INVENTUM ENGINEERING, PC

September 30, 2024

To: Benjamin McPherson (NYSDEC)

From: John Black, P.E. (Inventum)

CC: John Yensan (3821 River Road, Inc.); Alen Trpevski (OSC) and James Edwards (Inventum)

RE: Aboveground Storage Tank Management
Interim Remedial Measures Work Plan
3821 River Road, Inc.
Brownfield Cleanup Program Site No. C915003
Town of Tonawanda, New York

Inventum Engineering, P.C. (Inventum), on behalf of 3821 River Road, Inc. (3821 River Road), is submitting this Aboveground Storage Tank (AST) Management Interim Remedial Measures Work Plan which focuses on the sampling and closure of the ASTs remaining on the 3821 River Rd. Brownfield Cleanup Program (BCP) Site (#C915003) located at 3821 River Road, Tonawanda, New York. The ASTs on 3821 River Rd. BCP Site are not registered with the New York State Department of Environmental Conservation (NYSDEC) as petroleum or chemical bulk storage tanks.

Purpose

There are empty tank pads and cradles on the 3821 River Road Site, those AST's were removed prior to the purchase of the site by 3821 River Road, Inc. This Interim Remedial Measures (IRM) work plan summarizes the completed sampling and closure activities for the remaining twelve (12) ASTs on the 3821 River Road BCP Site. Figure 1 shows the locations of the 12 ASTs. The location of five concrete tank pads/cradles for ASTs that had been removed from the BCP Site prior to 3821 River Road Inc's ownership are also identified on Figure 1. The removal and assessment of the tank pads and secondary containment structures will be addressed and managed under a separate IRM work plan.

Inventum reviewed available databases to confirm that no tanks registered as either a Chemical Bulk Storage (CBS) or Petroleum Bulk Storage (PBS) tank are present on the BCP Site. The 12 ASTs were left on the BCP Site by the previous owner(s) and operators and were never used for any purpose by 3821 River Road. The above ground piping associated with the ASTs will be assessed and managed in accordance with the approved Management of Above Ground Piping and Contents Interim Remedial Measures (IRM) Work Plan dated February 26, 2024.

To identify the possible former uses of the ASTs, Inventum reviewed historical site plans from the site's previous owners and operators and inspected the ASTs for any labels. The 12 remaining ASTs (Table 1 and Figures 1 through 5), ranging in capacity from approximately 13,000-gallons to 470,000-gallons[1], have

[1] The provided AST volumes are estimated based on calculations using field measurements and provided on Table 1.

been grouped based on the location and historical use. The possible historical operation of the ASTs consists of:

- Area A – North Tank Farm (6 ASTs)
  - Tank 1 (21,000-gallons): Process wastewater
  - Tank 2 (21,000-gallons): Process wastewater
  - Tank 3 (23,000-gallons): Propane
  - Tank 4 (23,000-gallons): Pentane
  - Tank 5 (17,000-gallons): Soft wax
  - Tank 6 (40,000-gallons): Storage (unknown)

- Area B – Storage Bins (3 ASTs)
  - Tank 7 (13,000-gallons): Hydrogen peroxide and/or Acrylic Acid Isopropanol
  - Tank 8 (50,000-gallons): Storage Silo (dry Storage, not sealed for liquids)
  - Tank 9 (50,000-gallons): Storage Silo (dry Storage, not sealed for liquids)

- Area C – Ethylene Storage (2 ASTs)
  - Tank 10 (18,000-gallons): Ethylene Storage
  - Tank 11 (18,000-gallons): Ethylene Storage

- Area D – Fire Water Tank (1 ASTs)
  - Tank 12 (470,000-gallons): Fire Protection Water (not process water)

The completed and additional required actions for the closure of the ASTs consist of the following:

- **Assessment:** On May 28, 2024, the interior of the ASTs were assessed for the presence of vapors using a photoionization detector (PiD) and Lower Explosive Limit (LEL) / oxygen (O_2) meter and when safe, inspected for contents. Air monitoring stations were in place throughout the tank assessments as outlined in the BCP Site's Community Air Monitoring Program (CAMP) (Attachment B). The assessment of each tank was completed by removal of a flanged pipe connection or a manway on top of each AST, if the appropriate access to the interior of an AST was not already present. A summary of the observed tank contents and recorded PiD and LEL readings are provided in the attached Table 1.

  Based on the visual observation of the interior of the tanks, it was determined that Tank 3, Tank 4, and Tank 5 had liquid phase contents in sufficient quantity to sample. Based on the limited view within the tanks, the observed tank contents consist of:

  - Tank 3 - An estimated 1.5-feet of liquid present and appears to be a water-based liquid (est. 2,190-gallons), no odors observed, rust colored, 0 ppm PID reading.
  - Tank 4 – An estimated 4-inches of liquid with oil-like black liquid present (est. 240-gallons), petroleum odors present, 0.1ppm reading on PID.
  - Tank 5 - An estimated 3-inches of viscous liquid (140-gallons), rust colored, a strong odor similar to butane and a solvent based cleaner was observed, 0ppm PID reading.

Tank 1, Tank 2, and Tank 6 each contained an estimated 3-inches to 4-inches of rust scale (moisture was present but no free liquid was observed in Tank 1 or Tank 2) with no observed PiD readings over 0 parts per million (ppm). Tanks 7 through Tank 11 were visibly empty with no observed tank contents, and the recorded PiD reading for each tank was 0 ppm. The 470,000-gallon fire protection tank (Tank 12) is assumed to be empty based on field observations. However, access was limited to a 2-inch pipe connection located 3-inches from the ground level. There was no liquid at the 3-inch above ground surface opening.

- **Sampling:** Liquid and solids samples were collected to characterize the contents (if not empty) for treatment, waste disposal or recycling. Sampling of the liquid contents present in Tanks 3, 4, and 5 was completed on June 12, 2024 and summarized in the Sampling section of this Work Plan.
    - Upon demolition of the silos labeled as Tanks 8 and 9, it was discovered that the interior base of each silo consisted of an estimated 6-feet of sand with an estimated 3-feet of a black aggerate material on top of the sand. The black aggerate material had been bonded together to create a hard base within each of the silos. A composite sample of the sand and a composite sample of the black aggerate materials was collected and submitted for laboratory analysis. The interior finish on the blocks used to construct the silos has had a smooth epoxy-like finish applied. A composite sample of the silo block including the interior finish was collected and submitted for laboratory analysis. The sample result for the sand, black aggerate, and silo blocks are pending analysis with Alpha Analytical laboratory.

- **Decontamination:** Tank cleaning and management of tank contents, if non-hazardous[2].

- **Decommissioning and Removal:** Decommissioning of tank and ancillary equipment and piping for disposal or recycling. All above ground piping will be managed in accordance with Management of Above Ground Piping and Contents Interim Remedial Measures Work Plan (Pipe IRM Work Plan) dated February 26, 2024.

- **Inspection and Documentation:** Inspection, photography and documentation of the underlying secondary containment facilities.

Table 1 lists the remaining tanks summary, owner tank designation number, area designation (A, B, C or D), tank type, dimensions and estimated volume, historical use information, corresponding sample IDs, inspection and sample date, content notes, and required action. The locations of the tanks are shown on Figure 1 with additional photo imagery of the tanks for each area designation on Figures 2 through 5.

Special Consideration

There are no known listed hazardous wastes expected to be encountered within the AST on the 3821 River Road BCP Site. There is no documentation or institutional knowledge of any material that meets the definition of Listed Hazardous Waste in the subject tanks therefore, no Listed Hazardous Waste is anticipated under this work plan. All classes of waste materials will be sampled, a waste determination

[2] If the contents of any of a tank exhibit the characteristics of a hazardous waste, a IRM Work Plan amendment will be submitted for that tank. However, based on the available analytical results of the sampled tank contents it is not anticipated that a tank will contain a characteristically hazardous waste.

will be made based on the analytical results, waste profiles will be developed, and the waste will be classified; and if the liquid to be managed is water, the water will be treated and discharged to the POTW (under Permit No. 201) or transported to the appropriate permitted facility. Prior to any offsite disposal of waste generated from the 3821 River Rd. BCP Site, a 5-day notice to the NYSDEC is required.

Special handling is required for Tanks 10 and 11 in Area C because these tanks were known to be coated with an asbestos containing material (ACM). No cutting or disturbances is permitted to the exterior of these tanks without approval from the Ontario Specialty Contracting's (OSC) project manager and in coordination with the BCP Site's licensed asbestos inspector or project monitor to ensure all asbestos regulations are followed in accordance with NYS Department of Labor (DOL) regulations. In addition, any tank that has a paint or coating will not be disturbed unless the OSC's project manager, in communication with BCP Site's asbestos inspector or project monitor, has confirmed the coating or paint on the AST is not an ACM.

Scope of Work

The scope of work identifies the steps that have been and will continue to be followed as part of the AST characterization and closure process. Inventum will oversee the activities required under the scope of this work plan. All oversight work will be conducted under the direction of a NYS Professional Engineer.

Inventum shall be responsible for:

- Setting the CAMP Air Monitoring Station(s);
- Downloading and transmitting the CAMP data to the NYSDOH;
- Overseeing sampling, logging, shipping samples to the laboratory;
- Reviewing all sample data and characterization of any contents;
- Inspections to confirm any bulk materials have been removed from ASTs, monitoring decontamination activities, and documenting waste management;
- Inspection of the Hazardous Waste Storage area and storage practices (if required);
- Confirming the tank materials have been decontaminated and prepared for recycling or disposal;
- Inspection of the exposed surfaces of the secondary containment(s) or foundation(s) after the removal of an AST.
- If evidence of a release, preparation of a secondary containment work plan or addendum to include, at a minimum, coring and sampling to investigate underlying soil;
- Final inspection by a licensed professional engineer; and
- Reporting.

OSC's site-specific health and safety plan (HASP) (Attachment A) will be strictly followed to address the AST closures. The AST closure work will be completed by OSC.

Community Air Monitoring Plan (CAMP)

During the tank sampling, decommissioning work, and the tank cleaning, the CAMP (Attachment B) will include an air monitoring station downwind of the IRM activities. During tank cleaning, the CAMP station will be positioned mid-way between the ASTs being cleaned and the closest property line, but in no case more than 50-feet downwind of the cleaning operations. Refer to the BCP Site CAMP for action levels (Attachment B).

Sampling

On June 12, 2024, samples were collected from Tank 3, Tank 4, and Tank 5 using a disposable bailer. Each collected sample was submitted under chain-of-custody to Alpha Analytical for laboratory analysis. The intent of the select sample parameters were to understand if the tank contents were non-hazardous or a characteristically hazardous waste and provide all necessary information to a waste disposal provider to adequately profile the waste for offsite disposal. The requested sample parameters for each tank content sample consisted of following:

- Total Volatile Organic Compounds (VOCs)
- Total Semivolatile Organic Compounds (SVOCs)
- Total Metals
- Organochlorine Pesticides (provided not requested for Tank 4)
- Polychlorinated Biphenyl's (PCBs)
- General Chemistry including;
    - Hexavalent Chromium
    - Cyanide Reactive and Total
    - Flash Point
    - Ammonia Nitrogen
    - Paint Filter Liquid
    - pH
    - Total Solids
    - Reactive Sulfide
- BTU
- Toxic Characteristic Leaching Procedures (TCLP) VOCs
- TCLP SVOCs
- TCLP Metals
- TCLP Herbicides
- TCLP Pesticides

A summary of the reported laboratory results for each tank are provided in Table 2 (Tank 3), Table 3 (Tank 4), Table 4 (Tank 5) and the Laboratory Report is provided in Attachment C. The laboratory was not able to analyze all request analysis due to reported multiple matrix interferences. The following summarizes the request parameters that were not able to be reported waste designation of the contents for each tank.

- Tank 3 (Sample ID: LQ-AST03-06122024): The laboratory was unable to analyze the liquid sample for SVOCs due to reported matrix interference and a BTU value was not reported.
    - The TCLP analysis shows that the sample of the tank contents was not characteristically hazardous, nor flammable, reactive, or corrosive.
    - The waste designation for the liquid contents of Tank 3 is a non-hazardous liquid waste based on the reported sample analysis.

- Tank 4 (Sample ID: LQ-AST04-06122024): The laboratory was unable to analyze the liquid sample for TCLP VOCs, TCLP SVOCs, TCLP Pesticides, or TCLP Herbicides due to an oil phase present with water.

  - The respective total analyses for VOCs, SVOCs, Pesticides, Herbicdes have been reported and the total concentrations of the analytes reported for a TCLP parameter analysis are all non-detect. All TCLP Metals are non-detect. The sampled material is also not flammable, corrosive, or reactive.
  - The waste designation for the liquid contents of Tank 4 is a non-hazardous liquid waste based on the reported sample analysis.

- Tank 5 (Sample ID: LQ-AST05-06122024): The reported sample parameters were provided as requested by the laboratory.
  - The sampled tank contents are not characteristically hazardous, nor are they flammable, reactive, or corrosive.
  - The waste designation for the liquid contents of Tank 5 is a non-hazardous liquid waste based on the reported sample analysis.

- Upon demolition of the silos labeled as Tanks 8 and 9, it was discovered that the interior base of each silo consisted of an estimated 6-feet of sand with an estimated 3-feet of a black aggerate material on top of the sand. The black aggerate material had been bonded together to create a hard base within each of the silos. A composite sample of the sand and a composite sample of the black aggerate materials was collected and submitted for laboratory analysis for TCLP Complete Analysis, TCL VOCs, NYTCL SVOCs, PCBs Metals, Ammonia, Cyanide

  The interior finish on the blocks used to construct the silos has had a smooth epoxy-like finish applied. A composite sample of the silo block including the interior finish was collected and submitted for laboratory analysis TCL VOCs, Metals, TCL SVOCs, PCBs, Pesticides, and Herbicides.

  The sample result for the sand, black aggregate, and silo blocks are pending analysis with Alpha Analytical laboratory.

Due to limited access to fully assess the contents of each tank, the following contents may be sampled to allow further evaluation for evidence of contamination once access to the contents is improved during the tank decommission process.

- Rust scale in Tanks 1, 2, and 6.
- Possible solids or a few inches of liquid in Tank 12

In addition, generated waste residuals from cleaning the tanks onsite such as wash water and solids will be sampled, as needed, to profile the waste for disposal requirements.

The following procedures have been followed for the completed tank assessemenst and sampling a shall be followed for any future tank assessment or sampling during the tank closure process on the BCP Site:

1. Inspect the secondary containment to determine if there has been any leakage.
2. Inspect the exterior of the tank for signs of rupture, wear/holes, and bulging. If the tank shows signs of structural weakness, contact the project engineer for inspection.

3. Use a PiD to check the atmosphere around the outside of the tank for volatile organic compounds (VOCs).
4. Establish a work zone to allow access to the tank.
5. Set up the CAMP air monitoring station at the downwind end of the work zone. Refer to the CAMP for action levels.
6. Access can be gained from the top of the tank if the tank is deemed structurally sound. If the tank is not considered structurally sound and there are no secure working platform or walkway surfaces, the proper personnel access shall be provided (lift or scaffolding).
7. If the tank has an opening such as a manway, open pipe, or vent:
    a. **No one or no part of anyone's body shall cross into the tank for sampling.**
    b. **Refer to HASP (Attachment A), but for all ASTs a respirator with an organic vapor cartridge should be the minimum respiratory protection.**
    c. Scan the vapors at the opening, just inside the interior of the tank for VOCs.
    d. Scan the vapors at the opening for (LEL) and oxygen (O_2).
8. If the LEL/O_2 meter indicates a potentially explosive atmosphere, oxygen deficient, or oxygen rich atmosphere in the tank, vent in accordance with the HASP until the LEL/O_2 reading indicates the vapor is no longer a potentially explosive concentration. Wait 15 minutes and retest.
9. Gauge the depth to contents with a non-sparking tape or non-metallic rod. Record depth to first material, thickness of solid(s), thickness of liquid(s). Be aware of the possibility and be prepared to encounter more than one liquid and more than one solid layer,
10. Record:
    a. Depth to each layer;
    b. Thickness of each layer;
    c. Apparent viscosity/density;
    d. Color;
    e. Other observations.
11. Field samples
    a. Solids – Each different solid shall be sampled, and representative amount (no less than 100 grams) shall be placed into a sealable (e.g., Ziploc™) bag. Each bag shall be marked with source and sample time. If the ambient temperature is below 50 degrees Fahrenheit, place in warm vehicle or heated indoor space. After 15 minutes, insert the PiD probe in the bag above the sample and record the PiD measurement.
    b. Liquids – Each different liquid shall be sampled, and the representative amount (no less than 100 ml) shall be placed into a clean laboratory glass container. Testing for pH will be completed.
12. Laboratory Samples (Note: Laboratory samples shall not be collected from the field samples; they shall be a split collected BEFORE field samples are placed in the sealable bags.)
    a. Solids - Collect samples from each unique solid material for waste characterization for the full suite of DER-10 parameters except the per- and polyfluoroalkyl substances (PFAS) but including Hazardous Characteristics and TCLP. PFAS sampling is not required for disposal characterization.
    b. Liquids – Collect samples from each unique liquid material for the full suite of DER-10 parameters, except the PFAS, but including Hazardous Characteristics.

c. Soils – If there is evidence of a release to soils, samples collected below the secondary containment or foundation from each unique soil or other solid material will be for the full suite of DER-10 parameters. One sample from each tank location will be sampled and analyzed for the per- and polyfluoroalkyl substances (PFAS) and Hazardous Characteristics and TCLP.

13. If there have been no detections at the CAMP station, cover openings with a material that will prevent precipitation from entering the tank, but which will not create an airtight seal on the tank.
14. If there have been detections at the CAMP station, reseal the tank after sampling.

Secondary Containment, Piping and Ancillary Equipment

The secondary containment solids and liquids (if present) shall be managed in accordance with their characteristics. If surface water accumulates, the water shall be pumped through granular activated carbon and discharged to the POTW under Permit No. 201. If there are solid materials or non-aqueous liquids these materials will be collected and containerized. These materials will be sampled, characterized, and disposed in accordance with the same protocols as the tank contents:

a. Equipment, piping and solid debris will be inspected to determine if they contain or are covered residual liquids or solids; residual liquids and solids will be removed from equipment and piping as practicable. If empty, the materials will be disposed or recycled. If the materials cannot be removed or the equipment or piping cannot be decontaminated, the equipment or piping will be properly stored (Roll-off container or wrapped to prevent migration of residuals), sampled, and properly disposed off-site.
b. Liquids will be managed as differentiated:
    i. Stormwater will be managed by treatment through carbon and discharged to the Town of Tonawanda Publicly Owned Treatment Works (POTW) in accordance with Permit No. 201.
    ii. Non-aqueous phase liquids (NAPLs) will be collected in totes, drums, or smaller containers (depending on volume) and sampled for disposal characteristics. The determination of the appropriate disposal facility will be based on the results of the analytical testing. No NAPL will be discharged to the POTW.
c. Sediments, sludges, solid materials will be collected and contained in accordance with their properties:

    i. Sediments and sludges will be removed from the secondary containment facilities and stabilized to remove any free liquids. The stabilized materials will be sampled for waste profile parameters. The stabilized materials will be disposed offsite in accordance with an approved waste profile. No stabilized materials from a concrete or metal AST secondary containment will be used for onsite fill.

    ii. Solid materials in concrete secondary containment systems will be removed and placed in appropriate containers for offsite disposal. The materials will be sampled for waste profile parameters. The materials will be disposed offsite in accordance with their characteristics.

    iii. Materials below ASTs in earthen secondary containment structures or below concrete or metal secondary containment structures will not be managed under this IRM.

Separate IRM Work plans will be developed for substances that appear to be process related that are observed below the surface of the secondary containment systems.

Prior to removing each AST for closures, piping and ancillary equipment connected to the tank or within the secondary containment structures will be:

- Drained of any contents. All fluid contents or non-aqueous liquid in the piping or ancillary equipment will be collected, containerized, and managed with the contents from within each tank.
- All piping and ancillary equipment removed during this IRM will be stored for recycling or disposal in a manner that eliminates the risk of a release to the environment. Any piping or equipment with liquid or semi-solid material will be placed in a lined container, wrapped, or otherwise sealed while transportation is pending.
- All piping and ancillary equipment will be wrapped, sealed, or free of liquid contents associated with the tank prior to disposal or recycling.

Tank Content Removal

Each AST will be emptied and cleaned by removing all vapors, liquids, and accumulated solids.

- Removal of tank contents will not begin until the contents of the tank have been properly characterized for disposal.
- Removal of all vapors, liquids, and solids from the AST and associated piping will be completed in accordance with all applicable state and federal requirements and will follow the codes of practice outlined in the API RP 2016, August 2001 or the NFPA 326, 2010 edition.
- If the tank must be entered for additional cleaning, the tank shall be made safe by the addition of dry ice at ratio of 1.5 pounds per 100 gallons of tank capacity or other alternative safe methods of degassing. If dry ice is used to degas the tank, the tank will be additionally ventilated to eliminate the risk of an oxygen deficient atmosphere that could be created by the use of the dry ice. The tank atmosphere shall be tested with an oxygen meter to ensure a safe condition. The HASP will be updated to address entering the tank/permit required confined space entry and only trained and qualified personnel or sub-contractor will enter an AST.
- Contents of the tank will be conveyed directly to a transport vehicle or container compliant for Department of Transportation (DOT) transportation to a designated disposal facility.
- The tank materials shall be cleaned in accordance with the following section of this Work Plan.

Tank Disposal

Cleaned tanks that are free of ACM, shall be cut onsite in acceptable portions for recycling, and transported to a scrap yard for recycling, shipped after cleaning, or disposed of at a 6 NYCRR Part 360 permitted facility. The decontamination will include, at a minimum:

- Removal of all recoverable liquids with pumps or vacuum equipment.
- Removal of all sediment, sludge and loose scale using scrapers and other handheld equipment.
- Verify the container is empty, it shall not have:
    - More than 1 inch of residue;
    - 3% residue by weight (If less than 119-gallon capacity), or

- 0.3% residue by weight (If greater than 119-gallon capacity, approximately 3 gallons per 1,000-gallon capacity).

For those tanks containing characteristic hazardous wastes, the surfaces shall be decontaminated in accordance with 6 NYCRR Part 376.4(g), and therefore the following will be implemented:

- High pressure water, carbon dioxide or steam cleaning;
  - The surface of the container, interior and exterior shall be cleaned until all loose materials are removed;
  - All wash water and residuals will be collected and contained and managed as a waste. A sample[3] will be collected of the generated wash water and residuals to properly profile the waste prior to disposal.

Post Removal Inspection

After each AST is removed, the surface beneath the AST will be visually assessed for evidence of a leak from the AST. Reinforced concrete secondary containments shall be cleaned of any residual. Any observed indications of a leak or release will be documented and reported in the monthly summary to the NYSDEC and summarized in the construction completion report. A separate work plan will be developed to address any detailed investigation sampling or supplemental IRM to assess or address an observed leak from an AST secondary containment.

If the tank had a movable secondary containment, that containment shall be removed and managed with the tank materials prior to the ground inspection.

Waste Disposal

All waste generated shall be profiled and sampled if necessary if not already sampled, in accordance with applicable regulations and the requirements of the receiving disposal facility. Generated waste from each tank will either be drummed or transported directly offsite for disposal in the vac-truck at the time the waste is removed from the AST. Generated waste from each AST will not be combined unless the tank contents are the same product. Manifests and/or bills of lading will be retained, and copies provided in the Tank Closure Report.

Any drummed waste determined to exhibit the characteristics of hazardous waste will be labeled, moved to the designated central accumulation area (CAA) area in Building No. 5, inspected weekly and disposed of offsite in accordance with an approved waste profile.

No less than 5-days before offsite transportation for disposal, the NYSDEC will be notified of the disposition of containers and their contents. Following shipping, the manifest and shipping forms will be properly filed.

Reporting

A Tank Closure Report will be prepared for NYSDEC review after closure of all the tanks listed in Table 1 are completed in accordance with this work plan. At minimum, the Tank Closure Report shall contain the following:

[3] The sample parameters list for generated wash water and residuals will be developed based on the hazardous constituents that were present in the tank and reviewed with NYSDEC prior to sample collection.

- Documentation of ASTs including location, size, contents, and closure procedure.
- Photographic documentation.
- Summary of waste profile sample results and laboratory analytical data packages.
- Waste disposal manifests or bills of lading.
- Summary of any observed evidence of leaks once the AST is removed.

A summary notice of planned activities will be provided prior to any on-site activity under this IRM Work Plan. During active tank work, a monthly summary of the activities completed and the activities planned for the upcoming month will be provided. The monthly reports will include:

- The completed tank(s) work for the month;
- Approvals sought or received (demolition permits, waste profile approvals, POTW Permit modifications);
- Work to be performed in the following month;
- Samples collected and laboratory data received; and
- Proposed shipments of materials from the property (Scrap and waste).

Summary notices will not be submitted during periods with no activity under this work plan.

Engineering Certification

I, John P. Black, certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Aboveground Storage Tank Management Interim Remedial Measures Work Plan was prepared in accordance with all applicable statutes and regulators and in substation conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and Green Remediation (DER-31).

Respectfully Submitted,

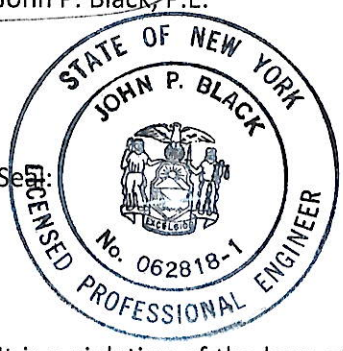
Inventum Engineering, P.C.

Date: SEPTEMBER 30, 2024

John P. Black, P.E.

License No: 062818-1

Seal:



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Tables

Table 1
ASTs Summary
3821 River Road, Inc.
Town of Tonawanda, New York

Area Designation	Tank Designation	Type	Dimensions	Approximate Storage Volume (Gallons)	Information based on historical documents or tank labels	Sample ID	Data Table Reference	Requested Analysis Unable to be Completed by Laboratory	Inspection Date	Sample Date	Content Observation	Action Notes
Above Ground Tanks (ASTs)												
A	Tank 1	Horizontal Capsule	10ft Diameter by 28ft Long	21,000	Process Wastewater	-	-	-	5/29/2024	-	An estimated 4-inches of rust scale with moisture present (est. 170-gallons of scale). Appears to be moisture from rain water, 0ppm PID and 0% LEL reading, unable to adequately see inside.	Further assess the tanks content once accessible.
A	Tank 2	Horizontal Capsule	10ft Diameter by 28ft Long	21,000	Process Wastewater	-	-	-	5/29/2024	-	An estimated 4-inches of rust scale with moisture present (est. 170-gallons of scale). Appears to be moisture from rain water, 0ppm PID and 0% LEL reading, unable to adequately see inside.	Further assess the tanks content once accessible.
A	Tank 3	Horizontal Capsule	9ft Diameter by 42ft Long	23,000	Propane	**Lq-AST03-06122024**	Table 2	The laboratory was unable to analyze the liquid for SVOCs [8270D] due to matrix interference. The material is not miscible in water A BTU value was not reported	5/29/2024	6/12/2024	An estimated 1.5-feet of liquid present and appears to be a water based liquid (est. 2,190-gallons), no odors observed, rust colored liquid, 0ppm PID and 0% LEL reading unable to adequately see inside.	Develop waste profile for disposal of the tank contents
A	Tank 4	Horizontal Capsule	9ft Diameter by 42ft Long	23,000	Pentane	**Lq-AST04-06122024**	Table 3	The laboratory was unable to analyze the liquid for TCLP VOCs, TCLP SVOCs, TCLP Pesticides, or TCLP Herbicides. The respective total analyses have been reported. Based on the total analyte concentrations, it is proposed the liquid is classified as non-hazardous. The material is also not flammable, corrosive, or reactive.	5/29/2024	6/12/2024	An estimated 4-inches of liquid with oil (est. 240-gallons), petroleum odors present, 0.3ppm reading on PID and 0% LEL, black liquid present, unable to adequately see inside.	Develop waste profile for disposal of the tank contents
A	Tank 5	Horizontal Capsule	8ft Diameter by 40ft Long	17,000	Soft Wax	**Lq-AST05-06122024**	Table 4	-	5/29/2024	6/12/2024	An estimated 3-inches of viscous liquid (140-gallons), rust colored liquid, heavy odors similar to butane and a solvent based cleaner was observed, 6.3ppm PID and 0% LEL reading, unable to adequately see inside.	Develop waste profile for disposal of the tank contents
A	Tank 6	Horizontal Capsule	10ft Diameter by 60ft Long	40,000	Storage (unknown)	-	-	-	5/29/2024	-	Dry, 3-4-inches of rust scale on bottom, 0ppm PID and 0% LEL reading, unable to adequately see inside.	Proceed with decommissioning, monitor any low spots for the presents of liquids or solids.
B	Tank 7	Horizontal Capsule	9ft Diameter by 20ft Long	13,000	Hydrogen/Peroxide on historic figure. The tank is currently labeled as Acrylic Acid Isopropanol.	-	-	-	5/29/2024	-	Visually empty, no evidence of liquids present, 0ppm PID and 0% LEL reading, no odors observed	Proceed with decommissioning, monitor any low spots for the presents of liquids or solids.
B	Tank 8	Vertical Cylinder / Silo	15ft Diameter by 38ft Tall	50,000	Storage Silo (dry storage, not sealed for liquids	**SILO-01-SAND-09182024** **SILO-01- SOLIDS-09182024** **(A combined composite sample, SILO-BRICK-09242024, of the block from both silo was collected an submitted for analysis of TCL VOCs, Metals, TCL SVOCs, PCBs, Pesticides, and Herbicides)**	Pending Analysis (Both Samples of the sand layer and aggerate cap are being analyzed for TCLP Complete Analysis, TCL VOCs, NYTCL SVOCs, PCBs Metals, Ammonia, Cyanide)	-	5/29/2024	-	Visibly empty, no contents or liquids present, 0ppm PID and 0% LEL reading, no odors observed.	Proceeded with decommissioning while monitoring any low spots for the presents of liquids or solids. No liquids or solids with the Silos was observed.
B	Tank 9	Vertical Cylinder / Silo	15ft Diameter by 38ft Tall	50,000	Storage Silo (dry storage, not sealed for liquids			-	5/29/2024	-	Visibly empty, no contents or liquids, 0ppm PID and 0% LEL readings, no odors observed.	Proceed with decommissioning, monitor any low spots for the presents of liquids or solids.
C	Tank 10	Horizontal Capsule	9ft Diameter by 32ft Long	18,000	Ethylene Storage Tank	-	-	-	5/29/2024	-	Visibly empty, no evidence of liquids, no odors, 0ppm PID and 0% LEL reading, slight rust build up on bottom.	Proceed with decommissioning, monitor any low spots for the presents of liquids or solids.
C	Tank 11	Horizontal Capsule	9ft Diameter by 32ft Long	18,000	Ethylene Storage Tank	-	-	-	5/29/2024	-	Visibly empty, no evidence of liquids, no odors, 0ppm PID and 0% LEL reading, slight rust build up on bottom.	Proceed with decommissioning, monitor any low spots for the presents of liquids or solids.
D	Tank 12	Vertical Cylinder	50ft Diameter by 32ft Tall	470,000	Fire Protection Water (not process water)	-	-	-	5/29/2024	-	Unable to view inside using a 2-inch hole about 3-inch from base. 0ppm PID and 0% LEL readings, no observed odors, using string and weight to check for contents. Tank assumed empty.	Proceed with decommissioning, monitor any low spots for the presents of liquids or solids.

