flow-through]
48 Hr LC50 Daphnia magna	9268 - 14221 mg/L
24 Hr EC50 Daphnia magna	10800 mg/L
48 Hr EC50 Daphnia magna	2 mg/L [Static]

Ethylbenzene (100-41-4)

Test & Species	Conditions
96 Hr LC50 Oncorhynchus mykiss	11.0-18.0 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	4.2 mg/L [semi-static]
96 Hr LC50 Pimephales promelas	7.55-11 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	32 mg/L [static]
96 Hr LC50 Pimephales promelas	9.1-15.6 mg/L [static]
96 Hr LC50 Poecilia reticulata	9.6 mg/L [static]
72 Hr EC50 Pseudokirchneriella subcapitata	4.6 mg/L
96 Hr EC50 Pseudokirchneriella subcapitata	>438 mg/L
72 Hr EC50 Pseudokirchneriella subcapitata	2.6 - 11.3 mg/L [static]

96 Hr EC50 Pseudokirchneriella subcapitata	1.7 - 7.6 mg/L [static]
48 Hr EC50 Daphnia magna	1.8 - 2.4 mg/L

Benzene (71-43-2)

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	10.7-14.7 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	5.3 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	22.49 mg/L [static]
96 Hr LC50 Poecilia reticulata	28.6 mg/L [static]
96 Hr LC50 Pimephales promelas	22330-41160 µg/L [static]
96 Hr LC50 Lepomis macrochirus	70000-142000 µg/L [static]
72 Hr EC50 Pseudokirchneriella subcapitata	29 mg/L
48 Hr EC50 Daphnia magna	8.76 - 15.6 mg/L [Static]
48 Hr EC50 Daphnia magna	10 mg/L

Hexane (110-54-3)

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	2.1-2.98 mg/L [flow-through]
24 Hr EC50 Daphnia magna	>1000 mg/L

Persistence/Degradability

No information available.

Bioaccumulation

No information available.

Mobility in Soil

No information available.

* * * Section 13 - Disposal Considerations * * *

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Disposal of Contaminated Containers or Packaging

Dispose of contents/container in accordance with local/regional/national/international regulations.

* * * Section 14 - Transportation Information * * *

Component Marine Pollutants

This material contains one or more of the following chemicals required by US DOT to be identified as marine pollutants.

Component	CAS #	
Gasoline, motor fuel	86290-81-5	DOT regulated marine pollutant

DOT Information

Shipping Name: Gasoline
UN #: 1203 **Hazard Class:** 3 **Packing Group:** II
Placard:

* * * Section 15 - Regulatory Information * * *

Regulatory Information

A: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Toluene (108-88-3)
SARA 313: 1.0 % de minimis concentration
CERCLA: 1000 lb final RQ; 454 kg final RQ

Xylenes (o-, m-, p- isomers) (1330-20-7)
SARA 313: 1.0 % de minimis concentration
CERCLA: 100 lb final RQ; 45.4 kg final RQ

Benzene, 1,2,4-trimethyl- (95-63-6)
SARA 313: 1.0 % de minimis concentration

Ethylbenzene (100-41-4)
SARA 313: 0.1 % de minimis concentration
CERCLA: 1000 lb final RQ; 454 kg final RQ

Benzene (71-43-2)
SARA 313: 0.1 % de minimis concentration
CERCLA: 10 lb final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule); 4.54 kg final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule)

Hexane (110-54-3)

SARA 313: 1.0 % de minimis concentration
CERCLA: 5000 lb final RQ; 2270 kg final RQ

SARA Section 311/312 – Hazard Classes

Acute Health	Chronic Health	Fire	Sudden Release of Pressure	Reactive
X	X	X	--	--

Component Marine Pollutants

This material contains one or more of the following chemicals required by US DOT to be identified as marine pollutants.

Component	CAS #	
Gasoline, motor fuel	86290-81-5	DOT regulated marine pollutant

State Regulations

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Gasoline, motor fuel	86290-81-5	No	No	No	No	Yes	No
Toluene	108-88-3	Yes	Yes	Yes	Yes	Yes	No
Butane	106-97-8	Yes	Yes	Yes	Yes	Yes	No
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	Yes	Yes	Yes	Yes	No
Benzene, 1,2,4-trimethyl-	95-63-6	No	Yes	Yes	Yes	Yes	No
Ethyl alcohol	64-17-5	Yes	Yes	Yes	Yes	Yes	No
Ethylbenzene	100-41-4	Yes	Yes	Yes	Yes	Yes	No
Benzene	71-43-2	Yes	Yes	Yes	Yes	Yes	No
Hexane	110-54-3	No	Yes	Yes	Yes	Yes	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.
WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Toluene	108-88-3	1 %
Butane	106-97-8	1 %
Benzene, 1,2,4-trimethyl-	95-63-6	0.1 %
Ethyl alcohol	64-17-5	0.1 %
Ethylbenzene	100-41-4	0.1 %
Benzene	71-43-2	0.1 %
Hexane	110-54-3	1 %

Additional Regulatory Information

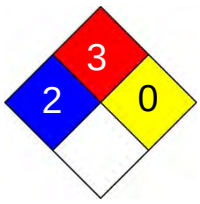
Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Gasoline, motor fuel	86290-81-5	No	DSL	EINECS
Toluene	108-88-3	Yes	DSL	EINECS
Butane	106-97-8	Yes	DSL	EINECS
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	DSL	EINECS
Benzene, 1,2,4-trimethyl-	95-63-6	Yes	DSL	EINECS
Ethyl alcohol	64-17-5	Yes	DSL	EINECS
Ethylbenzene	100-41-4	Yes	DSL	EINECS
Benzene	71-43-2	Yes	DSL	EINECS
Hexane	110-54-3	Yes	DSL	EINECS

* * * Section 16 - Other Information * * *

NFPA® Hazard Rating

Health	2
Fire	3
Reactivity	0



HMIS® Hazard Rating

Health	2	Moderate
Fire	3	Serious
Physical	0	Minimal
		*Chronic

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

Literature References

None

Other Information

Information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgment.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in their use of the material.

End of Sheet

ATTACHMENT IV RESERVED: Site Safety Audits

(To be developed and inserted)

APPENDIX L ASBESTOS ABATEMENT WORK PLAN

Asbestos Abatement Work Plan

Tonawanda Coke Site 108
3800 River Road
Tonawanda, New York

CHA Project Number: 35547

Prepared for:
Parsons
301 Plainfield Road
Syracuse, New York 13212

Prepared by:

III Winners Circle
Albany, New York 12205
Phone: (518) 453-4500

February 24, 2020

V:\Projects\ANY\K5\35547\Reports\Final\Abatement Work Plan\Abatement Work Plan_Draft_Final_2-19-20.doc

QUALIFICATIONS AND CERTIFICATION STATEMENT

This Asbestos Abatement Work Plan was compiled by a qualified environmental scientist employed by CHA.

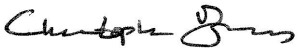
This plan has been prepared expressly for the use of Parsons and Honeywell. No other parties are entitled to rely upon this report unless our express written consent is first obtained. All conclusions drawn were based on CHA's review of available historical data, field inspection and analytical results from sampling performed during the course of this project. Recommendations are submitted based on CHA's knowledge, experience, and professional judgment.

This work plan is intended to satisfy the USEPA with respect to abatement of specific areas of ACM on the site.

Report Completed By:

James Morey
Senior Scientist V

Report Reviewed By:



Christopher Burns, Ph.D., P.G.
Vice President

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LIST OF ACRONYMS & ABBREVIATIONS

ACM	Asbestos-Containing Material
PACM	Presumed Asbestos-Containing Material
PPE	Personal Protective Equipment
ELAP	Environmental Laboratory Approval Program
ICR	Industrial Code Rule
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NYSDOL	New York State Department of Labor
USEPA	United States Environmental Protection Agency
OSHA	Occupational Safety and Health Administration

1.0 INTRODUCTION

CHA was retained by Parsons to develop this asbestos abatement work plan relative to asbestos containing materials (ACM) identified at the Tonawanda Coke Site 108 located at 3800 River Road, Tonawanda, New York. This work plan is focused on ACM that warrants abatement at this time (pipe insulation and related insulation debris). Additional asbestos abatement will be required prior to, or as part of, future demolition (e.g., presumed asbestos-containing pipe gasket material or nonfriable asbestos-containing roof material are excluded from the scope of this work plan).

2.0 BACKGROUND

CHA performed a pre-demolition asbestos-containing material survey of portions of Site 108 at Tonawanda Coke on October 23, 2019. The survey included the sections of pipeline shown on Figure 1 attached to this report, terminating where the pipeline enters the brick structure/tunnel where it travels beneath River Road. In addition to the pipeline itself, CHA also inspected the pumphouse roof. The pumphouse (excluding the roof level) and associated adjacent piping were previously inspected by Parsons and the following materials were found to be asbestos-containing: window glazing compound, gray door caulk, gray window caulk, pipe insulation, mudded fitting insulation, and asbestos insulation debris. The complete findings are detailed in CHA's Pre-Demolition Asbestos-Containing Material Survey Report, dated January 20, 2020.

CHA identified 5 suspect ACMs associated with the pipeline and pumphouse roof during the current survey fieldwork and a total of 61 individual bulk samples were collected. All 5 suspect ACMs were confirmed to be ACMs as identified through the following approved laboratory methods under New York State's Environmental Laboratory Approval Program (ELAP): ELAP 198.1 for friable samples, ELAP 198.6 with gravimetric reduction for nonfriable organically bound (NOB) samples, and transmission electron microscopy for those NOB samples that were found to be inconclusive under the 198.6 method. In summary, the following materials were found to be asbestos-containing: pipe and fitting insulation, black sealant on pipe insulation, insulation debris, various roof sealants on the pumphouse roof, and window and door caulk. No asbestos was detected in the pumphouse roofing material or the brick structure mortar. Several materials were not tested for asbestos because of access or safety concerns, but were presumed to be ACM. These PACMs include pipe gaskets and wire covers within the pumphouse. The asbestos debris is located on the soil ground surface beneath

the pipeline and adjacent to the pumphouse. See Figure 1 for the scope area, location of confirmed ACMs and asbestos debris which are the scope of the asbestos abatement project.

The asbestos pipe insulation, black sealant on pipe insulation, and pipe insulation debris are the only ACMs included in the scope of this work plan. All other identified or presumed ACM's are out of scope and will be removed during a separate project.

3.0 PROJECT PHASING

The asbestos abatement project will be phased in the following five sequential steps:

1. Asbestos debris cleanup of the ground surface beneath the pipeline and adjacent to the pumphouse.

2. Asbestos pipe and fitting insulation removals along the pipeline itself, the section of pipeline branching off toward the pumphouse, within the pumphouse, terminating at the tunnel entrance on the east end of the pipeline.

3. Wet lag cloth (eg. Fiberlock Lag Kloth®) will be applied to all pipe insulation edges to remain.

4. Installation of lockable wood sheathing which will isolate the pipeline within the tunnel that extends beneath River Road.

5. Removal of all interior and exterior pipe insulation and insulation debris located at the pumphouse. The remaining intact non-friable ACM and PACM removals shall be completed in coordination with future building demolition (not included in this project scope). These materials include the window glazing compound, gray door caulk, gray window caulk, pipe gaskets, and wire coverings.

4.0 GENERAL ASBESTOS PROJECT PROCEDURES

1. The NYS-licensed asbestos abatement contractor shall perform all work in accordance with all federal, state, and local laws and regulations.

2. A full-time NYS-certified Project Monitor will be on site for the duration of all asbestos abatement activities. The Project Monitor will conduct daily work area inspections, perform air monitoring per ICR 56-4 – General Project Air Sampling and Laboratory Analysis Requirements.

3. All persons entering the regulated asbestos abatement work area(s) shall don the proper personal protective equipment (PPE) per ICR 56-7.5 and OSHA 1926.1101 including respiratory protection, full body suits (e.g. Tyvek®) and utilize the personal decontamination system which shall be on site for the duration of the project.

4. The contractor shall use proper fall protection per OSHA 1926 Subart M for all asbestos removals at heights greater than six feet.

5. The quantities of asbestos are in excess of 160 square feet and as such, this asbestos abatement project will require formal notifications to the NYSDOL's Asbestos Control Bureau as a requirement with ICR 56 and to the United States Environmental Protection Agency (USEPA) as required under NYS ICR 56 and USEPA's National Emission Standards for Hazardous Air Pollutants (NESHAPS) regulation. These notifications will be submitted by the abatement contractor prior to mobilization to the site.

6. The contractor shall supply all electrical power and water necessary to perform their work.

7. All decontamination unit water used by the contractor shall be passed through a 5 micron in-line filter, containerized and discharged off-site in a sanitary sewer system in accordance with all applicable codes and regulations.

8. It is assumed that there will be no confined space entries necessary to complete the asbestos removals included within this work plan.

5.0 ASBESTOS ABATEMENT PROCEDURES

5.1 ASBESTOS DEBRIS

The quantity of friable asbestos pipe insulation debris located beneath the pipeline and adjacent to the pumphouse is greater than 10 square feet and thus requires an approved site-specific variance be granted from NYS Department of Labor to allow for the debris cleanup with modified work methods that may deviate from Industrial Code Rule (ICR) 56. It is anticipated that the asbestos debris cleanup will be completed in accordance with an approved site-specific variance and in general accordance with ICR 56 11.2 (f) which outlines the corrective actions for incidental disturbance of asbestos. The removals will include all pipe insulation debris as well as all impacted soils located directly beneath and adjacent to the visible debris. The quantity of visible asbestos debris and surficial soils in contact with the asbestos debris is approximately 5,100 SF.

The asbestos debris cleanup work area will be cordoned off with barrier tape and appropriate signage at a minimum distance of 25' from the outmost limit of the asbestos debris cleanup, the contractor will utilize a remote project decontamination unit, and install critical barriers on any building openings within 25' of the active abatement work area. The contractor shall employ wet methods while performing the asbestos insulation debris and soil cleanup. All removed materials shall be appropriately containerized and transported to a hard-topped dumpster lined with two independent layers of 6-mil poly sheeting per ICR 56.

5.2 INTACT ASBESTOS PIPE INSULATION

The intact pipe insulation along the pipeline and associated with the pumphouse building will be removed and handled per ICR 56, Subpart 8.4 (a) Glovebag Procedures, Subpart 8.4 (e) Handling, or Subpart 11.8 Abandoned Pipe/Duct/Conduit Wrap and Cut Removal methods. A site-specific variance will be sought to allow for asbestos removals to occur within a glovebag without the construction of a negative pressure tent containment. All removed materials shall be appropriately containerized and transported to a hard-topped dumpster lined with two independent layers of 6-mil poly sheeting per ICR 56. Upon completion of gross removal, the perpendicular pipe insulation edges to remain shall be sealed with wet lag cloth (eg. Fiberlock Lag Kloth®) to stabilize the pipe insulation and prevent further incidental disturbances in the future. The estimated quantity of pipe insulation to be removed is approximately 5,000 LF, including piping on the pipe rack system and pipe inside and outside of the pumphouse.