Table 1
ASTs Summary
3821 River Road, Inc.
Town of Tonawanda, New York

Area Designation	Tank Designation	Type	Dimensions	Approximate Storage Volume (Gallons)	Information based on historical documents or tank labels	Sample ID	Data Table Reference	Requested Analysis Unable to be Completed by Laboratory	Inspection Date	Sample Date	Content Observation	Action Notes
Tank Pads (Pad Only) (Former Tank Locations)	Pads											
-	Pad 1	Round Pad	82ft Diameter	-	300,000 Cubic ft. Gas Holder							
-	Pad 2	Round Pad	22ft Diameter	-	Not located on historic figures, visible on historical aerials prior to 1983							These are believed to be related to the 915003C site, where the tanks were identified as coal tar storage tanks formerly used by the Allied Barret Division for storage of coal tar used for paving.
-	Pad 3	Round Pad	22ft Diameter	-								
-	Pad 4	Round Pad	22ft Diameter	-								
-	Pad 5	Round Pad	49ft Diameter	-								
	Notes:											
	ft: Feet											
	1. Unable to collect adequate contents from Tank 1 and 2 for sample analysis.											
	2. Samples that were unable to be analyzed for TCLP analysis were analyzed for Totals analysis.											
	3. Tank Pads will be investigated under a separate IRM Work Plan.											

Table 2
Tank Management & Closure Work Plan
Tank 3
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST03-06122024	
		LAB ID:	L2433109-01	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 3	
		SAMPLE MATRIX:	LIQUID/OIL	
		UNIT		
VOLATILE ORGANICS BY GC/MS				
1,1,1-Trichloroethane		mg/Kg	<0.083	U
1,1,2,2-Tetrachloroethane		mg/Kg	<0.082	U
1,1,2-Trichloroethane		mg/Kg	<0.13	U
1,1-Dichloroethane		mg/Kg	<0.072	U
1,1-Dichloroethene		mg/Kg	<0.12	U
1,2,3-Trichlorobenzene		mg/Kg	<0.16	U
1,2,4-Trichlorobenzene		mg/Kg	<0.13	U
1,2,4-Trimethylbenzene		mg/Kg	<0.16	U
1,2-Dibromo-3-chloropropane		mg/Kg	<0.49	U
1,2-Dibromoethane		mg/Kg	<0.14	U
1,2-Dichlorobenzene		mg/Kg	<0.071	U
1,2-Dichloroethane		mg/Kg	<0.13	U
1,2-Dichloroethene, Total		mg/Kg	<0.068	U
1,2-Dichloropropane		mg/Kg	<0.062	U
1,3,5-Trimethylbenzene		mg/Kg	<0.096	U
1,3-Dichlorobenzene		mg/Kg	<0.073	U
1,3-Dichloropropene, Total		mg/Kg	<0.078	U
1,4-Dichlorobenzene		mg/Kg	<0.085	U
1,4-Dioxane		mg/Kg	<17	U
2-Butanone		mg/Kg	<1.1	U
2-Hexanone		mg/Kg	<0.58	U
4-Methyl-2-pentanone		mg/Kg	<0.63	U
Acetone		mg/Kg	<2.4	U
Benzene		mg/Kg	<0.082	U
Bromochloromethane		mg/Kg	<0.1	U
Bromodichloromethane		mg/Kg	<0.054	U
Bromoform		mg/Kg	<0.12	U
Bromomethane		mg/Kg	<0.29	U
Carbon disulfide		mg/Kg	<2.2	U
Carbon tetrachloride		mg/Kg	<0.11	U
Chlorobenzene		mg/Kg	<0.063	U
Chloroethane		mg/Kg	<0.22	U
Chloroform		mg/Kg	<0.069	U
Chloromethane		mg/Kg	<0.46	U
cis-1,2-Dichloroethene		mg/Kg	<0.087	U
cis-1,3-Dichloropropene		mg/Kg	<0.078	U
Cyclohexane		mg/Kg	<0.27	U
Dibromochloromethane		mg/Kg	<0.069	U
Dichlorodifluoromethane		mg/Kg	<0.45	U
Ethylbenzene		mg/Kg	<0.07	U
Freon-113		mg/Kg	<0.34	U
Isopropylbenzene		mg/Kg	<0.054	U
Methyl Acetate		mg/Kg	<0.47	U
Methyl cyclohexane		mg/Kg	<0.3	U
Methyl tert butyl ether		mg/Kg	<0.1	U
Methylene chloride		mg/Kg	<1.1	U

Table 2
Tank Management & Closure Work Plan
Tank 3
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST03-06122024	
		LAB ID:	L2433109-01	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 3	
		SAMPLE MATRIX:	LIQUID/OIL	
		UNIT		
n-Butylbenzene		mg/Kg	<0.083	U
n-Propylbenzene		mg/Kg	<0.085	U
Naphthalene		mg/Kg	<0.32	U
o-Xylene		mg/Kg	<0.14	U
p-Isopropyltoluene		mg/Kg	<0.054	U
p/m-Xylene		mg/Kg	<0.28	U
sec-Butylbenzene		mg/Kg	<0.072	U
Styrene		mg/Kg	<0.097	U
tert-Butylbenzene		mg/Kg	<0.058	U
Tetrachloroethene		mg/Kg	<0.097	U
Toluene		mg/Kg	<0.27	U
trans-1,2-Dichloroethene		mg/Kg	<0.068	U
trans-1,3-Dichloropropene		mg/Kg	<0.14	U
Trichloroethene		mg/Kg	<0.068	U
Trichlorofluoromethane		mg/Kg	<0.34	U
Vinyl chloride		mg/Kg	<0.16	U
Xylenes, Total		mg/Kg	<0.14	U
Total VOCs		mg/Kg	-	-
SEMIVOLATILE ORGANICS BY GC/MS				
1,2,4,5-Tetrachlorobenzene		mg/Kg	NA	
2,3,4,6-Tetrachlorophenol		mg/Kg	NA	
2,4,5-Trichlorophenol		mg/Kg	NA	
2,4,6-Trichlorophenol		mg/Kg	NA	
2,4-Dichlorophenol		mg/Kg	NA	
2,4-Dimethylphenol		mg/Kg	NA	
2,4-Dinitrophenol		mg/Kg	NA	
2,4-Dinitrotoluene		mg/Kg	NA	
2,6-Dinitrotoluene		mg/Kg	NA	
2-Chloronaphthalene		mg/Kg	NA	
2-Chlorophenol		mg/Kg	NA	
2-Methylnaphthalene		mg/Kg	NA	
2-Methylphenol		mg/Kg	NA	
2-Nitroaniline		mg/Kg	NA	
2-Nitrophenol		mg/Kg	NA	
3,3'-Dichlorobenzidine		mg/Kg	NA	
3-Methylphenol/4-Methylphenol		mg/Kg	NA	
3-Nitroaniline		mg/Kg	NA	
4,6-Dinitro-o-cresol		mg/Kg	NA	
4-Bromophenyl phenyl ether		mg/Kg	NA	
4-Chloroaniline		mg/Kg	NA	
4-Chlorophenyl phenyl ether		mg/Kg	NA	
4-Nitroaniline		mg/Kg	NA	
4-Nitrophenol		mg/Kg	NA	
Acenaphthene		mg/Kg	NA	
Acenaphthylene		mg/Kg	NA	
Acetophenone		mg/Kg	NA	
Anthracene		mg/Kg	NA	

Table 2
Tank Management & Closure Work Plan
Tank 3
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST03-06122024	
		LAB ID:	L2433109-01	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 3	
		SAMPLE MATRIX:	LIQUID/OIL	
		UNIT		
Atrazine		mg/Kg	NA	
Benzaldehyde		mg/Kg	NA	
Benzo(a)anthracene		mg/Kg	NA	
Benzo(a)pyrene		mg/Kg	NA	
Benzo(b)fluoranthene		mg/Kg	NA	
Benzo(ghi)perylene		mg/Kg	NA	
Benzo(k)fluoranthene		mg/Kg	NA	

Table 2
Tank Management & Closure Work Plan
Tank 3
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST03-06122024	
		LAB ID:	L2433109-01	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 3	
		SAMPLE MATRIX:	LIQUID/OIL	
		UNIT		
Biphenyl		mg/Kg	NA	
Bis(2-chloroethoxy)methane		mg/Kg	NA	
Bis(2-chloroethyl)ether		mg/Kg	NA	
Bis(2-chloroisopropyl)ether		mg/Kg	NA	
Bis(2-ethylhexyl)phthalate		mg/Kg	NA	
Butyl benzyl phthalate		mg/Kg	NA	
Caprolactam		mg/Kg	NA	
Carbazole		mg/Kg	NA	
Chrysene		mg/Kg	NA	
Di-n-butylphthalate		mg/Kg	NA	
Di-n-octylphthalate		mg/Kg	NA	
Dibenzo(a,h)anthracene		mg/Kg	NA	
Dibenzofuran		mg/Kg	NA	
Diethyl phthalate		mg/Kg	NA	
Dimethyl phthalate		mg/Kg	NA	
Fluoranthene		mg/Kg	NA	
Fluorene		mg/Kg	NA	
Hexachlorobenzene		mg/Kg	NA	
Hexachlorobutadiene		mg/Kg	NA	
Hexachlorocyclopentadiene		mg/Kg	NA	
Hexachloroethane		mg/Kg	NA	
Indeno(1,2,3-cd)pyrene		mg/Kg	NA	
Isophorone		mg/Kg	NA	
n-Nitrosodi-n-propylamine		mg/Kg	NA	
Naphthalene		mg/Kg	NA	
NDPA/DPA		mg/Kg	NA	
Nitrobenzene		mg/Kg	NA	
p-Chloro-m-cresol		mg/Kg	NA	
Pentachlorophenol		mg/Kg	NA	
Phenanthrene		mg/Kg	NA	
Phenol		mg/Kg	NA	
Pyrene		mg/Kg	NA	
Total SVOCs		mg/Kg	NA	
TOTAL METALS				
Aluminum, Total		mg/L	<3.18	U
Antimony, Total		mg/L	**1.54**	J
Arsenic, Total		mg/L	<0.190	U
Barium, Total		mg/L	<0.210	U
Beryllium, Total		mg/L	<0.0900	U
Cadmium, Total		mg/L	<0.100	U
Calcium, Total		mg/L	**5.21**	J
Chromium, Total		mg/L	<0.210	U
Cobalt, Total		mg/L	<0.170	U
Copper, Total		mg/L	**1.17**	
Iron, Total		mg/L	**80.5**	
Lead, Total		mg/L	**1.91**	

Table 2
Tank Management & Closure Work Plan
Tank 3
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST03-06122024	
		LAB ID:	L2433109-01	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 3	
		SAMPLE MATRIX:	LIQUID/OIL	
		UNIT		
Magnesium, Total		mg/L	<1.53	U
Manganese, Total		mg/L	**0.892**	J
Mercury, Total		mg/L	**0.05625**	
Nickel, Total		mg/L	<0.240	U
Potassium, Total		mg/L	**38.6**	J
Selenium, Total		mg/L	<0.350	U
Silver, Total		mg/L	<0.280	U
Sodium, Total		mg/L	**47300**	
Thallium, Total		mg/L	<0.250	U
Vanadium, Total		mg/L	<0.200	U
Zinc, Total		mg/L	**0.226**	J
POLYCHLORINATED BIPHENYLS BY GC				
Aroclor 1016		mg/L	<0.372	U
Aroclor 1221		mg/L	<0.372	U
Aroclor 1232		mg/L	<0.372	U
Aroclor 1242		mg/L	<0.372	U
Aroclor 1248		mg/L	<0.372	U
Aroclor 1254		mg/L	<0.372	U
Aroclor 1260		mg/L	<0.372	U
Aroclor 1262		mg/L	<0.372	U
Aroclor 1268		mg/L	<0.372	U
PCBs, Total		mg/L	<0.372	U
GENERAL CHEMISTRY				
Chromium, Hexavalent		mg/Kg	<0.16	U
Cyanide, Reactive		mg/Kg	<10	U
Cyanide, Total		mg/Kg	<0.22	U
Flash Point	<100	deg F	>150	
Nitrogen, Ammonia		mg/Kg	**9.6**	
pH (H)	<=2, >=12.5	SU	**10.4**	
Sulfide, Reactive		mg/Kg	<10	U
BTU/Lb ASTM D240/ASTM D5865				
BTU/Lb		BTU/Lb	<500	
TCLP VOLATILES BY EPA 1311				
1,1-Dichloroethene	0.7	mg/L	<0.0017	U
1,2-Dichloroethane	0.5	mg/L	<0.0013	U
1,4-Dichlorobenzene	7.5	mg/L	<0.0019	U
2-Butanone	200	mg/L	<0.019	U
Benzene	0.5	mg/L	<0.0016	U
Carbon tetrachloride	0.5	mg/L	<0.0013	U
Chlorobenzene	100	mg/L	<0.0018	U
Chloroform	6	mg/L	<0.0022	U
Tetrachloroethene	0.7	mg/L	<0.0018	U
Trichloroethene	0.5	mg/L	<0.0018	U

Table 2
Tank Management & Closure Work Plan
Tank 3
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST03-06122024	
		LAB ID:	L2433109-01	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 3	
		SAMPLE MATRIX:	LIQUID/OIL	
		UNIT		
Vinyl chloride	0.2	mg/L	<0.00071	U
SUM	-	mg/L	-	-
TCLP SEMIVOLATILES BY EPA 1311				
2,4,5-Trichlorophenol	400	mg/L	<0.0038	U
2,4,6-Trichlorophenol	2	mg/L	<0.0049	U
2,4-Dinitrotoluene	0.13	mg/L	<0.0038	U
2-Methylphenol	200	mg/L	<0.011	U
3-Methylphenol/4-Methylphenol	200	mg/L	<0.0055	U
Hexachlorobenzene	0.13	mg/L	<0.0069	U
Hexachlorobutadiene	0.5	mg/L	<0.0060	U
Hexachloroethane	3	mg/L	<0.0044	U
Nitrobenzene	2	mg/L	<0.0066	U
Pentachlorophenol	100	mg/L	**0.062**	J
Pyridine	5	mg/L	<0.0090	U
SUM	-	mg/L	**0.062**	J
TCLP METALS BY EPA 1311				
Arsenic, TCLP	5	mg/L	<0.190	U
Barium, TCLP	100	mg/L	<0.210	U
Cadmium, TCLP	1	mg/L	<0.100	U
Chromium, TCLP	5	mg/L	<0.210	U
Lead, TCLP	5	mg/L	<0.270	U
Mercury, TCLP	0.2	mg/L	**0.0191**	
Selenium, TCLP	1	mg/L	<0.350	U
Silver, TCLP	5	mg/L	<0.280	U
TCLP HERBICIDES BY EPA 1311				
2,4,5-TP (Silvex)	1	mg/L	<0.003	U
2,4-D	10	mg/L	<0.002	U

Table 3
Tank Management Closure Work Plan
Tank 4
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST04-06122024	
		LAB ID:	L2433109-02	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 4	
		SAMPLE MATRIX:	OIL	
		UNIT		
VOLATILE ORGANICS BY GC/MS				
1,1,1-Trichloroethane		mg/Kg	<0.08	U
1,1,2,2-Tetrachloroethane		mg/Kg	<0.08	U
1,1,2-Trichloroethane		mg/Kg	<0.13	U
1,1-Dichloroethane		mg/Kg	<0.07	U
1,1-Dichloroethene		mg/Kg	<0.11	U
1,2,3-Trichlorobenzene		mg/Kg	<0.15	U
1,2,4-Trichlorobenzene		mg/Kg	<0.13	U
1,2,4-Trimethylbenzene		mg/Kg	**0.25**	J
1,2-Dibromo-3-chloropropane		mg/Kg	<0.48	U
1,2-Dibromoethane		mg/Kg	<0.13	U
1,2-Dichlorobenzene		mg/Kg	<0.069	U
1,2-Dichloroethane		mg/Kg	<0.12	U
1,2-Dichloroethene, Total		mg/Kg	<0.066	U
1,2-Dichloropropane		mg/Kg	<0.06	U
1,3,5-Trimethylbenzene		mg/Kg	<0.093	U
1,3-Dichlorobenzene		mg/Kg	<0.071	U
1,3-Dichloropropene, Total		mg/Kg	<0.076	U
1,4-Dichlorobenzene		mg/Kg	<0.082	U
1,4-Dioxane		mg/Kg	<17	U
2-Butanone		mg/Kg	<1.1	U
2-Hexanone		mg/Kg	<0.57	U
4-Methyl-2-pentanone		mg/Kg	<0.62	U
Acetone		mg/Kg	<2.3	U
Benzene		mg/Kg	<0.08	U
Bromochloromethane		mg/Kg	<0.098	U
Bromodichloromethane		mg/Kg	<0.052	U
Bromoform		mg/Kg	<0.12	U
Bromomethane		mg/Kg	<0.28	U
Carbon disulfide		mg/Kg	<2.2	U
Carbon tetrachloride		mg/Kg	<0.11	U
Chlorobenzene		mg/Kg	<0.061	U
Chloroethane		mg/Kg	<0.22	U
Chloroform		mg/Kg	<0.067	U
Chloromethane		mg/Kg	<0.45	U
cis-1,2-Dichloroethene		mg/Kg	<0.084	U
cis-1,3-Dichloropropene		mg/Kg	<0.076	U
Cyclohexane		mg/Kg	<0.26	U
Dibromochloromethane		mg/Kg	<0.067	U
Dichlorodifluoromethane		mg/Kg	<0.44	U
Ethylbenzene		mg/Kg	<0.068	U
Freon-113		mg/Kg	<0.33	U
Isopropylbenzene		mg/Kg	<0.052	U
Methyl Acetate		mg/Kg	<0.46	U
Methyl cyclohexane		mg/Kg	<0.29	U
Methyl tert butyl ether		mg/Kg	<0.097	U
Methylene chloride		mg/Kg	<1.1	U

Table 3
Tank Management Closure Work Plan
Tank 4
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST04-06122024	
		LAB ID:	L2433109-02	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 4	
		SAMPLE MATRIX:	OIL	
		UNIT		
n-Butylbenzene		mg/Kg	<0.08	U
n-Propylbenzene		mg/Kg	<0.082	U
Naphthalene		mg/Kg	**3.9**	
o-Xylene		mg/Kg	<0.14	U
p-Isopropyltoluene		mg/Kg	<0.052	U
p/m-Xylene		mg/Kg	<0.27	U
sec-Butylbenzene		mg/Kg	<0.07	U
Styrene		mg/Kg	<0.094	U
tert-Butylbenzene		mg/Kg	<0.057	U
Tetrachloroethene		mg/Kg	<0.094	U
Toluene		mg/Kg	<0.26	U
trans-1,2-Dichloroethene		mg/Kg	<0.066	U
trans-1,3-Dichloropropene		mg/Kg	<0.13	U
Trichloroethene		mg/Kg	<0.066	U
Trichlorofluoromethane		mg/Kg	<0.33	U
Vinyl chloride		mg/Kg	<0.16	U
Xylenes, Total		mg/Kg	<0.14	U
Total VOCs		mg/Kg	**4.15**	-
SEMIVOLATILE ORGANICS BY GC/MS				
1,2,4,5-Tetrachlorobenzene		mg/Kg	<3.2	U
2,3,4,6-Tetrachlorophenol		mg/Kg	<6.2	U
2,4,5-Trichlorophenol		mg/Kg	<5.9	U
2,4,6-Trichlorophenol		mg/Kg	<5.9	U
2,4-Dichlorophenol		mg/Kg	<5	U
2,4-Dimethylphenol		mg/Kg	<10	U
2,4-Dinitrophenol		mg/Kg	<14	U
2,4-Dinitrotoluene		mg/Kg	<6.2	U
2,6-Dinitrotoluene		mg/Kg	<5.3	U
2-Chloronaphthalene		mg/Kg	<3.1	U
2-Chlorophenol		mg/Kg	<3.6	U
2-Methylnaphthalene		mg/Kg	**5900**	
2-Methylphenol		mg/Kg	<4.8	U
2-Nitroaniline		mg/Kg	<6	U
2-Nitrophenol		mg/Kg	<12	U
3,3'-Dichlorobenzidine		mg/Kg	<8.2	U
3-Methylphenol/4-Methylphenol		mg/Kg	<4.8	U
3-Nitroaniline		mg/Kg	<5.8	U
4,6-Dinitro-o-cresol		mg/Kg	<15	U
4-Bromophenyl phenyl ether		mg/Kg	<4.7	U
4-Chloroaniline		mg/Kg	<5.6	U
4-Chlorophenyl phenyl ether		mg/Kg	<3.3	U
4-Nitroaniline		mg/Kg	<13	U
4-Nitrophenol		mg/Kg	<13	U
Acenaphthene		mg/Kg	**230**	
Acenaphthylene		mg/Kg	<4.8	U
Acetophenone		mg/Kg	<3.8	U

Table 3
Tank Management Closure Work Plan
Tank 4
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST04-06122024	
		LAB ID:	L2433109-02	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 4	
		SAMPLE MATRIX:	OIL	
		UNIT		
Anthracene		mg/Kg	**110**	
Atrazine		mg/Kg	<11	U
Benzaldehyde		mg/Kg	<8.4	U
Benzo(a)anthracene		mg/Kg	**5.8**	J
Benzo(a)pyrene		mg/Kg	<7.6	U
Benzo(b)fluoranthene		mg/Kg	<5.2	U
Benzo(ghi)perylene		mg/Kg	<3.6	U
Benzo(k)fluoranthene		mg/Kg	<5	U
Biphenyl		mg/Kg	**60**	J
Bis(2-chloroethoxy)methane		mg/Kg	<3.1	U
Bis(2-chloroethyl)ether		mg/Kg	<4.2	U
Bis(2-chloroisopropyl)ether		mg/Kg	<5.3	U
Bis(2-ethylhexyl)phthalate		mg/Kg	<11	U
Butyl benzyl phthalate		mg/Kg	<7.8	U
Caprolactam		mg/Kg	<9.4	U
Carbazole		mg/Kg	<3	U
Chrysene		mg/Kg	**7.8**	J
Di-n-butylphthalate		mg/Kg	<5.9	U
Di-n-octylphthalate		mg/Kg	<10	U
Dibenzo(a,h)anthracene		mg/Kg	<3.6	U
Dibenzofuran		mg/Kg	**110**	
Diethyl phthalate		mg/Kg	<2.9	U
Dimethyl phthalate		mg/Kg	<6.5	U
Fluoranthene		mg/Kg	**24**	
Fluorene		mg/Kg	**220**	
Hexachlorobenzene		mg/Kg	<3.5	U
Hexachlorobutadiene		mg/Kg	<4.5	U
Hexachlorocyclopentadiene		mg/Kg	<28	U
Hexachloroethane		mg/Kg	<5	U
Indeno(1,2,3-cd)pyrene		mg/Kg	<4.3	U
Isophorone		mg/Kg	<4	U
n-Nitrosodi-n-propylamine		mg/Kg	<4.8	U
Naphthalene		mg/Kg	**530**	
NDPA/DPA		mg/Kg	<3.5	U
Nitrobenzene		mg/Kg	<4.6	U
p-Chloro-m-cresol		mg/Kg	<4.6	U
Pentachlorophenol		mg/Kg	<6.8	U
Phenanthrene		mg/Kg	**710**	
Phenol		mg/Kg	<4.7	U
Pyrene		mg/Kg	**90**	
Total SVOCs		mg/Kg	**7997.6**	-

Table 3
Tank Management Closure Work Plan
Tank 4
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST04-06122024	
		LAB ID:	L2433109-02	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 4	
		SAMPLE MATRIX:	OIL	
		UNIT		
TOTAL METALS				
Aluminum, Total		mg/Kg	<38.6	U
Antimony, Total		mg/Kg	<5.43	U
Arsenic, Total		mg/Kg	<2.97	U
Barium, Total		mg/Kg	<2.48	U
Beryllium, Total		mg/Kg	<0.471	U
Cadmium, Total		mg/Kg	<1.4	U
Calcium, Total		mg/Kg	<50	U
Chromium, Total		mg/Kg	<1.37	U
Cobalt, Total		mg/Kg	<2.37	U
Copper, Total		mg/Kg	**10.8**	J
Iron, Total		mg/Kg	**6990**	
Lead, Total		mg/Kg	<3.83	U
Magnesium, Total		mg/Kg	<22	U
Manganese, Total		mg/Kg	**20.3**	
Mercury, Total		mg/Kg	<0.051	U
Nickel, Total		mg/Kg	<3.46	U
Potassium, Total		mg/Kg	<206	U
Selenium, Total		mg/Kg	<3.68	U
Silver, Total		mg/Kg	<4.04	U
Sodium, Total		mg/Kg	**76.5**	J
Thallium, Total		mg/Kg	<4.5	U
Vanadium, Total		mg/Kg	<2.9	U
Zinc, Total		mg/Kg	<4.18	U
CHLORINATED HERBICIDES BY GC				
2,4,5-T		mg/Kg	<0.0584	U
2,4,5-TP (Silvex)		mg/Kg	<0.0584	U
2,4-D		mg/Kg	<0.117	U
ORGANOCHLORINE PESTICIDES BY GC				
4,4'-DDD		mg/Kg	<0.00598	U
4,4'-DDE		mg/Kg	<0.00387	U
4,4'-DDT		mg/Kg	<0.0135	U
Aldrin		mg/Kg	<0.0059	U
Alpha-BHC		mg/Kg	<0.00198	U
Beta-BHC		mg/Kg	<0.00635	U
Chlordane		mg/Kg	<0.0555	U
cis-Chlordane		mg/Kg	<0.00584	U
Delta-BHC		mg/Kg	<0.00328	U
Dieldrin		mg/Kg	<0.00524	U
Endosulfan I		mg/Kg	<0.00396	U
Endosulfan II		mg/Kg	<0.0056	U
Endosulfan sulfate		mg/Kg	<0.00332	U
Endrin		mg/Kg	<0.00286	U
Endrin aldehyde		mg/Kg	<0.00733	U
Endrin ketone		mg/Kg	<0.00431	U
Heptachlor		mg/Kg	<0.00376	U

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Tank 4
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST04-06122024	
		LAB ID:	L2433109-02	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 4	
		SAMPLE MATRIX:	OIL	
		UNIT		
Heptachlor epoxide		mg/Kg	<0.00942	U
Lindane		mg/Kg	<0.00312	U
Methoxychlor		mg/Kg	<0.00977	U
Toxaphene		mg/Kg	<0.088	U
trans-Chlordane		mg/Kg	<0.00553	U
POLYCHLORINATED BIPHENYLS BY GC				
Aroclor 1016		mg/Kg	<0.262	U
Aroclor 1221		mg/Kg	<0.296	U
Aroclor 1232		mg/Kg	<0.626	U
Aroclor 1242		mg/Kg	<0.398	U
Aroclor 1248		mg/Kg	<0.443	U
Aroclor 1254		mg/Kg	<0.323	U
Aroclor 1260		mg/Kg	<0.546	U
Aroclor 1262		mg/Kg	<0.375	U
Aroclor 1268		mg/Kg	<0.306	U
PCBs, Total		mg/Kg	<0.262	U
GENERAL CHEMISTRY				
Chromium, Hexavalent		mg/Kg	<0.16	U
Cyanide, Reactive		mg/Kg	<10	U
Cyanide, Total		mg/Kg	<0.22	U
Flash Point	<100	deg F	>150	
Nitrogen, Ammonia		mg/Kg	<0.05	U
pH (H)	<=2, >=12.5	SU	**6.31**	
Sulfide, Reactive		mg/KG	<10	U

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ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST04-06122024	
		LAB ID:	L2433109-02	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 4	
		SAMPLE MATRIX:	OIL	
		UNIT		
BTU/Lb ASTM D240/ASTM D5865				
BTU/Lb		BTU/Lb	**18683**	
TCLP VOLATILES BY EPA 1311				
1,1-Dichloroethene	0.7	mg/L	NA	
1,2-Dichloroethane	0.5	mg/L	NA	
1,4-Dichlorobenzene	7.5	mg/L	NA	
2-Butanone	200	mg/L	NA	
Benzene	0.5	mg/L	NA	
Carbon tetrachloride	0.5	mg/L	NA	
Chlorobenzene	100	mg/L	NA	
Chloroform	6	mg/L	NA	
Tetrachloroethene	0.7	mg/L	NA	
Trichloroethene	0.5	mg/L	NA	
Vinyl chloride	0.2	mg/L	NA	
SUM		mg/L	NA	
TCLP SEMIVOLATILES BY EPA 1311				
2,4,5-Trichlorophenol	400	mg/L	NA	
2,4,6-Trichlorophenol	2	mg/L	NA	
2,4-Dinitrotoluene	0.13	mg/L	NA	
2-Methylphenol	200	mg/L	NA	
3-Methylphenol/4-Methylphenol	200	mg/L	NA	
Hexachlorobenzene	0.13	mg/L	NA	
Hexachlorobutadiene	0.5	mg/L	NA	
Hexachloroethane	3	mg/L	NA	
Nitrobenzene	2	mg/L	NA	
Pentachlorophenol	100	mg/L	NA	
Pyridine	5	mg/L	NA	
SUM		mg/L	NA	
TCLP METALS BY EPA 1311				
Arsenic, TCLP	5	mg/L	<0.0475	U
Barium, TCLP	100	mg/L	<0.0525	U
Cadmium, TCLP	1	mg/L	<0.025	U
Chromium, TCLP	5	mg/L	<0.0525	U
Lead, TCLP	5	mg/L	<0.0675	U
Mercury, TCLP	0.2	mg/L	<0.0092	U
Selenium, TCLP	1	mg/L	<0.0875	U
Silver, TCLP	5	mg/L	<0.07	U
TCLP HERBICIDES BY EPA 1311				
2,4,5-TP (Silvex)	1	mg/L	NA	
2,4-D	10	mg/L	NA	

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Tank Management Closure Work Plan
Tank 4
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ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST04-06122024	
		LAB ID:	L2433109-02	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 4	
		SAMPLE MATRIX:	OIL	
		UNIT		
TCLP PESTICIDES BY EPA 1311				
Chlordane	0.03	mg/L	NA	
Endrin	0.02	mg/L	NA	
Heptachlor	0.008	mg/L	NA	
Heptachlor epoxide	0.008	mg/L	NA	
Lindane	0.4	mg/L	NA	
Methoxychlor	10	mg/L	NA	
Toxaphene	0.5	mg/L	NA	

* Comparison is not performed on parameters with non-numeric criteria.

EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.
BTU/Lb analysis done by Sterling Analytical

Notes:
NS = Not Sampled
NA = Sampled, but not analyzed by laboratory due to matrix interference
"<" = Analyzed for but detected at or above the quantitation limit
J = Estimated value; analyte detected below quantitation limit, but above method detection limit
Bold = Analyte was detected
Red Highlight = Analyte concentration exceeds HAZCAT limits

Table 4
Tank Management Closure Work Plan
Tank 5
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST05-06122024	
		LAB ID:	L2433109-03	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 5	
		SAMPLE MATRIX:	SLUDGE	
		UNIT		
VOLATILE ORGANICS BY GC/MS				
1,1,1-Trichloroethane		mg/Kg	<0.025	U
1,1,2,2-Tetrachloroethane		mg/Kg	<0.025	U
1,1,2-Trichloroethane		mg/Kg	<0.04	U
1,1-Dichloroethane		mg/Kg	<0.022	U
1,1-Dichloroethene		mg/Kg	<0.036	U
1,2,3-Trichlorobenzene		mg/Kg	<0.048	U
1,2,4-Trichlorobenzene		mg/Kg	<0.041	U
1,2,4-Trimethylbenzene		mg/Kg	**0.2**	J
1,2-Dibromo-3-chloropropane		mg/Kg	<0.15	U
1,2-Dibromoethane		mg/Kg	<0.042	U
1,2-Dichlorobenzene		mg/Kg	<0.022	U
1,2-Dichloroethane		mg/Kg	<0.038	U
1,2-Dichloroethene, Total		mg/Kg	<0.02	U
1,2-Dichloropropane		mg/Kg	<0.019	U
1,3,5-Trimethylbenzene		mg/Kg	**0.06**	J
1,3-Dichlorobenzene		mg/Kg	<0.022	U
1,3-Dichloropropene, Total		mg/Kg	<0.024	U
1,4-Dichlorobenzene		mg/Kg	<0.026	U
1,4-Dioxane		mg/Kg	<5.3	U
2-Butanone		mg/Kg	**20**	
2-Hexanone		mg/Kg	**40**	
4-Methyl-2-pentanone		mg/Kg	<0.19	U
Acetone		mg/Kg	**27**	
Benzene		mg/Kg	<0.025	U
Bromochloromethane		mg/Kg	<0.031	U
Bromodichloromethane		mg/Kg	<0.016	U
Bromoform		mg/Kg	<0.037	U
Bromomethane		mg/Kg	<0.087	U
Carbon disulfide		mg/Kg	<0.68	U
Carbon tetrachloride		mg/Kg	<0.034	U
Chlorobenzene		mg/Kg	<0.019	U
Chloroethane		mg/Kg	<0.068	U
Chloroform		mg/Kg	<0.021	U
Chloromethane		mg/Kg	<0.14	U
cis-1,2-Dichloroethene		mg/Kg	<0.026	U
cis-1,3-Dichloropropene		mg/Kg	<0.024	U
Cyclohexane		mg/Kg	<0.082	U
Dibromochloromethane		mg/Kg	<0.021	U
Dichlorodifluoromethane		mg/Kg	<0.14	U
Ethylbenzene		mg/Kg	**0.14**	J
Freon-113		mg/Kg	<0.1	U
Isopropylbenzene		mg/Kg	**0.34**	
Methyl Acetate		mg/Kg	**2.7**	
Methyl cyclohexane		mg/Kg	<0.09	U
Methyl tert butyl ether		mg/Kg	<0.03	U
Methylene chloride		mg/Kg	<0.34	U

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Tank 5
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST05-06122024	
		LAB ID:	L2433109-03	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 5	
		SAMPLE MATRIX:	SLUDGE	
		UNIT		
n-Butylbenzene		mg/Kg	<0.025	U
n-Propylbenzene		mg/Kg	**0.038**	J
Naphthalene		mg/Kg	**0.27**	J
o-Xylene		mg/Kg	**0.074**	J
p-Isopropyltoluene		mg/Kg	<0.016	U
p/m-Xylene		mg/Kg	**0.47**	
sec-Butylbenzene		mg/Kg	<0.022	U
Styrene		mg/Kg	<0.029	U
tert-Butylbenzene		mg/Kg	<0.018	U
Tetrachloroethene		mg/Kg	<0.029	U
Toluene		mg/Kg	<0.081	U
trans-1,2-Dichloroethene		mg/Kg	<0.02	U
trans-1,3-Dichloropropene		mg/Kg	<0.041	U
Trichloroethene		mg/Kg	<0.02	U
Trichlorofluoromethane		mg/Kg	<0.1	U
Vinyl chloride		mg/Kg	<0.05	U
Xylenes, Total		mg/Kg	**0.54**	J
Total VOCs		mg/Kg	**91.292**	-
SEMIVOLATILE ORGANICS BY GC/MS				
1,2,4,5-Tetrachlorobenzene		mg/Kg	<7.2	U
2,3,4,6-Tetrachlorophenol		mg/Kg	<14	U
2,4,5-Trichlorophenol		mg/Kg	<13	U
2,4,6-Trichlorophenol		mg/Kg	<13	U
2,4-Dichlorophenol		mg/Kg	<11	U
2,4-Dimethylphenol		mg/Kg	<23	U
2,4-Dinitrophenol		mg/Kg	<32	U
2,4-Dinitrotoluene		mg/Kg	<14	U
2,6-Dinitrotoluene		mg/Kg	<12	U
2-Chloronaphthalene		mg/Kg	<6.9	U
2-Chlorophenol		mg/Kg	<8.2	U
2-Methylnaphthalene		mg/Kg	<8.4	U
2-Methylphenol		mg/Kg	<11	U
2-Nitroaniline		mg/Kg	<13	U
2-Nitrophenol		mg/Kg	<26	U
3,3'-Dichlorobenzidine		mg/Kg	<18	U
3-Methylphenol/4-Methylphenol		mg/Kg	<11	U
3-Nitroaniline		mg/Kg	<13	U
4,6-Dinitro-o-cresol		mg/Kg	<33	U
4-Bromophenyl phenyl ether		mg/Kg	<11	U
4-Chloroaniline		mg/Kg	<13	U
4-Chlorophenyl phenyl ether		mg/Kg	<7.4	U
4-Nitroaniline		mg/Kg	<29	U
4-Nitrophenol		mg/Kg	<28	U
Acenaphthene		mg/Kg	<7.2	U
Acenaphthylene		mg/Kg	<11	U
Acetophenone		mg/Kg	<8.6	U

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Tank 5
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Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST05-06122024	
		LAB ID:	L2433109-03	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 5	
		SAMPLE MATRIX:	SLUDGE	
		UNIT		
Anthracene		mg/Kg	<14	U
Atrazine		mg/Kg	<24	U
Benzaldehyde		mg/Kg	<19	U
Benzo(a)anthracene		mg/Kg	<7.8	U
Benzo(a)pyrene		mg/Kg	<17	U
Benzo(b)fluoranthene		mg/Kg	<12	U
Benzo(ghi)perylene		mg/Kg	<8.2	U
Benzo(k)fluoranthene		mg/Kg	<11	U
Biphenyl		mg/Kg	<9	U
Bis(2-chloroethoxy)methane		mg/Kg	<7	U
Bis(2-chloroethyl)ether		mg/Kg	<9.4	U
Bis(2-chloroisopropyl)ether		mg/Kg	<12	U
Bis(2-ethylhexyl)phthalate		mg/Kg	<24	U
Butyl benzyl phthalate		mg/Kg	<18	U
Caprolactam		mg/Kg	<21	U
Carbazole		mg/Kg	<6.8	U
Chrysene		mg/Kg	<7.2	U
Di-n-butylphthalate		mg/Kg	<13	U
Di-n-octylphthalate		mg/Kg	<24	U
Dibenzo(a,h)anthracene		mg/Kg	<8	U
Dibenzofuran		mg/Kg	<6.6	U
Diethyl phthalate		mg/Kg	<6.4	U
Dimethyl phthalate		mg/Kg	<14	U
Fluoranthene		mg/Kg	<8	U
Fluorene		mg/Kg	<6.8	U
Hexachlorobenzene		mg/Kg	<7.8	U
Hexachlorobutadiene		mg/Kg	<10	U
Hexachlorocyclopentadiene		mg/Kg	<63	U
Hexachloroethane		mg/Kg	<11	U
Indeno(1,2,3-cd)pyrene		mg/Kg	<9.7	U
Isophorone		mg/Kg	<9	U
n-Nitrosodi-n-propylamine		mg/Kg	<11	U
Naphthalene		mg/Kg	<8.5	U
NDPA/DPA		mg/Kg	<7.9	U
Nitrobenzene		mg/Kg	<10	U
p-Chloro-m-cresol		mg/Kg	<10	U
Pentachlorophenol		mg/Kg	<15	U
Phenanthrene		mg/Kg	<8.4	U
Phenol		mg/Kg	<10	U
Pyrene		mg/Kg	<6.9	U
Total SVOCs		mg/Kg	-	-

Table 4
Tank Management Closure Work Plan
Tank 5
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST05-06122024	
		LAB ID:	L2433109-03	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 5	
		SAMPLE MATRIX:	SLUDGE	
		UNIT		
TOTAL METALS				
Aluminum, Total		mg/Kg	**178**	
Antimony, Total		mg/Kg	**26.4**	
Arsenic, Total		mg/Kg	**9.74**	
Barium, Total		mg/Kg	**209**	
Beryllium, Total		mg/Kg	<0.138	U
Cadmium, Total		mg/Kg	**2.49**	J
Calcium, Total		mg/Kg	**1540**	
Chromium, Total		mg/Kg	**111**	
Cobalt, Total		mg/Kg	**8.63**	
Copper, Total		mg/Kg	**361**	
Iron, Total		mg/Kg	**155000**	
Lead, Total		mg/Kg	**2000**	
Magnesium, Total		mg/Kg	**437**	
Manganese, Total		mg/Kg	**590**	
Mercury, Total		mg/Kg	**0.096**	J
Nickel, Total		mg/Kg	**84.1**	
Potassium, Total		mg/Kg	<60.2	U
Selenium, Total		mg/Kg	<1.08	U
Silver, Total		mg/Kg	**1.37**	J
Sodium, Total		mg/Kg	**173**	J
Thallium, Total		mg/Kg	<1.32	U
Vanadium, Total		mg/Kg	**2.58**	J
Zinc, Total		mg/Kg	**806**	
POLYCHLORINATED BIPHENYLS BY GC				
Aroclor 1016		mg/Kg	<0.0854	U
Aroclor 1221		mg/Kg	<0.0964	U
Aroclor 1232		mg/Kg	<0.204	U
Aroclor 1242		mg/Kg	<0.13	U
Aroclor 1248		mg/Kg	<0.144	U
Aroclor 1254		mg/Kg	<0.105	U
Aroclor 1260		mg/Kg	<0.178	U
Aroclor 1262		mg/Kg	<0.122	U
Aroclor 1268		mg/Kg	<0.0996	U
PCBs, Total		mg/Kg	<0.0854	U
GENERAL CHEMISTRY				
Chromium, Hexavalent		mg/Kg	**1.35**	J
Cyanide, Reactive		mg/Kg	<10	U
Cyanide, Total		mg/Kg	<0.42	U
Nitrogen, Ammonia		mg/Kg	<5.3	U
Paint Filter Liquid		-	**Positive**	
pH (H)	<=2, >=12.5	SU	**3.79**	
Solids, Total		%	**46.5**	
Sulfide, Reactive		mg/KG	<10	U

Table 4
Tank Management Closure Work Plan
Tank 5
3821 River Road, Inc.
Tonawanda, New York

ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST05-06122024	
		LAB ID:	L2433109-03	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 5	
		SAMPLE MATRIX:	SLUDGE	
		UNIT		
BTU/Lb ASTM D240/ASTM D5865				
BTU/Lb		BTU/Lb	**11279**	
TCLP VOLATILES BY EPA 1311				
1,1-Dichloroethene	0.7	mg/L	<0.0017	U
1,2-Dichloroethane	0.5	mg/L	<0.0013	U
1,4-Dichlorobenzene	7.5	mg/L	<0.0019	U
2-Butanone	200	mg/L	**0.27**	
Benzene	0.5	mg/L	<0.0016	U
Carbon tetrachloride	0.5	mg/L	<0.0013	U
Chlorobenzene	100	mg/L	<0.0018	U
Chloroform	6	mg/L	<0.0022	U
Tetrachloroethene	0.7	mg/L	<0.0018	U
Trichloroethene	0.5	mg/L	<0.0018	U
Vinyl chloride	0.2	mg/L	<0.00071	U
SUM		mg/L	**0.27**	-
TCLP SEMIVOLATILES BY EPA 1311				
2,4,5-Trichlorophenol	400	mg/L	<0.038	U
2,4,6-Trichlorophenol	2	mg/L	<0.049	U
2,4-Dinitrotoluene	0.13	mg/L	<0.038	U
2-Methylphenol	200	mg/L	<0.11	U
3-Methylphenol/4-Methylphenol	200	mg/L	<0.055	U
Hexachlorobenzene	0.13	mg/L	<0.069	U
Hexachlorobutadiene	0.5	mg/L	<0.06	U
Hexachloroethane	3	mg/L	<0.044	U
Nitrobenzene	2	mg/L	<0.066	U
Pentachlorophenol	100	mg/L	<0.2	U
Pyridine	5	mg/L	<0.09	U
SUM		mg/L	-	-
TCLP METALS BY EPA 1311				
Arsenic, TCLP	5	mg/L	<0.019	U
Barium, TCLP	100	mg/L	**0.0352**	J
Cadmium, TCLP	1	mg/L	<0.01	U
Chromium, TCLP	5	mg/L	<0.021	U
Lead, TCLP	5	mg/L	**1.13**	
Mercury, TCLP	0.2	mg/L	<0.0005	U
Selenium, TCLP	1	mg/L	**0.0411**	J
Silver, TCLP	5	mg/L	<0.028	U
TCLP HERBICIDES BY EPA 1311				
2,4,5-TP (Silvex)	1	mg/L	<0.001	U
2,4-D	10	mg/L	<0.001	U

Table 4
Tank Management Closure Work Plan
Tank 5
3821 River Road, Inc.
Tonawanda, New York

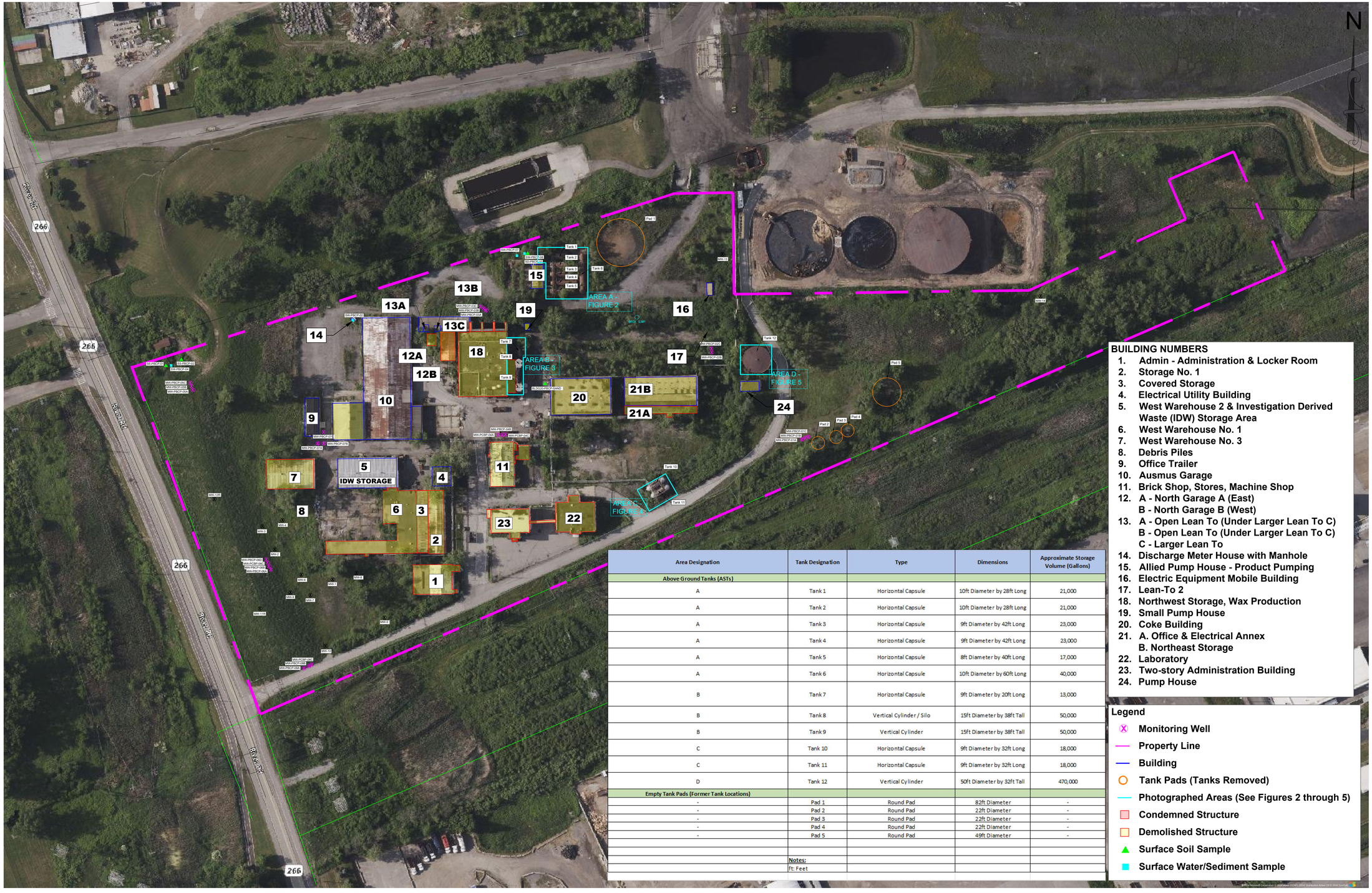
ANALYTE	EPA TCLP	SAMPLE NAME:	LQ-AST05-06122024	
		LAB ID:	L2433109-03	
		COLLECTION DATE:	6/12/2024	
		AST SAMPLED:	TANK 5	
		SAMPLE MATRIX:	SLUDGE	
		UNIT		
TCLP PESTICIDES BY EPA 1311				
Chlordane	0.03	mg/L	<0.00579	U
Endrin	0.02	mg/L	<0.000536	U
Heptachlor	0.008	mg/L	<0.000388	U
Heptachlor epoxide	0.008	mg/L	<0.000519	U
Lindane	0.4	mg/L	<0.000542	U
Methoxychlor	10	mg/L	<0.000855	U
Toxaphene	0.5	mg/L	<0.00784	U

* Comparison is not performed on parameters with non-numeric criteria.

EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.
BTU/Lb analysis done by Sterling Analytical

Notes:
NS = Not Sampled
NA = Sampled, but not analyzed by laboratory due to matrix interference
"<" = Analyzed for but detected at or above the quantitation limit
J = Estimated value; analyte detected below quantitation limit, but above method detection limit
Bold = Analyte was detected
Red Highlight = Analyte concentration exceeds HAZCAT limits

Figures



BUILDING NUMBERS

1. Admin - Administration & Locker Room
2. Storage No. 1
3. Covered Storage
4. Electrical Utility Building
5. West Warehouse 2 & Investigation Derived Waste (IDW) Storage Area
6. West Warehouse No. 1
7. West Warehouse No. 3
8. Debris Piles
9. Office Trailer
10. Ausmus Garage
11. Brick Shop, Stores, Machine Shop
12. A - North Garage A (East)
    B - North Garage B (West)
13. A - Open Lean To (Under Larger Lean To C)
    B - Open Lean To (Under Larger Lean To C)
    C - Larger Lean To
14. Discharge Meter House with Manhole
15. Allied Pump House - Product Pumping
16. Electric Equipment Mobile Building
17. Lean-To 2
18. Northwest Storage, Wax Production
19. Small Pump House
20. Coke Building
21. A. Office & Electrical Annex
    B. Northeast Storage
22. Laboratory
23. Two-story Administration Building
24. Pump House

Area Designation	Tank Designation	Type	Dimensions	Approximate Storage Volume (Gallons)
Above Ground Tanks (ASTs)				
A	Tank 1	Horizontal Capsule	10ft Diameter by 28ft Long	21,000
A	Tank 2	Horizontal Capsule	10ft Diameter by 28ft Long	21,000
A	Tank 3	Horizontal Capsule	9ft Diameter by 42ft Long	23,000
A	Tank 4	Horizontal Capsule	9ft Diameter by 42ft Long	23,000
A	Tank 5	Horizontal Capsule	8ft Diameter by 40ft Long	17,000
A	Tank 6	Horizontal Capsule	10ft Diameter by 60ft Long	40,000
B	Tank 7	Horizontal Capsule	9ft Diameter by 20ft Long	13,000
B	Tank 8	Vertical Cylinder / Silo	15ft Diameter by 38ft Tall	50,000
B	Tank 9	Vertical Cylinder	15ft Diameter by 38ft Tall	50,000
C	Tank 10	Horizontal Capsule	9ft Diameter by 32ft Long	18,000
C	Tank 11	Horizontal Capsule	9ft Diameter by 32ft Long	18,000
D	Tank 12	Vertical Cylinder	50ft Diameter by 32ft Tall	470,000
Empty Tank Pads (Former Tank Locations)				
-	Pad 1	Round Pad	82ft Diameter	-
-	Pad 2	Round Pad	22ft Diameter	-
-	Pad 3	Round Pad	22ft Diameter	-
-	Pad 4	Round Pad	22ft Diameter	-
-	Pad 5	Round Pad	49ft Diameter	-
	Notes:			
	ft: Feet			

Legend

- Monitoring Well
- Property Line
- Building
- Tank Pads (Tanks Removed)
- Photographed Areas (See Figures 2 through 5)
- Condemned Structure
- Demolished Structure
- Surface Soil Sample
- Surface Water/Sediment Sample

D

1" = 200'
200' 100' 0' 200'

Inventum Engineering\Inventum - Documents\Inventum\CAD\Projects\Plastics\Tank Management Work Plan

References:

1. Specialty Chemicals Division Engineering, Plot Plan Tonawanda, TA-115, 1976, Plastics Plant Layout
2. Building names provided by previous seller, not documented.

DRAWING BY	CB
CHECKED	JE
APPROVED	

ABOVEGROUND STORAGE TANK (AST) LOCATIONS

3821 RIVER ROAD

TONAWANDA, NEW YORK, 14150

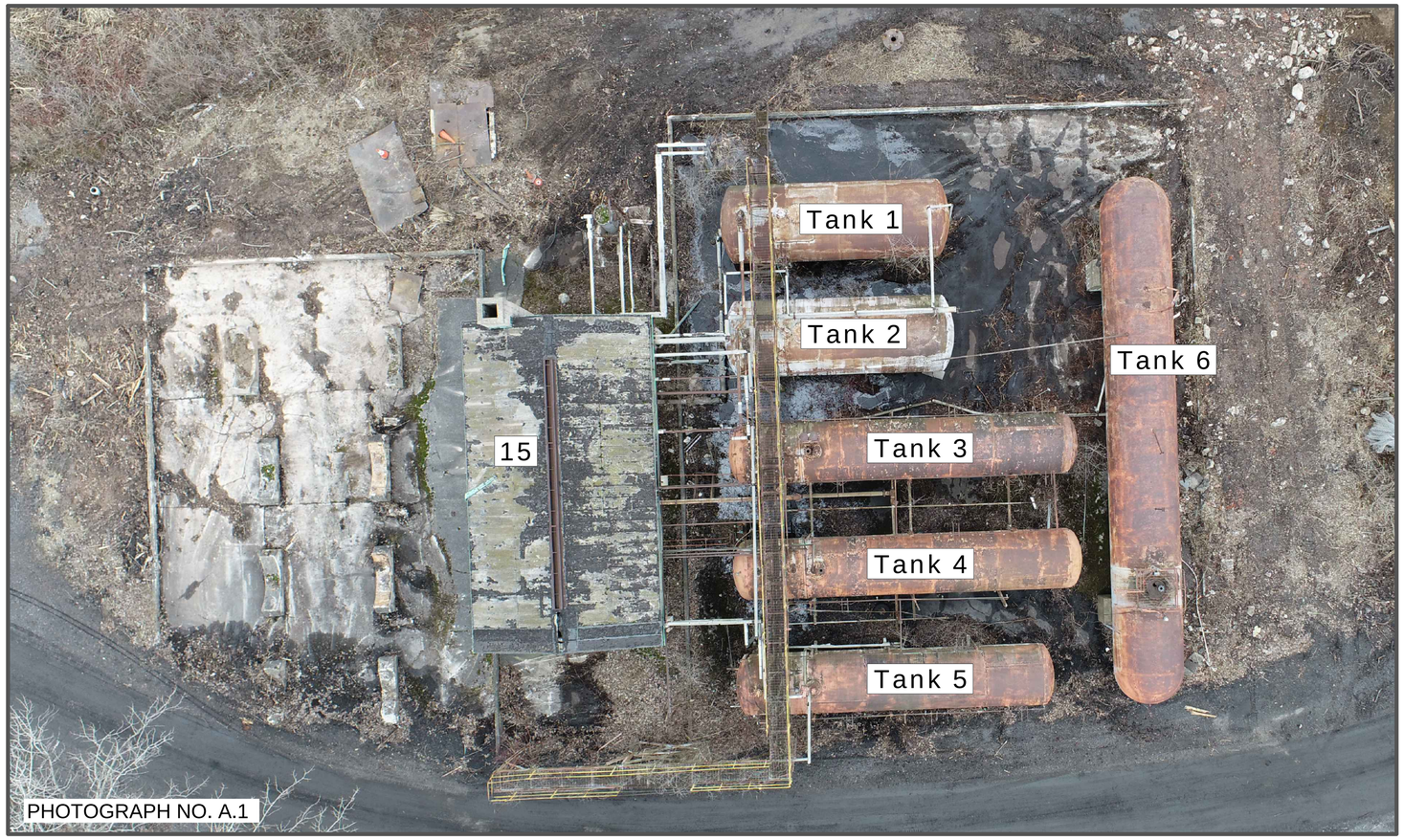
NYSDEC BCP SITE #C915003

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
(703) 722-6049
www.InventumEng.com

FIGURE 1

DRAWING NUMBER

SEPTEMBER 2024



PHOTOGRAPH NO. A.1

PHOTOGRAPH NO. A.2

PHOTOGRAPH NO. A.3

D

DRAWING BY	CB
CHECKED	JE
APPROVED	

AREA A - NORTH TANK FARM
3821 RIVER ROAD
TONAWANDA NEW YORK, 14150
NYSDEC BCP SITE #C915003

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
(703) 722-6049
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FIGURE 2

DRAWING NUMBER

FEBRUARY 2024

PHOTOGRAPH NO. B.1

PHOTOGRAPH NO. B.2

PHOTOGRAPH NO. B.3

D

DRAWING BY	CB
CHECKED	JE
APPROVED	

AREA B - STORAGE BINS
3821 RIVER ROAD
TONAWANDA NEW YORK, 14150
NYSDEC BCP SITE #C915003

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
(703) 722-6049
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FIGURE 3

DRAWING NUMBER

FEBRUARY 2024

PHOTOGRAPH NO. C.1

PHOTOGRAPH NO. C.2

PHOTOGRAPH NO. C.3

PHOTOGRAPH NO. C.4

D

DRAWING BY	CB
CHECKED	JE
APPROVED	

AREA C - ETHYLENE STORAGE
3821 RIVER ROAD
TONAWANDA NEW YORK, 14150
NYSDEC BCP SITE #C915003

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
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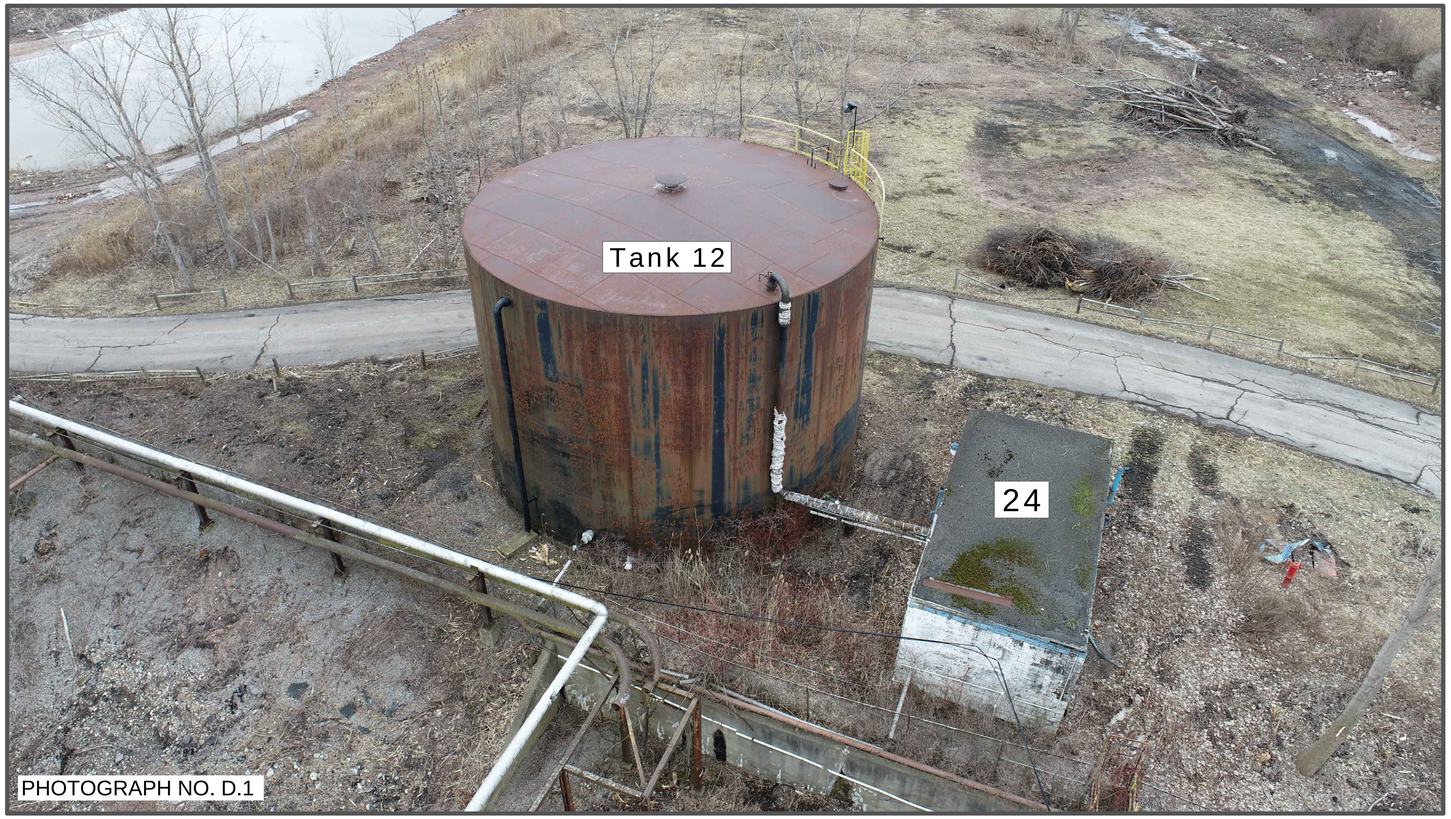
FIGURE 4

DRAWING NUMBER

FEBRUARY 2024



PHOTOGRAPH NO. D.1

PHOTOGRAPH NO. D.2

D

DRAWING BY	CB
CHECKED	JE
APPROVED	

AREA D - FIRE WATER TANK
3821 RIVER ROAD
TONAWANDA NEW YORK, 14150
NYSDEC BCP SITE #C915003

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
(703) 722-6049
www.InventumEng.com

FIGURE 5

DRAWING NUMBER

FEBRUARY 2024

Attachments

Attachment A – Health and Safety Plan and Hot Work Permit

Site Specific
Health and Safety Plan

Tonawanda Plastics

Rev. 4.0

3821 River Road

TONAWANDA, NY

Submitted to:

3821 River Rd, Inc.
140 Lee Street, Suite 200
Buffalo, NY 14210

Prepared by:

140 Lee Street

Buffalo, NY 14210

2/16/2024

Table of Contents

Authorization Signatures

This Site-Specific Health and Safety Plan (SSHASP) has been reviewed and approved by the individuals below. The undersigned certify that to the best of their knowledge this SSHASP meets the safety requirements as defined by the project specifications and all known applicable governing regulatory requirements.