Upon completion of the pipe insulation removals, the application of wet lag to the pipe ends, and acceptance of passing clearance criteria per ICR 56 Subpart 56-9, the contractor shall install lockable wood sheathing to the pipe tunnel entrance at River Road. The wood barrier shall be constructed of minimum 5/8" exterior 1-rated OSB and finished with an exterior grade paint.

5.3 OTHER ACM / PACM

The following intact non-friable ACM and PACM are excluded from this scope of work and will be addressed as part of future demolition: wire coverings, window/door caulk, window glazing compound, roof tar, and pipe gaskets.

6.0 ABATEMENT DESIGN, SCHEDULE, AND PROCUREMENT

6.1 ABATEMENT DESIGN

Following approval of the work plan, a petition for a site-specific variance will be prepared and submitted to NYSDOL outlining alternative work practices for the asbestos removal and debris clean-up. Asbestos abatement design drawings and specifications based on requirements of the approved variance will be included in a bid package to contractors.

6.2 ABATEMENT PROJECT SCHEDULE

Appendix A includes a schedule outlining the primary steps of the abatement design, procurement and construction process. A final abatement schedule will be developed based on the variance requirements and input from the abatement contractor once selected.

6.3 CONTRACTOR PROCUREMENT

The abatement contractor procurement process will include bidding of work to multiple pre-qualified contractors. Bid submittal documentation will include:

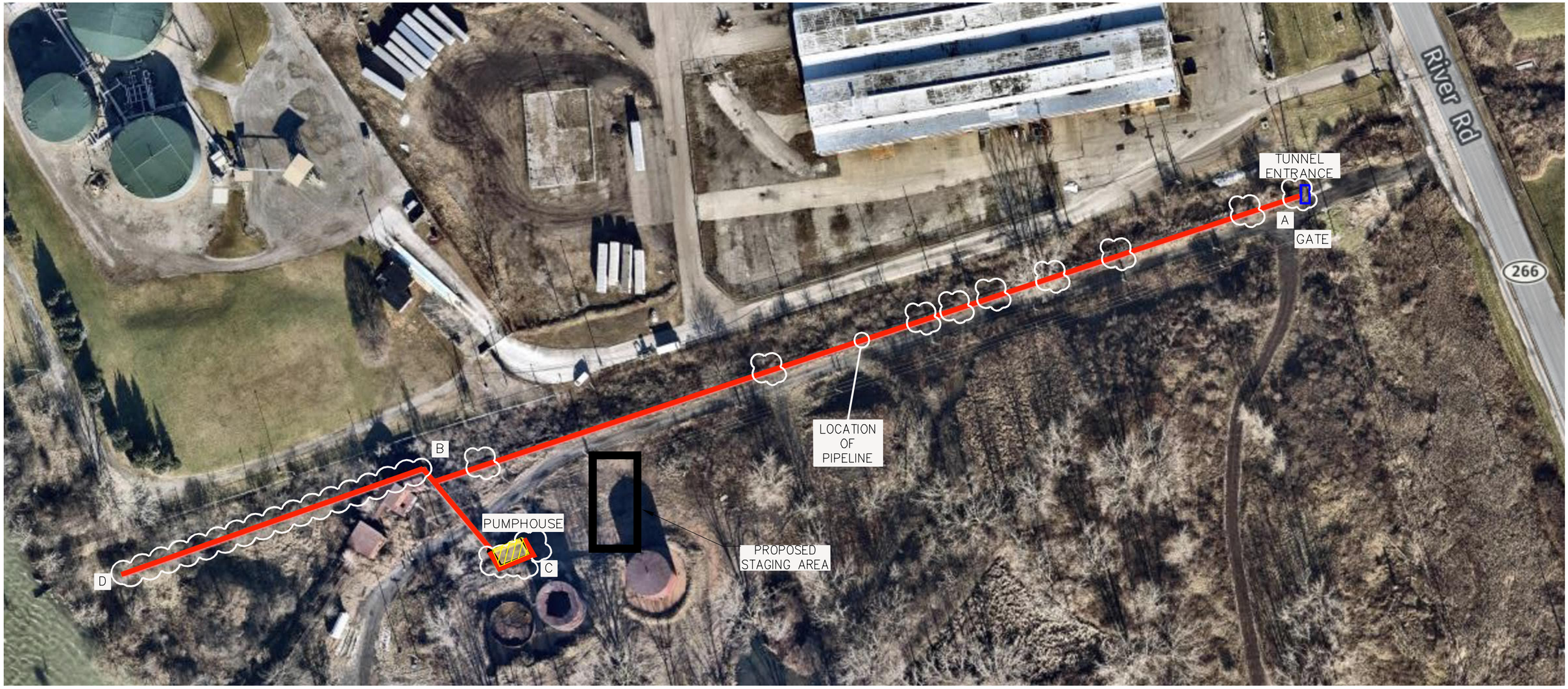
1. Project schedule;
2. Technical approach;
3. Contractor license, resume and references;
4. Disposal facility;
5. Listing of citations, violations, and/or stop work orders issued by any regulatory agencies.

Bid submittal information will be reviewed with the USEPA as necessary prior to contractor selection. Once a contractor has been selected, pre-work submittals will be requested as follows:

1. Workplan, schedule and health and safety plan.
2. Copies of federal, state, and local permits and notifications,
3. Copies of state and local licenses necessary to carry out the work.

The pre-work submittal information will be reviewed with the USEPA prior to mobilization and start of work.

FIGURE 1
SITE LOCATION PLAN



LEGEND

- APPROXIMATE LOCATION OF ASBESTOS–CONTAINING DEBRIS ON GROUND (PHASE 1 OF ABATEMENT SCOPE)
- LOCATION OF ACM INSULATION COVERED PIPING (PHASE 2 OF ABATEMENT SCOPE)
- ENTRANCE TO TUNNEL EXTENDING BENEATH RIVER ROAD (PHASE 3 AND 4 OF ABATEMENT SCOPE)
- LOCATION OF PUMPHOUSE (PHASE 5 OF ABATEMENT SCOPE)

DRAWING IS NOT TO SCALE

CHA
111 Winners Circle, PO Box 5269
Albany, NY 12205-0269
518.453.4500 · www.chacompanies.com

SITE LOCATION PLAN
TONAWANDA COKE SITE
3800 RIVER ROAD
TONAWANDA, NEW YORK 14151

PROJECT NO. 35547

DATE: 02/13/20

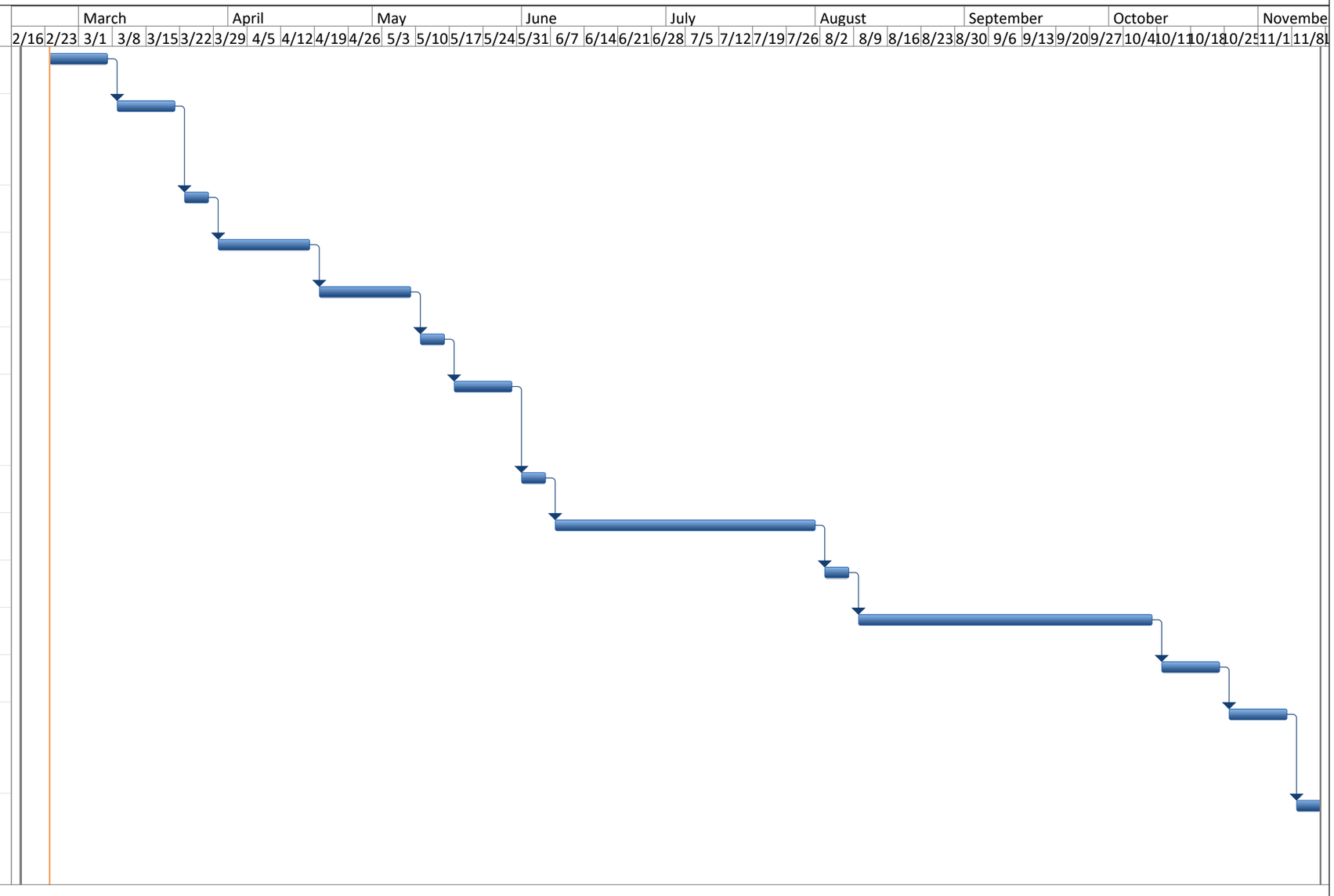
FIGURE 1

File: V:\PROJECTS\ANY\K5\35547\CADD\FIGURES\SITE LOCATION PLAN FIG.1.DWG Saved: 2/12/2020 5:29:17 PM Plotted: 2/13/2020 7:06:41 AM Current User: Morey, James LastSavedBy: 3031

APPENDIX A
DRAFT ABATEMENT PROJECT SCHEDULE

TCC SITE 108 ASBESTOS ABATEMENT SCHEDULE

ID	Task Name	Duration	Start	Finish
1	EPA Work Plan Review	10 days	Mon 2/24/20	Fri 3/6/20
2	Work Plan Revisions/Submittal to EPA	10 days	Mon 3/9/20	Fri 3/20/20
3	EPA Work Plan Approval	5 days	Mon 3/23/20	Fri 3/27/20
4	Variance and Bid Package	15 days	Mon 3/30/20	Fri 4/17/20
5	Procurement Bid	15 days	Mon 4/20/20	Fri 5/8/20
6	Procurement - Selection	5 days	Mon 5/11/20	Fri 5/15/20
7	Prework Submittals/Notification	10 days	Mon 5/18/20	Fri 5/29/20
8	Mobilization	5 days	Mon 6/1/20	Fri 6/5/20
9	Asbestos Abatement	40 days	Mon 6/8/20	Fri 7/31/20
10	Demobilization	5 days	Mon 8/3/20	Fri 8/7/20
11	Closure Report Prep	45 days	Mon 8/10/20	Fri 10/9/20
12	EPA Closure Report Review	10 days	Mon 10/12/20	Fri 10/23/20
13	Closure Report Revisions/Submittal to EPA	10 days	Mon 10/26/20	Fri 11/6/20
14	EPA Closure Report Approval	5 days	Mon 11/9/20	Fri 11/13/20



Project: Site 108 Asbestos Abatem
Date: Mon 2/24/20

Task	Project Summary	Inactive Milestone	Manual Summary Rollup	Deadline
Split	External Tasks	Inactive Summary	Manual Summary	Progress
Milestone	External Milestone	Manual Task	Start-only	
Summary	Inactive Task	Duration-only	Finish-only	

APPENDIX B
PERSONNEL AND FIRM LICENSES

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

CHA Consulting, Inc.

III Winners Circle

Albany, NY 12205

FILE NUMBER: 11-60318
LICENSE NUMBER: 60318
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 10/03/2019
EXPIRATION DATE: 10/31/2020

Duly Authorized Representative – Seth Fowler:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

JAMES N MOREY
CLASS(EXPIRES)
D INSP(08/20) I PD (08/20)

CERT# 00-11983
DMV# 589756376

MUST BE CARRIED ON ASBESTOS PROJECTS

01213 005237364 43

EYES HAZ
HAIR BRO
HGT 6' 00"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

APPENDIX M PRE-DEMOLITION ASBESTOS-CONTAINING MATERIAL SURVEY REPORT

Pre-Demolition Asbestos-Containing Material Survey Report

Tonawanda Coke Site 108
3800 River Road
Tonawanda, New York

CHA Project Number: 35547

Prepared for:
Parsons
301 Plainfield Road
Syracuse, New York 13212

Prepared by:

III Winners Circle
Albany, New York 12205
Phone: (518) 453-4500

January 20, 2020

V:\Projects\ANY\K5\35547\Reports\Draft\Asbestos Survey Report (Revised 1-20-2020).doc

QUALIFICATIONS AND CERTIFICATION STATEMENT

This Pre-Demolition Asbestos-Containing Materials Survey Report was compiled by a qualified environmental scientist who is also an EPA-trained and a NYSDOL certified asbestos building inspector employed by CHA.

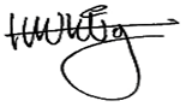
This report has been prepared expressly for the use of the Parsons and Honeywell. No other parties are entitled to rely upon this report unless our express written consent is first obtained. All conclusions drawn were based on CHA's review of available historical data, field inspection and analytical results from sampling performed during the course of this project. Recommendations are submitted based on CHA's knowledge, experience, and professional judgment.

This inspection report shall not solely serve as an asbestos abatement design document for obtaining bids from abatement contractors. It is recommended that specific abatement design documents be prepared in order to specify procedures and protocols that must be observed in order to ensure that abatement activities are completed in a manner consistent with local, state and federal regulations and requirements.

Inspection and Report Completed By:

Scott Rosecrans
Environmental Scientist IV

Report Reviewed By:



Henry Uhlig
Principal Scientist VI

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1.0 INTRODUCTION

CHA performed a Pre-Demolition Asbestos-Containing Material Survey of the pipeline at the Tonawanda Coke Site 108 located at 3800 River Road, Tonawanda, New York. This survey was completed to ensure the proper handling and disposal of all confirmed asbestos-containing materials (ACMs) prior to the demolition project.

2.0 SCOPE OF WORK

2.1 PRE-DEMOLITION ASBESTOS-CONTAINING MATERIALS SURVEY

This Pre-Demolition Asbestos-Containing Material Survey Report was compiled by qualified environmental scientists who are also an Environmental Protection Agency (EPA) trained and New York State Department of Labor (NYSDOL) certified asbestos building inspectors (Scott Rosecrans #00-20439 and John Roche #16-03885) employed by CHA. All work associated with this survey was performed in accordance with applicable federal and state regulations. The inspector recorded, documented material condition, and collected bulk samples of identified suspect asbestos-containing material following the protocols referenced in 40 CFR Part 763.86 Subpart E (AHERA) and following NYSDOH analysis requirements. Abatement recommendations in this report were prepared by a NYSDOL certified asbestos management planner (Henry Uhlig #88-06550). Personnel and laboratory certifications can be found in Appendix A.

2.2 LIMITATIONS

The Pre-Demolition Asbestos-Containing Material Survey was limited to an exterior pipeline that extends from River Road to the Niagara River that will be impacted by a renovation project. In addition, Mr. Tom Wollen of Parsons, requested that CHA collect samples of suspect asbestos-containing roofing associated with the Pump House while CHA was on-site.

CHA noted heavy vegetation immediately below and adjacent to the pipeline between Point B on the Pipeline and Point D, the Niagara River. Parsons cleared two to three locations of vegetation for this asbestos inspection to access the piping rack for sample collection. Also, due to the approximately 5’ of standing water in a Brick Structure where the pipeline originated, this area was inaccessible.

3.0 ASBESTOS-CONTAINING MATERIALS SURVEY

CHA's background research and field observations during the site inspection for suspect ACM's associated with the pipeline and Pump House are discussed below.

3.1 RECORD REVIEW

CHA was provided a Pre-Demolition Building Material Sampling Memorandum for the Tonawanda Site completed by Parsons, dated March 11, 2019. Parsons completed asbestos sampling of the Pump House and piping associated with aboveground storage tanks. The asbestos-containing materials confirmed during this sampling event are summarized in section 4.0 Asbestos-Containing Material Results, Table 4-2. The full report can be found in Appendix E.

3.2 ASBESTOS-CONTAINING MATERIALS SURVEY

CHA performed an Asbestos-Containing Material Survey of the pipeline, Pump House roof, and exterior of a Brick Structure at the Tonawanda Coke Site 108 located at 3800 River Road in Tonawanda, New York. The objective of this survey was to identify and sample all suspect ACMs prior to the renovation project. The following paragraphs detail the observations made and samples collected during the inspection of the pipeline, Pump House roof, and Brick Structure. See Figure 1 for asbestos bulk sample locations and locations of the pipeline, Brick Structure, and Pump House Roof.

All suspect ACMs identified below were quantified by area. Each suspect material was then sampled for asbestos laboratory analysis via the applicable Environmental Laboratory Approval Program (ELAP)-approved method (198.1 friable, 198.4 TEM confirmation, 198.6 non-friable organically bound) at AmeriSci New York.

In order to distinguish separate segments within the Site, CHA designated the following locations on Figure 1:

- Brick Structure – Point A
- Piping Branch near Pump House – Point B
- Pump House – Point C
- Western End of Pipeline – Point D

3.2.1 Brick Structure

The Brick Structure located at designated letter A is adjacent to the access gate and River Road at the east side of the property. The structure has concrete foundation with brick walls and suspect asbestos-containing brick mortar located aboveground. The roof is constructed of corrugated plexiglass.

Two suspect asbestos-containing 4" and 8" diameter pipes with white pre-molded plaster pipe insulation and black bituminous felt pipe insulation wrap were observed within the brick structure. The 4" and 8" diameter pipes with suspect asbestos-containing white pre-molded plaster pipe insulation and black bituminous felt pipe insulation wrap located terminate at the west end of the brick structure and two un-insulated pipes extend along a pipe rack to Point B toward the West side of the site. Approximately 90 linear feet of suspect asbestos-containing pipe insulation was observed within the Brick Structure. It appears the two suspect asbestos-containing insulate pipes continue East of the Brick Structure and pass underground below River Road and extend to the Main Plant.

CHA observed damaged pipe insulation within the Brick Structure. Also, CHA noted approximately 5' of standing water within the brick structure which prevented entry.

3.2.2 Pipeline

The pipeline originates in the Brick Structure which is Point A, east side of the property. CHA observed the two pipes (4" and 8" diameter) with suspect asbestos-containing white pre-molded plaster pipe insulation and black bituminous felt pipe insulation wrap. The pipe rack extends approximately 1,000' West to the Corrugated Metal Building which is designated as Point B. Also, CHA observed suspect asbestos-containing grey asphaltic sealant on the black bituminous pipe felt wrap at the metal hangars between points A and B.

At Point B, two pipes (4" and 8" diameter) with suspect asbestos-containing white pre-molded plaster pipe insulation and black bituminous felt pipe insulation wrap continues West toward the Niagara River designated as Point D. Also, suspect asbestos-containing 12" diameter white pre-molded plaster pipe insulation and 12" diameter black bituminous felt pipe insulation wrap was observed parallel to the 4" and 8" diameter pipes and extends West approximately 360' along a pipe rack and terminates before the Niagara River at Point D.

On the exterior of the Pump House, CHA observed two pipes (8" diameter pipes) with suspect asbestos-containing white job-molded plaster pipe fitting insulation, white pre-molded plaster pipe

insulation, and black bituminous felt pipe insulation wrap that are attached to a pipe rack on the South, East, and West sides of the building. Suspect asbestos-containing 4" diameter pipe with white job-molded plaster pipe fitting insulation, white pre-molded plaster pipe insulation, and black bituminous felt pipe insulation wrap was noted on one pipe (bottom pipe) that is attached to a pipe rack on the south and west side of the Pump House. Also, a suspect asbestos-containing 12" diameter pipe with white job-molded plaster pipe fitting insulation, white pre-molded plaster pipe insulation, and black bituminous felt pipe insulation wrap was observed on one pipe on the west side of the Pump House. The four suspect asbestos-containing pipes extend north along a pipe bridge and connect to the 4", 8", and 12" diameter pipes with suspect asbestos-containing pipes adjacent to the Point B.

3.2.3 Pipe Insulation Debris

Eight areas of suspect asbestos-containing white pipe insulation and/or black felt pipe insulation wrap debris was noted below the pipeline between Points A and B. An overhead wooden walkway covered the two pipes between A and B and suspect asbestos-containing white pipe insulation and black felt wrap were in relatively good condition compared to other areas. Each of the eight debris areas were approximately 100 square feet in area on the ground.

Similar to the pipe run located between Points A and B, CHA observed several areas of suspect asbestos-containing white pipe insulation and/or black felt pipe insulation wrap debris located underneath the two pipe runs between Points B and D. These two pipes were not protected by an overhead walkway and the suspect asbestos-containing white pipe insulation and/or black felt pipe insulation wrap was in poor condition. A majority of white pipe insulation was missing; however, the pipe insulation was not observed on the ground surface. CHA believes the white pipe insulation may have been covered by the vegetation and/or soil. Black felt pipe insulation wrap debris was, however, noted on the ground surface. The area of debris is approximately 360 feet long by 10 feet wide. Also, CHA observed heavy vegetation along the pipeline between the B and D which could prevent observation of the debris.

In addition, suspect asbestos-containing white pipe insulation debris was observed on the ground immediately adjacent to the South, East, and West sides of the Pump House. The area of debris is approximately 36 feet long by 10 feet wide. CHA, observed no asbestos suspect asbestos-containing white pipe insulation debris associated with the pipe bridge between Points B and C.

3.2.4 Pump House Roof

As mentioned in Section 3.1, Parsons completed an asbestos survey of the Pump House in March 2019, however, the roof was inaccessible. As a result, Tom Wollen of Parsons requested that CHA collect samples of the roof from the boom lift provided by Parsons.

CHA observed a multiple layer suspect asbestos-containing asphaltic built-up roof on a concrete deck. In addition, suspect asbestos-containing black sealant and black pitch were noted on a rooftop vent. The suspect asbestos-containing asphaltic built-up roof, black sealant, and black pitch were sampled and analyzed for asbestos.

4.0 ASBESTOS-CONTAINING MATERIAL RESULTS

CHA identified 31 suspect ACMs during the Pre-Demolition Asbestos-Containing Material Survey associated with the pipeline and Pump House Roof and a total of 61 individual bulk samples were collected. Of the 31 suspect ACMs, 29 confirmed ACMs were identified through laboratory analysis. All confirmed ACMs are summarized in Table 4-1 below.

Table 4-1
Asbestos-Containing Material Summary

Material	Locations(s)	Estimated Quantity	Friability/Condition
4-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Within Brick Structure	90 lf	Friable/Poor
8-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Within Brick Structure	90 lf	Friable/Poor
4-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Between A and B	1,000 lf	Friable/Fair
8-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Between A and B	1,000 lf	Friable/ Fair

Two pipes with 8-inch White Job-Molded Plaster Pipe Fitting Insulation	Between B and C	2 x 215 lf = 430 lf	Friable/Poor
Two pipes with 8-inch White Pre-Molded Plaster Pipe Insulation			Friable/Poor
Two pipes with 8-inch Black Bituminous Felt Pipe Insulation Wrap			Non-Friable/Poor
4-inch White Job-Molded Plaster Pipe Fitting Insulation	Between B and C	210 lf	Friable/Poor
4-inch White Pre-Molded Plaster Pipe Insulation			Friable/Poor
4-inch Black Bituminous Felt Pipe Insulation Wrap			Non-Friable/Poor
12-inch White Job-Molded Plaster Pipe Fitting Insulation	Between B and C	175 lf	Friable/Poor
12-inch White Pre-Molded Plaster Pipe Insulation			Friable/Poor
12-inch Black Bituminous Felt Pipe Insulation Wrap			Non-Friable/Poor
4-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Between B and D	360 lf	Friable/Poor
8-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Between B and D	360 lf	Friable/Poor
12-inch White Pre-Molded Plaster Pipe Insulation with Black Bituminous Felt Pipe Insulation Wrap	Between B and D	360 lf	Friable/Poor
Debris- White Pipe Insulation and/or Black Felt Wrap and impacted soils	Between A and B - 65' West of A, 210' West of A, 305' West of A, 356' West of A, 403' West of A, 477' West of A, 621' West of A, 966' West of A	8 locations x 100 sf = 800 sf	Friable/Poor

Debris – White Plaster Pipe Insulation and impacted soils	Between B and D - B to 181' West, 250' to 360' West of B	3,600 sf	Friable/Poor
Debris – Black Bituminous Felt Pipe Insulation Wrap and impacted soils	180' West of B, 265' West B		Non-Friable/Poor
Debris – White Pipe Insulation and impacted soils	West, South, and East Sides of Pump House	360 sf	Friable/Poor
Gray Asphaltic Sealant on Black Bituminous Pipe Felt Paper at Hangar	265' West of B,	110 sf	Non-Friable/Poor
Black Sealant on Top of Vent	Pump House Roof	2 sf	Non-Friable/Poor
Black Pitch on Vent	Pump House Roof	16 sf	Non-Friable/Poor

sf – square feet
lf – linear feet

All bulk samples collected throughout the pipeline and Pump House are summarized in Table B-1 located in Appendix B. Table B-1 lists each bulk sample, the location from which it was collected, and also provides the analytical result for each sample. Table B-1 is not intended to outline all locations within the two areas where ACMs exist. If the asbestos content is greater than 1.0% asbestos by weight the material is considered an ACM. Asbestos analytical results can be found in Appendix C.

Table 4-2
Parsons Asbestos-Containing Material Summary
(Report Can Be Found in Appendix E)

Material	Sample ID	Description / Location	ASBESTOS CONTENT (%)	For ACM only:	
				Condition, Friability	Approx. Quantity
Roofing Materials	Inaccessible - Presumed ACM	Built-up roofing and associated flashing	PACM	Unknown, Non-friable	600 SF
Electric wire insulation	Inaccessible - Presumed ACM	Gray cloth material	PACM	Fair, Friable	Unknown
Gaskets	Inaccessible - Presumed ACM	At pumps and other equipment	PACM	Fair, Non-friable	Unknown
Gray window glazing	HWT-WGZ-1-1	Hard tan / gray material	1.2% Chrysotile	Poor, Non-friable	25 SF
	HWT-WGZ-1-2				

Gray door caulk	HWT-DCK-2-1 HWT-DCK-2-2	Gray, at perimeter of door frames	12% Chrysotile	Poor, Non-friable	12 SF
Gray window caulk	HWT-WCK-3-1 HWT-WCK-3-2	Gray / tan, at perimeter of window frame	8.8% Chrysotile	Poor, Non-friable	14 SF
Pipe insulation on 1" and 2" lines	HWT-PI-4-1 HWT-PI-4-2 HWT-PI-4-3	Black cloth pipe jacket on pipes and fittings, smaller lines (over #5)	1.7% Amosite	Poor, Non-friable	Interior: 35 LF Exterior: 200 LF[a]
Pipe insulation on 1" and 2" lines	HWT-PI-5-1 HWT-PI-5-2 HWT-PI-5-3	White, chalky, fibrous material on smaller lines (under #4)	27% Amosite, Tr. Chrysotile	Poor, Friable	
Fitting insulation on 1" and 2" lines	HWT-FI-6-1 HWT-FI-6-2 HWT-FI-6-3	Gray, mudded material on all lines (under mtl. #4 & #9)	5.6% Chrysotile	Poor, Friable	Interior: 28 each Exterior: 25 each
Pipe insulation on 4" and 8" lines	HWT-PI-7-1 HWT-PI-7-2 HWT-PI-7-3	Thick, black tar-paper-like outer layer over pipe and fitting ins., larger lines (over #8)	15% Chrysotile, 4.9% Amosite	Poor, Non-friable	Interior: 37 LF Exterior: 800 LF[a]
Pipe insulation on 4" and 8" lines	HWT-PI-8-1 HWT-PI-8-2 HWT-PI-8-3	White, chalky, fiberous material, larger lines (under #7)	29% Amosite, Tr. Chrysotile	Poor, Friable	
Fitting insulation on 4" and 8" lines	HWT-FI-9-1 HWT-FI-9-2 HWT-FI-9-3	Black tar-like wrap w/ chicken wire, larger lines (over #6)	13% Chrysotile, 4.3% Amosite	Poor, Non-friable	Interior: 9 each Exterior: 20 each
ACM debris	ACM	Debris from ACM pipe and fitting insulation	ACM	Poor, Friable	Interior: 600 SF Exterior: unknown

Notes:
[a]Exterior quantities based on 150 feet distance between pump house and conveyor area via overheard rack; also 50 feet distance from pump house to tank area.
Condition: Fair is up to 10% localized damage or 25% distributed damage; Poor is >10 or >25%.
Tr. Indicates trace amount, <1%.
Condition, friability, and quantity for inaccessible materials are estimated.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations have been developed in accordance with the scope of work outlined in Section 2.1 of this report. Each conclusion and recommendation are based upon CHA's review of the analytical results and observations made during the inspection of the subject buildings.

- A total of 5 confirmed asbestos-containing materials were identified in association with the Brick Structure, pipeline, and Pump House located at the Tonawanda Coke Site 108, 3800 River Road in Tonawanda, New York by CHA. All confirmed ACMs were identified via the appropriate laboratory analysis. No asbestos was detected in the brick mortar associated with the brick structure (Point A) and no asbestos was detected in the asphaltic built-up roof material associated with the Pump House roof (Point C), however, asbestos-containing black sealant and black pitch are located on a roof top vent.