John Yensan, President OSC	Date
Al Trpevski, Project Manager OSC	Date
Matt Reardon, Superintendent OSC	Date
Paul Mulvey Paul Mulvey, Director HS&E OSC	2/16/2024 Date

Conformance Signatures

All Individuals working on this Project, including subcontractors must read and sign. Note: this does not apply to visitors who will not be doing work on the project.

The following personnel have read and fully understand the contents of this site's Health and Safety Plan and further agree to all requirements contained herein.

Name	Affiliation	Date	Signature

Emergency Contact List

Tonawanda Plastics

3821 River Road

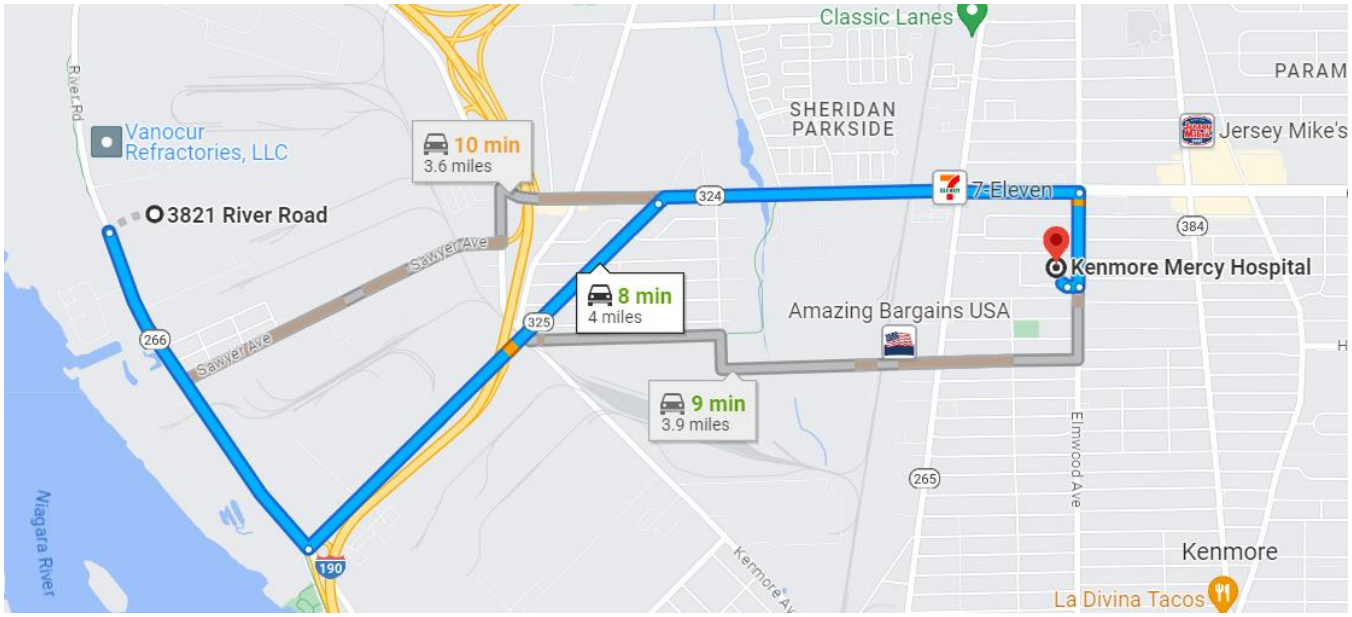
Tonawanda, New York 14150

AGENCY	Contact	Phone Number
Owner's Representative	John Black Project Manager	571-217-6761
OSC	Matt Reardon Superintendent	716-570-0717
	Brian Rudnick Site Health and Safety Officer (HSO)	716-864-7585
	Al Trpevski Project Manager	716-818-3390
	John Yensan President	716-583-4400
	Paul Mulvey Director HS&E	702-677-2967
Kenmore Mercy Hospital	Medical Emergency	911 (direct) 716-447-6100
Fire, Police, Ambulance	Dispatch	911
Utilities	Water Gas Electric	911
Town of Tonawanda Wastewater Treatment	Paul Morrow Pretreatment Coordinator	716-693-4900 ext. 4550 716-818-5879 (cell)

AGENCY	Contact	Phone Number
Site Emergency	Police, Fire Dept., Ambulance	911
Fire Department		911
Police Department & Security		911
Ambulance		911
Spill Emergency	Paul Morrow Pretreatment Coordinator	716-693-4900 ext. 4550 716-818-5879 (cell)
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 (CCN 101139)	1-800-424-9300

LOCAL MEDICAL

Kenmore Mercy Hospital, 2950 Elmwood Ave 14127
(Dial 911 for Emergency) (716) 447-6100



- Turn left onto River Road (1.1 mi)
- Turn left onto Sheridan Drive (1.4 mi)
- Merge right to stay on Sheridan Dr. (1.2 mi)
- Turn right onto Elmwood Ave. (0.3 mi)
- The hospital is on the right.

OSC Medical Consultant:

Medcor, Inc.
4805 W. Prime Parkway
McHenry, Illinois 60050
800-775-5866

Non-medical Emergency:

FOCUS Occupational Services, LLC
2099 Niagara Falls Blvd.
Amherst, NY 14228
(716) 710-8072

INTRODUCTION

SITE BACKGROUND

The Brownfield Cleanup Program site consists of approximately 17.446 acres located at 3821 River Road, Town of Tonawanda, Erie County, New York. The Site is located approximately 0.25 miles west of I-90 on the east side of River Road. The surrounding properties are primarily industrial or vacant.

The Site was originally developed by Allied Fibers and Plastics Company (Allied), now known as Honeywell International, in the early 1950s, and was operated as a manufacturing facility through 1982. Site operations included the polymerization of ethylene into low molecular weight polyethylene (trademark: A-C Polyethylene and Co-polymers), which was finished into powder, pelleted and solid forms. The property was sold to Rouse Breihan, Inc. in 1985. Rouse Breihan conducted some management and laboratory testing for the Tonawanda Coke Corporation (TCC) on the proposed BCP Site. A trucking firm also used the site for vehicle maintenance and parking. The Site has been vacant since 2019. 3821 River Road, Inc. purchased the Site from Rouse Breihan, Inc. on August 2, 2022.

Approximately 23 buildings are present on the Site and 12 aboveground storage tanks (AST) with aboveground and below grade piping are located in the center portion of the Site. The remaining buildings are unoccupied and unmaintained.

Previous Site Remediation

During the summer of 1981, approximately 500 cubic yards (CY) of “tar” and soils were excavated and removed from an area approximately 100-feet by 10 to 20-feet wide located in the eastern portion of the Site along the southern property boundary. The Coal Tar Site (NYSDEC Inactive Hazardous Waste Site 915003C) consisted of an area of the plant property where pools of what was described as “coal tar”, from spillage and leakage during product-transfer operations, were located. The tar removal was completed by the TCC, under agreement with Allied, as part of the demolition of the idle facility termed the “tar storage” terminal. Tar removal was completed to the underlying clay layer. Analytical results of confirmatory soil samples collected following the excavation showed that residual chemicals of concern (COCs) were not detected or were in low parts per million (ppm) concentrations. Three test holes adjacent to the excavation were completed to a depth of approximately three feet to determine if any further migration of coal tar had taken place and no contamination was observed in the test holes. In addition to the “tar” and soil removal, a buried coal tar pipeline was also removed to the property limits. As part of the pipeline removal, an underground tank which was used as a “blow-down” tank for the transfer line, was removed. NYSDEC informed Allied in October 1981 that no further remediation was necessary in the Coal Tar Site and blow down tank area.

The site was sampled by the United States Geological Survey (U.S.G.S.) in July of 1982 and in May of 1983 under the Niagara River Toxics Investigation. Chromium and lead exceeded concentrations

in samples taken from undisturbed soils in the Tonawanda area. Twenty-one organic priority pollutants were detected in the soil samples and all concentrations were below 10 parts per billion (ppb). A Phase I Investigation was completed in 1983 and an investigation was carried out at the end of 1988. Soil samples collected inside the pit showed high levels of chromium and elevated levels of lead. Sediment from an onsite catch basin showed elevated metals concentrations. Sampling and analysis of five off-site sewer samples showed no migration from this source. To further the investigation, up-gradient monitoring wells and four additional wells were installed. Sampling of the monitoring wells over one year showed groundwater exceedances for cyanide, benzene, ethylbenzene, toluene, xylene, and numerous poly aromatic hydrocarbons (PAH) compounds.

Project Scope

3821 River Rd, Inc. has contracted OSC, Inc. for the overall demolition and remediation of the former Tonawanda Plastics Plant property in Tonawanda, NY. Remediation will be per requirements of the New York State Brownfield Cleanup Program (NYSBCP) and the New York State Inactive Hazardous Waste Site Program (aka State Superfund). Inventum Engineering, PC is providing technical guidance for the project.

The work includes, but is not limited, to the following:

- Mobilization
- Installation of erosion and sediment controls
- Installation of site temporary features (waste/equipment decontamination pads, temporary access roads, and temporary utilities)
- Asbestos removal on structures, building materials, fittings, and debris.
- Stabilization and removal of above ground tank contents
- Removal of hazardous process and product waste chemicals as well as universal waste
- Cleaning/decontamination of above ground structures deemed to remain on site.
- Overhead, above ground, and below grade pipe removal.
- Demolition of buildings, structures, and tanks not to remain on site.
- Treatment/neutralization of surface soils and water as reasonably feasible per NYSBCP
- Removal of grossly contaminated soil not otherwise treated/neutralized.
- Tank cleaning and costing for scrap.
- Dewater
- Grading
- Restoration and seed stabilization
- Demobilization

APPLICABILITY and REFERENCES

OSC has developed the following Site-Specific Health and Safety Plan (SSHASP) in accordance with the project contract requirements and Federal, State and Local regulations. It is intended for individuals performing work at the site and not for those considered visitors for observation only

tasks. All operations and equipment used in conjunction with this contract shall, at a minimum, comply with the following:

- New York State Brownfield Cleanup Program
- Project Site Specific Health and Safety Plan (this SSHASP)
- 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)
- Job Hazard Analysis (JHA)
- Standard Operating Procedures; Emergency Response, Reporting, Incident 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 SSHASP. 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 SSHASP 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 SSHASP is based upon the known site conditions and or conditions anticipated to be present from established site data. This SSHASP 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 SSHASP shall be maintained at the project site.

DEFINITIONS

The Owner: 3821 River Rd, Inc.

The Engineer: Inventum (Owner Representative)

The Contractor: OSC – Company retained by owner to conduct the project.

The Project: Brownfield Cleanup Program, 3821 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): 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): The exclusion zone encompasses the areas of the 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 VISITOR 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 at all times by site trained personnel after signing in and completing orientation. Visitor training will include at a minimum:

- OSC Project Safety Orientation and general site orientation.
- Project Hazard Communication system
- Job 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 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 who 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.

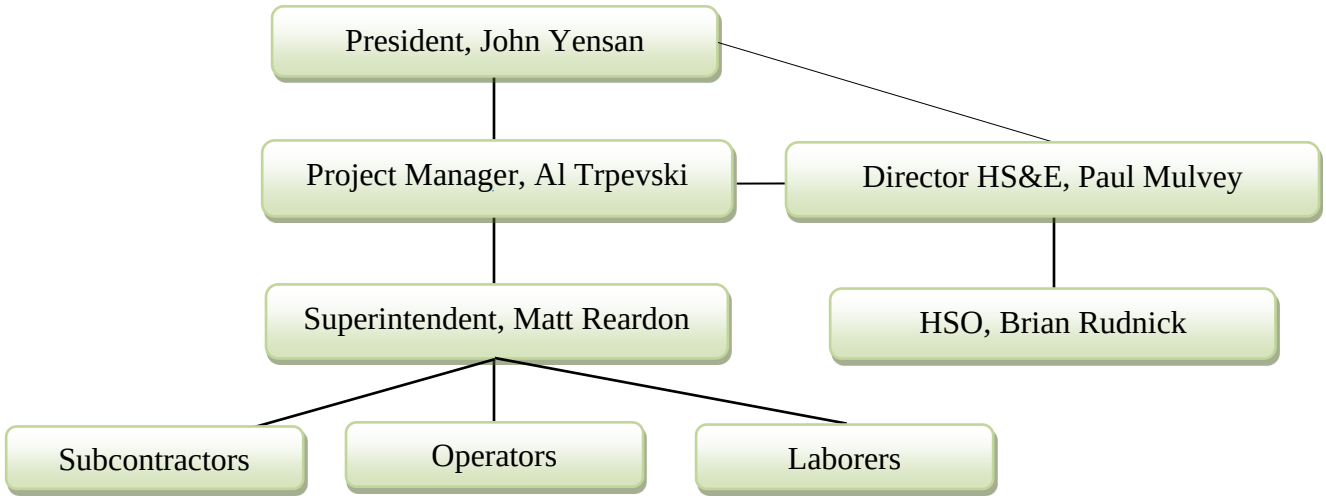
HEALTH and SAFETY ORGANIZATION

The following *OSC* management personnel will be assigned to this Project:

- President – John Yensan
- Project Manager – Al Trpevski
- Superintendent – Matt Reardon
- On Site Health & Safety Officer – Brian Rudnick
- Director HS&E – Ed Hartman

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 SSHASP during the project.
- Implement the procedures and guidelines outlined in this SSHASP throughout the project.
- Implement incident investigations. The Site Superintendent will notify INVENTUM management and the OSC Director HS&E immediately. Documentation will be maintained on OSC's Incident Report (see attachment I). The Incident Report will be submitted to 3821 River Rd Inc representative (Inventum) by OSC. The HSO will conduct the incident investigation with support from the Superintendent and 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 SSHASP 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 SSHASP.
- 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 logbook. 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-EMERGENCIE*S

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

FOCUS Occupational Services, LLC
2099 Niagara Falls Blvd.
Amherst, NY 14228
716-710-8072

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.

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 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 to ensure that all tools and equipment they use are properly inspected and maintained. Subcontractors are responsible for ensuring that their employees conform to all HS&E project requirements and all applicable government regulations. Subcontractors shall formulate work specific JHA's and submit them to the OSC Project Manager and Safety Director for review and approval prior to starting work.

SITE SPECIFIC TRAINING and ORIENTATION

Personnel, including subcontractors, shall be provided with the training required to comply with this SSHASP. 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 1926.65, 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.

TRAINING DOCUMENTATION

Documentation of training, provided by a qualified safety professional, will be maintained as necessary for the following topics:

- OSC Site Specific Orientation
- Job Hazard Analysis & Safe work procedures (JHA Review)
- Project Hazard Awareness training
- PPE requirements & possible decontamination procedures
- Heat/Cold Stress
- Fall Protection
- Heavy Equipment Operation (Authorized, Unauthorized)
- Powered Industrial Fork Truck Operation (Authorized, Unauthorized)
- Control of Hazardous Energy Lockout/Tagout and Air Gapping Requirements (1 ft visible air gap)
- Incident reporting
- Emergency response & available services (medical, fire, inclement weather, tornado, bomb threat, signals and procedures)
- Hoisting and Rigging
- Respirator use, maintenance, inspection, medical clearance, and fit test
- Excavation hazards and protective measures
- Confined Space if applicable.
- 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 tasks (JHA review - job hazards and protective measures).

Weekly HS&E Meetings

All onsite Supervisory personnel shall be required to attend a weekly 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 in 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 aid 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 5 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 testing for illegal drugs before working on the project. 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 for further action.

PROJECT OVERVIEW AND TASK RISK ANALYSIS

TASK/RISK ANALYSIS

A Job Hazard Analysis (JHA) 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. JHA's shall be submitted with any required daily work permit to the owner representative for their review. JHA'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 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 I (JHA))

	Potential Exposure
Mobilization and temporary facilities and controls; 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/equipment decontamination pads, roads)	Moderate
Asbestos removal on structures, building materials, fittings, and debris	Moderate/High
Stabilization and removal of above ground tank contents	Moderate/High
Removal of hazardous process and product waste chemicals & universal waste	Moderate/High
Cleaning/decontamination of above ground structures deemed to remain on site	Moderate/High
Overhead and Below Grade Piping Removal	Moderate/High
Tank cleaning	Moderate/High
Mechanical demolition of buildings, structures, and tanks	Moderate/High
Treatment/neutralization of surface soils and water as reasonably feasible per NYSBCP	Moderate/High
Excavation / trenching / test pitting	Moderate/High
Installation of temporary groundwater treatment system	Moderate/High
Managing COG lines, product lines, and utilities	Moderate/High
Removal of grossly contaminated soil not otherwise treated	Moderate/High
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

The site was sampled by the United States Geological Survey (U.S.G.S.) in July of 1982 and in May of 1983 under the Niagara River Toxics Investigation. Chromium and lead exceeded concentrations in samples taken from undisturbed soils in the Tonawanda area. Twenty-one organic priority pollutants were detected in the soil samples and all concentrations were below 10 parts per billion (ppb). A Phase I Investigation was completed in 1983 and an investigation was carried out at the end of 1988. Soil samples collected inside the pit showed high levels of chromium and elevated levels of lead. Sediment from an onsite catch basin showed elevated metals concentrations. Sampling and analysis

of five off-site sewer samples showed no migration from this source. To further the investigation, up-gradient monitoring wells and four additional wells were installed. Sampling of the monitoring wells over one year showed groundwater exceedances for cyanide, benzene, ethylbenzene, toluene, xylene, and numerous poly aromatic hydrocarbons (PAH) compounds.

Table 1.1

Complete Substance Name (be specific) (1)	Specific Applicable OSHA Standard (if any)	Physical State (S, L, G, Aq, Vap, F, P) (2)	Max. Conc. Level Per Physical State (3)	General Control Measures (Eng., Admin., PPE) (4)
Acetone	2400 mg/m3	L	82 ug/L	Eng., PPE
Acenaphthene	NA	S	790 ug/kg	Eng., PPE
Acenaphthylene	NA	S	3,200 ug/kg	Eng., PPE
Anthracene	0.2 mg/m3	S	14,000,000 ug/kg	Eng., PPE
Benzo(a)anthracene	0.2 mg/m3	S, L	3,100,000 ug/kg, 0.4 ug/L	Eng., PPE
Benzo(a)pyrene	0.2 mg/m3	S	2,800,000 ug/kg	Eng., PPE
Benzo(b)fluoranthene	0.2 mg/m3	S	3,200,000 ug/kg	Eng., PPE
Benzene	N/A	S, L	86,000 ug/kg, 84 ug/L	Eng., PPE
Benzo(G,H,I) perylene	1 ppm	S	1600,000 ug/kg	Eng., PPE
Benzo(k)Fluoranthene	NA	S	1,300,000 ug/kg	Eng., PPE
Biphenyl (Diphenyl)		L	31 ug/L	Eng., PPE
Bis(2-Ethylhexyl) Phthalate	NA	L	34 ug/L	Eng., PPE
Chrysene	0.2 mg/m3	S	3,000,000 ug/kg	Eng., PPE
cis-1,2-Dichloroethene	0.2 mg/m3	L	50 ug/L	Eng., PPE
Dibenz(a,h)anthracene	NA	S	460,000 ug/kg	Eng., PPE

Ethylbenzene	545 mg/m3	S, L	1,700 ug/kg, 20.0 ug/L	Eng., PPE
Fluoranthene	NA	S	9,400,000 ug/kg	Eng., PPE
Fluorene	NA	S	4,400,000 ug/kg	Eng., PPE
Hexachlorocyclopentadiene	NA	L	50 ug/L	Eng., PPE
Indeno(1,2,3-Cd) Pyrene	NA	S	15,000,000 ug/kg	Eng., PPE
Naphthalene	50 mg/m3	S, L	11,000,000 ug/kg, 1700 ug/L	Eng., PPE
Pentachlorophenol	0.5 mg/m3	L	100 ug/L	Eng., PPE
Phenanthrene	0.2 mg/m3	S	13,000,000 ug/kg	Eng., PPE
Phenol	19 mg/m3	L	3.5 ug/L	Eng., PPE
Pyrene	NA	S	5,900,000 ug/kg	Eng., PPE
Toluene	200 ppm	S, L	83,000 ug/kg, 12 ug/L	Eng., PPE
Trichloroethene	100 ppm	L	5.9 ug/L	Eng., PPE
Total Xylenes	435 mg/m3	S, L	120,000 ug/kg, 34 ug/L	Eng., PPE
Vinyl Chloride	1 ppm	L	5.4 ug/L	Eng., PPE
Arsenic	10 µg/m³	L	920.0 ug/L	Eng., PPE
Barium	0.5 mg/m3	L	4,900.0 ug/L	Eng., PPE
Beryllium	0.2 µg/m³	L	11.0 ug/L	Eng., PPE
Cadmium	5 µg/m³	L	16.0 ug/L	Eng., PPE
Chromium, Total	1 mg/m3	S, L	37,600 ug/kg, 5,800 ug/L	Eng., PPE
Copper	0.1 mg/m3	L	510.0 ug/L	Eng., PPE

Chemicals Brought On-Site

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 the 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 the 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 the victim to fresh air and provide respiratory support if needed. • Ingestion: Seek medical attention.	300ppm	500ppm STEL

HAZARD SUMMARY FOR CHEMICALS BROUGHT ONSITE					
Substance	Route of Entry	Exposure Symptoms	Treatment	8 Hour TWA	STEL and IDLH
Sodium Hydroxide	• Skin contact • Eye contact • Inhalation • Ingestion	• Irritation to eyes, skin, mucus membranes. • Swelling of larynx and accumulation of fluid in the lungs. • Stridor, vomiting, drooling, and abdominal pain are early symptoms of sodium hydroxide ingestion. Ingestion may lead to perforation of the gastrointestinal tract and shock.	• Eyes: Irrigate immediately. • Skin: Flush with soap and water. • Inhalation: Remove the victim to fresh air and provide respiratory support if needed. • Ingestion: Seek medical attention immediately.	2 mg/m^3	10 mg/m^3
Sodium Hypochlorite	• Skin contact • Eye contact • Inhalation • Ingestion	• Irritation to the skin and eyes with possible eye damage. • Can cause headache, dizziness, nausea, and vomiting	• Eyes: Irrigate immediately. • Skin: Flush with water. • Inhalation: Remove the victim to fresh air and provide respiratory support if needed. • Ingestion: Seek medical attention.	0.5ppm	10ppm
Sulfuric Acid	• Skin contact • Eye contact • Inhalation • Ingestion	• Irritation to the eyes, skin, nose, and throat. • Can cause pulmonary edema, bronchitis; emphysema; conjunctivitis; stomatitis; dental erosion; and dermatitis	• Eyes: Irrigate immediately. • Skin: Flush with water. • Inhalation: Remove the victim to fresh air and provide respiratory support if needed. • Ingestion: Seek medical attention immediately.	1 mg/m^3	15 mg/m^3

GENERAL PHYSICAL HAZARDS AND STANDARD PROTECTIVE MEASURES

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 Housekeeping*

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 it 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 waste, 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 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 to use. 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 the 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 required 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: All work from elevated heights shall be performed as supervised by a competent person. In all cases proper fall protection shall be utilized, use personal fall restraint systems, and maintain 100% tie-off.

Activity: *Demolition of Structures and Tanks*

Potential Hazard: Unintended explosion, crush, premature collapse, propelled debris, contamination spread (i.e., asbestos, silica).

Procedures to Mitigate Hazard: Only qualified, competent personnel to oversee and manage demolitions (mechanical and energetic). Engineering Survey to be completed for each building prior to start of demolition to ensure utilities have been air gapped and all hazardous, and universal waste has been removed. Maintain strict control over entry/egress of well demarcated work and exclusion zones. Extended buffer zone to be established and maintained around all demolition. JHA for demolition work has been completed, reviewed, and signed off by designated work crew.

BIOLOGICAL HAZARDS

Bites and Stings

Animal bites, such as from coyotes, or stings which 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 spiders 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, racoons, 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. If site employees feel they have been bitten, they should notify the HSO immediately.

Snakes (WNY has no poisonous 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 encounter potentially infectious materials be trained and protected from exposure. Furthermore, there is a risk for any site employee to be exposed to 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 do not touch 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 area, decontamination area, and first aid area.
- First aid kits will be equipped with the proper PPE and supplemental kits will be supplied with barrier protection devices (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 made available to the employee immediately upon receipt. 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 guard shack and are to check in at the project field office, 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 SSHASP 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 specific work plans prepared separately and maintained in the office.

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 as required per task.
- Hardhat (ANSI Rated)
- High visibility vest or equivalent high visibility clothing
- Appropriate clothing (long sleeve shirts and pants) and Tyvek coveralls as required per task.
- Gloves (leather always), nitrile as required.
- Hearing protection (around powered equipment or using powered hand tools)
- Tick protection 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 exists.
- 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 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 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.

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 requires 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 the 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 B is 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:

	Equipment	Sound Level at Operator Average, dB	Range	TWA, dBA
	Earth Moving:			
	Front End Loader	88	85-91	
	Backhoe	86.5	79-89	
	Bulldozer	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 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

Project personnel may be required 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 office, 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 of respirator voluntarily.

Medical Clearance & Fit Testing

All personnel that 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.

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 the 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.
- Ensure that all disposable or reusable gloves are approved by the HSO.
- Respirator filters will be inspected 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.
- 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 arrange 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

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 as 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 of 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 verifies 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 from 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 SSHASP 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 order, and will be in an accessible place on the site, at all times.

All heavy equipment will be equipped with a fire extinguisher unless doing so would create an undue hazard in operation or inspection of the equipment, typically this occurs only on small equipment such as a skid steer.

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.

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, documented, 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 always wear seatbelts.
- 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 always be carried.
- 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 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 is 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, one 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 near the site. An acceptable supply of potable 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 in a daily safety log.

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 within 48 hours of the incident if 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 of an employee and all amputations or loss of an eye will be reported within 24 hours. All such incidents 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, 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 are admitted to a hospital.
- 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).
- 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.
- 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 3821 River Rd. Inc. 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.
- Written notification from a governmental agency alleging non-compliance of any kind.
- Proposal or imposition of a 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, 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 events that result 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 3821 River Rd Inc 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 3821 River Rd. Inc. facilities.

Tier 3:

- 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, OSC Safety Director, and the INVENTUM engineering manager, as soon as possible following the event. All Tier 1 and Tier 2 adverse events must be investigated. A written OSC incident investigation report shall be completed within 48 hours.

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 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 indicates 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 any tank, vessel, or barrel containing or may have contained flammable or volatile chemicals prior to beginning work each day and or when 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 or greater TWA after 15 minutes of measurement shall stop and the OSC Director, HSE contacted for further evaluation.

Before a confined space is entered, the air shall be characterized using real-time monitors for oxygen content, LEL, and other potential hazards such as carbon monoxide or hydrogen sulfide exposure.

The need for additional air monitoring or exposure measurements will be determined as specific work tasks are developed. Air monitoring and sampling shall be specified in the relevant JHA as approved by the Director HS&E.

CONFINED SPACE ENTRY PROCEDURES

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 INVENTUM 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 required 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 health, 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 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:

- Perform any duty that might interfere with their primary duty to monitor and protect the authorized entrant.
- 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 outlined 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.
- 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.

Confined Space Training will be conducted:

- Before the employee is first assigned confined space duties.
- 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, 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.
- 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 identified 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 increases 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 around boots and 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 them 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 your face with your 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, and 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 or Liquinox) using a brush or high-pressure washer, as necessary, to remove particulate matter and surface films.

- Rinse thoroughly with potable water.
- Allow tools to air dry for a reasonable amount of time.

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 sampling equipment 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. 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 may be provided.
- First aid and CPR kit locations will be specifically marked by the HSO and stocked with adequate water and other supplies 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 as listed in the SDS for the chemical are to be followed. In the event the SDS is not available, such as for an unknown contaminant, the steps listed below are to be followed:

Eye Exposure: If contaminated solids or liquids get into the eyes, wash eyes immediately using copious 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. Then immediately obtain medical attention.
Respiratory Exposure: Immediately move the victim to fresh air and obtain medical attention.
Ingestion Exposure: Seek immediate medical attention.

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. SDS) on the chemical to which they have been exposed. SDS for known or suspected chemicals to exist onsite will be stored in OSC's project field office and maintained by the HSO. Due to the nature of unknown contaminants and exact manufacturers, a proxy SDS may be used in lieu of the actual SDS as a reference only.

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 the fire department (if necessary)
- Call the police (if necessary)
- Call the Project Manager

PRE-PLANNING

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 objects 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 to get 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 and be 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	OSC will 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 the required 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 make 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 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 spilled 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 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 owner 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 outlined 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 the 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 owner 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 owner representative; initiate the emergency procedure steps that are provided in this HASP and complete a Spill Report for submittal to the owner 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 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, a longer rest period is required as well as an increased intake of fluids.
- Onsite tracking of ambient temperature as well as pulse/temperature of the worker will be conducted by the HSO and recorded throughout the work shift.

COLD

Whole body protection will be provided to 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

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 will be kept onsite for the duration of the project.

TYPE	FREQUENCY
JHA - Pre-plan for High-Risk Work	Prior to start of work
Employee Daily Safety Brief, Site Log	Daily, minimum
Air Monitoring Reports	As necessary
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. Additionally, daily logs of all personnel working or visiting the site will be maintained. Completed logs and reports will be maintained stored on site in the project field office. Copies shall be provided to the 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. 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.

NOTE: Many of the piping, vessels and towers at the site contain flammable materials. The hot work permit procedure MUST be followed.

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, or
- On-the-job mentoring for 40-hour minimum under a competent person, and
- Determination of proficiency by an OSC certified supervisor

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

Ontario Specialty Contracting
140 Lee St
Buffalo, NY 14210

PSI / JHA / SPA

Company	Date & Time	Job No./Permit No.
Ontario Specialty Contracting	02/16/2024 03:06 PM	22010
Project	**Task Location**	**Muster / Meeting Point**
Plastics	3821 River Road	Guard Shack
Job Site Address	**Nearest Hospital**	**Nearest Hospital Address**
3821 River Road	Kenmore Mercy Hospital	2950 Elmwood Avenue

Review these items with the crew at the site of the task and check the blocks that apply to the work.