- A total of 5 confirmed asbestos-containing materials were identified in association with the Pump House by Parsons. Window glazing, window caulk, door caulk, pre-molded plaster pipe insulation and bituminous felt wrap were confirmed via appropriate laboratory analysis. Two (2) presumed asbestos-containing materials were also identified by Parsons, electric wire insulation and pump gaskets.

- CHA recommends that the asbestos-containing pipe fitting insulation, white plaster pipe insulation, and black felt pipe insulation wrap be removed throughout the entire pipeline, including inside and outside the Pump House. Pump House window glazing and caulk, door caulk, wire insulation, gaskets, roof vent sealant and black pitch will need to be addressed as part of any building renovation or demolition project.

- Based on the discovery of the confirmed asbestos-containing debris on the ground surface underneath and adjacent to the pipeline, and immediately adjacent to the Pump House, CHA recommends that the asbestos-containing debris be removed. Based on the heavy vegetation located between Points B and D, additional quantities of asbestos-containing debris are possible. In addition, soil removal will most likely be necessary to completely remove asbestos-containing debris from the ground surface. Given the debris is greater than 10 square feet, a site specific variance will be required from NYSDOL.

- In order to remove the white pipe insulation and black felt wrap within the Brick Structure, approximately 5’ of standing water in the brick structure will require filtering to remove asbestos-containing debris.

- All confirmed and presumed asbestos-containing materials associated with the Brick Structure, pipeline, and Pump House that will be impacted by the demolition project, must be removed prior to any work that would disturb them. All asbestos abatement work must be

performed by a licensed asbestos abatement contractor in accordance with all local, state, and federal regulations.

- If additional suspect materials are discovered during demolition activities, those materials should be assumed to be asbestos-containing and treated as such until they have been sampled by a licensed asbestos building inspector and analyzed for asbestos.

- Per New York State Code Rule 56-5.1(g) Transmittal of Building/Structure Asbestos Survey Information, the completed asbestos survey report shall be immediately transmitted by the owner or their agent to the local government entity charged with issuing a permit for such demolition, renovation, remodeling, or repair work under applicable State or local laws. New York State considers any removal of load bearing structural supports as a demolition activity. The local district office contact information is provided below.

Asbestos Control Bureau – Buffalo District
65 Court Street, Room 405, Buffalo, NY 14202
(716) 847-7601, (716) 847-7126 (FAX)

FIGURE 1

102319JR-16A
102319JR-16B
102319JR-20A
102319JR-13A
102319JR-13B
102319JR-13C
102319JR-14A
102319JR-14B
102319JR-15A
102319JR-15B
102319JR-15C

966' WEST OF RIVER ROAD

102319JR-26A

621' WEST OF RIVER ROAD

102319JR-25A

403' WEST OF RIVER ROAD

356' WEST OF RIVER ROAD

102319JR-27A
102319JR-27B

102319JR-24A

210' WEST OF RIVER ROAD

65' WEST OF RIVER ROAD

102319JR-23A

102319JR-22A

102319JR-21A

102319JR-11A
102319JR-11B
102319JR-11C

102319JR-10A
102319JR-10B
102319JR-10C
102319JR-12A
102319JR-12B

102319JR-19A

102319JR-01A
102319JR-01B
102319JR-01C
102319JR-04A
102319JR-04B
102319JR-04C
102319JR-07A
102319JR-07B
102319JR-07C
102319JR-17A

102319JR-02A
102319JR-02B
102319JR-02C
102319JR-03A
102319JR-03B
102319JR-05A
102319JR-05B
102319JR-05C
102319JR-06A
102319JR-06B
102319JR-08A
102319JR-08B
102319JR-08C

102319JR-09A
102319JR-09B
102319JR-18A

102319JR-28A
102319JR-28B
102319JR-29A
102319JR-29B
102319JR-30A

477' WEST OF RIVER ROAD

305' WEST OF RIVER ROAD

102319JR-31A
102319JR-31B

N

DRAWING IS NOT TO SCALE

LEGEND

ASBESTOS BULK SAMPLE LOCATION ● 102319JR-01A

APPROXIMATE LOCATION OF ASBESTOS-CONTAINING DEBRIS ON GROUND

CHA
III Winners Circle, PO Box 5269
Albany, NY 12205-0269
518.453.4500 • www.chacompanies.com

PRE-RENOVATION ASBESTOS-CONTAINING MATERIALS SURVEY

BULK SAMPLE LOCATION PLAN

TONAWANDA COKE SITE

3800 RIVER ROAD

TONAWANDA, NEW YORK 14151

PROJECT NO. 35547

DATE: 11/15/19

FIGURE 1

APPENDIX A

Personnel and Laboratory Certifications

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

CHA Consulting, Inc.

III Winners Circle

Albany, NY 12205

FILE NUMBER: 11-60318
LICENSE NUMBER: 60318
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 10/03/2019
EXPIRATION DATE: 10/31/2020

Duly Authorized Representative – Seth Fowler:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

HENRY A UHLIG
CLASS(EXPIRES)
C ATEC(03/20) D INSP(03/20)
E MGPL(03/20) H PM (03/20)
I PD (03/20)

CERT# 88-06550
DMV# 711227376

MUST BE CARRIED ON ASBESTOS PROJECTS

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

SCOTT F ROSECRANS
CLASS(EXPIRES)
C ATEC(07/20) D INSP(07/20)
H PM (07/20)

CERT# 00-20439
DMV# 884156968

MUST BE CARRIED ON ASBESTOS PROJECTS

EYES BRO

HAIR BRO

HGT 6' 01"

IF FOUND RETURN TO:

NYSDOL - L&C UNIT

ROOM 161A BUILDING 12

STATE OFFICE CAMPUS

ALBANY NY 12240

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

JOHN P ROCHE JR
CLASS(EXPIRES)
C ATEC(01/20) D INSP(01/20)
H PM (01/20)

CERT# 16-03885
DMV# 162594318

MUST BE CARRIED ON ASBESTOS PROJECTS

01213 00487631226

EYES BLU
HAIR BRO
HGT 5' 10"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

NEW YORK STATE OF OPPORTUNITY. | Department of Health

ANDREW M. CUOMO
Governor

HOWARD A. ZUCKER, M.D., J.D.
Commissioner

SALLY DRESLIN, M.S., R.N.
Executive Deputy Commissioner

LAB ID: 11480

April 01, 2019

MR. PAUL J. MUCHA
AMERICA SCIENCE TEAM NEW YORK, INC
117 EAST 30TH ST
NEW YORK, NY 10016

Certificate Expiration Date:
April 01, 2020

Dear Mr. Mucha,

Enclosed are certificate(s) of approval issued to your environmental laboratory for the current permit year. The certificate(s) supersede(s) any previously issued one(s) and is(are) in effect through the expiration date listed. Please carefully examine the certificate(s) to insure that the categories, subcategories, analytes, and methods for which your laboratory is approved are correct. In addition, verify that your laboratory's name, address, lead technical director, and identification number are accurate.

Pursuant to NYCRR Subpart 55-2.2, original certificates must be posted conspicuously in the laboratory and copies shall be made available to any client of the laboratory upon request.

Pursuant to NYCRR Subpart 55-2.6, any misrepresentation of the fields of accreditation (category - method - analyte) for which your laboratory is approved may result in denial, suspension, or revocation of your certification. Any use of the Environmental Laboratory Approval Program (ELAP) or National Environmental Laboratory Accreditation Program (NELAP) name, reference to the laboratory's approval status, and/or using the NELAP logo in any catalogs, advertising, business solicitations, proposals, quotations, laboratory analytical reports, or other materials must include the laboratory's ELAP identification number and distinguish between testing for which the laboratory is approved and testing for which the laboratory is not approved.

If you have any questions, please contact ELAP at the New York State Department of Health (NYS DOH), Wadsworth Center, PO Box 509, Albany NY, 12201-0509; by phone at (518) 485-5570; by facsimile at (518) 485-5568; and by email at elap@health.ny.gov.

Sincerely,

Victoria Pretti

Victoria Pretti
Director and QA Officer
Environmental Laboratory Approval Program

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2020
Issued April 01, 2019

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. PAUL J. MUCHA
AMERICA SCIENCE TEAM NEW YORK, INC
117 EAST 30TH ST
NEW YORK, NY 10016

NY Lab Id No: 11480

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual
	EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	Item 198.4 of Manual

Serial No.: 59674

APPENDIX B

Asbestos Bulk Sample Summary Table B-1

TABLE B-1
ASBESTOS BULK SAMPLE SUMMARY
TONAWANDA COKE SITE
3800 RIVER ROAD
TONAWANDA, NEW YORK

SAMPLE NUMBER	SAMPLE LOCATION	SUSPECT MATERIAL DESCRIPTION	ASBESTOS CONTENT (%)
102319JR-01A	South Side of Pump House	8" White Job-Molded Plaster Pipe Fitting Insulation- 1st Pipe (Top)	2.0% Chrysotile, 5.0% Amosite
102319JR-01B	South Side of Pump House	8" White Job-Molded Plaster Pipe Fitting Insulation- 1st Pipe (Top)	NA/PS
102319JR-01C	South Side of Pump House	8" White Job-Molded Plaster Pipe Fitting Insulation- 1st Pipe (Top)	NA/PS
102319JR-02A	South Side of Pump House	8" White Pre-Molded Plaster Pipe Insulation - 1st Pipe (Top)	12.5% Chrysotile, 4.2% Amosite
102319JR-02B	South Side of Pump House	8" White Pre-Molded Plaster Pipe Insulation - 1st Pipe (Top)	NA/PS
102319JR-02C	South Side of Pump House	8" White Pre-Molded Plaster Pipe Insulation - 1st Pipe (Top)	NA/PS
102319JR-03A	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 1st Pipe (Top)	13.1% Chrysotile
102319JR-03B	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 1st Pipe (Top)	NA/PS
102319JR-04A	South Side of Pump House	8" White Job-Molded Plaster Pipe Fitting Insulation- 2nd Pipe (Middle)	5.0% Chrysotile, 15.0% Amosite
102319JR-04B	South Side of Pump House	8" White Job-Molded Plaster Pipe Fitting Insulation- 2nd Pipe (Middle)	NA/PS
102319JR-04C	South Side of Pump House	8" White Job-Molded Plaster Pipe Fitting Insulation- 2nd Pipe (Middle)	NA/PS
102319JR-05A	South Side of Pump House	8" White Pre-Molded Plaster Pipe Insulation - 2nd Pipe (Middle)	3.3% Chrysotile, 10.0% Amosite
102319JR-05B	South Side of Pump House	8" White Pre-Molded Plaster Pipe Insulation - 2nd Pipe (Middle)	NA/PS
102319JR-05C	South Side of Pump House	8" White Pre-Molded Plaster Pipe Insulation - 2nd Pipe (Middle)	NA/PS
102319JR-06A	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 2nd Pipe (Middle)	6.8% Chrysotile
102319JR-06B	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 2nd Pipe (Bottom)	NA/PS
102319JR-07A	South Side of Pump House	4" White Job-Molded Plaster Pipe Fitting Insulation- 3rd Pipe (Bottom)	2.9% Chrysotile, 8.8% Amosite
102319JR-07B	South Side of Pump House	4" White Job-Molded Plaster Pipe Fitting Insulation- 3rd Pipe (Bottom)	NA/PS
102319JR-07C	South Side of Pump House	4" White Job-Molded Plaster Pipe Fitting Insulation- 3rd Pipe (Bottom)	NA/PS
102319JR-08A	South Side of Pump House	4" White Pre-Molded Plaster Pipe Insulation - 3rd Pipe (Bottom)	2.9% Chrysotile, 8.8% Amosite
102319JR-08B	South Side of Pump House	4" White Pre-Molded Plaster Pipe Insulation - 3rd Pipe (Bottom)	NA/PS
102319JR-08C	South Side of Pump House	4" White Pre-Molded Plaster Pipe Insulation - 3rd Pipe (Bottom)	NA/PS
102319JR-09A	South Side of Pump House	4" Black Bituminous Felt Pipe Insulation Wrap- 3rd Pipe (Bottom)	9.2% Chrysotile
102319JR-09B	South Side of Pump House	4" Black Bituminous Felt Pipe Insulation Wrap- 3rd Pipe (Bottom)	NA/PS

TABLE B-1
ASBESTOS BULK SAMPLE SUMMARY
TONAWANDA COKE SITE
3800 RIVER ROAD
TONAWANDA, NEW YORK

SAMPLE NUMBER	SAMPLE LOCATION	SUSPECT MATERIAL DESCRIPTION	ASBESTOS CONTENT (%)
102319JR-10A	West Side of Pump House	12" White Job-Molded Plaster Pipe Fitting Insulation (4th Pipe)	3.3% Chrysotile, 10.0% Amosite
102319JR-10B	West Side of Pump House	12" White Job-Molded Plaster Pipe Fitting Insulation (4th Pipe)	NA/PS
102319JR-10C	West Side of Pump House	12" White Job-Molded Plaster Pipe Fitting Insulation (4th Pipe)	NA/PS
102319JR-11A	Above Access Road, adjacent to Pump house	12" White Pre-Molded Plaster Pipe Insulation (4th Pipe)	2.0% Chrysotile, 6.3% Amosite
102319JR-11B	Above Access Road, adjacent to Pump house	12" White Pre-Molded Plaster Pipe Insulation (4th Pipe)	NA/PS
102319JR-11C	Above Access Road, adjacent to Pump house	12" White Pre-Molded Plaster Pipe Insulation (4th Pipe)	NA/PS
102319JR-12A	West Side of Pump House	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	12.3% Chrysotile
102319JR-12B	West Side of Pump House	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	NA/PS
102319JR-13A	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) White Pre-Molded Plaster Pipe Insulation	40.0% Chrysotile
102319JR-13B	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) White Pre-Molded Plaster Pipe Insulation	NA/PS
102319JR-13C	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) White Pre-Molded Plaster Pipe Insulation	NA/PS
102319JR-14A	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) Black Bituminous Felt Pipe Insulation Wrap	NAD
102319JR-14B	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) Black Bituminous Felt Pipe Insulation Wrap	NAD
102319JR-15A	Pipe Rack adjacent to Corrugated Metal Building	12" White Pre-Molded Plaster Pipe Insulation	2.8% Chrysotile, 8.3% Amosite
102319JR-15B	Pipe Rack adjacent to Corrugated Metal Building	12" White Pre-Molded Plaster Pipe Insulation	NA/PS
102319JR-15C	Pipe Rack adjacent to Corrugated Metal Building	12" White Pre-Molded Plaster Pipe Insulation	NA/PS
102319JR-16A	Pipe Rack adjacent to Corrugated Metal Building	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	8.8% Chrysotile
102319JR-16B	Pipe Rack adjacent to Corrugated Metal Building	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	NA/PS
102319JR-17A	SW Corner of Pump House	Debris - White Pre-Molded Plaster Pipe Insulation	0.3% Chrysotile, 6.0% Amosite
102319JR-18A	South Side of Pump House (Center)	Debris - White Pre-Molded Plaster Pipe Insulation	2.9% Chrysotile, 8.8% Amosite
102319JR-19A	West Side of Pump House (adjacent to Window)	Debris - White Pre-Molded Plaster Pipe Insulation	3.4% Chrysotile, 10.3% Amosite
102319JR-20A	Pipe Rack (Corrugated Metal Building West to River): (3')	Debris - White Pre-Molded Plaster Pipe Insulation	2.9% Chrysotile, 8.8% Amosite
102319JR-21A	Pipe Rack (Corrugated Metal Building West to River): (111')	Debris - White Pre-Molded Plaster Pipe Insulation	0.3% Chrysotile, 5.0% Amosite
102319JR-22A	Pipe Rack (Corrugated Metal Building West to River): 265' (7' South of Pipe Rack)	Debris - Black Bituminous Felt Pipe Insulation Wrap	10.3% Chrysotile
102319JR-23A	Pipe Rack (Corrugated Metal Building West to River): 322'	Debris - White Pre-Molded Plaster Pipe Insulation	<0.25% Chrysotile, 7.0% Amosite
102319JR-24A	Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 210'	Debris - White Pre-Molded Plaster Pipe Insulation	<0.25% Chrysotile, 8.0% Amosite