Environmental Hazards

- ☐ Spill Potential/Containment
- ☐ HAZMAT / TDG Storage
- ☐ Weather / Conditions
- ☐ SDS Reviewed for Hazardous Materials
- ☐ Ventilation Required
- ☐ Heat Stress / Cold Exposure
- ☐ Lighting Levels Too Low
- ☐ Housekeeping

Ergonomics Hazards / Material Handling

- ☐ Working In a Tight Area
- ☐ Part of Body in Line of Fire
- ☐ Working Above Your Head
- ☐ Pinch Points Identified
- ☐ Repetitive Motion

Work at Height Hazards

- ☐ Barricades Flagging, and Sign in place
- ☐ Hole Coverings in Place
- ☐ Protect from Falling Items
- ☐ Powered Platforms
- ☐ Others working overhead / Below
- ☐ Fall Arrest Systems
- ☐ Ladders

Activity Hazards

- ☐ Welding/Grinding
- ☐ Burn / Heat Sources
- ☐ Compressed Gasses
- ☐ Working on / Near Energized Equipment
- ☐ Electrical Cords / Tools - Condition
- ☐ Equipment/ Tools Inspected
- ☐ Critical Lift Meeting Required
- ☐ Energy Isolation
- ☐ Airborne Particles
- ☐ Open Hole(s) / Leading Edge (s)
- ☐ Mobile Equipment / Vehicle
- ☐ Rigging
- ☐ Excavation / Underground Work Hazards
- ☐ Confined Space

Access / Egress Hazards

- ☐ Scaffold (Inspected and Tagged)
- ☐ Slip / Trip Potential Identified
- ☐ Required Permits in Place
- ☐ Excavations
- ☐ Walkways / roadways

Personal Limitations / Hazards

- ☐ Clear Instructions Provided
- ☐ Trained To Use Tool and Perform Task
- ☐ Distractions in Work Area
- ☐ Working Alone (Communication)
- ☐ Lift Too Heavy / Awkward Position
- ☐ External Noise Level
- ☐ Physical Limitations
- ☐ First Aid Requirements

PPE Requirements

- ☐ Goggles / Fectoggles/ Spoggles
- ☐ Face Shield
- ☐ Gloves (Kevlar or Leather)
- ☐ Coverall (Fire Retardant - FRC)
- ☐ Hearing Protection
- ☐ Respirator
- ☐ Harness / Lanyards
- ☐ Reflective Vest
- ☐ Footwear (Condition / Application)
- ☐ Safety Glasses
- ☐ Welding Hood
- ☐ Tyvex Suit
- ☐ Retractable Lanyard
- ☐ Hard Hat
- ☐ 4 Gas Monitor
- ☐ Cut resistant sleeves (Kevlar or Approved Equivalent)

Other

Risk Rank Table/*Nivel de Riesgo*

RISK OUTCOME/*RIESGO*	Risk Rank
High/*Alto*	(8-10)
Significant/*Significante*	(6-7)
Moderate/*Moderado*	(5)
Low/*Bajo*	(2-3-4)

		Consequence/Consecuencia				
		Insignificant/*No Importante* 1	Minor/*Menor* 2	Moderate/*Moderado* 3	Major/*Mayor* 4	Catastrophic/*Catastrofico* 5
Likelihood/*Probable*	Almost Certain/*Casi Cierto* 5	6	7	8	9	10
	Likely/*Probable*					

Identify the task steps and hazards, and then identify the plans to eliminate or control the hazards

TASK STEPS	HAZARD	CONTROL	RISK RATING
General site tasks (including maintenance of facility, site clean up, equipment maintenance, site review)	- Slips/trips/falls - Strain/sprain - Struck by / Crush - Pinch points - Driving onsite	Maintain clean and designated pathway to and from work area - Use proper lifting techniques, use equipment for lift when possible, team lift over 50 pounds - Maintain contact with operators in work area, notify when approaching work zone - Stay clear of swing radius of equipment - Identify pinch points and keep hands clear - Conduct equipment inspection - Use equipment and tools as manufacturer intended	3
Equpment repair / maintenance	• Struck by / caught between equipment • Injuries from hand, power and pneumatic tools • Hand injuries • Rigging failure • Slips/trips	• Inspection of equipment • Spotters to maintain eye contact with operators and wear hi-vis vests. • Communication using hand signals / 2 way radios • Backup alarms functioning • Proper hand / body position • Inspect tools before use. • Do not remove guards or second handles. • Glove use • Face shields for grinding and saw cutting. • Use pins to connect hoses and whip checks • Proper hand, arm, and body placement. Awareness of line of fire potential • Proper glove per task • Identify pinch points, use appropriate tools for task • Inspect crane and ground conditions prior to operating • Inspect rigging before use • Verify weight of load and center of gravity • No personnel under suspended loads • Tagline where necessary	5

		• Maintain housekeeping • Eyes on path of travel	
Set up of regulated area (drop cloths/banner tape), hang glove bag(s) and decontamination unit for abatement.	• Cuts using knife • Slips, trips, falls • Fall from height (if applicable) when hanging glove-bags • Unauthorized access and contamination of non-regulated areas	• Use retractable utility knife • Use Kevlar gloves • Cut away from body • Good housekeeping • Clean up scrap poly, tape, glue cans, etc. as you go • Elevate all cords overhead • Minimize reaching, use podium or platform ladder or baker scaffold when available. Use Scissor lifts when applicable Use stepladders as last option. • Have a designated access point with step off area(drop cloth, disposal bags) for employee entrance and exit from regulated area	1
Pipe Inspection / Identification	- Slips/trips/falls - Pinch points - Working from height / falls (aerial lift, ladder or platform) - Overhead hazards - Chemical exposure - Fire - Explosion - Strain/sprain	- Maintain clear walking paths, plan approach and take purposeful steps - Identify pinch points and keep hands/body clear, wear appropriate gloves - Only trained and authorized personnel to operate equipment and tools - Inspect work area prior to start and periodically throughout day to identify change in hazards (including overhead) - Wear chemical resistent outer clothing, gloves and face shields when contents of pipe are unknown - Use intrinsically safe drill with cutting oil to drill hole at high point of pipe. Inspect atmosphere within pipe with 5 gas meter. - Useintrinsically safe drill with cutting oil to drill hole at low point of pipe to drain material as necessary. - Use proper ergonomics (do not twist while lifting, do not extend reach beyond allowed range, proper lifting stance)	7
Operate Scissor and Boom lifts to access pipe insulation for glove-bagging	• Falls from heights • Struck by and caught in between • Machine tip over • Pinch points	• Inspect equipment prior to use for damage, defects or leaks. Ensure that back up alarms are working. • Inspect the work area for any uneven surfaces, hoses, debris or overhead hazards that could cause the lift to become unbalanced and cause potential harm to the operator. • Take equipment out of service if damage, defects or leaks are identified. Report the condition to the Site Superintendent or the Safety Manager. • Only trained, authorized personnel will be allowed to operate equipment onsite. • Inspect PFAS and anchor points prior to use • Don fall arrest equipment and secure to the anchorage point in the aerial lift prior to operating. • Do not drive units with platform in elevated position • Keep units within plant designated walkways when traveling • Do not leave the aerial lift basket while elevated to enter a different work surface unless you maintain 100% tie off.	3

		• Do not stand on the railings of the basket or use a ladder or other item to gain additional height in the aerial lift basket. • Use a ground person in the event that the controls in the aerial lift basket become inoperable or the operator becomes disabled. • Always look in the direction of travel while operating. • DO NOT walk under an elevated aerial lift unit. • Never place your body between a fixed object and the aerial lift.	
Removal of pipe Insulation using glove-bag methodology	• Asbestos exposure • Cuts on hands from metal banding, jacketing or tie wire • Back pain/strain from awkward and static positions • Back strain when moving full glove bags	• Use water • Wear half face respirator with HEPA filter • Gloves • Poly Pro suit (sleeves down, hoodie on) • Wear Kevlar gloves inside glove-bag gloves if possible, Develop plan to remove jacketing off pipe ahead of sealing bag. • Rotate postures as needed. Take stretch breaks. • Do not overload bag. No more than 3' of pipe insulation per bag. If using large glove-bags use lull to lift bag. • Use 2-man lift. • Use proper lifting techniques – lift with legs, not with back. • Use carts/buggies as needed/available.	2
Building/Structure Demolition and Dismantling	- Struck by/crush - Flying debris - Dropping materials - Slip/trip/falls - Structure failure - Respiratory hazards - Falls - Working from heights (including aerial lifts) - Fire - Pinch points - Stored Energy	- Delineate work zone, only authorized personnel within perimeter - Only competent and authorized personnel will utilize heavy equipment - Inspect work area periodically for changes in structure or overhead hazards - Maintain clear walking paths, plan approach and take purposeful steps - Work upwind, keep area wet as appropriate to limit dust production - Complete pre-inspection of structure to determine potential chemical hazards - All demolition will be conducted under the direction of an onsite demolition competent person - Only trained and authorized personnel will use aerial lifts to access structure as needed - Ensure any fall protection is inspected prior to use, only trained personnel will use fall protection - Identify pinch points and keep clear of them, wear appropriate gloves - Identify potential areas of stored energy (cables, bounce back of structure, overhead hazards). Discuss with SSO to determine addition control measures	7
Equipment Decontamination	- Flying debris - High pressure - Slip/trip/falls - Sprain/strain - Pinch points	- Delineate work zone to prevent personnel from flying debris - Wear protective PPE (tyvek, face shield) - Inspect pressure washer prior to use, only authorized and trained personnel to use - Keep pressure washing wand pointed away from body and away from others	3

		- Keep walkways clear of debris, wear nonslip boots, plan approach - Use buddy system durin gset up, team lift greater than 50 pounds, use equipment to lift when available. - Practice proper ergonomic (no twisting while lifting, maintain three points of contact during access and egress from equipment) - Identify pinch points and take precautions when working around them, wear appropriate gloves	

Weather

Current

Temperature

30

Overcast Clouds
64% Humidity

Forecast

Temperature

27 30

Light Snow
59% Humidity

	Yes	No
1. I have reviewed the weather conditions with the crew?	☐	☐
2. I have reviewed the road conditions with the crew?	☐	☐

Current

Heat Index

26

Forecast

Heat Index

25

	Yes	No
3. I have reviewed the OSHA Heat Index?	☐	☐

By signing with your pin below: You acknowledge and understand the **safety instructions** you've been given and that you will follow all of the required procedures and safety rules. You acknowledge that you have arrived for your shift injury free and must notify supervision or the safety department on site of any injury/accident or near miss that you had during your shift. You also verify that you are not showing any symptoms such as fever, cough or shortness of breath. you have not been in contact with anyone known to have COVID-19 and you have not traveled to any area with widespread concern of coronavirus.

Initial After:

Worker	Verified

Supervisor:
Auditor:

	Adequate	Inadequate		Adequate	Inadequate
1. Task Description	☐	☐	6. Reviewed / Signed by PSI / JHA Lead	☐	☐
2. Hazard Identification	☐	☐	7. Muster / Assembly Point Identified	☐	☐
3. Hazard Controls	☐	☐	8. Tools and Equipments Inspected	☐	☐
4. All Sections Implemented	☐	☐	9. PSI / JHA at Task Location	☐	☐
5. Workers' Names Legible	☐	☐			

Comments

Evacuation Plan

Note

Muster point for BCP site will be at the guard shack at the main entrance.

JOB SAFETY INSPECTION AND AUDIT

LOCATION/PROJECT: **Date:**

Audit and Inspection Report by:

OSC Summary of Findings and Improvement Measures:

Summary

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 the floor or protected				
6. Spill Kit Available & Stocked				
FIRE PREVENTION				
1. Adequate firefighting equipment (hoses, extinguishers, fire blanket)				
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 no bare wires or missing ground prongs in service				
2. Ground fault circuit interrupters being used				
3. Terminal boxes accessible and equipped with required covers				
4. Temporary Lighting (Guarded, Covered, No Exposed Sockets)				
5. Equipment wiring				
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)				
3. Employees below protected from falling objects (Toe Boards or Guards)				
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 within 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. SDS Available/Proper Containers & Labels Noted				.
4. Chemical Products properly used and stored per 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				
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				
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

Hot Work Permit

Project Name: _____ Project #: _____

Date and start time issued: _____ Expiration Date/Time: _____

Hot Work: ❑ Internal Combustion Engines ❑ Hot Tapping

❑ Sparking ❑ Work on Live Equipment ❑ Welding/Burning ❑ Other

Scope of Work: _____

What equipment preparation is required? (i.e., lockout/tagout, blinding pipes)

_____

Is any area cleanup required? _____ Explain: _____

_____

Is work area ventilation required? _____ What Type? _____

Is fire equipment required? _____ What Type? _____

What methods are to be employed to control sparks? _____

What type of firewatch is required, if any? _____

What periodic air/gas testing is required? _____

What continuous air/gas testing is required? _____

What instruments are required? _____

Where should the continuous air monitor(s) be placed?

What PPE is required? _____

Who must be notified each time work commences? _____

Special Instructions: _____

Signatures: Site Supervisor: _____

Site Safety Officer: _____

Client Representative (if required): _____

Attachment B – Community Air Monitoring Plan

INVENTUM ENGINEERING, P.C.

Community Air Monitoring Plan

3821 River Road, Inc.

Brownfield Cleanup Program (BCP) Site

NYSDEC Site #C915003

3821 River Road

Tonawanda, NY 14150

July 14, 2023

441 CARLISLE DRIVE
SUITE C
HERNDON, VA 20170
WWW.INVENTUMENG.COM

Table of Contents

1 Overview

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

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required.

- *The 3821 River Road, Inc. (3821 River Road) Site will have a perimeter air monitoring program before and during the Remedial Investigation (RI). If there are detections at the property line, additional monitoring requirements will be considered*[1].
- *Three (3) perimeter air monitoring station units (1 Upwind and 2 Downwind) will be mobile and moved as the work area(s) change at the 3821 River Road BCP Site. Example monitoring locations are shown on Figure 10 provided in Appendix A-2.*

Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

- *There are no sensitive receptors on the property. The closest residence is more than 0.25 miles away from the property boundary.*

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

2 Community Air Monitoring Plan

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

[1] The text in *italic font* are comments inserted by 3821 River Road, Inc. in addition to the standard CAMP Template.

- *VOC and particulate monitoring will be incorporated into the RI and Interim Remedial Measure (IRM) activities.*

Continuous monitoring will be required for all ground intrusive activities during the demolition of contaminated or potentially contaminated structures, installing groundwater conveyance trenches, operation of a groundwater treatment system when housed indoors, and during the decontamination and deconstruction of Above Ground Storage Tanks (ASTs). Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells. Decontamination and deconstruction of ASTs include, but are not limited to, removal of residual products, decontamination of ASTs and ancillary piping and equipment, and emptying and decontamination of secondary containment structures.

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

- *During sampling periodic monitoring will be implemented with hand-held instruments.*

3 VOC Monitoring, Response Levels, and Actions

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

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

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

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

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

5. The NYSDEC and NYSDOH project managers for the Site will be notified within 24-hours by phone or email if there is an exceedance of the VOC action level of 25 ppm at the perimeter of the work area as described within Section 3. The notification shall include a description of the control measures implemented to prevent further exceedances.

4 Particulate Monitoring, Response Levels, and Actions

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

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 above the upwind level and provided that no visible dust is migrating from the work area.

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

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

4. Should the action level of 150 mcg/m3 above the upwind monitoring concentration be exceeded after corrective actions are taken, work must stop and NYDEC and NYSDOH project managers for the Site must be notified within 24-hours by phone or email. The notification shall include a description of the control measures implemented to prevent further exceedances.

Appendix A-1
Fugitive Dust and Particulate Monitoring

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

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

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

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

(a) Objects to be measured: Dust, mists or aerosols;

(b) Measurement Ranges: 0.001 to 400 mg/m^3 (1 to 400,000 :ug/m^3);

(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m^3 for one second averaging; and +/- 1.5 g/m^3 for sixty second averaging;

(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);

(e) Resolution: 0.1% of reading or $1g/m^3$, whichever is larger;

(f) Particle Size Range of Maximum Response: 0.1-10;

(g) Total Number of Data Points in Memory: 10,000;

(h) Logged Data: Each data point with average concentration, time/date and data point number

(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;

(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;

(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;

(l) Operating Temperature: -10 to 50° C (14 to 122° F);

(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

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

5. The action level will be established at 150 ug/m^3 (15 minutes average). While conservative, this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m^3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m^3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m^3 above the upwind monitoring concentration be exceeded after corrective actions are taken, work must stop and DER and DOH must be notified within one hour. The notification shall include a description of the control measures implemented to prevent further exceedances..

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

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

(a) Applying water on haul roads and demolitions;

(b) Wetting equipment and excavation faces;

(c) Spraying water on buckets during excavation and dumping;

(d) Hauling materials in properly tarped or watertight containers;

(e) Restricting vehicle speeds to 10 mph;

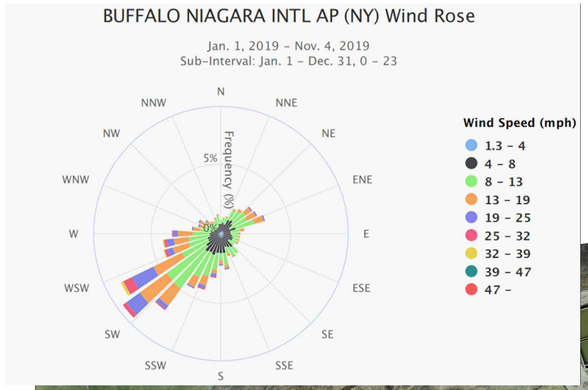
(f) Covering excavated areas and material after excavation activity ceases; and

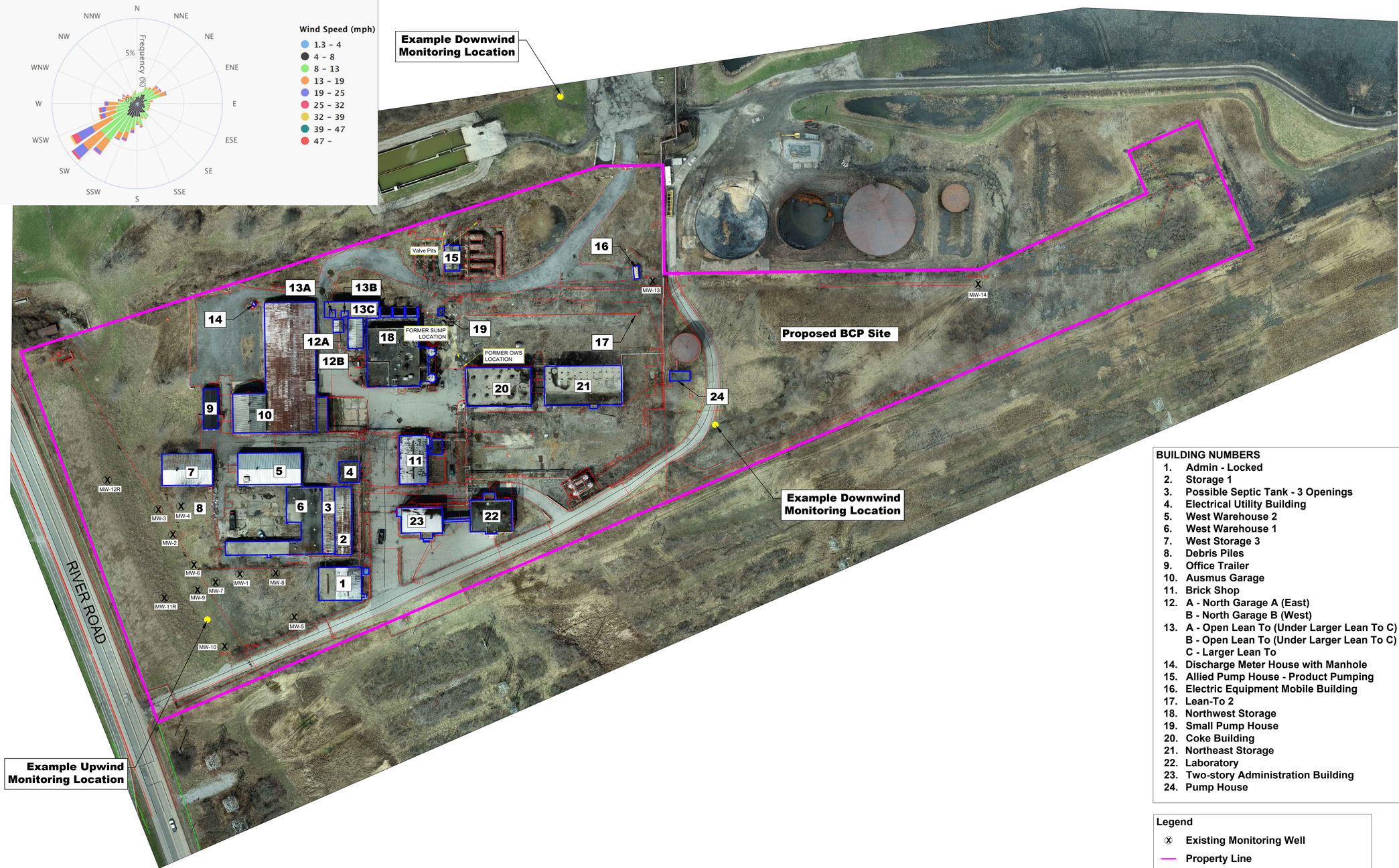
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m^3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

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

Appendix A-2
Perimeter Air Monitoring Locations





N

BUILDING NUMBERS

1. Admin - Locked
2. Storage 1
3. Possible Septic Tank - 3 Openings
4. Electrical Utility Building
5. West Warehouse 2
6. West Warehouse 1
7. West Storage 3
8. Debris Piles
9. Office Trailer
10. Ausmus Garage
11. Brick Shop
12. A - North Garage A (East)
    B - North Garage B (West)
13. A - Open Lean To (Under Larger Lean To C)
    B - Open Lean To (Under Larger Lean To C)
    C - Larger Lean To
14. Discharge Meter House with Manhole
15. Allied Pump House - Product Pumping
16. Electric Equipment Mobile Building
17. Lean-To 2
18. Northwest Storage
19. Small Pump House
20. Coke Building
21. Northeast Storage
22. Laboratory
23. Two-story Administration Building
24. Pump House

Legend

- Existing Monitoring Well
- Property Line
- Building
- Site Features (Utilities & Structures

Note:
1. Downwind and upwind monitoring locations will be moved and relocated as necessary to account for active work areas.

References:
1. Parsons, 2021, Tonawanda Plastics Site NYSDEC ID 915003 Draft Site Investigation Summary Report
2. Niagara Boundary and Mapping Services, 2022, Site Aerial of 3821 River Road Tonawanda

1" = 80'
80' 40' 0' 80'

D

DRAWING BY	RB	
CHECKED		
APPROVED		

COMMUNITY AIR MONITORING PLAN (CAMP)

3821 RIVER ROAD
TONAWANDA NEW YORK, 14150
NYSDEC BCP SITE #C915003

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
(703) 722-6049
www.InventumEng.com

FIGURE 10

DRAWING NUMBER
RI WORKPLAN

Attachment C – Laboratory Report

ANALYTICAL REPORT

Lab Number:	L2433109
Client:	Inventum Engineering 441 Carlisle Drive Suite C Herndon, VA 20170
ATTN:	James Edwards
Phone:	(585) 734-5255
Project Name:	3821 RIVER ROAD
Project Number:	ASTS PLASTICS
Report Date:	07/01/24

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2433109-01	LQ-AST03-06122024	LIQUID	3821 RIVER ROAD TONAWANDA,NY	06/12/24 11:00	06/12/24
L2433109-02	LQ-AST04-06122024	OIL	3821 RIVER ROAD TONAWANDA,NY	06/12/24 11:30	06/12/24
L2433109-03	LQ-AST05-06122024	SLUDGE	3821 RIVER ROAD TONAWANDA,NY	06/12/24 15:00	06/12/24

Project Name:	3821 RIVER ROAD	**Lab Number:**	L2433109
Project Number:	ASTS PLASTICS	**Report Date:**	07/01/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109
Project Number: ASTS PLASTICS **Report Date:** 07/01/24

Case Narrative (continued)

Report Submission
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

The analysis of BTU was subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

TCLP Volatiles
L2433109-01D: The sample has elevated detection limits due to the dilution required by the sample matrix(foam).

Semivolatile Organics
L2433109-02: The surrogate recoveries were outside the acceptance criteria for 2-fluorophenol (133%), phenol-d6 (131%), nitrobenzene-d5 (151%) and 4-terphenyl-d14 (126%); however, the criteria were achieved upon re-extraction outside of holding time. The results of both extractions are reported.
L2433109-03D: The sample has elevated detection limits due to the dilution required by the matrix interferences encountered during the concentration of the sample and the analytical dilution required by the sample matrix.
L2433109-03D: The surrogate recoveries are below the acceptance criteria for 2-fluorophenol (0%), phenol-d6 (0%), nitrobenzene-d5 (0%), 2-fluorobiphenyl (0%), 2,4,6-tribromophenol (0%) and 4-terphenyl-d14 (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

TCLP Semivolatiles
L2433109-03D: The sample has elevated detection limits due to the dilution required by the sample matrix.
L2433109-03D: The surrogate recoveries are below the acceptance criteria for 2-fluorophenol (0%), phenol-d6 (0%), nitrobenzene-d5 (0%), 2-fluorobiphenyl (0%), 2,4,6-tribromophenol (0%) and 4-terphenyl-d14 (0%)

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109
Project Number: ASTS PLASTICS **Report Date:** 07/01/24

Case Narrative (continued)

due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

PCBs
L2433109-01: The sample has elevated detection limits due to the limited sample volume utilized during extraction, as required by the sample matrix.
L2433109-03D: The sample has elevated detection limits due to the dilution required by the sample matrix.

TCLP Pesticides
L2433109-03D: The sample has elevated detection limits due to the dilution required by the sample matrix.
L2433109-03D: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (0%) and decachlorobiphenyl (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

TCLP Herbicides
L2433109-01: The sample has elevated detection limits due to the limited sample volume utilized during extraction, as required by the sample matrix.

Total Metals
L2433109-01, -02, and -03: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by the sample matrix.
The WG1939052-3 MS recoveries, performed on L2433109-02, are outside the acceptance criteria for cadmium (0%), copper (132%), and potassium (0%). A post digestion spike was performed and was within acceptance criteria.
The WG1939052-3 MS recovery for iron (2040%), performed on L2433109-02, does not apply because the sample concentration is greater than four times the spike amount added.
The WG1939052-4 Laboratory Duplicate RPD for iron (24%), performed on L2433109-02, is outside the

Project Name:	3821 RIVER ROAD	**Lab Number:**	L2433109
Project Number:	ASTS PLASTICS	**Report Date:**	07/01/24

Case Narrative (continued)

acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

Total Mercury

L2433109-01: The sample has an elevated detection limit for mercury due to the prep dilution required by the sample matrix.

TCLP Metals

L2433109-01: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by the sample matrix.

L2433109-02: The sample has elevated detection limits for all elements due to the prep dilution required by the sample matrix.

The WG1939213-3 MS recoveries, performed on L2433109-01, are outside the acceptance criteria for arsenic (0%), cadmium (0%), chromium (0%), selenium (0%) and silver (0%). A post digestion spike was performed and was within acceptance criteria.

Hexavalent Chromium

The WG1939021-2 LCS recovery for chromium, hexavalent (75%), associated with L2433109-01 through -03, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich Caitlin Walukevich

Title: Technical Director/Representative Date: 07/01/24

ORGANICS

VOLATILES

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-01
Client ID: LQ-AST03-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Analytical Method: 1,8260D
Analytical Date: 06/25/24 17:23
Analyst: LAC
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	2500	1100	1
1,1-Dichloroethane	ND		ug/kg	500	72.	1
Chloroform	ND		ug/kg	740	69.	1
Carbon tetrachloride	ND		ug/kg	500	110	1
1,2-Dichloropropane	ND		ug/kg	500	62.	1
Dibromochloromethane	ND		ug/kg	500	69.	1
1,1,2-Trichloroethane	ND		ug/kg	500	130	1
Tetrachloroethene	ND		ug/kg	250	97.	1
Chlorobenzene	ND		ug/kg	250	63.	1
Trichlorofluoromethane	ND		ug/kg	2000	340	1
1,2-Dichloroethane	ND		ug/kg	500	130	1
1,1,1-Trichloroethane	ND		ug/kg	250	83.	1
Bromodichloromethane	ND		ug/kg	250	54.	1
trans-1,3-Dichloropropene	ND		ug/kg	500	140	1
cis-1,3-Dichloropropene	ND		ug/kg	250	78.	1
1,3-Dichloropropene, Total	ND		ug/kg	250	78.	1
Bromoform	ND		ug/kg	2000	120	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	250	82.	1
Benzene	ND		ug/kg	250	82.	1
Toluene	ND		ug/kg	500	270	1
Ethylbenzene	ND		ug/kg	500	70.	1
Chloromethane	ND		ug/kg	2000	460	1
Bromomethane	ND		ug/kg	990	290	1
Vinyl chloride	ND		ug/kg	500	160	1
Chloroethane	ND		ug/kg	990	220	1
1,1-Dichloroethene	ND		ug/kg	500	120	1
trans-1,2-Dichloroethene	ND		ug/kg	740	68.	1
Trichloroethene	ND		ug/kg	250	68.	1

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-01
Client ID: LQ-AST03-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY
Date Collected: 06/12/24 11:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/kg	990	71.	1
1,3-Dichlorobenzene	ND		ug/kg	990	73.	1
1,4-Dichlorobenzene	ND		ug/kg	990	85.	1
Methyl tert butyl ether	ND		ug/kg	990	100	1
p/m-Xylene	ND		ug/kg	990	280	1
o-Xylene	ND		ug/kg	500	140	1
Xylenes, Total	ND		ug/kg	500	140	1
cis-1,2-Dichloroethene	ND		ug/kg	500	87.	1
1,2-Dichloroethene, Total	ND		ug/kg	500	68.	1
Styrene	ND		ug/kg	500	97.	1
Dichlorodifluoromethane	ND		ug/kg	5000	450	1
Acetone	ND		ug/kg	5000	2400	1
Carbon disulfide	ND		ug/kg	5000	2200	1
2-Butanone	ND		ug/kg	5000	1100	1
4-Methyl-2-pentanone	ND		ug/kg	5000	630	1
2-Hexanone	ND		ug/kg	5000	580	1
Bromochloromethane	ND		ug/kg	990	100	1
1,2-Dibromoethane	ND		ug/kg	500	140	1
n-Butylbenzene	ND		ug/kg	500	83.	1
sec-Butylbenzene	ND		ug/kg	500	72.	1
tert-Butylbenzene	ND		ug/kg	990	58.	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	1500	490	1
Isopropylbenzene	ND		ug/kg	500	54.	1
p-Isopropyltoluene	ND		ug/kg	500	54.	1
Naphthalene	ND		ug/kg	2000	320	1
n-Propylbenzene	ND		ug/kg	500	85.	1
1,2,3-Trichlorobenzene	ND		ug/kg	990	160	1
1,2,4-Trichlorobenzene	ND		ug/kg	990	130	1
1,3,5-Trimethylbenzene	ND		ug/kg	990	96.	1
1,2,4-Trimethylbenzene	ND		ug/kg	990	160	1
Methyl Acetate	ND		ug/kg	2000	470	1
Cyclohexane	ND		ug/kg	5000	270	1
1,4-Dioxane	ND		ug/kg	40000	17000	1
Freon-113	ND		ug/kg	2000	340	1
Methyl cyclohexane	ND		ug/kg	2000	300	1

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-01 Date Collected: 06/12/24 11:00

Client ID: LQ-AST03-06122024 Date Received: 06/12/24

Sample Location: 3821 RIVER ROAD TONAWANDA,NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	99		70-130

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-01 D
Client ID: LQ-AST03-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Liquid
Analytical Method: 1,8260D
Analytical Date: 06/26/24 08:37
Analyst: MCM
Percent Solids: Results reported on an 'AS RECEIVED' basis.
TCLP/SPLP Ext. Date: 06/26/24 03:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	2.2	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	5.0	1.8	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
Benzene	ND		ug/l	5.0	1.6	10
Vinyl chloride	ND		ug/l	10	0.71	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
Trichloroethene	ND		ug/l	5.0	1.8	10
1,4-Dichlorobenzene	ND		ug/l	25	1.9	10
2-Butanone	ND		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	114		70-130
dibromofluoromethane	107		70-130

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02
Client ID: LQ-AST04-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:30
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Analytical Method: 1,8260D
Analytical Date: 06/26/24 05:19
Analyst: JIC
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	2400	1100	1
1,1-Dichloroethane	ND		ug/kg	480	70.	1
Chloroform	ND		ug/kg	720	67.	1
Carbon tetrachloride	ND		ug/kg	480	110	1
1,2-Dichloropropane	ND		ug/kg	480	60.	1
Dibromochloromethane	ND		ug/kg	480	67.	1
1,1,2-Trichloroethane	ND		ug/kg	480	130	1
Tetrachloroethene	ND		ug/kg	240	94.	1
Chlorobenzene	ND		ug/kg	240	61.	1
Trichlorofluoromethane	ND		ug/kg	1900	330	1
1,2-Dichloroethane	ND		ug/kg	480	120	1
1,1,1-Trichloroethane	ND		ug/kg	240	80.	1
Bromodichloromethane	ND		ug/kg	240	52.	1
trans-1,3-Dichloropropene	ND		ug/kg	480	130	1
cis-1,3-Dichloropropene	ND		ug/kg	240	76.	1
1,3-Dichloropropene, Total	ND		ug/kg	240	76.	1
Bromoform	ND		ug/kg	1900	120	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	240	80.	1
Benzene	ND		ug/kg	240	80.	1
Toluene	ND		ug/kg	480	260	1
Ethylbenzene	ND		ug/kg	480	68.	1
Chloromethane	ND		ug/kg	1900	450	1
Bromomethane	ND		ug/kg	960	280	1
Vinyl chloride	ND		ug/kg	480	160	1
Chloroethane	ND		ug/kg	960	220	1
1,1-Dichloroethene	ND		ug/kg	480	110	1
trans-1,2-Dichloroethene	ND		ug/kg	720	66.	1
Trichloroethene	ND		ug/kg	240	66.	1

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02 Date Collected: 06/12/24 11:30

Client ID: LQ-AST04-06122024 Date Received: 06/12/24

Sample Location: 3821 RIVER ROAD TONAWANDA,NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/kg	960	69.	1
1,3-Dichlorobenzene	ND		ug/kg	960	71.	1
1,4-Dichlorobenzene	ND		ug/kg	960	82.	1
Methyl tert butyl ether	ND		ug/kg	960	97.	1
p/m-Xylene	ND		ug/kg	960	270	1
o-Xylene	ND		ug/kg	480	140	1
Xylenes, Total	ND		ug/kg	480	140	1
cis-1,2-Dichloroethene	ND		ug/kg	480	84.	1
1,2-Dichloroethene, Total	ND		ug/kg	480	66.	1
Styrene	ND		ug/kg	480	94.	1
Dichlorodifluoromethane	ND		ug/kg	4800	440	1
Acetone	ND		ug/kg	4800	2300	1
Carbon disulfide	ND		ug/kg	4800	2200	1
2-Butanone	ND		ug/kg	4800	1100	1
4-Methyl-2-pentanone	ND		ug/kg	4800	620	1
2-Hexanone	ND		ug/kg	4800	570	1
Bromochloromethane	ND		ug/kg	960	98.	1
1,2-Dibromoethane	ND		ug/kg	480	130	1
n-Butylbenzene	ND		ug/kg	480	80.	1
sec-Butylbenzene	ND		ug/kg	480	70.	1
tert-Butylbenzene	ND		ug/kg	960	57.	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	1400	480	1
Isopropylbenzene	ND		ug/kg	480	52.	1
p-Isopropyltoluene	ND		ug/kg	480	52.	1
Naphthalene	3900		ug/kg	1900	310	1
n-Propylbenzene	ND		ug/kg	480	82.	1
1,2,3-Trichlorobenzene	ND		ug/kg	960	150	1
1,2,4-Trichlorobenzene	ND		ug/kg	960	130	1
1,3,5-Trimethylbenzene	ND		ug/kg	960	93.	1
1,2,4-Trimethylbenzene	250	J	ug/kg	960	160	1
Methyl Acetate	ND		ug/kg	1900	460	1
Cyclohexane	ND		ug/kg	4800	260	1
1,4-Dioxane	ND		ug/kg	38000	17000	1
Freon-113	ND		ug/kg	1900	330	1
Methyl cyclohexane	ND		ug/kg	1900	290	1

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02 Date Collected: 06/12/24 11:30

Client ID: LQ-AST04-06122024 Date Received: 06/12/24

Sample Location: 3821 RIVER ROAD TONAWANDA,NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	100		70-130

Project Name: 3821 RIVER ROAD
Lab Number: L2433109
Project Number: ASTS PLASTICS
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03
Client ID: LQ-AST05-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY
Date Collected: 06/12/24 15:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Sludge
Analytical Method: 1,8260D
Analytical Date: 06/26/24 09:00
Analyst: MCM
Percent Solids: 47%
TCLP/SPLP Ext. Date: 06/25/24 05:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	2.2	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	5.0	1.8	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
Benzene	ND		ug/l	5.0	1.6	10
Vinyl chloride	ND		ug/l	10	0.71	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
Trichloroethene	ND		ug/l	5.0	1.8	10
1,4-Dichlorobenzene	ND		ug/l	25	1.9	10
2-Butanone	270		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	127		70-130
dibromofluoromethane	102		70-130

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03
Client ID: LQ-AST05-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY
Date Collected: 06/12/24 15:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Sludge
Analytical Method: 1,8260D
Analytical Date: 06/26/24 10:59
Analyst: AJK
Percent Solids: 47%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	750	340	1
1,1-Dichloroethane	ND		ug/kg	150	22.	1
Chloroform	ND		ug/kg	220	21.	1
Carbon tetrachloride	ND		ug/kg	150	34.	1
1,2-Dichloropropane	ND		ug/kg	150	19.	1
Dibromochloromethane	ND		ug/kg	150	21.	1
1,1,2-Trichloroethane	ND		ug/kg	150	40.	1
Tetrachloroethene	ND		ug/kg	75	29.	1
Chlorobenzene	ND		ug/kg	75	19.	1
Trichlorofluoromethane	ND		ug/kg	600	100	1
1,2-Dichloroethane	ND		ug/kg	150	38.	1
1,1,1-Trichloroethane	ND		ug/kg	75	25.	1
Bromodichloromethane	ND		ug/kg	75	16.	1
trans-1,3-Dichloropropene	ND		ug/kg	150	41.	1
cis-1,3-Dichloropropene	ND		ug/kg	75	24.	1
1,3-Dichloropropene, Total	ND		ug/kg	75	24.	1
Bromoform	ND		ug/kg	600	37.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	75	25.	1
Benzene	ND		ug/kg	75	25.	1
Toluene	ND		ug/kg	150	81.	1
Ethylbenzene	140	J	ug/kg	150	21.	1
Chloromethane	ND		ug/kg	600	140	1
Bromomethane	ND		ug/kg	300	87.	1
Vinyl chloride	ND		ug/kg	150	50.	1
Chloroethane	ND		ug/kg	300	68.	1
1,1-Dichloroethene	ND		ug/kg	150	36.	1
trans-1,2-Dichloroethene	ND		ug/kg	220	20.	1
Trichloroethene	ND		ug/kg	75	20.	1

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03 Date Collected: 06/12/24 15:00

Client ID: LQ-AST05-06122024 Date Received: 06/12/24

Sample Location: 3821 RIVER ROAD TONAWANDA,NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/kg	300	22.	1
1,3-Dichlorobenzene	ND		ug/kg	300	22.	1
1,4-Dichlorobenzene	ND		ug/kg	300	26.	1
Methyl tert butyl ether	ND		ug/kg	300	30.	1
p/m-Xylene	470		ug/kg	300	84.	1
o-Xylene	74	J	ug/kg	150	44.	1
Xylenes, Total	540	J	ug/kg	150	44.	1
cis-1,2-Dichloroethene	ND		ug/kg	150	26.	1
1,2-Dichloroethene, Total	ND		ug/kg	150	20.	1
Styrene	ND		ug/kg	150	29.	1
Dichlorodifluoromethane	ND		ug/kg	1500	140	1
Acetone	27000		ug/kg	1500	720	1
Carbon disulfide	ND		ug/kg	1500	680	1
2-Butanone	20000		ug/kg	1500	330	1
4-Methyl-2-pentanone	ND		ug/kg	1500	190	1
2-Hexanone	62000	E	ug/kg	1500	180	1
Bromochloromethane	ND		ug/kg	300	31.	1
1,2-Dibromoethane	ND		ug/kg	150	42.	1
n-Butylbenzene	ND		ug/kg	150	25.	1
sec-Butylbenzene	ND		ug/kg	150	22.	1
tert-Butylbenzene	ND		ug/kg	300	18.	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	450	150	1
Isopropylbenzene	340		ug/kg	150	16.	1
p-Isopropyltoluene	ND		ug/kg	150	16.	1
Naphthalene	270	J	ug/kg	600	98.	1
n-Propylbenzene	38	J	ug/kg	150	26.	1
1,2,3-Trichlorobenzene	ND		ug/kg	300	48.	1
1,2,4-Trichlorobenzene	ND		ug/kg	300	41.	1
1,3,5-Trimethylbenzene	60	J	ug/kg	300	29.	1
1,2,4-Trimethylbenzene	200	J	ug/kg	300	50.	1
Methyl Acetate	2700		ug/kg	600	140	1
Cyclohexane	ND		ug/kg	1500	82.	1
1,4-Dioxane	ND		ug/kg	12000	5300	1
Freon-113	ND		ug/kg	600	100	1
Methyl cyclohexane	ND		ug/kg	600	90.	1

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03 Date Collected: 06/12/24 15:00

Client ID: LQ-AST05-06122024 Date Received: 06/12/24

Sample Location: 3821 RIVER ROAD TONAWANDA,NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	130		70-130
Dibromofluoromethane	104		70-130

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03 D
Client ID: LQ-AST05-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 15:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Sludge
Analytical Method: 1,8260D
Analytical Date: 06/25/24 17:49
Analyst: LAC
Percent Solids: 47%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
2-Hexanone	40000		ug/kg	15000	1800	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	104		70-130

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/25/24 10:49
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1939579-5					
Methylene chloride	1400	J	ug/kg	2500	1100
1,1-Dichloroethane	ND		ug/kg	500	72.
Chloroform	ND		ug/kg	750	70.
Carbon tetrachloride	ND		ug/kg	500	120
1,2-Dichloropropane	ND		ug/kg	500	62.
Dibromochloromethane	ND		ug/kg	500	70.
1,1,2-Trichloroethane	ND		ug/kg	500	130
Tetrachloroethene	ND		ug/kg	250	98.
Chlorobenzene	ND		ug/kg	250	64.
Trichlorofluoromethane	ND		ug/kg	2000	350
1,2-Dichloroethane	ND		ug/kg	500	130
1,1,1-Trichloroethane	ND		ug/kg	250	84.
Bromodichloromethane	ND		ug/kg	250	54.
trans-1,3-Dichloropropene	ND		ug/kg	500	140
cis-1,3-Dichloropropene	ND		ug/kg	250	79.
1,3-Dichloropropene, Total	ND		ug/kg	250	79.
Bromoform	ND		ug/kg	2000	120
1,1,2,2-Tetrachloroethane	ND		ug/kg	250	83.
Benzene	ND		ug/kg	250	83.
Toluene	ND		ug/kg	500	270
Ethylbenzene	ND		ug/kg	500	70.
Chloromethane	ND		ug/kg	2000	470
Bromomethane	ND		ug/kg	1000	290
Vinyl chloride	ND		ug/kg	500	170
Chloroethane	ND		ug/kg	1000	230
1,1-Dichloroethene	ND		ug/kg	500	120
trans-1,2-Dichloroethene	ND		ug/kg	750	68.
Trichloroethene	ND		ug/kg	250	68.
1,2-Dichlorobenzene	ND		ug/kg	1000	72.

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/25/24 10:49
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1939579-5					
1,3-Dichlorobenzene	ND		ug/kg	1000	74.
1,4-Dichlorobenzene	ND		ug/kg	1000	86.
Methyl tert butyl ether	ND		ug/kg	1000	100
p/m-Xylene	290	J	ug/kg	1000	280
o-Xylene	ND		ug/kg	500	140
Xylenes, Total	290	J	ug/kg	500	140
cis-1,2-Dichloroethene	ND		ug/kg	500	88.
1,2-Dichloroethene, Total	ND		ug/kg	500	68.
Styrene	ND		ug/kg	500	98.
Dichlorodifluoromethane	ND		ug/kg	5000	460
Acetone	ND		ug/kg	5000	2400
Carbon disulfide	ND		ug/kg	5000	2300
2-Butanone	ND		ug/kg	5000	1100
4-Methyl-2-pentanone	ND		ug/kg	5000	640
2-Hexanone	ND		ug/kg	5000	590
Bromochloromethane	ND		ug/kg	1000	100
1,2-Dibromoethane	ND		ug/kg	500	140
n-Butylbenzene	ND		ug/kg	500	84.
sec-Butylbenzene	ND		ug/kg	500	73.
tert-Butylbenzene	ND		ug/kg	1000	59.
1,2-Dibromo-3-chloropropane	ND		ug/kg	1500	500
Isopropylbenzene	ND		ug/kg	500	54.
p-Isopropyltoluene	ND		ug/kg	500	54.
Naphthalene	ND		ug/kg	2000	320
n-Propylbenzene	ND		ug/kg	500	86.
1,2,3-Trichlorobenzene	ND		ug/kg	1000	160
1,2,4-Trichlorobenzene	ND		ug/kg	1000	140
1,3,5-Trimethylbenzene	ND		ug/kg	1000	96.
1,2,4-Trimethylbenzene	ND		ug/kg	1000	170

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/25/24 10:49
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1939579-5					
Methyl Acetate	ND		ug/kg	2000	480
Cyclohexane	ND		ug/kg	5000	270
1,4-Dioxane	ND		ug/kg	40000	18000
Freon-113	ND		ug/kg	2000	350
Methyl cyclohexane	ND		ug/kg	2000	300

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/25/24 10:49
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 03 Batch: WG1939582-5					
Methylene chloride	140	J	ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8
1,2-Dichlorobenzene	ND		ug/kg	100	7.2

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/25/24 10:49
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 03 Batch: WG1939582-5					
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	29	J	ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	29	J	ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/25/24 10:49
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 03 Batch: WG1939582-5					
Methyl Acetate	ND		ug/kg	200	48.
Cyclohexane	ND		ug/kg	500	27.
1,4-Dioxane	ND		ug/kg	4000	1800
Freon-113	ND		ug/kg	200	35.
Methyl cyclohexane	ND		ug/kg	200	30.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/26/24 05:03
Analyst: MCM
TCLP/SPLP Extraction Date: 06/25/24 05:00
Extraction Date: 06/25/24 05:00

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 03 Batch: WG1939614-5					
Chloroform	ND		ug/l	7.5	2.2
Carbon tetrachloride	ND		ug/l	5.0	1.3
Tetrachloroethene	ND		ug/l	5.0	1.8
Chlorobenzene	ND		ug/l	5.0	1.8
1,2-Dichloroethane	ND		ug/l	5.0	1.3
Benzene	ND		ug/l	5.0	1.6
Vinyl chloride	ND		ug/l	10	0.71
1,1-Dichloroethene	ND		ug/l	5.0	1.7
Trichloroethene	ND		ug/l	5.0	1.8
1,4-Dichlorobenzene	ND		ug/l	25	1.9
2-Butanone	ND		ug/l	50	19.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	116		70-130
dibromofluoromethane	105		70-130

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/26/24 05:27
Analyst: MCM
TCLP/SPLP Extraction Date: 06/26/24 03:58
Extraction Date: 06/26/24 03:58

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1939627-5					
Chloroform	ND		ug/l	0.75	0.22
Carbon tetrachloride	ND		ug/l	0.50	0.13
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	0.50	0.18
1,2-Dichloroethane	ND		ug/l	0.50	0.13
Benzene	ND		ug/l	0.50	0.16
Vinyl chloride	ND		ug/l	1.0	0.07
1,1-Dichloroethene	ND		ug/l	0.50	0.17
Trichloroethene	ND		ug/l	0.50	0.18
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19
2-Butanone	ND		ug/l	5.0	1.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	118		70-130
dibromofluoromethane	101		70-130

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/25/24 20:41
Analyst: RAW

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1939668-5					
Methylene chloride	ND		ug/kg	2500	1100
1,1-Dichloroethane	ND		ug/kg	500	72.
Chloroform	96	J	ug/kg	750	70.
Carbon tetrachloride	ND		ug/kg	500	120
1,2-Dichloropropane	ND		ug/kg	500	62.
Dibromochloromethane	ND		ug/kg	500	70.
1,1,2-Trichloroethane	ND		ug/kg	500	130
Tetrachloroethene	ND		ug/kg	250	98.
Chlorobenzene	ND		ug/kg	250	64.
Trichlorofluoromethane	ND		ug/kg	2000	350
1,2-Dichloroethane	ND		ug/kg	500	130
1,1,1-Trichloroethane	ND		ug/kg	250	84.
Bromodichloromethane	ND		ug/kg	250	54.
trans-1,3-Dichloropropene	ND		ug/kg	500	140
cis-1,3-Dichloropropene	ND		ug/kg	250	79.
1,3-Dichloropropene, Total	ND		ug/kg	250	79.
Bromoform	ND		ug/kg	2000	120
1,1,2,2-Tetrachloroethane	ND		ug/kg	250	83.
Benzene	ND		ug/kg	250	83.
Toluene	ND		ug/kg	500	270
Ethylbenzene	ND		ug/kg	500	70.
Chloromethane	ND		ug/kg	2000	470
Bromomethane	ND		ug/kg	1000	290
Vinyl chloride	ND		ug/kg	500	170
Chloroethane	ND		ug/kg	1000	230
1,1-Dichloroethene	ND		ug/kg	500	120
trans-1,2-Dichloroethene	ND		ug/kg	750	68.
Trichloroethene	ND		ug/kg	250	68.
1,2-Dichlorobenzene	ND		ug/kg	1000	72.

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/25/24 20:41
Analyst: RAW

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1939668-5					
1,3-Dichlorobenzene	ND		ug/kg	1000	74.
1,4-Dichlorobenzene	ND		ug/kg	1000	86.
Methyl tert butyl ether	ND		ug/kg	1000	100
p/m-Xylene	ND		ug/kg	1000	280
o-Xylene	ND		ug/kg	500	140
Xylenes, Total	ND		ug/kg	500	140
cis-1,2-Dichloroethene	ND		ug/kg	500	88.
1,2-Dichloroethene, Total	ND		ug/kg	500	68.
Styrene	ND		ug/kg	500	98.
Dichlorodifluoromethane	ND		ug/kg	5000	460
Acetone	ND		ug/kg	5000	2400
Carbon disulfide	ND		ug/kg	5000	2300
2-Butanone	ND		ug/kg	5000	1100
4-Methyl-2-pentanone	ND		ug/kg	5000	640
2-Hexanone	ND		ug/kg	5000	590
Bromochloromethane	ND		ug/kg	1000	100
1,2-Dibromoethane	ND		ug/kg	500	140
n-Butylbenzene	ND		ug/kg	500	84.
sec-Butylbenzene	ND		ug/kg	500	73.
tert-Butylbenzene	ND		ug/kg	1000	59.
1,2-Dibromo-3-chloropropane	ND		ug/kg	1500	500
Isopropylbenzene	ND		ug/kg	500	54.
p-Isopropyltoluene	ND		ug/kg	500	54.
Naphthalene	ND		ug/kg	2000	320
n-Propylbenzene	ND		ug/kg	500	86.
1,2,3-Trichlorobenzene	ND		ug/kg	1000	160
1,2,4-Trichlorobenzene	ND		ug/kg	1000	140
1,3,5-Trimethylbenzene	ND		ug/kg	1000	96.
1,2,4-Trimethylbenzene	ND		ug/kg	1000	170

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/25/24 20:41
Analyst: RAW

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1939668-5					
Methyl Acetate	ND		ug/kg	2000	480
Cyclohexane	ND		ug/kg	5000	270
1,4-Dioxane	ND		ug/kg	40000	18000
Freon-113	ND		ug/kg	2000	350
Methyl cyclohexane	ND		ug/kg	2000	300

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	102		70-130

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/26/24 09:15
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1940220-5					
Methylene chloride	140	J	ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	13	J	ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8
1,2-Dichlorobenzene	ND		ug/kg	100	7.2

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/26/24 09:15
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1940220-5					
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/26/24 09:15
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1940220-5					
Methyl Acetate	ND		ug/kg	200	48.
Cyclohexane	ND		ug/kg	500	27.
1,4-Dioxane	ND		ug/kg	4000	1800
Freon-113	ND		ug/kg	200	35.
Methyl cyclohexane	ND		ug/kg	200	30.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	99		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1939579-3 WG1939579-4								
Methylene chloride	87		84		70-130	4		30
1,1-Dichloroethane	83		79		70-130	5		30
Chloroform	87		84		70-130	4		30
Carbon tetrachloride	91		87		70-130	4		30
1,2-Dichloropropane	86		83		70-130	4		30
Dibromochloromethane	100		98		70-130	2		30
1,1,2-Trichloroethane	88		85		70-130	3		30
Tetrachloroethene	81		78		70-130	4		30
Chlorobenzene	91		88		70-130	3		30
Trichlorofluoromethane	86		82		70-139	5		30
1,2-Dichloroethane	82		80		70-130	2		30
1,1,1-Trichloroethane	91		88		70-130	3		30
Bromodichloromethane	91		88		70-130	3		30
trans-1,3-Dichloropropene	84		83		70-130	1		30
cis-1,3-Dichloropropene	80		77		70-130	4		30
Bromoform	88		87		70-130	1		30
1,1,2,2-Tetrachloroethane	88		86		70-130	2		30
Benzene	87		84		70-130	4		30
Toluene	87		84		70-130	4		30
Ethylbenzene	89		85		70-130	5		30
Chloromethane	84		79		52-130	6		30
Bromomethane	61		57		57-147	7		30
Vinyl chloride	70		**66**	Q	67-130	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1939579-3 WG1939579-4								
Chloroethane	72		70		50-151	3		30
1,1-Dichloroethene	81		78		65-135	4		30
trans-1,2-Dichloroethene	88		84		70-130	5		30
Trichloroethene	89		87		70-130	2		30
1,2-Dichlorobenzene	90		87		70-130	3		30
1,3-Dichlorobenzene	89		85		70-130	5		30
1,4-Dichlorobenzene	89		85		70-130	5		30
Methyl tert butyl ether	88		88		66-130	0		30
p/m-Xylene	86		82		70-130	5		30
o-Xylene	85		81		70-130	5		30
cis-1,2-Dichloroethene	90		86		70-130	5		30
Styrene	86		82		70-130	5		30
Dichlorodifluoromethane	78		74		30-146	5		30
Acetone	100		101		54-140	1		30
Carbon disulfide	82		78		59-130	5		30
2-Butanone	103		108		70-130	5		30
4-Methyl-2-pentanone	86		88		70-130	2		30
2-Hexanone	104		105		70-130	1		30
Bromochloromethane	102		98		70-130	4		30
1,2-Dibromoethane	97		96		70-130	1		30
n-Butylbenzene	90		86		70-130	5		30
sec-Butylbenzene	90		87		70-130	3		30
tert-Butylbenzene	91		88		70-130	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1939579-3 WG1939579-4								
1,2-Dibromo-3-chloropropane	94		94		68-130	0		30
Isopropylbenzene	82		80		70-130	2		30
p-Isopropyltoluene	85		81		70-130	5		30
Naphthalene	103		101		70-130	2		30
n-Propylbenzene	89		85		70-130	5		30
1,2,3-Trichlorobenzene	88		85		70-130	3		30
1,2,4-Trichlorobenzene	89		85		70-130	5		30
1,3,5-Trimethylbenzene	90		87		70-130	3		30
1,2,4-Trimethylbenzene	88		84		70-130	5		30
Methyl Acetate	103		104		51-146	1		30
Cyclohexane	90		86		59-142	5		30
1,4-Dioxane	98		99		65-136	1		30
Freon-113	90		86		50-139	5		30
Methyl cyclohexane	85		81		70-130	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	87		87		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	96		96		70-130
Dibromofluoromethane	104		104		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 03 Batch: WG1939582-3 WG1939582-4								
Methylene chloride	87		84		70-130	4		30
1,1-Dichloroethane	83		79		70-130	5		30
Chloroform	87		84		70-130	4		30
Carbon tetrachloride	91		87		70-130	4		30
1,2-Dichloropropane	86		83		70-130	4		30
Dibromochloromethane	100		98		70-130	2		30
1,1,2-Trichloroethane	88		85		70-130	3		30
Tetrachloroethene	81		78		70-130	4		30
Chlorobenzene	91		88		70-130	3		30
Trichlorofluoromethane	86		82		70-139	5		30
1,2-Dichloroethane	82		80		70-130	2		30
1,1,1-Trichloroethane	91		88		70-130	3		30
Bromodichloromethane	91		88		70-130	3		30
trans-1,3-Dichloropropene	84		83		70-130	1		30
cis-1,3-Dichloropropene	80		77		70-130	4		30
Bromoform	88		87		70-130	1		30
1,1,2,2-Tetrachloroethane	88		86		70-130	2		30
Benzene	87		84		70-130	4		30
Toluene	87		84		70-130	4		30
Ethylbenzene	89		85		70-130	5		30
Chloromethane	84		79		52-130	6		30
Bromomethane	61		57		57-147	7		30
Vinyl chloride	70		**66**	Q	67-130	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 03 Batch: WG1939582-3 WG1939582-4								
Chloroethane	72		70		50-151	3		30
1,1-Dichloroethene	81		78		65-135	4		30
trans-1,2-Dichloroethene	88		84		70-130	5		30
Trichloroethene	89		87		70-130	2		30
1,2-Dichlorobenzene	90		87		70-130	3		30
1,3-Dichlorobenzene	89		85		70-130	5		30
1,4-Dichlorobenzene	89		85		70-130	5		30
Methyl tert butyl ether	88		88		66-130	0		30
p/m-Xylene	86		82		70-130	5		30
o-Xylene	85		81		70-130	5		30
cis-1,2-Dichloroethene	90		86		70-130	5		30
Styrene	86		82		70-130	5		30
Dichlorodifluoromethane	78		74		30-146	5		30
Acetone	100		101		54-140	1		30
Carbon disulfide	82		78		59-130	5		30
2-Butanone	103		108		70-130	5		30
4-Methyl-2-pentanone	86		88		70-130	2		30
2-Hexanone	104		105		70-130	1		30
Bromochloromethane	102		98		70-130	4		30
1,2-Dibromoethane	97		96		70-130	1		30
n-Butylbenzene	90		86		70-130	5		30
sec-Butylbenzene	90		87		70-130	3		30
tert-Butylbenzene	91		88		70-130	3		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 03 Batch: WG1939582-3 WG1939582-4								
1,2-Dibromo-3-chloropropane	94		94		68-130	0		30
Isopropylbenzene	82		80		70-130	2		30
p-Isopropyltoluene	85		81		70-130	5		30
Naphthalene	103		101		70-130	2		30
n-Propylbenzene	89		85		70-130	5		30
1,2,3-Trichlorobenzene	88		85		70-130	3		30
1,2,4-Trichlorobenzene	89		85		70-130	5		30
1,3,5-Trimethylbenzene	90		87		70-130	3		30
1,2,4-Trimethylbenzene	88		84		70-130	5		30
Methyl Acetate	103		104		51-146	1		30
Cyclohexane	90		86		59-142	5		30
1,4-Dioxane	98		99		65-136	1		30
Freon-113	90		86		50-139	5		30
Methyl cyclohexane	85		81		70-130	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	87		87		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	96		96		70-130
Dibromofluoromethane	104		104		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 03 Batch: WG1939614-3 WG1939614-4								
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	94		93		63-132	1		20
Tetrachloroethene	89		88		70-130	1		20
Chlorobenzene	99		99		75-130	0		25
1,2-Dichloroethane	110		110		70-130	0		20
Benzene	100		100		70-130	0		25
Vinyl chloride	98		96		55-140	2		20
1,1-Dichloroethene	95		94		61-145	1		25
Trichloroethene	97		98		70-130	1		25
1,4-Dichlorobenzene	92		94		70-130	2		20
2-Butanone	130		**140**	Q	63-138	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	110		109		70-130
Toluene-d8	110		110		70-130
4-Bromofluorobenzene	105		109		70-130
dibromofluoromethane	102		99		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1939627-3 WG1939627-4								
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	94		93		63-132	1		20
Tetrachloroethene	89		88		70-130	1		20
Chlorobenzene	99		99		75-130	0		25
1,2-Dichloroethane	110		110		70-130	0		20
Benzene	100		100		70-130	0		25
Vinyl chloride	98		96		55-140	2		20
1,1-Dichloroethene	95		94		61-145	1		25
Trichloroethene	97		98		70-130	1		25
1,4-Dichlorobenzene	92		94		70-130	2		20
2-Butanone	130		**140**	Q	63-138	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	110		109		70-130
Toluene-d8	110		110		70-130
4-Bromofluorobenzene	105		109		70-130
dibromofluoromethane	102		99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1939668-3 WG1939668-4								
Methylene chloride	94		90		70-130	4		30
1,1-Dichloroethane	88		84		70-130	5		30
Chloroform	88		85		70-130	3		30
Carbon tetrachloride	89		85		70-130	5		30
1,2-Dichloropropane	87		83		70-130	5		30
Dibromochloromethane	94		91		70-130	3		30
1,1,2-Trichloroethane	91		88		70-130	3		30
Tetrachloroethene	100		94		70-130	6		30
Chlorobenzene	93		88		70-130	6		30
Trichlorofluoromethane	97		81		70-139	18		30
1,2-Dichloroethane	88		86		70-130	2		30
1,1,1-Trichloroethane	93		88		70-130	6		30
Bromodichloromethane	87		85		70-130	2		30
trans-1,3-Dichloropropene	91		88		70-130	3		30
cis-1,3-Dichloropropene	88		86		70-130	2		30
Bromoform	92		91		70-130	1		30
1,1,2,2-Tetrachloroethane	91		87		70-130	4		30
Benzene	89		86		70-130	3		30
Toluene	96		90		70-130	6		30
Ethylbenzene	90		85		70-130	6		30
Chloromethane	91		86		52-130	6		30
Bromomethane	113		106		57-147	6		30
Vinyl chloride	94		89		67-130	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1939668-3 WG1939668-4								
Chloroethane	81		89		50-151	9		30
1,1-Dichloroethene	92		87		65-135	6		30
trans-1,2-Dichloroethene	91		86		70-130	6		30
Trichloroethene	90		89		70-130	1		30
1,2-Dichlorobenzene	93		90		70-130	3		30
1,3-Dichlorobenzene	94		89		70-130	5		30
1,4-Dichlorobenzene	93		88		70-130	6		30
Methyl tert butyl ether	87		84		66-130	4		30
p/m-Xylene	92		88		70-130	4		30
o-Xylene	92		88		70-130	4		30
cis-1,2-Dichloroethene	89		85		70-130	5		30
Styrene	97		92		70-130	5		30
Dichlorodifluoromethane	95		89		30-146	7		30
Acetone	76		75		54-140	1		30
Carbon disulfide	87		84		59-130	4		30
2-Butanone	82		82		70-130	0		30
4-Methyl-2-pentanone	90		90		70-130	0		30
2-Hexanone	86		86		70-130	0		30
Bromochloromethane	91		90		70-130	1		30
1,2-Dibromoethane	94		92		70-130	2		30
n-Butylbenzene	95		90		70-130	5		30
sec-Butylbenzene	93		87		70-130	7		30
tert-Butylbenzene	91		86		70-130	6		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1939668-3 WG1939668-4								
1,2-Dibromo-3-chloropropane	89		91		68-130	2		30
Isopropylbenzene	91		86		70-130	6		30
p-Isopropyltoluene	93		88		70-130	6		30
Naphthalene	87		86		70-130	1		30
n-Propylbenzene	92		87		70-130	6		30
1,2,3-Trichlorobenzene	97		94		70-130	3		30
1,2,4-Trichlorobenzene	96		94		70-130	2		30
1,3,5-Trimethylbenzene	91		86		70-130	6		30
1,2,4-Trimethylbenzene	90		85		70-130	6		30
Methyl Acetate	84		84		51-146	0		30
Cyclohexane	90		85		59-142	6		30
1,4-Dioxane	87		88		65-136	1		30
Freon-113	98		92		50-139	6		30
Methyl cyclohexane	92		86		70-130	7		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		98		70-130
Toluene-d8	99		98		70-130
4-Bromofluorobenzene	92		93		70-130
Dibromofluoromethane	98		99		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1940220-3 WG1940220-4								
Methylene chloride	84		86		70-130	2		30
1,1-Dichloroethane	88		88		70-130	0		30
Chloroform	81		86		70-130	6		30
Carbon tetrachloride	81		86		70-130	6		30
1,2-Dichloropropane	86		92		70-130	7		30
Dibromochloromethane	83		88		70-130	6		30
1,1,2-Trichloroethane	81		86		70-130	6		30
Tetrachloroethene	88		92		70-130	4		30
Chlorobenzene	87		93		70-130	7		30
Trichlorofluoromethane	93		92		70-139	1		30
1,2-Dichloroethane	79		84		70-130	6		30
1,1,1-Trichloroethane	84		88		70-130	5		30
Bromodichloromethane	79		84		70-130	6		30
trans-1,3-Dichloropropene	86		92		70-130	7		30
cis-1,3-Dichloropropene	83		89		70-130	7		30
Bromoform	78		82		70-130	5		30
1,1,2,2-Tetrachloroethane	84		88		70-130	5		30
Benzene	88		92		70-130	4		30
Toluene	87		92		70-130	6		30
Ethylbenzene	87		92		70-130	6		30
Chloromethane	73		73		52-130	0		30
Bromomethane	117		107		57-147	9		30
Vinyl chloride	97		98		67-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1940220-3 WG1940220-4								
Chloroethane	106		106		50-151	0		30
1,1-Dichloroethene	86		89		65-135	3		30
trans-1,2-Dichloroethene	86		87		70-130	1		30
Trichloroethene	81		86		70-130	6		30
1,2-Dichlorobenzene	89		93		70-130	4		30
1,3-Dichlorobenzene	92		95		70-130	3		30
1,4-Dichlorobenzene	90		94		70-130	4		30
Methyl tert butyl ether	83		85		66-130	2		30
p/m-Xylene	89		94		70-130	5		30
o-Xylene	87		91		70-130	4		30
cis-1,2-Dichloroethene	84		88		70-130	5		30
Styrene	88		94		70-130	7		30
Dichlorodifluoromethane	80		81		30-146	1		30
Acetone	86		86		54-140	0		30
Carbon disulfide	86		88		59-130	2		30
2-Butanone	**69**	Q	78		70-130	12		30
4-Methyl-2-pentanone	86		94		70-130	9		30
2-Hexanone	73		82		70-130	12		30
Bromochloromethane	84		86		70-130	2		30
1,2-Dibromoethane	80		85		70-130	6		30
n-Butylbenzene	95		101		70-130	6		30
sec-Butylbenzene	93		96		70-130	3		30
tert-Butylbenzene	90		94		70-130	4		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1940220-3 WG1940220-4								
1,2-Dibromo-3-chloropropane	79		85		68-130	7		30
Isopropylbenzene	90		93		70-130	3		30
p-Isopropyltoluene	95		99		70-130	4		30
Naphthalene	81		89		70-130	9		30
n-Propylbenzene	92		96		70-130	4		30
1,2,3-Trichlorobenzene	90		97		70-130	7		30
1,2,4-Trichlorobenzene	99		106		70-130	7		30
1,3,5-Trimethylbenzene	90		94		70-130	4		30
1,2,4-Trimethylbenzene	91		94		70-130	3		30
Methyl Acetate	73		74		51-146	1		30
Cyclohexane	92		95		59-142	3		30
1,4-Dioxane	96		104		65-136	8		30
Freon-113	96		96		50-139	0		30
Methyl cyclohexane	86		91		70-130	6		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	90		89		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	96		96		70-130
Dibromofluoromethane	95		93		70-130