TABLE B-1
ASBESTOS BULK SAMPLE SUMMARY
TONAWANDA COKE SITE
3800 RIVER ROAD
TONAWANDA, NEW YORK

SAMPLE NUMBER	SAMPLE LOCATION	SUSPECT MATERIAL DESCRIPTION	ASBESTOS CONTENT (%)
102319JR-25A	**Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 403'**	**Debris - Black Bituminous Felt Pipe Insulation Wrap**	**4.8% Chrysotile**
102319JR-26A	**Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 621'**	**Debris - White Pre-Molded Plaster Pipe Insulation**	**0.5% Chrysotile, 7.0% Amosite**
102319JR-27A	**Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 356'**	**Gray Asphaltic Sealant on Black Bituminous Pipe Felt Paper @ Hanger**	**8.3% Chrysotile**
102319JR-27B	**Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 356'**	**Gray Asphaltic Sealant on Black Bituminous Pipe Felt Paper @ Hanger**	**NA/PS**
102319JR-28A	**Pump House Roof**	**Black Sealant on Top of Vent**	**9.0% Chrysotile**
102319JR-28B	**Pump House Roof**	**Black Sealant on Top of Vent**	**NA/PS**
102319JR-29A	**Pump House Roof**	**Black Pitch on Vent**	**7.1% Chrysotile**
102319JR-29B	**Pump House Roof**	**Black Pitch on Vent**	**NA/PS**
102319JR-30A	Pump House Roof	Built-Up	NAD
102319JR-31A	Brick Structure adjacent to Access Road near Gate: 0'	Brick Mortar	NAD
102319JR-31B	Brick Structure adjacent to Access Road near Gate: 0'	Brick Mortar	NAD

Notes:

NAD = No Asbestos Detected

NA/PS = Not Analyzed/Positive Stop

APPENDIX C

Asbestos Sample Analytical Report

Please Reply To:

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

FACSIMILE TELECOPY TRANSMISSION P. Mecha

To: James Morey
CHA Consulting, Inc.

Fax #:

Email: JMorey@chacompanies.com,srosecrans@chacompanies.com,jroche@chacompanies.com,huhlig@chacompanies.com

From: ~~Bo Sun~~

AmeriSci Job #: 219103859 EE

Subject: ELAP-PLM/TEM 5 day Results

Client Project: 35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108

Date: Wednesday, October 30, 2019

Time: 16:26:32

Comments:

Number of Pages: 22 (including cover sheet)

Amended PLM/TEM

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

CHA Consulting, Inc.
Attn: James Morey
111 Winners Circle

Albany, NY 12205

Date Received 10/25/19 **AmeriSci Job #** 219103859
Date Examined 10/28/19 **P.O. #**
ELAP # 11480 **Page** 1 **of** 11
RE: 35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-01A	219103859-01	*Yes*	7 % [1]
1	**Location:** South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)		(EPA 400 PC) by Bo Sun on 10/28/19
Analyst Description: Brown, Heterogeneous, Fibrous, Cementitious, Bulk Material **Asbestos Types:** Chrysotile 2.0 %, Amosite 5.0 % **Other Material:** Fibrous glass 30 %, Non-fibrous 63 %			
102319JR-01B	219103859-02		NA/PS
1	**Location:** South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-01C	219103859-03		NA/PS
1	**Location:** South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-02A	219103859-04	*Yes*	16.7 %
2	**Location:** South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 12.5 %, Amosite 4.2 % **Other Material:** Non-fibrous 83.3 %			
102319JR-02B	219103859-05		NA/PS
2	**Location:** South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-02C	219103859-06		NA/PS
2	**Location:** South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-03A	219103859-07	***Yes***	13.1 %
3	**Location:** South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 1st Pipe (Top)		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 13.1 % **Other Material:** Non-fibrous 19.7 %			
102319JR-03B	219103859-08		NA/PS
3	**Location:** South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 1st Pipe (Top)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-04A	219103859-09	***Yes***	20 %
4	**Location:** South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 5.0 %, Amosite 15.0 % **Other Material:** Non-fibrous 80 %			
102319JR-04B	219103859-10		NA/PS
4	**Location:** South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-04C	219103859-11		NA/PS
4	**Location:** South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-05A	219103859-12	***Yes***	13.3 %
5	**Location:** South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 3.3 %, Amosite 10.0 % **Other Material:** Non-fibrous 86.7 %			
102319JR-05B	219103859-13		NA/PS
5	**Location:** South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-05C	219103859-14		NA/PS
5	**Location:** South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-06A	219103859-15	***Yes***	6.8 %
6	**Location:** South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 2nd Pipe (Middle)		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 6.8 % **Other Material:** Non-fibrous 17 %			
102319JR-06B	219103859-16		NA/PS
6	**Location:** South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 2nd Pipe (Bottom)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-07A	219103859-17	***Yes***	11.8 %
7	**Location:** South Side Of Pump House - 4" White Job-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.9 %, Amosite 8.8 % **Other Material:** Non-fibrous 88.2 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-07B	219103859-18		NA/PS
7	**Location:** South Side Of Pump House - 4" White Job-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-07C	219103859-19		NA/PS
7	**Location:** South Side Of Pump House - 4" White Job-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-08A	219103859-20	***Yes***	11.8 % (by NYS ELAP 198.1) by Bo Sun on 10/28/19
8	**Location:** South Side Of Pump House - 4" White Pre-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)		
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.9 %, Amosite 8.8 % **Other Material:** Non-fibrous 88.2 %			
102319JR-08B	219103859-21		NA/PS
8	**Location:** South Side Of Pump House - 4" White Pre-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-08C	219103859-22		NA/PS
8	**Location:** South Side Of Pump House - 4" White Pre-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-09A	219103859-23	***Yes***	9.2 % (by NYS ELAP 198.6) by Bo Sun on 10/28/19
9	**Location:** South Side Of Pump House - 4" Black Bituminous Felt Pipe Insulation Wrap - 3rd Pipe (Bottom)		
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 9.2 % **Other Material:** Non-fibrous 27.7 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-09B	219103859-24		NA/PS
9	**Location:** South Side Of Pump House - 4" Black Bituminous Felt Pipe Insulation Wrap - 3rd Pipe (Bottom)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-10A	219103859-25	***Yes***	13.3 % (by NYS ELAP 198.1) by Bo Sun on 10/28/19
10	**Location:** South Side Of Pump House - 12" White Job-Molded Plaster Pipe Fitting Insulation - (4th Pipe)		
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 3.3 %, Amosite 10.0 % **Other Material:** Non-fibrous 86.7 %			
102319JR-10B	219103859-26		NA/PS
10	**Location:** South Side Of Pump House - 12" White Job-Molded Plaster Pipe Fitting Insulation - (4th Pipe)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-10C	219103859-27		NA/PS
10	**Location:** South Side Of Pump House - 12" White Job-Molded Plaster Pipe Fitting Insulation - (4th Pipe)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-11A	219103859-28	***Yes***	8.3 % (EPA 400 PC) by Bo Sun on 10/28/19
11	**Location:** Above Access Road, Adjacent To Pump House - 12" White Pre-Molded Plaster Pipe Fitting Insulation - (4th Pipe)		
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.0 %, Amosite 6.3 % **Other Material:** Non-fibrous 91.7 %			
102319JR-11B	219103859-29		NA/PS
11	**Location:** Above Access Road, Adjacent To Pump House - 12" White Pre-Molded Plaster Pipe Fitting Insulation - (4th Pipe)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-11C	219103859-30		NA/PS
11	**Location:** Above Access Road, Adjacent To Pump House - 12" White Pre-Molded Plaster Pipe Fitting Insulation - (4th Pipe)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-12A	219103859-31	***Yes***	12.3 %
12	**Location:** West Side Of Pump House - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 12.3 % **Other Material:** Non-fibrous 30.9 %			
102319JR-12B	219103859-32		NA/PS
12	**Location:** West Side Of Pump House - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-13A	219103859-33	***Yes***	40 %
13	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) White Pre-Molded Plaster Pipe Insulation		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 40.0 % **Other Material:** Non-fibrous 60 %			
102319JR-13B	219103859-34		NA/PS
13	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) White Pre-Molded Plaster Pipe Insulation		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-13C	219103859-35		NA/PS
13	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) White Pre-Molded Plaster Pipe Insulation		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-14A	219103859-36	***No***	NAD
14	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) Black Bituminous Felt Pipe Insulation Wrap		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 3 %			
102319JR-14B	219103859-37	***No***	NAD
14	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) Black Bituminous Felt Pipe Insulation Wrap		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 2.9 %			
102319JR-15A	219103859-38	***Yes***	11.1 %
15	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 12" White Pre-Molded Plaster Pipe Fitting Insulation		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.8 %, Amosite 8.3 % **Other Material:** Non-fibrous 88.9 %			
102319JR-15B	219103859-39		NA/PS
15	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 12" White Pre-Molded Plaster Pipe Fitting Insulation		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-15C	219103859-40		NA/PS
15	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 12" White Pre-Molded Plaster Pipe Fitting Insulation		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-16A	219103859-41	***Yes***	8.8 %
16	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 8.8 % **Other Material:** Non-fibrous 32.8 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-16B	219103859-42		NA/PS
16	**Location:** Pipe Rack Adjacent To Corrugated Metal Building - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-17A	219103859-43	***Yes***	6.3 %[2]
	Location: SW Corner Of Pump House - Debris - White Pre-Molded Plaster Pipe Insulation		(EPA 400 PC) by Bo Sun on 10/28/19
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 0.3 %, Amosite 6.0 % **Other Material:** Non-fibrous 93.7 %			
102319JR-18A	219103859-44	***Yes***	11.8 %[2]
	Location: South Side Of Pump House (Center) - Debris - White Pre-Molded Plaster Pipe Insulation		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.9 %, Amosite 8.8 % **Other Material:** Non-fibrous 88.2 %			
102319JR-19A	219103859-45	***Yes***	13.8 %[2]
	Location: West Side Of Pump House Adjacent To Window) - Debris - White Pre-Molded Plaster Pipe Insulation		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 3.4 %, Amosite 10.3 % **Other Material:** Non-fibrous 86.2 %			
102319JR-20A	219103859-46	***Yes***	11.8 %[2]
	Location: Pipe Rack (Corrugated Metal Building West To River): (3') - Debris - White Pre-Molded Plaster Pipe Insulation		(by NYS ELAP 198.1) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.9 %, Amosite 8.8 % **Other Material:** Non-fibrous 88.2 %			
102319JR-21A	219103859-47	***Yes***	5.3 %[2]
	Location: Pipe Rack (Corrugated Metal Building West To River): (111') - Debris - White Pre-Molded Plaster Pipe Insulation		(EPA 400 PC) by Bo Sun on 10/28/19
Analyst Description: Brown/White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 0.3 %, Amosite 5.0 % **Other Material:** Non-fibrous 94.7 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-22A	219103859-48	*Yes*	10.3 % [2] (by NYS ELAP 198.6) by Bo Sun on 10/28/19
Location: Pipe Rack (Corrugated Metal Building West To River): 265' (7' South Of Pipe Rack) - Debris - Black Bituminous Felt Pipe Insulation Wrap			
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 10.3 % **Other Material:** Non-fibrous 25.6 %			
102319JR-23A	219103859-49	*Yes*	7 % [2] (EPA 400 PC) by Bo Sun on 10/28/19
Location: Pipe Rack (Corrugated Metal Building West To River): 322' - Debris - White Pre-Molded Plaster Pipe Insulation			
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile <0.25 % pc, Amosite 7.0 % **Other Material:** Non-fibrous 93 %			
102319JR-24A	219103859-50	*Yes*	8 % [2] (EPA 400 PC) by Bo Sun on 10/28/19
Location: Pipe Rack (Corrugated Metal Building West To River): 210' - Debris - White Pre-Molded Plaster Pipe Insulation			
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile <0.25 % pc, Amosite 8.0 % **Other Material:** Non-fibrous 92 %			
102319JR-25A	219103859-51	*Yes*	4.8 % [2] (by NYS ELAP 198.6) by Bo Sun on 10/28/19
Location: Pipe Rack (Corrugated Metal Building West To River): 403' - Debris - Black Bituminous Felt Pipe Insulation Wrap			
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 4.8 % **Other Material:** Non-fibrous 17 %			
102319JR-26A	219103859-52	*Yes*	7.5 % [2] (EPA 400 PC) by Bo Sun on 10/28/19
Location: Pipe Rack (Corrugated Metal Building West To River): 621' - Debris - White Pre-Molded Plaster Pipe Insulation			
Analyst Description: White, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 0.5 %, Amosite 7.0 % **Other Material:** Non-fibrous 92.5 %			
102319JR-27A 27	219103859-53	*Yes*	8.3 % (by NYS ELAP 198.6) by Bo Sun on 10/28/19
Location: Pipe Rack (Corrugated Metal Building West To River): 356' - Gray Asphaltic Sealant On Black Bituminous Pipe Felt Paper @ Hanger			
Analyst Description: Black/Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 8.3 % **Other Material:** Non-fibrous 33.2 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-27B	219103859-54		NA/PS
27	**Location:** Pipe Rack (Corrugated Metal Building West To River): 356' - Gray Asphaltic Sealant On Black Bituminous Pipe Felt Paper @ Hanger		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-28A	219103859-55	***Yes***	9 %
28	**Location:** Pump House Roof - Black Sealant On Top Of Vent		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 9.0 % **Other Material:** Non-fibrous 13.5 %			
102319JR-28B	219103859-56		NA/PS
28	**Location:** Pump House Roof - Black Sealant On Top Of Vent		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-29A	219103859-57	***Yes***	7.1 %
29	**Location:** Pump House Roof - Black Pitch On Vent		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 7.1 % **Other Material:** Non-fibrous 14.2 %			
102319JR-29B	219103859-58		NA/PS
29	**Location:** Pump House Roof - Black Pitch On Vent		
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
102319JR-30A	219103859-59	***No***	NAD
	Location: Pump House Roof - Built-Up		(by NYS ELAP 198.6) by Bo Sun on 10/28/19
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 16.5 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
102319JR-31A	219103859-60	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 10/28/19
Location: Brick Structure Adjacent To Access Road Near Gate: 0' - Brick Mortar			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
102319JR-31B	219103859-61	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 10/28/19
Location: Brick Structure Adjacent To Access Road Near Gate: 0' - Brick Mortar			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

Reporting Notes:

(1) This job was - Analyzed using Motic BA310 Pol Scope S/N 1190000538

(2) Analysis Results For Soil, Dust, Or Debris May Be Highly Variable Because Of The Heterogeneous Nature Of These Samples

Analyzed by: Bo Sun

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop, (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis by Appd E to Subpt E, 40 CFR 763 (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite or 198.6 for NOB samples or EPA 400 pt ct by Appd E to Subpt E, 40 CFR 763 (NY ELAP Lab 11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab.This PLM report relates ONLY to the items tested. AIHA-LAP, LLC Lab ID 102843, RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054.