SEMIVOLATILES

Project Name: 3821 RIVER ROAD
Lab Number: L2433109
Project Number: ASTS PLASTICS
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-01
Client ID: LQ-AST03-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Liquid
Analytical Method: 1,8270E
Analytical Date: 06/27/24 17:39
Analyst: LJG
Percent Solids: Results reported on an 'AS RECEIVED' basis.
TCLP/SPLP Ext. Date: 06/26/24 09:00

Extraction Method: EPA 3510C
Extraction Date: 06/26/24 15:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Semivolatiles by EPA 1311 - Westborough Lab						
Hexachlorobenzene	ND		ug/l	20	6.9	1
2,4-Dinitrotoluene	ND		ug/l	50	3.8	1
Hexachlorobutadiene	ND		ug/l	20	6.0	1
Hexachloroethane	ND		ug/l	20	4.4	1
Nitrobenzene	ND		ug/l	20	6.6	1
2,4,6-Trichlorophenol	ND		ug/l	50	4.9	1
Pentachlorophenol	62	J	ug/l	100	20.	1
2-Methylphenol	ND		ug/l	50	11.	1
3-Methylphenol/4-Methylphenol	ND		ug/l	50	5.5	1
2,4,5-Trichlorophenol	ND		ug/l	50	3.8	1
Pyridine	ND		ug/l	35	9.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		21-120
Phenol-d6	65		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	63		15-120
2,4,6-Tribromophenol	54		10-120
4-Terphenyl-d14	60		33-120

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02
Client ID: LQ-AST04-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY
Date Collected: 06/12/24 11:30
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Analytical Method: 1,8270E
Analytical Date: 06/26/24 06:13
Analyst: LJG
Extraction Method: EPA 3580A
Extraction Date: 06/25/24 14:04

Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	230000		ug/kg	25000	3200	1
Hexachlorobenzene	ND		ug/kg	18000	3500	1
Bis(2-chloroethyl)ether	ND		ug/kg	28000	4200	1
2-Chloronaphthalene	ND		ug/kg	31000	3100	1
3,3'-Dichlorobenzidine	ND		ug/kg	31000	8200	1
2,4-Dinitrotoluene	ND		ug/kg	31000	6200	1
2,6-Dinitrotoluene	ND		ug/kg	31000	5300	1
Fluoranthene	24000		ug/kg	18000	3600	1
4-Chlorophenyl phenyl ether	ND		ug/kg	31000	3300	1
4-Bromophenyl phenyl ether	ND		ug/kg	31000	4700	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	37000	5300	1
Bis(2-chloroethoxy)methane	ND		ug/kg	33000	3100	1
Hexachlorobutadiene	ND		ug/kg	31000	4500	1
Hexachlorocyclopentadiene	ND		ug/kg	88000	28000	1
Hexachloroethane	ND		ug/kg	25000	5000	1
Isophorone	ND		ug/kg	28000	4000	1
Naphthalene	530000		ug/kg	31000	3800	1
Nitrobenzene	ND		ug/kg	28000	4600	1
NDPA/DPA	ND		ug/kg	25000	3500	1
n-Nitrosodi-n-propylamine	ND		ug/kg	31000	4800	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	31000	11000	1
Butyl benzyl phthalate	ND		ug/kg	31000	7800	1
Di-n-butylphthalate	ND		ug/kg	31000	5900	1
Di-n-octylphthalate	ND		ug/kg	31000	10000	1
Diethyl phthalate	ND		ug/kg	31000	2900	1
Dimethyl phthalate	ND		ug/kg	31000	6500	1
Benzo(a)anthracene	5800	J	ug/kg	18000	3500	1
Benzo(a)pyrene	ND		ug/kg	25000	7600	1

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02 Date Collected: 06/12/24 11:30

Client ID: LQ-AST04-06122024 Date Received: 06/12/24

Sample Location: 3821 RIVER ROAD TONAWANDA,NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	18000	5200	1
Benzo(k)fluoranthene	ND		ug/kg	18000	5000	1
Chrysene	7800	J	ug/kg	18000	3200	1
Acenaphthylene	ND		ug/kg	25000	4800	1
Anthracene	110000		ug/kg	18000	6000	1
Benzo(ghi)perylene	ND		ug/kg	25000	3600	1
Fluorene	220000		ug/kg	31000	3000	1
Phenanthrene	710000		ug/kg	18000	3800	1
Dibenzo(a,h)anthracene	ND		ug/kg	18000	3600	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	25000	4300	1
Pyrene	90000		ug/kg	18000	3100	1
Biphenyl	60000	J	ug/kg	70000	4000	1
4-Chloroaniline	ND		ug/kg	31000	5600	1
2-Nitroaniline	ND		ug/kg	31000	6000	1
3-Nitroaniline	ND		ug/kg	31000	5800	1
4-Nitroaniline	ND		ug/kg	31000	13000	1
Dibenzofuran	110000		ug/kg	31000	2900	1
2-Methylnaphthalene	2500000	E	ug/kg	37000	3700	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	31000	3200	1
Acetophenone	ND		ug/kg	31000	3800	1
2,4,6-Trichlorophenol	ND		ug/kg	18000	5900	1
p-Chloro-m-cresol	ND		ug/kg	31000	4600	1
2-Chlorophenol	ND		ug/kg	31000	3600	1
2,4-Dichlorophenol	ND		ug/kg	28000	5000	1
2,4-Dimethylphenol	ND		ug/kg	31000	10000	1
2-Nitrophenol	ND		ug/kg	67000	12000	1
4-Nitrophenol	ND		ug/kg	43000	13000	1
2,4-Dinitrophenol	ND		ug/kg	150000	14000	1
4,6-Dinitro-o-cresol	ND		ug/kg	80000	15000	1
Pentachlorophenol	ND		ug/kg	25000	6800	1
Phenol	ND		ug/kg	31000	4700	1
2-Methylphenol	ND		ug/kg	31000	4800	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	44000	4800	1
2,4,5-Trichlorophenol	ND		ug/kg	31000	5900	1
Carbazole	ND		ug/kg	31000	3000	1
Atrazine	ND		ug/kg	25000	11000	1
Benzaldehyde	ND		ug/kg	41000	8400	1

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02 Date Collected: 06/12/24 11:30

Client ID: LQ-AST04-06122024 Date Received: 06/12/24

Sample Location: 3821 RIVER ROAD TONAWANDA,NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	31000	9400	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	31000	6200	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**133**	Q	25-120
Phenol-d6	**131**	Q	10-120
Nitrobenzene-d5	**151**	Q	23-120
2-Fluorobiphenyl	116		30-120
2,4,6-Tribromophenol	112		10-136
4-Terphenyl-d14	**126**	Q	18-120

Project Name: 3821 RIVER ROAD
Lab Number: L2433109
Project Number: ASTS PLASTICS
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02 RE\D
Client ID: LQ-AST04-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:30
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Analytical Method: 1,8270E
Analytical Date: 06/29/24 14:27
Analyst: JG
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: EPA 3580A
Extraction Date: 06/28/24 17:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2-Methylnaphthalene	5900000		ug/kg	350000	36000	5

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02 RE
Client ID: LQ-AST04-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:30
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Analytical Method: 1,8270E
Analytical Date: 06/29/24 06:43
Analyst: JG
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: EPA 3580A
Extraction Date: 06/28/24 17:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	360000		ug/kg	47000	6100	1
Hexachlorobenzene	ND		ug/kg	35000	6600	1
Bis(2-chloroethyl)ether	ND		ug/kg	53000	8000	1
2-Chloronaphthalene	ND		ug/kg	59000	5800	1
3,3'-Dichlorobenzidine	ND		ug/kg	59000	16000	1
2,4-Dinitrotoluene	ND		ug/kg	59000	12000	1
2,6-Dinitrotoluene	ND		ug/kg	59000	10000	1
Fluoranthene	30000	J	ug/kg	35000	6800	1
4-Chlorophenyl phenyl ether	ND		ug/kg	59000	6300	1
4-Bromophenyl phenyl ether	ND		ug/kg	59000	9000	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	70000	10000	1
Bis(2-chloroethoxy)methane	ND		ug/kg	64000	5900	1
Hexachlorobutadiene	ND		ug/kg	59000	8600	1
Hexachlorocyclopentadiene	ND		ug/kg	170000	53000	1
Hexachloroethane	ND		ug/kg	47000	9500	1
Isophorone	ND		ug/kg	53000	7600	1
Naphthalene	880000		ug/kg	59000	7200	1
Nitrobenzene	ND		ug/kg	53000	8700	1
NDPA/DPA	ND		ug/kg	47000	6700	1
n-Nitrosodi-n-propylamine	ND		ug/kg	59000	9100	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	59000	20000	1
Butyl benzyl phthalate	ND		ug/kg	59000	15000	1
Di-n-butylphthalate	ND		ug/kg	59000	11000	1
Di-n-octylphthalate	ND		ug/kg	59000	20000	1
Diethyl phthalate	ND		ug/kg	59000	5400	1
Dimethyl phthalate	ND		ug/kg	59000	12000	1
Benzo(a)anthracene	9600	J	ug/kg	35000	6600	1
Benzo(a)pyrene	ND		ug/kg	47000	14000	1

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02 RE Date Collected: 06/12/24 11:30
Client ID: LQ-AST04-06122024 Date Received: 06/12/24
Sample Location: 3821 RIVER ROAD TONAWANDA,NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	35000	9900	1
Benzo(k)fluoranthene	ND		ug/kg	35000	9400	1
Chrysene	13000	J	ug/kg	35000	6100	1
Acenaphthylene	ND		ug/kg	47000	9100	1
Anthracene	180000		ug/kg	35000	11000	1
Benzo(ghi)perylene	ND		ug/kg	47000	6900	1
Fluorene	320000		ug/kg	59000	5700	1
Phenanthrene	1200000		ug/kg	35000	7200	1
Dibenzo(a,h)anthracene	ND		ug/kg	35000	6800	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	47000	8200	1
Pyrene	140000		ug/kg	35000	5800	1
Biphenyl	110000	J	ug/kg	130000	7600	1
4-Chloroaniline	ND		ug/kg	59000	11000	1
2-Nitroaniline	ND		ug/kg	59000	11000	1
3-Nitroaniline	ND		ug/kg	59000	11000	1
4-Nitroaniline	ND		ug/kg	59000	24000	1
Dibenzofuran	160000		ug/kg	59000	5600	1
2-Methylnaphthalene	4500000	E	ug/kg	70000	7100	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	59000	6100	1
Acetophenone	ND		ug/kg	59000	7300	1
2,4,6-Trichlorophenol	ND		ug/kg	35000	11000	1
p-Chloro-m-cresol	ND		ug/kg	59000	8800	1
2-Chlorophenol	ND		ug/kg	59000	7000	1
2,4-Dichlorophenol	ND		ug/kg	53000	9400	1
2,4-Dimethylphenol	ND		ug/kg	59000	19000	1
2-Nitrophenol	ND		ug/kg	130000	22000	1
4-Nitrophenol	ND		ug/kg	82000	24000	1
2,4-Dinitrophenol	ND		ug/kg	280000	27000	1
4,6-Dinitro-o-cresol	ND		ug/kg	150000	28000	1
Pentachlorophenol	ND		ug/kg	47000	13000	1
Phenol	ND		ug/kg	59000	8900	1
2-Methylphenol	ND		ug/kg	59000	9100	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	85000	9200	1
2,4,5-Trichlorophenol	ND		ug/kg	59000	11000	1
Carbazole	ND		ug/kg	59000	5700	1
Atrazine	ND		ug/kg	47000	20000	1
Benzaldehyde	ND		ug/kg	78000	16000	1

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02 RE
Client ID: LQ-AST04-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:30
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	59000	18000	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	59000	12000	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	79		25-120
Phenol-d6	69		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	79		30-120
2,4,6-Tribromophenol	60		10-136
4-Terphenyl-d14	67		18-120

Project Name: 3821 RIVER ROAD
Lab Number: L2433109
Project Number: ASTS PLASTICS
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02 D
Client ID: LQ-AST04-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:30
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Analytical Method: 1,8270E
Analytical Date: 06/26/24 21:02
Analyst: JG
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: EPA 3580A
Extraction Date: 06/25/24 14:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2-Methylnaphthalene	2100000		ug/kg	180000	19000	5

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03 D
Client ID: LQ-AST05-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 15:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Sludge
Analytical Method: 1,8270E
Analytical Date: 06/28/24 22:19
Analyst: CMM
Percent Solids: 47%
TCLP/SPLP Ext. Date: 06/24/24 17:23

Extraction Method: EPA 3510C
Extraction Date: 06/26/24 14:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Semivolatiles by EPA 1311 - Westborough Lab						
Hexachlorobenzene	ND		ug/l	200	69.	20
2,4-Dinitrotoluene	ND		ug/l	500	38.	20
Hexachlorobutadiene	ND		ug/l	200	60.	20
Hexachloroethane	ND		ug/l	200	44.	20
Nitrobenzene	ND		ug/l	200	66.	20
2,4,6-Trichlorophenol	ND		ug/l	500	49.	20
Pentachlorophenol	ND		ug/l	1000	200	20
2-Methylphenol	ND		ug/l	500	110	20
3-Methylphenol/4-Methylphenol	ND		ug/l	500	55.	20
2,4,5-Trichlorophenol	ND		ug/l	500	38.	20
Pyridine	ND		ug/l	350	90.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**0**	Q	21-120
Phenol-d6	**0**	Q	10-120
Nitrobenzene-d5	**0**	Q	23-120
2-Fluorobiphenyl	**0**	Q	15-120
2,4,6-Tribromophenol	**0**	Q	10-120
4-Terphenyl-d14	**0**	Q	33-120

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03 D
Client ID: LQ-AST05-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 15:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Sludge
Analytical Method: 1,8270E
Analytical Date: 06/28/24 06:46
Analyst: LJG
Percent Solids: 47%

Extraction Method: EPA 3540C
Extraction Date: 06/26/24 21:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	56000	7200	200
Hexachlorobenzene	ND		ug/kg	42000	7800	200
Bis(2-chloroethyl)ether	ND		ug/kg	62000	9400	200
2-Chloronaphthalene	ND		ug/kg	70000	6900	200
3,3'-Dichlorobenzidine	ND		ug/kg	70000	18000	200
2,4-Dinitrotoluene	ND		ug/kg	70000	14000	200
2,6-Dinitrotoluene	ND		ug/kg	70000	12000	200
Fluoranthene	ND		ug/kg	42000	8000	200
4-Chlorophenyl phenyl ether	ND		ug/kg	70000	7400	200
4-Bromophenyl phenyl ether	ND		ug/kg	70000	11000	200
Bis(2-chloroisopropyl)ether	ND		ug/kg	83000	12000	200
Bis(2-chloroethoxy)methane	ND		ug/kg	75000	7000	200
Hexachlorobutadiene	ND		ug/kg	70000	10000	200
Hexachlorocyclopentadiene	ND		ug/kg	200000	63000	200
Hexachloroethane	ND		ug/kg	56000	11000	200
Isophorone	ND		ug/kg	62000	9000	200
Naphthalene	ND		ug/kg	70000	8500	200
Nitrobenzene	ND		ug/kg	62000	10000	200
NDPA/DPA	ND		ug/kg	56000	7900	200
n-Nitrosodi-n-propylamine	ND		ug/kg	70000	11000	200
Bis(2-ethylhexyl)phthalate	ND		ug/kg	70000	24000	200
Butyl benzyl phthalate	ND		ug/kg	70000	18000	200
Di-n-butylphthalate	ND		ug/kg	70000	13000	200
Di-n-octylphthalate	ND		ug/kg	70000	24000	200
Diethyl phthalate	ND		ug/kg	70000	6400	200
Dimethyl phthalate	ND		ug/kg	70000	14000	200
Benzo(a)anthracene	ND		ug/kg	42000	7800	200
Benzo(a)pyrene	ND		ug/kg	56000	17000	200

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03 D Date Collected: 06/12/24 15:00
Client ID: LQ-AST05-06122024 Date Received: 06/12/24
Sample Location: 3821 RIVER ROAD TONAWANDA,NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	42000	12000	200
Benzo(k)fluoranthene	ND		ug/kg	42000	11000	200
Chrysene	ND		ug/kg	42000	7200	200
Acenaphthylene	ND		ug/kg	56000	11000	200
Anthracene	ND		ug/kg	42000	14000	200
Benzo(ghi)perylene	ND		ug/kg	56000	8200	200
Fluorene	ND		ug/kg	70000	6800	200
Phenanthrene	ND		ug/kg	42000	8400	200
Dibenzo(a,h)anthracene	ND		ug/kg	42000	8000	200
Indeno(1,2,3-cd)pyrene	ND		ug/kg	56000	9700	200
Pyrene	ND		ug/kg	42000	6900	200
Biphenyl	ND		ug/kg	160000	9000	200
4-Chloroaniline	ND		ug/kg	70000	13000	200
2-Nitroaniline	ND		ug/kg	70000	13000	200
3-Nitroaniline	ND		ug/kg	70000	13000	200
4-Nitroaniline	ND		ug/kg	70000	29000	200
Dibenzofuran	ND		ug/kg	70000	6600	200
2-Methylnaphthalene	ND		ug/kg	83000	8400	200
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	70000	7200	200
Acetophenone	ND		ug/kg	70000	8600	200
2,4,6-Trichlorophenol	ND		ug/kg	42000	13000	200
p-Chloro-m-cresol	ND		ug/kg	70000	10000	200
2-Chlorophenol	ND		ug/kg	70000	8200	200
2,4-Dichlorophenol	ND		ug/kg	62000	11000	200
2,4-Dimethylphenol	ND		ug/kg	70000	23000	200
2-Nitrophenol	ND		ug/kg	150000	26000	200
4-Nitrophenol	ND		ug/kg	97000	28000	200
2,4-Dinitrophenol	ND		ug/kg	330000	32000	200
4,6-Dinitro-o-cresol	ND		ug/kg	180000	33000	200
Pentachlorophenol	ND		ug/kg	56000	15000	200
Phenol	ND		ug/kg	70000	10000	200
2-Methylphenol	ND		ug/kg	70000	11000	200
3-Methylphenol/4-Methylphenol	ND		ug/kg	100000	11000	200
2,4,5-Trichlorophenol	ND		ug/kg	70000	13000	200
Carbazole	ND		ug/kg	70000	6800	200
Atrazine	ND		ug/kg	56000	24000	200
Benzaldehyde	ND		ug/kg	92000	19000	200

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03 D
Client ID: LQ-AST05-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 15:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	70000	21000	200
2,3,4,6-Tetrachlorophenol	ND		ug/kg	70000	14000	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**0**	Q	25-120
Phenol-d6	**0**	Q	10-120
Nitrobenzene-d5	**0**	Q	23-120
2-Fluorobiphenyl	**0**	Q	30-120
2,4,6-Tribromophenol	**0**	Q	10-136
4-Terphenyl-d14	**0**	Q	18-120

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 06/26/24 00:17
Analyst: LJG

Extraction Method: EPA 3580A
Extraction Date: 06/25/24 14:04

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1939155-1					
Acenaphthene	ND		ug/kg	21000	2700
Hexachlorobenzene	ND		ug/kg	16000	2900
Bis(2-chloroethyl)ether	ND		ug/kg	23000	3500
2-Chloronaphthalene	ND		ug/kg	26000	2600
3,3'-Dichlorobenzidine	ND		ug/kg	26000	6900
2,4-Dinitrotoluene	ND		ug/kg	26000	5200
2,6-Dinitrotoluene	ND		ug/kg	26000	4400
Fluoranthene	ND		ug/kg	16000	3000
4-Chlorophenyl phenyl ether	ND		ug/kg	26000	2800
4-Bromophenyl phenyl ether	ND		ug/kg	26000	3900
Bis(2-chloroisopropyl)ether	ND		ug/kg	31000	4400
Bis(2-chloroethoxy)methane	ND		ug/kg	28000	2600
Hexachlorobutadiene	ND		ug/kg	26000	3800
Hexachlorocyclopentadiene	ND		ug/kg	74000	23000
Hexachloroethane	ND		ug/kg	21000	4200
Isophorone	ND		ug/kg	23000	3400
Naphthalene	ND		ug/kg	26000	3100
Nitrobenzene	ND		ug/kg	23000	3800
NDPA/DPA	ND		ug/kg	21000	2900
n-Nitrosodi-n-propylamine	ND		ug/kg	26000	4000
Bis(2-ethylhexyl)phthalate	ND		ug/kg	26000	8900
Butyl benzyl phthalate	ND		ug/kg	26000	6500
Di-n-butylphthalate	ND		ug/kg	26000	4900
Di-n-octylphthalate	ND		ug/kg	26000	8800
Diethyl phthalate	ND		ug/kg	26000	2400
Dimethyl phthalate	ND		ug/kg	26000	5400
Benzo(a)anthracene	ND		ug/kg	16000	2900
Benzo(a)pyrene	ND		ug/kg	21000	6300
Benzo(b)fluoranthene	ND		ug/kg	16000	4400

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 06/26/24 00:17
Analyst: LJG

Extraction Method: EPA 3580A
Extraction Date: 06/25/24 14:04

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1939155-1					
Benzo(k)fluoranthene	ND		ug/kg	16000	4100
Chrysene	ND		ug/kg	16000	2700
Acenaphthylene	ND		ug/kg	21000	4000
Anthracene	ND		ug/kg	16000	5000
Benzo(ghi)perylene	ND		ug/kg	21000	3000
Fluorene	ND		ug/kg	26000	2500
Phenanthrene	ND		ug/kg	16000	3100
Dibenzo(a,h)anthracene	ND		ug/kg	16000	3000
Indeno(1,2,3-cd)pyrene	ND		ug/kg	21000	3600
Pyrene	ND		ug/kg	16000	2600
Biphenyl	ND		ug/kg	59000	3400
4-Chloroaniline	ND		ug/kg	26000	4700
2-Nitroaniline	ND		ug/kg	26000	5000
3-Nitroaniline	ND		ug/kg	26000	4900
4-Nitroaniline	ND		ug/kg	26000	11000
Dibenzofuran	ND		ug/kg	26000	2400
2-Methylnaphthalene	ND		ug/kg	31000	3100
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	26000	2700
Acetophenone	ND		ug/kg	26000	3200
2,4,6-Trichlorophenol	ND		ug/kg	16000	4900
p-Chloro-m-cresol	ND		ug/kg	26000	3800
2-Chlorophenol	ND		ug/kg	26000	3000
2,4-Dichlorophenol	ND		ug/kg	23000	4200
2,4-Dimethylphenol	ND		ug/kg	26000	8500
2-Nitrophenol	ND		ug/kg	56000	9700
4-Nitrophenol	ND		ug/kg	36000	10000
2,4-Dinitrophenol	ND		ug/kg	120000	12000
4,6-Dinitro-o-cresol	ND		ug/kg	67000	12000
Pentachlorophenol	ND		ug/kg	21000	5700

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 06/26/24 00:17
Analyst: LJG

Extraction Method: EPA 3580A
Extraction Date: 06/25/24 14:04

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1939155-1					
Phenol	ND		ug/kg	26000	3900
2-Methylphenol	ND		ug/kg	26000	4000
3-Methylphenol/4-Methylphenol	ND		ug/kg	37000	4000
2,4,5-Trichlorophenol	ND		ug/kg	26000	5000
Carbazole	ND		ug/kg	26000	2500
Atrazine	ND		ug/kg	21000	9000
Benzaldehyde	ND		ug/kg	34000	7000
Caprolactam	ND		ug/kg	26000	7800
2,3,4,6-Tetrachlorophenol	ND		ug/kg	26000	5200

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	110		25-120
Phenol-d6	109		10-120
Nitrobenzene-d5	107		23-120
2-Fluorobiphenyl	104		30-120
2,4,6-Tribromophenol	85		10-136
4-Terphenyl-d14	101		18-120

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 06/28/24 01:11
Analyst: SZ
TCLP/SPLP Extraction Date: 06/24/24 17:23

Extraction Method: EPA 3510C
Extraction Date: 06/26/24 14:44

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Semivolatiles by EPA 1311 - Westborough Lab for sample(s): 03 Batch: WG1939752-1					
Hexachlorobenzene	ND		ug/l	10	3.4
2,4-Dinitrotoluene	ND		ug/l	25	1.9
Hexachlorobutadiene	ND		ug/l	10	3.0
Hexachloroethane	ND		ug/l	10	2.2
Nitrobenzene	ND		ug/l	10	3.3
2,4,6-Trichlorophenol	ND		ug/l	25	2.5
Pentachlorophenol	ND		ug/l	50	9.8
2-Methylphenol	ND		ug/l	25	5.5
3-Methylphenol/4-Methylphenol	ND		ug/l	25	2.8
2,4,5-Trichlorophenol	ND		ug/l	25	1.9
Pyridine	ND		ug/l	18	4.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		21-120
Phenol-d6	54		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	79		15-120
2,4,6-Tribromophenol	67		10-120
4-Terphenyl-d14	78		33-120

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 06/27/24 17:15
Analyst: LJG
TCLP/SPLP Extraction Date: 06/26/24 09:00

Extraction Method: EPA 3510C
Extraction Date: 06/26/24 15:12

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Semivolatiles by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1939784-1					
Hexachlorobenzene	ND		ug/l	10	3.4
2,4-Dinitrotoluene	ND		ug/l	25	1.9
Hexachlorobutadiene	ND		ug/l	10	3.0
Hexachloroethane	ND		ug/l	10	2.2
Nitrobenzene	ND		ug/l	10	3.3
2,4,6-Trichlorophenol	ND		ug/l	25	2.5
Pentachlorophenol	ND		ug/l	50	9.8
2-Methylphenol	ND		ug/l	25	5.5
3-Methylphenol/4-Methylphenol	ND		ug/l	25	2.8
2,4,5-Trichlorophenol	ND		ug/l	25	1.9
Pyridine	ND		ug/l	18	4.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		21-120
Phenol-d6	67		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	71		15-120
2,4,6-Tribromophenol	58		10-120
4-Terphenyl-d14	70		33-120

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 06/28/24 00:50
Analyst: LJG

Extraction Method: EPA 3540C
Extraction Date: 06/26/24 21:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1939941-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	98	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	98	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	28.