Reviewed By:

END OF REPORT

Table I
Summary of Bulk Asbestos Analysis Results

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01	102319JR-01A	1	----	----	----	----	Chrysotile 2.0	NA
Location:	South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)						Amosite 5.0	
02	102319JR-01B	1	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)							
03	102319JR-01C	1	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)							
04	102319JR-02A	2	----	----	----	----	Chrysotile 12.5	NA
Location:	South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)						Amosite 4.2	
05	102319JR-02B	2	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)							
06	102319JR-02C	2	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 1st Pipe (Top)							
07	102319JR-03A	3	0.320	59.7	7.5	19.7	Chrysotile 13.1	NA
Location:	South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 1st Pipe (Top)							
08	102319JR-03B	3	0.283	59.7	6.0	34.3	NA/PS	NA
Location:	South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 1st Pipe (Top)							
09	102319JR-04A	4	----	----	----	----	Chrysotile 5.0	NA
Location:	South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)						Amosite 15.0	
10	102319JR-04B	4	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)							
11	102319JR-04C	4	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Job-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)							
12	102319JR-05A	5	----	----	----	----	Chrysotile 3.3	NA
Location:	South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)						Amosite 10.0	
13	102319JR-05B	5	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)							
14	102319JR-05C	5	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 8" White Pre-Molded Plaster Pipe Fitting Insulation - 2nd Pipe (Middle)							
15	102319JR-06A	6	0.281	73.7	2.5	17.0	Chrysotile 6.8	NA
Location:	South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 2nd Pipe (Middle)							
16	102319JR-06B	6	0.227	74.0	1.8	24.2	NA/PS	NA
Location:	South Side Of Pump House - 8" Black Bituminous Felt Pipe Insulation Wrap - 2nd Pipe (Bottom)							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
17	102319JR-07A	7	----	----	----	----	Chrysotile 2.9	NA
Location:	South Side Of Pump House - 4" White Job-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)						Amosite 8.8	
18	102319JR-07B	7	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 4" White Job-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)							
19	102319JR-07C	7	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 4" White Job-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)							
20	102319JR-08A	8	----	----	----	----	Chrysotile 2.9	NA
Location:	South Side Of Pump House - 4" White Pre-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)						Amosite 8.8	
21	102319JR-08B	8	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 4" White Pre-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)							
22	102319JR-08C	8	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 4" White Pre-Molded Plaster Pipe Fitting Insulation - 3rd Pipe (Bottom)							
23	102319JR-09A	9	0.396	54.8	8.3	27.7	Chrysotile 9.2	NA
Location:	South Side Of Pump House - 4" Black Bituminous Felt Pipe Insulation Wrap - 3rd Pipe (Bottom)							
24	102319JR-09B	9	0.426	52.3	9.9	37.8	NA/PS	NA
Location:	South Side Of Pump House - 4" Black Bituminous Felt Pipe Insulation Wrap - 3rd Pipe (Bottom)							
25	102319JR-10A	10	----	----	----	----	Chrysotile 3.3	NA
Location:	South Side Of Pump House - 12" White Job-Molded Plaster Pipe Fitting Insulation - (4th Pipe)						Amosite 10.0	
26	102319JR-10B	10	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 12" White Job-Molded Plaster Pipe Fitting Insulation - (4th Pipe)							
27	102319JR-10C	10	----	----	----	----	NA/PS	NA
Location:	South Side Of Pump House - 12" White Job-Molded Plaster Pipe Fitting Insulation - (4th Pipe)							
28	102319JR-11A	11	----	----	----	----	Chrysotile 2.0	NA
Location:	Above Access Road, Adjacent To Pump House - 12" White Pre-Molded Plaster Pipe Fitting Insulation - (4th Pipe)						Amosite 6.3	
29	102319JR-11B	11	----	----	----	----	NA/PS	NA
Location:	Above Access Road, Adjacent To Pump House - 12" White Pre-Molded Plaster Pipe Fitting Insulation - (4th Pipe)							
30	102319JR-11C	11	----	----	----	----	NA/PS	NA
Location:	Above Access Road, Adjacent To Pump House - 12" White Pre-Molded Plaster Pipe Fitting Insulation - (4th Pipe)							
31	102319JR-12A	12	0.285	54.4	2.5	30.9	Chrysotile 12.3	NA
Location:	West Side Of Pump House - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)							
32	102319JR-12B	12	0.485	60.0	7.8	32.2	NA/PS	NA
Location:	West Side Of Pump House - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results
35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
33	102319JR-13A	13	----	----	----	----	Chrysotile 40.0	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) White Pre-Molded Plaster Pipe Insulation							
34	102319JR-13B	13	----	----	----	----	NA/PS	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) White Pre-Molded Plaster Pipe Insulation							
35	102319JR-13C	13	----	----	----	----	NA/PS	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) White Pre-Molded Plaster Pipe Insulation							
36	102319JR-14A	14	0.266	98.9	-1.9	3.0	NAD	NAD
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) Black Bituminous Felt Pipe Insulation Wrap							
37	102319JR-14B	14	0.209	97.1	0.0	2.9	NAD	NAD
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 4" & 8" (Combined) Black Bituminous Felt Pipe Insulation Wrap							
38	102319JR-15A	15	----	----	----	----	Chrysotile 2.8	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 12" White Pre-Molded Plaster Pipe Fitting Insulation						Amosite 8.3	
39	102319JR-15B	15	----	----	----	----	NA/PS	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 12" White Pre-Molded Plaster Pipe Fitting Insulation							
40	102319JR-15C	15	----	----	----	----	NA/PS	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 12" White Pre-Molded Plaster Pipe Fitting Insulation							
41	102319JR-16A	16	0.269	49.1	9.3	32.8	Chrysotile 8.8	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)							
42	102319JR-16B	16	0.357	49.9	10.1	40.1	NA/PS	NA
Location:	Pipe Rack Adjacent To Corrugated Metal Building - 12" Black Bituminous Felt Pipe Insulation Wrap - (4th Pipe)							
43	102319JR-17A		----	----	----	----	Chrysotile 0.3	NA
Location:	SW Corner Of Pump House - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 6.0	
44	102319JR-18A		----	----	----	----	Chrysotile 2.9	NA
Location:	South Side Of Pump House (Center) - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 8.8	
45	102319JR-19A		----	----	----	----	Chrysotile 3.4	NA
Location:	West Side Of Pump House Adjacent To Window) - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 10.3	
46	102319JR-20A		----	----	----	----	Chrysotile 2.9	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): (3') - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 8.8	
47	102319JR-21A		----	----	----	----	Chrysotile 0.3	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): (111') - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 5.0	
48	102319JR-22A		0.320	56.9	7.2	25.6	Chrysotile 10.3	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 265' (7' South Of Pipe Rack) - Debris - Black Bituminous Felt Pipe Insulation Wrap							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
49	102319JR-23A		----	----	----	----	Chrysotile <0.25	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 322' - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 7.0	
50	102319JR-24A		----	----	----	----	Chrysotile <0.25	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 210' - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 8.0	
51	102319JR-25A		0.362	76.0	2.2	17.0	Chrysotile 4.8	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 403' - Debris - Black Bituminous Felt Pipe Insulation Wrap							
52	102319JR-26A		----	----	----	----	Chrysotile 0.5	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 621' - Debris - White Pre-Molded Plaster Pipe Insulation						Amosite 7.0	
53	102319JR-27A	27	0.422	55.7	2.8	33.2	Chrysotile 8.3	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 356' - Gray Asphaltic Sealant On Black Bituminous Pipe Felt Paper @ Hanger							
54	102319JR-27B	27	0.582	53.3	4.1	42.6	NA/PS	NA
Location:	Pipe Rack (Corrugated Metal Building West To River): 356' - Gray Asphaltic Sealant On Black Bituminous Pipe Felt Paper @ Hanger							
55	102319JR-28A	28	0.289	49.5	28.0	13.5	Chrysotile 9.0	NA
Location:	Pump House Roof - Black Sealant On Top Of Vent							
56	102319JR-28B	28	0.333	53.5	26.1	20.4	NA/PS	NA
Location:	Pump House Roof - Black Sealant On Top Of Vent							
57	102319JR-29A	29	0.348	53.2	25.6	14.2	Chrysotile 7.1	NA
Location:	Pump House Roof - Black Pitch On Vent							
58	102319JR-29B	29	0.275	48.7	27.6	23.6	NA/PS	NA
Location:	Pump House Roof - Black Pitch On Vent							
59	102319JR-30A		0.322	73.0	10.6	16.5	NAD	NAD
Location:	Pump House Roof - Built-Up							
60	102319JR-31A		----	----	----	----	NAD	NA
Location:	Brick Structure Adjacent To Access Road Near Gate: 0' - Brick Mortar							
61	102319JR-31B		----	----	----	----	NAD	NA
Location:	Brick Structure Adjacent To Access Road Near Gate: 0' - Brick Mortar							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results

35547; ACM Survey - Tonawanda Coke; 3800 River Rd. - Tonawanda, NY - Site 108 (Report Amended 10/30/2019)

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM

Analyzed by: Marik Peysakhov; Date Analyzed 10/29/2019

**Quantitative Analysis (Semi/Full); Bulk Asbestos Analysis - PLM by Appd E to Subpt E, 40 CFR 763 or ELAP 198.1 for New York friable samples or ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (or ELAP 198.4; for New York samples; NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = <1%; (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis: Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses): NVLAP (PLM) 200546-0, NYSDOH ELAP Lab 11480, AIHA-LAP, LLC (PLM) Lab ID 102843.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogenous materials).

Reviewed By:

Relinquished By: _____ Date/Time: 10/24/19 1600

Received By: _____ Date/Time: 10/25/19 945

Relinquished By: _____ Date/Time:

Received By: _____ Date/Time:

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BULK CHAIN OF CUSTODY

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Phone: Cell: (518) 598-6689

Fax Results? Y Fax #:

Email Results? Y Email: JRoche@Chacompanies.com

Results to: John Roche, Henry Uhlig, Scott Rosecrans

Project: ACM Survey – Tonawanda Coke

Proj Mgr: Henry Uhlig Proj #: 35547

Proj Address: 3800 River Rd - Tonawanda Proj State: NY

Analysis: X PLM; X Positive Stop; X TEM; X NY ELAP PLM/TEM w/ NOB Prep.

ASTM Dust ☐ (Microvac) ☐ (Wipe); ☐ Qualitative; ☐ NY ELAP 198.8 Vermiculite

Turnaround Time: 5 Day Material Type: X Bulk ☐ Dust ☐ Water

Sampled By: John Roche/Scott Rosecrans Date Sampled: 10/23/19

Special Instructions or Comments: Tonawanda Coke Corp. – Site 108

- Please ADD "102319JR-" to ALL Field IDs

Lab ID	Field ID	Location	Sample Description (dust area)	Homogenous Area
	01A	South Side of Pump House	8" White Job-molded Plaster Pipe Fitting Insulation- 1st Pipe (Top)	+ Stop
	01B	South Side of Pump House	8" White Job-molded Plaster Pipe Fitting Insulation- 1st Pipe (Top)	
	01C	South Side of Pump House	8" White Job-molded Plaster Pipe Fitting Insulation- 1st Pipe (Top)	
	02A	South Side of Pump House	8" White Pre-molded Plaster Pipe Insulation - 1st Pipe (Top)	
	02B	South Side of Pump House	8" White Pre-molded Plaster Pipe Insulation - 1st Pipe (Top)	
	02C	South Side of Pump House	8" White Pre-molded Plaster Pipe Insulation - 1st Pipe (Top)	
	03A	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 1st Pipe (Top)	
	03B	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 1st Pipe (Top)	
	04A	South Side of Pump House	8" White Job-molded Plaster Pipe Fitting Insulation- 2nd Pipe (Middle)	+ Stop
	04B	South Side of Pump House	8" White Job-molded Plaster Pipe Fitting Insulation- 2nd Pipe (Middle)	
	04C	South Side of Pump House	8" White Job-molded Plaster Pipe Fitting Insulation- 2nd Pipe (Middle)	
	05A	South Side of Pump House	8" White Pre-molded Plaster Pipe Insulation - 2nd Pipe (Middle)	
	05B	South Side of Pump House	8" White Pre-molded Plaster Pipe Insulation - 2nd Pipe (Middle)	
	05C	South Side of Pump House	8" White Pre-molded Plaster Pipe Insulation - 2nd Pipe (Middle)	
	06A	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 2nd Pipe (Middle)	
	06B	South Side of Pump House	8" Black Bituminous Felt Pipe Insulation Wrap- 2nd Pipe (Bottom)	

Relinquished By: _____ Date/Time: 10-24-19 1600

Received By: _____ Date/Time: 10/25/19945

Relinquished By: _____ Date/Time:

Received By: _____ Date/Time:

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BULK CHAIN OF CUSTODY

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FAX: (212) 679-9392

Company: CHA Consulting, Inc.

Street Address: 3 Winners Circle

City: Albany State: NY Zip: 12205

Phone: Cell: (518) 598-6689

Fax Results? Y ☐ Fax #:

Email Results? Y ☒ Email: JRoche@Chacompanies.com

Results to: John Roche, Henry Uhlig, Scott Rosecrans

AMERISCI #: #219103859

Project: ACM Survey – Tonawanda Coke

Proj Mgr: Henry Uhlig Proj #: 35547

Proj Address: 3800 River Rd - Tonawanda Proj State: NY

Analysis: ☒ PLM; ☒ Positive Stop; ☒ TEM; ☒ NY ELAP PLM/TEM w/ NOB Prep.

ASTM Dust ☐ (Microvac) ☐ (Wipe); ☐ Qualitative; ☐ NY ELAP 198.8 Vermiculite

Turnaround Time: 5 Day Material Type: ☒ Bulk ☐ Dust ☐ Water

Sampled By: John Roche/Scott Rosecrans Date Sampled: 10/23/19

Special Instructions or Comments: Tonawanda Coke Corp. – Site 108

- Please ADD "102319JR-" to ALL Field IDs

Lab ID	Field ID	Location	Sample Description (dust area)	Homogenous Area
	07A	South Side of Pump House	4" White Job-molded Plaster Pipe Fitting Insulation- 3rd Pipe (Bottom)	+ Stop
	07B	South Side of Pump House	4" White Job-molded Plaster Pipe Fitting Insulation- 3rd Pipe (Bottom)	
	07C	South Side of Pump House	4" White Job-molded Plaster Pipe Fitting Insulation- 3rd Pipe (Bottom)	
	08A	South Side of Pump House	4" White Pre-molded Plaster Pipe Insulation - 3rd Pipe (Bottom)	
	08B	South Side of Pump House	4" White Pre-molded Plaster Pipe Insulation - 3rd Pipe (Bottom)	
	08C	South Side of Pump House	4" White Pre-molded Plaster Pipe Insulation - 3rd Pipe (Bottom)	
	09A	South Side of Pump House	4" Black Bituminous Felt Pipe Insulation Wrap- 3rd Pipe (Bottom)	
	09B	South Side of Pump House	4" Black Bituminous Felt Pipe Insulation Wrap- 3rd Pipe (Bottom)	
	10A	West Side of Pump House	12" White Job-Molded Plaster Pipe Fitting Insulation (4th Pipe)	+ Stop
	10B	West Side of Pump House	12" White Job-Molded Plaster Pipe Fitting Insulation (4th Pipe)	
	10C	West Side of Pump House	12" White Job-Molded Plaster Pipe Fitting Insulation (4th Pipe)	
	11A	Above Access Road, adjacent to Pump house	12" White Pre-molded Plaster Pipe Insulation (4th Pipe)	
	11B	Above Access Road, adjacent to Pump house	12" White Pre-molded Plaster Pipe Insulation (4th Pipe)	
	11C	Above Access Road, adjacent to Pump house	12" White Pre-molded Plaster Pipe Insulation (4th Pipe)	
	12A	West Side of Pump House	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	
	12B	West Side of Pump House	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	

Relinquished By: _____ Date/Time: 10-24-19 1600

Received By: _____ Date/Time: 10/25/19 945

Relinquished By: _____ Date/Time:

Received By: _____ Date/Time:

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Fax Results? Y Fax #:

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Results to: John Roche, Henry Uhlig, Scott Rosecrans

AmeriSci #: #219103859

Project: ACM Survey – Tonawanda Coke

Proj Mgr: Henry Uhlig Proj #: 35547

Proj Address: 3800 River Rd - Tonawanda Proj State: NY

Analysis: ☒ PLM; ☒ Positive Stop; ☒ TEM; ☒ NY ELAP PLM/TEM w/ NOB Prep.

☐ ASTM Dust ☐ (Microvac) ☐ (Wipe); ☐ Qualitative; ☐ NY ELAP 198.8 Vermiculite

Turnaround Time: 5 Day Material Type: ☒ Bulk ☐ Dust ☐ Water

Sampled By: John Roche/Scott Rosecrans Date Sampled: 10/23/19

Special Instructions or Comments: Tonawanda Coke Corp. – Site 108

- Please ADD "102319JR-" to ALL Field IDs

Lab ID	Field ID	Location	Sample Description (dust area)	Homogenous Area
	13A	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) White Pre-molded Plaster Pipe Insulation	+ Stop
	13B	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) White Pre-molded Plaster Pipe Insulation	
	13C	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) White Pre-molded Plaster Pipe Insulation	
	14A	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) Black Bituminous Felt Pipe Insulation Wrap	
	14B	Pipe Rack adjacent to Corrugated Metal Building	4" & 8" (combined) Black Bituminous Felt Pipe Insulation Wrap	
	15A	Pipe Rack adjacent to Corrugated Metal Building	12" White Pre-molded Plaster Pipe Insulation	+ Stop
	15B	Pipe Rack adjacent to Corrugated Metal Building	12" White Pre-molded Plaster Pipe Insulation	
	15C	Pipe Rack adjacent to Corrugated Metal Building	12" White Pre-molded Plaster Pipe Insulation	
	16A	Pipe Rack adjacent to Corrugated Metal Building	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	
	16B	Pipe Rack adjacent to Corrugated Metal Building	12" Black Bituminous Felt Pipe Insulation Wrap (4th Pipe)	
	17A	SW Corner of Pump House	Debris - White Pre-molded Plaster Pipe Insulation	
	18A	South Side of Pump House (Center)	Debris - White Pre-molded Plaster Pipe Insulation	
	19A	West Side of Pump House (adjacent to Window)	Debris - White Pre-molded Plaster Pipe Insulation	
	20A	Pipe Rack (Corrugated Metal Building West to River): (3')	Debris - White Pre-molded Plaster Pipe Insulation	
	21A	Pipe Rack (Corrugated Metal Building West to River): (111')	Debris - White Pre-molded Plaster Pipe Insulation	
	22A	Pipe Rack (Corrugated Metal Building West to River): 265' (7' South of Pipe Rack)	Debris - Black Bituminous Felt Pipe Insulation Wrap	
	23A	Pipe Rack (Corrugated Metal Building West to River): 322'	Debris - White Pre-molded Plaster Pipe Insulation	

Relinquished By: _____ Date/Time: 10-24-19 1600

Received By: _____ Date/Time: 10/25/19 945

Relinquished By: _____ Date/Time:

Received By: _____ Date/Time:

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☐ ASTM Dust ☐ (Microvac) ☐ (Wipe); ☐ Qualitative; ☐ NY ELAP 198.8 Vermiculite

Turnaround Time: 5 Day Material Type: ☒ Bulk ☐ Dust ☐ Water

Sampled By: John Roche/Scott Rosecrans Date Sampled: 10/23/19

Special Instructions or Comments: Tonawanda Coke Corp. – Site 108

- Please ADD "102319JR-" to ALL Field IDs

Lab ID	Field ID	Location	Sample Description (dust area)	Homogenous Area
	24A	Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 210'	Debris - White Pre-molded Plaster Pipe Insulation	
	25A	Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 403'	Debris - Black Bituminous Felt Pipe Insulation Wrap	
	26A	Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 621'	Debris - White Pre-molded Plaster Pipe Insulation	
	27A	Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 356'	Gray Asphaltic Sealant on Black Bituminous Pipe Felt paper @ Hanger	+ Stop ↓
	27B	Pipe Rack adjacent to Access Road (from River Rd West to Work Trailer): 356'	Gray Asphaltic Sealant on Black Bituminous Pipe Felt paper @ Hanger	
	28A	Pump House Roof	Black Sealant on Top of Vent	+ Stop ↓
	28B	Pump House Roof	Black Sealant on Top of Vent	
	29A	Pump House Roof	Black Pitch on Vent	+ Stop ↓
	29B	Pump House Roof	Black Pitch on Vent	
	30A	Pump House Roof	Built-Up	
	31A	Brick Structure adjacent to Access Road near Gate: 0'	Brick Mortar	
	31B	Brick Structure adjacent to Access Road near Gate: 0'	Brick Mortar	

AmeriSci New York	**Report Amendment Explanation Form (append to amended report)**	Date Amended 10/30/19

Client: CHA

AmeriSci Job # 219103859

Client Job: 3800 River Rd. - Tonawanda, NY - Site 108

Analysis Type: EPT

AmeriSci Sample #'s affected: 219103859-01 thru 219103859-61

Amended By (print/sign): Paul J. Mucha

Original Item: Sample Pre-fix 102319JR was not entered before Field ID#'s.

Amended Item: Entered Sample Prefixes for all sample in job as well as added Site 108 to Job Site from COC.

Explanation: Sample Pre-fix 102319JR was not entered before Field ID#'s. Entered Sample Prefixes for all sample in job as well as added Site 108 to Job Site from COC. Amended the report and re-issued to client.

Attach original sheet with incorrect item or items to be amended clearly indicated or circled.

APPENDIX D

Photograph Log

Photo 1 – Typical pipe insulation with overhead protection between Points A and B

Photo 2 – Typical pipe insulation with overhead protection between Points A and B

Photo 3 – Typical pipe insulation between Points B and C

Photo 4 – Typical pipe insulation debris adjacent to Pump House

Photo 5 – Typical pipe insulation between Points B and D

Photo 6 – Typical pipe insulation debris between Points B and D

Photo 7 - Typical pipe insulation debris between Points B and D

Photo 8 - Typical pipe insulation debris between Points B and D

Photo 9 – Heavy vegetation between Points B and D

Photo 10 – Heavy vegetation between Points B and D

APPENDIX E

Parsons Pre-Demolition Building Material Sampling Memorandum

PARSONS

301 Plainfield Road, Suite 350 – Syracuse, New York 13212 – (315) 451-9560 – www.parsons.com

PRE-DEMOLITION BUILDING MATERIAL SAMPLING MEMORANDUM

March 11, 2019

TO: HONEYWELL TONAWANDA SITE

FROM: DAN DOUGLASS, Senior Scientist

SUBJECT: SAMPLING FOR ASBESTOS CONTENT IN BUILDING MATERIALS

Parsons conducted an asbestos survey of the small masonry pump house and piping associated with the aboveground storage tanks at Tonawanda Coke Corporation Site 108, 3800 River Road in the Town of Tonawanda, New York. The survey took place on February 28, 2019, by a NYSDOL-certified Asbestos Building Inspector.

The survey was completed in accordance with local, state and federal regulations, and conforms to sampling protocol detailed in the Asbestos Hazard Emergency Response Act (AHERA). Representative bulk samples of suspect-ACM were collected randomly from homogeneous surfaces. The number of samples collected was determined by the type and quantity of the material.

Laboratory services were provided by HSE Consulting Services, LLC, of Cicero, New York. HSE is accredited by the New York State Environmental Laboratory Approval Program (ELAP). Sample analysis was conducted using Polarized Light Microscopy with dispersion staining (PLM-DS) in accordance with the New York State ELAP 198.1 Method. Any building material that contains greater than one percent of asbestos is considered to be an ACM.

The pump house is a masonry block structure with a flat roof that appears to have been built in the 1940s or 1950s and is approximately 600 square feet. The building has a concrete floor and concrete panels on the ceiling. Nine suspect materials were sampled; each of the materials is considered ACM. Three additional materials were inaccessible and are Presumed ACM (PACM).

Building materials and pipe insulation determined to contain asbestos are:

- Gray window glazing found on windows; much of the material is cracked or broken and is in poor condition.

- Gray caulking on door and window frames – two similar, but separate materials, found around the perimeter of the metal door frames and the metal window frames. Materials are in poor condition.

- Pipe and fitting insulation – all pipe and fitting insulation at the building contains asbestos. Two types of black outer wrap / jacketing are ACM, as is the white, chalky, fibrous block insulation beneath the black covering. Gray, mudded fitting insulation is also ACM. ACM insulation is found on pipe sizes including 1-inch, 4-inch and 8-inch diameter lines, inside and outside the building. These materials are in poor condition.

- Debris of pipe and fitting insulation covered many surfaces in the building. Snow, ice and clutter prevented observation of the entire floor space, but ACM debris is estimated to be present on all interior surfaces; ACM debris may be present at the exterior but exterior surfaces were inaccessible under a covering of snow.

- Roofing and flashing materials are considered PACM. The roof was inaccessible on the day of the survey. It is believed to be constructed of built-up materials.

- Electric wire insulation was not sampled due to potential electrical hazard and is PACM.

- Gasket material is present on pumps and other equipment in the building. Gasket material was not accessible and any gasket at the building is PACM.

Materials that are considered non-suspect and were not sampled include brick, plastic and wood, in addition to other materials. Survey results are summarized on the following table; exterior quantities include piping at the exterior of the pump house, into the tank area to the south and on the overhead rack to the conveyor area to the northwest:

Material	Sample ID	Description / Location	Asbestos Content	For ACM only:	
				Condition, Friability	Approx. Quantity
Roofing materials	Inaccessible - presumed ACM	Built-up roofing and associated flashing	PACM	Unknown, Non-friable	600 SF
Electric wire insulation	Inaccessible - presumed ACM	Gray cloth material	PACM	Fair, Friable	Unknown
Gaskets	Inaccessible - presumed ACM	At pumps and other equipment	PACM	Fair, Non-friable	Unknown
Gray window glazing	HWT-WGZ-1-1 HWT-WGZ-1-2	Hard tan / gray material	1.2% Chrysotile	Poor, Non-friable	25 SF
Gray door caulk	HWT-DCK-2-1 HWT-DCK-2-2	Gray, at perimeter of door frames	12% Chrysotile	Poor, Non-friable	12 SF
Gray window caulk	HWT-WCK-3-1 HWT-WCK-3-2	Gray / tan, at perimeter of window frame	8.8% Chrysotile	Poor, Non-friable	14 SF
Pipe insulation on 1” and 2” lines	HWT-PI-4-1 HWT-PI-4-2 HWT-PI-4-3	Black cloth pipe jacket on pipes and fittings, smaller lines (over #5)	1.7% Amosite	Poor, Non-friable	Interior: 35 LF Exterior: 200 LF[a]
Pipe insulation on 1” and 2” lines	HWT-PI-5-1 HWT-PI-5-2 HWT-PI-5-3	White, chalky, fibrous material on smaller lines (under #4)	27% Amosite, Tr. Chrysotile	Poor, Friable	
Fitting insulation on 1” and 2” lines	HWT-FI-6-1 HWT-FI-6-2 HWT-FI-6-3	Gray, mudded material on all lines (under mtl. # 4 & #9)	5.6% Chrysotile	Poor, Friable	Interior: 28 each Exterior: 25 each
Pipe insulation on 4” and 8” lines	HWT-PI-7-1 HWT-PI-7-2 HWT-PI-7-3	Thick, black tar-paper-like outer layer over pipe and fitting ins., larger lines (over #8)	15% Chrysotile, 4.9% Amosite	Poor, Non-friable	Interior: 37 LF Exterior: 800 LF[a]
Pipe insulation on 4” and 8” lines	HWT-PI-8-1 HWT-PI-8-2 HWT-PI-8-3	White, chalky, fibrous material, larger lines (under #7)	29% Amosite, Tr. Chrysotile	Poor, Friable	
Fitting insulation on 4” and 8” lines	HWT-FI-9-1 HWT-FI-9-2 HWT-FI-9-3	Black tar-like wrap w/ chicken wire, larger lines (over #6)	13% Chrysotile, 4.3% Amosite	Poor, Non-friable	Interior: 9 each Exterior: 20 each
ACM debris	ACM	Debris from ACM pipe and fitting insulation	ACM	Poor, Friable	Interior: 600 SF Exterior: unknown

[a] Exterior quantities based on 150 feet distance between pump house and conveyor area via overhead rack; also 50 feet distance from pump house to tank area.
Condition: Fair is up to 10% localized damage or 25% distributed damage; Poor is >10 or >25%.
Tr indicates trace amount, <1%.
Condition, friability and quantity for inaccessible materials are estimated.

Photographs of the building materials are included with this report. A copy of the laboratory report for samples included in this document is attached, along with a copy of the NYSDOL certification of the laboratory, the building inspector certification and Parsons' corporate asbestos license.

Window glazing

Window caulk

Door caulk

Black cloth pipe wrap over white pipe and fitting insulation

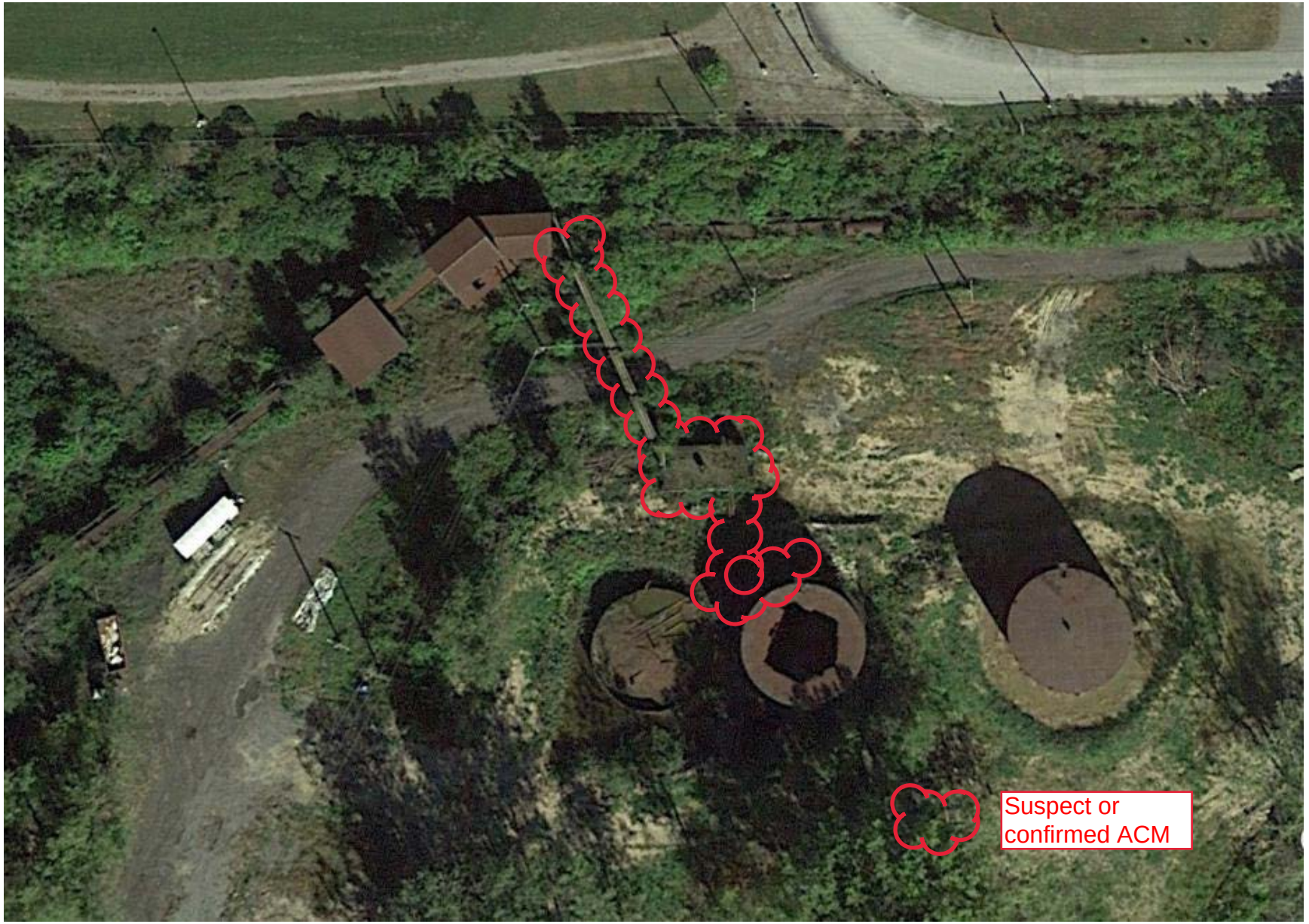
Black pipe wrap with wire (lower pipe) and tar-paper-like wrap on upper pipe

ACM pipe insulation debris on surfaces in many areas

ACM pipe and fitting insulation in poor condition near ceiling and at pump

PACM cloth wrap on electrical wiring

Exterior of building (at left) with ACM piping on overhead rack towards conveyor area


Suspect or
confirmed ACM

HSE Consulting Services, LLC

Air Quality
Asbestos / Lead / Mold
OSHA Compliance / Training
Environmental Services

ASBESTOS ANALYSIS REPORT

Non-Gravimetrically Reduced Samples

Analysis Method - NY State ELAP 198.1/EPA 600/M4/82/020

NYS DOH ELAP ID #11973

Parsons
301 Plainfield Road
Suite 350
Syracuse NY 13212

Attention: Mr. Dan Douglass

Tuesday, March 05, 2019

Batch Number: 9771
Date Received: 3/1/2019
Date Collected: 2/28/2019
Sampled By: Dan Douglass

Project # 451470.0571

Project Name: Tonawanda, NY, Site 108

Lab ID	Sample ID	Color	Total % Asbestos	% AM	% CH	% CR	% TM	% AC	% AN	% CE	% MW	% GW	% SY	% HH	% O	Other Type	%Non-Fibrous Material	Date Analyzed
82180	HWT-PI-5-1	White	27	27	<1.0												73	3/5/2019
82181	HWT-PI-5-2		SAFP															3/5/2019
82182	HWT-PI-5-3		SAFP															3/5/2019
82183	HWT-FI-6-2	Gray	5.6		5.6						34						60.4	3/5/2019
82184	HWT-FI-6-3		SAFP															3/5/2019
82185	HWT-PI-8-1	White	29	29	<1.0												71	3/5/2019
82186	HWT-PI-8-2		SAFP															3/5/2019
82187	HWT-PI-8-3		SAFP															3/5/2019

Reviewed and Approved By (and for questions regarding this report):

Douglas L. Gee, Technical Director

Abbreviations:

AM - Amosite
CH - Chrysotile
CR - Crocidolite
TM - Tremolite
AC - Actinolite
AN - Anthophyllite
CE - Cellulose
MW - Mineral Wool
GW - Glass Wool
SY - Synthetic
HH - Horse Hair
O - Other
TR - Trace asbestos detected at <1%
NAD- No Asbestos Detected
SAFP - Stop at First Positive (not analyzed)
N/A - Not Applicable
NA - Not Available
*Insufficient Sample for Analysis

HSE Consulting Services, LLC did not participate in the collection of the samples contained in this report, therefore, any information pertaining to the collection is based on information provided by the person submitting them. The results pertain only to the samples in this report.

8636 Brewerton Road
Cicero, New York 13039

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OSHA Compliance / Training
Environmental Services

ASBESTOS ANALYSIS REPORT
Gravimetrically Reduced Samples
Non-Friable Organically Bound Material

PLM Analysis Method - NY State ELAP 198.6/EPA 600/M4/82/020

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Date Received: 3/1/2019
Date Collected: 2/28/2019
Sampled By: Dan Douglass

Project # 451470.0571
Project Name: Tonawanda, NY, Site 108

Lab ID	Sample ID	Color	% Residue	PLM ANALYSIS						TEM ANALYSIS						Total % Asbestos	Date Analyzed
				%	Type	%	Type	%	Type	%	Type	%	Type	%	Type		
82188	HWT-WGZ-1-1	Tan	2.9	1.2	CH					N/A						1.2	3/4/2019
82189	HWT-WGZ-1-2	Gray	2.7	SAFP						SAFP						SAFP	3/4/2019
82190	HWT-DCK-2-1	Gray	37.1	12	CH					N/A						12	3/4/2019
82191	HWT-DCK-2-2	Gray	36.9	SAFP						SAFP						SAFP	3/4/2019
82192	HWT-WCK-3-1	Gray/Tan	32.8	8.8	CH					N/A						8.8	3/4/2019
82193	HWT-WCK-3-2	Gray/Tan	32.5	SAFP						SAFP						SAFP	3/4/2019
82194	HWT-PI-4-1	Black	2.5	1.7	AM					N/A						1.7	3/4/2019
82195	HWT-PI-4-2	Black	10.2	SAFP						SAFP						SAFP	3/4/2019
82196	HWT-PI-4-3	Black	11.5	SAFP						SAFP						SAFP	3/4/2019
82197	HWT-FI-6-1	Black	54.3	18	CH					N/A						18	3/4/2019
82198	HWT-PI-7-1	Black	34.4	15	CH	4.9	AM			N/A						20	3/4/2019

Abbreviations:

AM - Amosite
CH - Chrysotile
CR - Crocidolite
TM - Tremolite
AC - Actinolite
AN - Anthophyllite

N/A - Not Applicable
NA - Not Available
NAD - No Asbestos Detected
SAFP - Stop at First Positive (not analyzed)
NR - Not Required
<1.0% Residue Remaining

TR - Trace asbestos detected at less than 1%
*Insuffient sample for analysis **(Samples not analyzed must not be interpreted as being non-ACM)**
** - Inconclusive, No Asbestos Detected **(Samples with inconclusive results must not be interpreted as being non-ACM)**

***TEM analysis not performed per client's request. (Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-ACM.

NOTE: HSE Consulting Services, LLC did not participate in the collection of the samples contained in this report, therefore, any information pertaining to the collection is based on information provided by the person submitting them. The results pertain only to the samples in this report.

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Gravimetrically Reduced Samples
Non-Friable Organically Bound Material

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Project # 451470.0571
Project Name: Tonawanda, NY, Site 108

Lab ID	Sample ID	Color	% Residue	PLM ANALYSIS						TEM ANALYSIS						Total % Asbestos	Date Analyzed
				%	Type	%	Type	%	Type	%	Type	%	Type	%	Type		
82199	HWT-PI-7-2	Black	35.9	SAFP						SAFP						SAFP	3/4/2019
82200	HWT-PI-7-3	Black	35.3	SAFP						SAFP						SAFP	3/4/2019
82201	HWT-FI-9-1	Black	29.9	13	CH	4.3	AM			N/A						17	3/4/2019
82202	HWT-FI-9-2	Black	18.9	SAFP						SAFP						SAFP	3/4/2019
82203	HWT-FI-9-3	Black	33.2	SAFP						SAFP						SAFP	3/4/2019

Reviewed and Approved By (and for questions regarding this report): _____

Douglas L. Gee, Technical Director

Abbreviations:

AM - Amosite
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CR - Crocidolite
TM - Tremolite
AC - Actinolite
AN - Anthophyllite

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***TEM analysis not performed per client's request. (Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-ACM.

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Fax # (315) 698-1441
www.hseconsultingservices.com

Batch #9771 - 82180 - 82187 (198.1)
9772 - 82188 - 82203 (198.6)

HSE
8636 Brewerton Road
Cicero, NY 13039
315.698.1438

Chain Of Custody / Analysis Request

COC #:
Lab Use Only

Privileged & Confidential

Site Name: Tonawanda, NY, Site 108

Client Contact: (name, co., address)
Parsons
Dan Douglass (315-345-7974)
301 Plainfield Rd. Suite 350
Syracuse, NY 13212
dan.douglass@parsons.com

Sampler: D Douglass
P O #: 451470.0571

Job No: 451470.0571

Hardcopy Report To: Dan Douglass
Invoice To: Dan Douglass

Stop at 1st positive. 5 day TAT.

	Asbestos Bulk Sample Identification		Sample Date	Sample Description	Sample Type	Preservative														PLM / TEM	
	Field Sample ID					0	0	0	0	0	0	0	0	0	0	0					
1	HWT-WGZ-1-1	198.6	2/28/2019	Gray window glazing	Bulk															X	82188
2	HWT-WGZ-1-2		2/28/2019	Gray window glazing	Bulk															X	82189
3	HWT-DCK-2-1		2/28/2019	Gray door caulk	Bulk															X	82190
4	HWT-DCK-2-2		2/28/2019	Gray door caulk	Bulk															X	82191
5	HWT-WCK-3-1		2/28/2019	Gray window caulk	Bulk															X	82192
6	HWT-WCK-3-2		2/28/2019	Gray window caulk	Bulk															X	82193
7	HWT-PI-4-1		2/28/2019	Black pipe cloth wrap	Bulk															X	82194
8	HWT-PI-4-2		2/28/2019	Black pipe cloth wrap	Bulk															X	82195
9	HWT-PI-4-3		2/28/2019	Black pipe cloth wrap	Bulk															X	82196
10	HWT-PI-5-1	198.1	2/28/2019	Off-white chalky pipe insulation	Bulk															X	82180
11	HWT-PI-5-2		2/28/2019	Off-white chalky pipe insulation	Bulk															X	82181
12	HWT-PI-5-3		2/28/2019	Off-white chalky pipe insulation	Bulk															X	82182
13	HWT-FI-6-1	198.6	2/28/2019	Gray mud fitting insulation	Bulk															X	82197
14	HWT-FI-6-2	198.1	2/28/2019	Gray mud fitting insulation	Bulk															X	82183
15	HWT-FI-6-3		2/28/2019	Gray mud fitting insulation	Bulk															X	82184
16	HWT-PI-7-1	198.6	2/28/2019	Black tar / paper pipe layer	Bulk															X	82198
17	HWT-PI-7-2		2/28/2019	Black tar / paper pipe layer	Bulk															X	82199
18	HWT-PI-7-3		2/28/2019	Black tar / paper pipe layer	Bulk															X	82200
19	HWT-PI-8-1	198.1	2/28/2019	White, chalky pipe insulation	Bulk															X	82185
20	HWT-PI-8-2		2/28/2019	White, chalky pipe insulation	Bulk															X	82186
21	HWT-PI-8-3		2/28/2019	White, chalky pipe insulation	Bulk															X	82187
22	HWT-FI-9-1	198.6	2/28/2019	Black tar-like fitting layer	Bulk															X	82201
23	HWT-FI-9-2		2/28/2019	Black tar-like fitting layer	Bulk															X	82202
24	HWT-FI-9-3		2/28/2019	Black tar-like fitting layer	Bulk															X	82203

	Company	Parsons	Received by:	Company		Condition	Custody Seals Intact
	Date/Time			Date/Time		Cooler Temp.	
Relinquished by	Company		Received by	Company		Condition	Custody Seals Intact
	Date/Time 3/1/19 1125		Khaliyah Flowers	Date/Time	3/1/19 1125	Cooler Temp.	

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2019
Issued April 01, 2018

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. BRIAN C. KING
HSE CONSULTING SERVICES, LLC
8636 BREWERTON ROAD
CICERO, NY 13039

NY Lab Id No: 11973

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)

Serial No.: 58069

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Parsons Engineering Of New York, Inc.
Attn: Licensing
4701 Hedgemore Drive

Charlotte, NC 28209

FILE NUMBER: 00-0769
LICENSE NUMBER: 29234
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 05/31/2018
EXPIRATION DATE: 05/31/2019

Duly Authorized Representative – Thomas H Abrams:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

JAMES D DOUGLASS
CLASS(EXPIRES)
D INSP(11/19) H PM (11/19)

CERT# 95-01295
DMV# 2T7734101

MUST BE CARRIED ON ASBESTOS PROJECTS

01213 004875870 06

EYES BLU
HAIR BRO
HGT 6' 00"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240