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 06/28/24 00:50
Analyst: LJG

Extraction Method: EPA 3540C
Extraction Date: 06/26/24 21:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1939941-1					
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Biphenyl	ND		ug/kg	370	21.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	62.
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	76.
4,6-Dinitro-o-cresol	ND		ug/kg	420	79.
Pentachlorophenol	ND		ug/kg	130	36.

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 06/28/24 00:50
Analyst: LJG

Extraction Method: EPA 3540C
Extraction Date: 06/26/24 21:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1939941-1					
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Carbazole	ND		ug/kg	160	16.
Atrazine	ND		ug/kg	130	57.
Benzaldehyde	ND		ug/kg	220	44.
Caprolactam	ND		ug/kg	160	50.
2,3,4,6-Tetrachlorophenol	ND		ug/kg	160	33.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		25-120
Phenol-d6	57		10-120
Nitrobenzene-d5	57		23-120
2-Fluorobiphenyl	57		30-120
2,4,6-Tribromophenol	40		10-136
4-Terphenyl-d14	59		18-120

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 06/29/24 02:42
Analyst: CMM

Extraction Method: EPA 3580A
Extraction Date: 06/28/24 17:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1941021-1					
Acenaphthene	ND		ug/kg	38000	4900
Hexachlorobenzene	ND		ug/kg	28000	5300
Bis(2-chloroethyl)ether	ND		ug/kg	42000	6400
2-Chloronaphthalene	ND		ug/kg	47000	4700
3,3'-Dichlorobenzidine	ND		ug/kg	47000	12000
2,4-Dinitrotoluene	ND		ug/kg	47000	9400
2,6-Dinitrotoluene	ND		ug/kg	47000	8100
Fluoranthene	ND		ug/kg	28000	5400
4-Chlorophenyl phenyl ether	ND		ug/kg	47000	5000
4-Bromophenyl phenyl ether	ND		ug/kg	47000	7200
Bis(2-chloroisopropyl)ether	ND		ug/kg	57000	8000
Bis(2-chloroethoxy)methane	ND		ug/kg	51000	4700
Hexachlorobutadiene	ND		ug/kg	47000	6900
Hexachlorocyclopentadiene	ND		ug/kg	130000	43000
Hexachloroethane	ND		ug/kg	38000	7600
Isophorone	ND		ug/kg	42000	6100
Naphthalene	ND		ug/kg	47000	5700
Nitrobenzene	ND		ug/kg	42000	7000
NDPA/DPA	ND		ug/kg	38000	5400
n-Nitrosodi-n-propylamine	ND		ug/kg	47000	7300
Bis(2-ethylhexyl)phthalate	ND		ug/kg	47000	16000
Butyl benzyl phthalate	ND		ug/kg	47000	12000
Di-n-butylphthalate	ND		ug/kg	47000	8900
Di-n-octylphthalate	ND		ug/kg	47000	16000
Diethyl phthalate	ND		ug/kg	47000	4400
Dimethyl phthalate	ND		ug/kg	47000	9900
Benzo(a)anthracene	ND		ug/kg	28000	5300
Benzo(a)pyrene	ND		ug/kg	38000	12000
Benzo(b)fluoranthene	ND		ug/kg	28000	7900

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 06/29/24 02:42
Analyst: CMM

Extraction Method: EPA 3580A
Extraction Date: 06/28/24 17:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1941021-1					
Benzo(k)fluoranthene	ND		ug/kg	28000	7500
Chrysene	ND		ug/kg	28000	4900
Acenaphthylene	ND		ug/kg	38000	7300
Anthracene	ND		ug/kg	28000	9200
Benzo(ghi)perylene	ND		ug/kg	38000	5500
Fluorene	ND		ug/kg	47000	4600
Phenanthrene	ND		ug/kg	28000	5700
Dibenzo(a,h)anthracene	ND		ug/kg	28000	5400
Indeno(1,2,3-cd)pyrene	ND		ug/kg	38000	6600
Pyrene	ND		ug/kg	28000	4700
Biphenyl	ND		ug/kg	110000	6100
4-Chloroaniline	ND		ug/kg	47000	8600
2-Nitroaniline	ND		ug/kg	47000	9100
3-Nitroaniline	ND		ug/kg	47000	8900
4-Nitroaniline	ND		ug/kg	47000	20000
Dibenzofuran	ND		ug/kg	47000	4500
2-Methylnaphthalene	ND		ug/kg	57000	5700
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	47000	4900
Acetophenone	ND		ug/kg	47000	5800
2,4,6-Trichlorophenol	ND		ug/kg	28000	8900
p-Chloro-m-cresol	ND		ug/kg	47000	7000
2-Chlorophenol	ND		ug/kg	47000	5600
2,4-Dichlorophenol	ND		ug/kg	42000	7600
2,4-Dimethylphenol	ND		ug/kg	47000	16000
2-Nitrophenol	ND		ug/kg	100000	18000
4-Nitrophenol	ND		ug/kg	66000	19000
2,4-Dinitrophenol	ND		ug/kg	230000	22000
4,6-Dinitro-o-cresol	ND		ug/kg	120000	23000
Pentachlorophenol	ND		ug/kg	38000	10000

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 06/29/24 02:42
Analyst: CMM

Extraction Method: EPA 3580A
Extraction Date: 06/28/24 17:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1941021-1					
Phenol	ND		ug/kg	47000	7100
2-Methylphenol	ND		ug/kg	47000	7300
3-Methylphenol/4-Methylphenol	ND		ug/kg	68000	7400
2,4,5-Trichlorophenol	ND		ug/kg	47000	9000
Carbazole	ND		ug/kg	47000	4600
Atrazine	ND		ug/kg	38000	16000
Benzaldehyde	ND		ug/kg	62000	13000
Caprolactam	ND		ug/kg	47000	14000
2,3,4,6-Tetrachlorophenol	ND		ug/kg	47000	9500

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	82		25-120
Phenol-d6	84		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	83		30-120
2,4,6-Tribromophenol	82		10-136
4-Terphenyl-d14	81		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1939155-2 WG1939155-3								
Acenaphthene	107		112		31-137	5		50
Hexachlorobenzene	105		108		40-140	3		50
Bis(2-chloroethyl)ether	113		119		40-140	5		50
2-Chloronaphthalene	105		114		40-140	8		50
3,3'-Dichlorobenzidine	96		101		40-140	5		50
2,4-Dinitrotoluene	110		122		40-132	10		50
2,6-Dinitrotoluene	108		113		40-140	5		50
Fluoranthene	108		114		40-140	5		50
4-Chlorophenyl phenyl ether	112		113		40-140	1		50
4-Bromophenyl phenyl ether	105		109		40-140	4		50
Bis(2-chloroisopropyl)ether	117		121		40-140	3		50
Bis(2-chloroethoxy)methane	115		**121**	Q	40-117	5		50
Hexachlorobutadiene	110		118		40-140	7		50
Hexachlorocyclopentadiene	105		106		40-140	1		50
Hexachloroethane	113		118		40-140	4		50
Isophorone	105		112		40-140	6		50
Naphthalene	110		118		40-140	7		50
Nitrobenzene	119		127		40-140	7		50
NDPA/DPA	108		114		36-157	5		50
n-Nitrosodi-n-propylamine	112		120		32-121	7		50
Bis(2-ethylhexyl)phthalate	109		118		40-140	8		50
Butyl benzyl phthalate	138		**143**	Q	40-140	4		50
Di-n-butylphthalate	107		113		40-140	5		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1939155-2 WG1939155-3								
Di-n-octylphthalate	84		92		40-140	9		50
Diethyl phthalate	108		115		40-140	6		50
Dimethyl phthalate	106		116		40-140	9		50
Benzo(a)anthracene	108		115		40-140	6		50
Benzo(a)pyrene	102		109		40-140	7		50
Benzo(b)fluoranthene	101		110		40-140	9		50
Benzo(k)fluoranthene	104		113		40-140	8		50
Chrysene	109		115		40-140	5		50
Acenaphthylene	107		115		40-140	7		50
Anthracene	112		118		40-140	5		50
Benzo(ghi)perylene	102		108		40-140	6		50
Fluorene	107		114		40-140	6		50
Phenanthrene	112		118		40-140	5		50
Dibenzo(a,h)anthracene	100		106		40-140	6		50
Indeno(1,2,3-cd)pyrene	98		101		40-140	3		50
Pyrene	110		116		35-142	5		50
Biphenyl	110		115		37-127	4		50
4-Chloroaniline	120		134		40-140	11		50
2-Nitroaniline	116		125		47-134	7		50
3-Nitroaniline	102		108		26-129	6		50
4-Nitroaniline	116		119		41-125	3		50
Dibenzofuran	108		114		40-140	5		50
2-Methylnaphthalene	107		116		40-140	8		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1939155-2 WG1939155-3								
1,2,4,5-Tetrachlorobenzene	109		117		40-117	7		50
Acetophenone	116		123		14-144	6		50
2,4,6-Trichlorophenol	103		118		30-130	14		50
p-Chloro-m-cresol	**111**	Q	**123**	Q	26-103	10		50
2-Chlorophenol	**110**	Q	**116**	Q	25-102	5		50
2,4-Dichlorophenol	104		117		30-130	12		50
2,4-Dimethylphenol	105		110		30-130	5		50
2-Nitrophenol	114		123		30-130	8		50
4-Nitrophenol	**117**	Q	**122**	Q	11-114	4		50
2,4-Dinitrophenol	**150**	Q	**156**	Q	4-130	4		50
4,6-Dinitro-o-cresol	129		**134**	Q	10-130	4		50
Pentachlorophenol	**115**	Q	**120**	Q	17-109	4		50
Phenol	**116**	Q	**120**	Q	26-90	3		50
2-Methylphenol	111		122		30-130.	9		50
3-Methylphenol/4-Methylphenol	122		127		30-130	4		50
2,4,5-Trichlorophenol	109		112		30-130	3		50
Carbazole	109		115		54-128	5		50
Atrazine	111		114		40-140	3		50
Benzaldehyde	109		112		40-140	3		50
Caprolactam	127		**133**	Q	15-130	5		50
2,3,4,6-Tetrachlorophenol	113		119		40-140	5		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1939155-2 WG1939155-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	113		113		25-120
Phenol-d6	111		114		10-120
Nitrobenzene-d5	115		118		23-120
2-Fluorobiphenyl	102		106		30-120
2,4,6-Tribromophenol	96		98		10-136
4-Terphenyl-d14	98		102		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Semivolatiles by EPA 1311 - Westborough Lab Associated sample(s): 03 Batch: WG1939752-2 WG1939752-3								
Hexachlorobenzene	98		107		40-140	9		30
2,4-Dinitrotoluene	115		122		40-132	6		30
Hexachlorobutadiene	73		80		28-111	9		30
Hexachloroethane	64		69		21-105	8		30
Nitrobenzene	101		108		40-140	7		30
2,4,6-Trichlorophenol	106		116		30-130	9		30
Pentachlorophenol	100		**107**	Q	9-103	7		30
2-Methylphenol	92		98		30-130	6		30
3-Methylphenol/4-Methylphenol	100		106		30-130	6		30
2,4,5-Trichlorophenol	109		122		30-130	11		30
Pyridine	38		40		10-66	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	87		93		21-120
Phenol-d6	85		93		10-120
Nitrobenzene-d5	102		110		23-120
2-Fluorobiphenyl	90		99		15-120
2,4,6-Tribromophenol	106		112		10-120
4-Terphenyl-d14	96		103		33-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Semivolatiles by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1939784-2 WG1939784-3								
Hexachlorobenzene	64		64		40-140	0		30
2,4-Dinitrotoluene	60		56		40-132	7		30
Hexachlorobutadiene	59		59		28-111	0		30
Hexachloroethane	48		48		21-105	0		30
Nitrobenzene	73		72		40-140	1		30
2,4,6-Trichlorophenol	75		75		30-130	0		30
Pentachlorophenol	59		58		9-103	2		30
2-Methylphenol	75		77		30-130	3		30
3-Methylphenol/4-Methylphenol	81		82		30-130	1		30
2,4,5-Trichlorophenol	75		76		30-130	1		30
Pyridine	26		16		10-66	**48**	Q	30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	68		68		21-120
Phenol-d6	64		66		10-120
Nitrobenzene-d5	70		70		23-120
2-Fluorobiphenyl	66		67		15-120
2,4,6-Tribromophenol	58		57		10-120
4-Terphenyl-d14	65		66		33-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1939941-2 WG1939941-3								
Acenaphthene	88		60		31-137	38		50
Hexachlorobenzene	76		51		40-140	39		50
Bis(2-chloroethyl)ether	82		59		40-140	33		50
2-Chloronaphthalene	89		63		40-140	34		50
3,3'-Dichlorobenzidine	86		56		40-140	42		50
2,4-Dinitrotoluene	97		66		40-132	38		50
2,6-Dinitrotoluene	93		64		40-140	37		50
Fluoranthene	101		68		40-140	39		50
4-Chlorophenyl phenyl ether	97		66		40-140	38		50
4-Bromophenyl phenyl ether	89		60		40-140	39		50
Bis(2-chloroisopropyl)ether	129		94		40-140	31		50
Bis(2-chloroethoxy)methane	87		62		40-117	34		50
Hexachlorobutadiene	98		70		40-140	33		50
Hexachlorocyclopentadiene	66		45		40-140	38		50
Hexachloroethane	81		59		40-140	31		50
Isophorone	90		65		40-140	32		50
Naphthalene	80		57		40-140	34		50
Nitrobenzene	90		66		40-140	31		50
NDPA/DPA	91		62		36-157	38		50
n-Nitrosodi-n-propylamine	94		69		32-121	31		50
Bis(2-ethylhexyl)phthalate	86		60		40-140	36		50
Butyl benzyl phthalate	99		69		40-140	36		50
Di-n-butylphthalate	106		74		40-140	36		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1939941-2 WG1939941-3								
Di-n-octylphthalate	86		60		40-140	36		50
Diethyl phthalate	94		64		40-140	38		50
Dimethyl phthalate	95		66		40-140	36		50
Benzo(a)anthracene	98		66		40-140	39		50
Benzo(a)pyrene	88		58		40-140	41		50
Benzo(b)fluoranthene	86		57		40-140	41		50
Benzo(k)fluoranthene	83		55		40-140	41		50
Chrysene	90		60		40-140	40		50
Acenaphthylene	91		64		40-140	35		50
Anthracene	95		63		40-140	41		50
Benzo(ghi)perylene	97		62		40-140	44		50
Fluorene	92		62		40-140	39		50
Phenanthrene	90		62		40-140	37		50
Dibenzo(a,h)anthracene	98		64		40-140	42		50
Indeno(1,2,3-cd)pyrene	96		62		40-140	43		50
Pyrene	98		68		35-142	36		50
Biphenyl	81		58		37-127	33		50
4-Chloroaniline	70		51		40-140	31		50
2-Nitroaniline	90		62		47-134	37		50
3-Nitroaniline	76		52		26-129	38		50
4-Nitroaniline	90		61		41-125	38		50
Dibenzofuran	90		61		40-140	38		50
2-Methylnaphthalene	88		62		40-140	35		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1939941-2 WG1939941-3								
1,2,4,5-Tetrachlorobenzene	87		62		40-117	34		50
Acetophenone	83		60		14-144	32		50
2,4,6-Trichlorophenol	99		70		30-130	34		50
p-Chloro-m-cresol	101		70		26-103	36		50
2-Chlorophenol	82		60		25-102	31		50
2,4-Dichlorophenol	89		64		30-130	33		50
2,4-Dimethylphenol	82		58		30-130	34		50
2-Nitrophenol	80		58		30-130	32		50
4-Nitrophenol	114		77		11-114	39		50
2,4-Dinitrophenol	72		45		4-130	46		50
4,6-Dinitro-o-cresol	88		55		10-130	46		50
Pentachlorophenol	80		54		17-109	39		50
Phenol	88		62		26-90	35		50
2-Methylphenol	90		64		30-130.	34		50
3-Methylphenol/4-Methylphenol	87		62		30-130	34		50
2,4,5-Trichlorophenol	98		70		30-130	33		50
Carbazole	90		62		54-128	37		50
Atrazine	95		66		40-140	36		50
Benzaldehyde	73		52		40-140	34		50
Caprolactam	125		95		15-130	27		50
2,3,4,6-Tetrachlorophenol	98		67		40-140	38		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1939941-2 WG1939941-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	76		59		25-120
Phenol-d6	84		63		10-120
Nitrobenzene-d5	85		64		23-120
2-Fluorobiphenyl	83		61		30-120
2,4,6-Tribromophenol	65		44		10-136
4-Terphenyl-d14	82		60		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1941021-2 WG1941021-3								
Acenaphthene	103		75		31-137	31		50
Hexachlorobenzene	119		91		40-140	27		50
Bis(2-chloroethyl)ether	110		79		40-140	33		50
2-Chloronaphthalene	113		82		40-140	32		50
3,3'-Dichlorobenzidine	89		76		40-140	16		50
2,4-Dinitrotoluene	122		90		40-132	30		50
2,6-Dinitrotoluene	122		95		40-140	25		50
Fluoranthene	115		85		40-140	30		50
4-Chlorophenyl phenyl ether	115		84		40-140	31		50
4-Bromophenyl phenyl ether	116		89		40-140	26		50
Bis(2-chloroisopropyl)ether	112		82		40-140	31		50
Bis(2-chloroethoxy)methane	114		84		40-117	30		50
Hexachlorobutadiene	122		88		40-140	32		50
Hexachlorocyclopentadiene	101		79		40-140	24		50
Hexachloroethane	108		81		40-140	29		50
Isophorone	109		80		40-140	31		50
Naphthalene	107		80		40-140	29		50
Nitrobenzene	121		90		40-140	29		50
NDPA/DPA	109		82		36-157	28		50
n-Nitrosodi-n-propylamine	112		84		32-121	29		50
Bis(2-ethylhexyl)phthalate	115		80		40-140	36		50
Butyl benzyl phthalate	140		112		40-140	22		50
Di-n-butylphthalate	105		75		40-140	33		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1941021-2 WG1941021-3								
Di-n-octylphthalate	98		70		40-140	33		50
Diethyl phthalate	109		80		40-140	31		50
Dimethyl phthalate	114		85		40-140	29		50
Benzo(a)anthracene	112		84		40-140	29		50
Benzo(a)pyrene	114		82		40-140	33		50
Benzo(b)fluoranthene	112		82		40-140	31		50
Benzo(k)fluoranthene	116		84		40-140	32		50
Chrysene	117		86		40-140	31		50
Acenaphthylene	109		82		40-140	28		50
Anthracene	107		78		40-140	31		50
Benzo(ghi)perylene	104		77		40-140	30		50
Fluorene	109		79		40-140	32		50
Phenanthrene	105		77		40-140	31		50
Dibenzo(a,h)anthracene	104		76		40-140	31		50
Indeno(1,2,3-cd)pyrene	101		74		40-140	31		50
Pyrene	116		86		35-142	30		50
Biphenyl	113		83		37-127	31		50
4-Chloroaniline	132		97		40-140	31		50
2-Nitroaniline	128		94		47-134	31		50
3-Nitroaniline	105		78		26-129	30		50
4-Nitroaniline	120		88		41-125	31		50
Dibenzofuran	108		79		40-140	31		50
2-Methylnaphthalene	111		80		40-140	32		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1941021-2 WG1941021-3								
1,2,4,5-Tetrachlorobenzene	**123**	Q	91		40-117	30		50
Acetophenone	117		85		14-144	32		50
2,4,6-Trichlorophenol	125		91		30-130	31		50
p-Chloro-m-cresol	**118**	Q	86		26-103	31		50
2-Chlorophenol	**112**	Q	83		25-102	30		50
2,4-Dichlorophenol	116		88		30-130	27		50
2,4-Dimethylphenol	105		77		30-130	31		50
2-Nitrophenol	128		96		30-130	29		50
4-Nitrophenol	**118**	Q	83		11-114	35		50
2,4-Dinitrophenol	**175**	Q	**138**	Q	4-130	24		50
4,6-Dinitro-o-cresol	**149**	Q	123		10-130	19		50
Pentachlorophenol	**127**	Q	101		17-109	23		50
Phenol	**114**	Q	83		26-90	31		50
2-Methylphenol	113		81		30-130.	33		50
3-Methylphenol/4-Methylphenol	123		90		30-130	31		50
2,4,5-Trichlorophenol	125		94		30-130	28		50
Carbazole	104		76		54-128	31		50
Atrazine	114		86		40-140	28		50
Benzaldehyde	114		84		40-140	30		50
Caprolactam	**133**	Q	102		15-130	26		50
2,3,4,6-Tetrachlorophenol	123		90		40-140	31		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1941021-2 WG1941021-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	108		81		25-120
Phenol-d6	109		83		10-120
Nitrobenzene-d5	110		86		23-120
2-Fluorobiphenyl	107		82		30-120
2,4,6-Tribromophenol	113		92		10-136
4-Terphenyl-d14	104		76		18-120

PCBS

Project Name: 3821 RIVER ROAD
Lab Number: L2433109
Project Number: ASTS PLASTICS
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-01
Client ID: LQ-AST03-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Liquid
Analytical Method: 1,8082A
Analytical Date: 06/29/24 09:45
Analyst: MHG
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: EPA 3510C
Extraction Date: 06/28/24 10:14
Cleanup Method: EPA 3665A
Cleanup Date: 06/29/24
Cleanup Method: EPA 3660B
Cleanup Date: 06/29/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.435	0.372	1	A
Aroclor 1221	ND		ug/l	0.435	0.372	1	A
Aroclor 1232	ND		ug/l	0.435	0.372	1	A
Aroclor 1242	ND		ug/l	0.435	0.372	1	A
Aroclor 1248	ND		ug/l	0.435	0.372	1	A
Aroclor 1254	ND		ug/l	0.435	0.372	1	B
Aroclor 1260	ND		ug/l	0.435	0.372	1	B
Aroclor 1262	ND		ug/l	0.435	0.372	1	A
Aroclor 1268	ND		ug/l	0.435	0.372	1	A
PCBs, Total	ND		ug/l	0.435	0.372	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	109		30-150	B

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02
Client ID: LQ-AST04-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:30
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Analytical Method: 1,8082A
Analytical Date: 06/26/24 11:29
Analyst: MEO
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: EPA 3580A
Extraction Date: 06/25/24 15:15
Cleanup Method: EPA 3665A
Cleanup Date: 06/26/24
Cleanup Method: EPA 3660B
Cleanup Date: 06/26/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		mg/kg	2.96	0.262	1	A
Aroclor 1221	ND		mg/kg	2.96	0.296	1	A
Aroclor 1232	ND		mg/kg	2.96	0.626	1	A
Aroclor 1242	ND		mg/kg	2.96	0.398	1	A
Aroclor 1248	ND		mg/kg	2.96	0.443	1	A
Aroclor 1254	ND		mg/kg	2.96	0.323	1	A
Aroclor 1260	ND		mg/kg	2.96	0.546	1	A
Aroclor 1262	ND		mg/kg	2.96	0.375	1	A
Aroclor 1268	ND		mg/kg	2.96	0.306	1	A
PCBs, Total	ND		mg/kg	2.96	0.262	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	107		30-150	A
Decachlorobiphenyl	122		30-150	A
2,4,5,6-Tetrachloro-m-xylene	114		30-150	B
Decachlorobiphenyl	141		30-150	B

Project Name: 3821 RIVER ROAD
Lab Number: L2433109
Project Number: ASTS PLASTICS
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03 D
Client ID: LQ-AST05-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 15:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Sludge
Analytical Method: 1,8082A
Analytical Date: 06/27/24 20:33
Analyst: AD
Percent Solids: 47%

Extraction Method: EPA 3540C
Extraction Date: 06/25/24 10:16
Cleanup Method: EPA 3665A
Cleanup Date: 06/27/24
Cleanup Method: EPA 3660B
Cleanup Date: 06/27/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	962	85.4	5	A
Aroclor 1221	ND		ug/kg	962	96.4	5	A
Aroclor 1232	ND		ug/kg	962	204.	5	A
Aroclor 1242	ND		ug/kg	962	130.	5	A
Aroclor 1248	ND		ug/kg	962	144.	5	A
Aroclor 1254	ND		ug/kg	962	105.	5	A
Aroclor 1260	ND		ug/kg	962	178.	5	A
Aroclor 1262	ND		ug/kg	962	122.	5	A
Aroclor 1268	ND		ug/kg	962	99.6	5	A
PCBs, Total	ND		ug/kg	962	85.4	5	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	**26**	Q	30-150	A
Decachlorobiphenyl	37		30-150	A
2,4,5,6-Tetrachloro-m-xylene	42		30-150	B
Decachlorobiphenyl	39		30-150	B

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 06/27/24 20:09
Analyst: AD

Extraction Method: EPA 3540C
Extraction Date: 06/25/24 10:16
Cleanup Method: EPA 3665A
Cleanup Date: 06/27/24
Cleanup Method: EPA 3660B
Cleanup Date: 06/27/24

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 03 Batch: WG1939023-1						
Aroclor 1016	ND		ug/kg	95.0	8.44	A
Aroclor 1221	ND		ug/kg	95.0	9.52	A
Aroclor 1232	ND		ug/kg	95.0	20.2	A
Aroclor 1242	ND		ug/kg	95.0	12.8	A
Aroclor 1248	ND		ug/kg	95.0	14.2	A
Aroclor 1254	ND		ug/kg	95.0	10.4	A
Aroclor 1260	ND		ug/kg	95.0	17.6	A
Aroclor 1262	ND		ug/kg	95.0	12.1	A
Aroclor 1268	ND		ug/kg	95.0	9.85	A
PCBs, Total	ND		ug/kg	95.0	8.44	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	62		30-150	B

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 06/26/24 10:58
Analyst: MEO

Extraction Method: EPA 3580A
Extraction Date: 06/25/24 15:15
Cleanup Method: EPA 3665A
Cleanup Date: 06/26/24
Cleanup Method: EPA 3660B
Cleanup Date: 06/26/24

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 02 Batch: WG1939195-1						
Aroclor 1016	ND		mg/kg	4.31	0.383	A
Aroclor 1221	ND		mg/kg	4.31	0.432	A
Aroclor 1232	ND		mg/kg	4.31	0.914	A
Aroclor 1242	ND		mg/kg	4.31	0.581	A
Aroclor 1248	ND		mg/kg	4.31	0.646	A
Aroclor 1254	ND		mg/kg	4.31	0.471	A
Aroclor 1260	ND		mg/kg	4.31	0.796	A
Aroclor 1262	ND		mg/kg	4.31	0.547	A
Aroclor 1268	ND		mg/kg	4.31	0.446	A
PCBs, Total	ND		mg/kg	4.31	0.383	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	103		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	124		30-150	B

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 06/29/24 09:19
Analyst: MHG

Extraction Method: EPA 3510C
Extraction Date: 06/28/24 10:14
Cleanup Method: EPA 3665A
Cleanup Date: 06/29/24
Cleanup Method: EPA 3660B
Cleanup Date: 06/29/24

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1940820-1						
Aroclor 1016	ND		ug/l	0.071	0.061	A
Aroclor 1221	ND		ug/l	0.071	0.061	A
Aroclor 1232	ND		ug/l	0.071	0.061	A
Aroclor 1242	ND		ug/l	0.071	0.061	A
Aroclor 1248	ND		ug/l	0.071	0.061	A
Aroclor 1254	ND		ug/l	0.071	0.061	A
Aroclor 1260	ND		ug/l	0.071	0.061	A
Aroclor 1262	ND		ug/l	0.071	0.061	A
Aroclor 1268	ND		ug/l	0.071	0.061	A
PCBs, Total	ND		ug/l	0.071	0.061	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	91		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	124		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 03 Batch: WG1939023-2 WG1939023-3									
Aroclor 1016	71		71		40-140	0		50	A
Aroclor 1260	74		74		40-140	0		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		68		30-150	A
Decachlorobiphenyl	67		70		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		72		30-150	B
Decachlorobiphenyl	68		72		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 02 Batch: WG1939195-2 WG1939195-3									
Aroclor 1016	93		101		40-140	8		50	A
Aroclor 1260	84		89		40-140	6		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	91		97		30-150	A
Decachlorobiphenyl	108		117		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		93		30-150	B
Decachlorobiphenyl	127		133		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1940820-2 WG1940820-3									
Aroclor 1016	86		91		40-140	5		50	A
Aroclor 1260	80		85		40-140	5		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		84		30-150	A
Decachlorobiphenyl	87		89		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		84		30-150	B
Decachlorobiphenyl	122		128		30-150	B

PESTICIDES

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-01
Client ID: LQ-AST03-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Liquid
Analytical Method: 1,8081B
Analytical Date: 06/27/24 18:07
Analyst: KAB
Percent Solids: Results reported on an 'AS RECEIVED' basis.
TCLP/SPLP Ext. Date: 06/26/24 09:00

Extraction Method: EPA 3510C
Extraction Date: 06/27/24 02:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Pesticides by EPA 1311 - Westborough Lab							
Lindane	ND		ug/l	0.100	0.022	1	A
Heptachlor	ND		ug/l	0.100	0.016	1	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	1	A
Endrin	ND		ug/l	0.200	0.021	1	A
Methoxychlor	ND		ug/l	1.00	0.034	1	A
Toxaphene	ND		ug/l	1.00	0.314	1	A
Chlordane	ND		ug/l	1.00	0.232	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	93		30-150	B
Decachlorobiphenyl	120		30-150	B

Project Name: 3821 RIVER ROAD
Lab Number: L2433109
Project Number: ASTS PLASTICS
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-01
Client ID: LQ-AST03-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Liquid
Analytical Method: 1,8151A
Analytical Date: 06/27/24 10:41
Analyst: MMG
Percent Solids: Results reported on an 'AS RECEIVED' basis.
TCLP/SPLP Ext. Date: 06/26/24 09:00
Methylation Date: 06/27/24 07:19

Extraction Method: EPA 8151A
Extraction Date: 06/26/24 11:13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.050	0.002	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.010	0.003	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	**163**	Q	30-150	A
DCAA	134		30-150	B

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02
Client ID: LQ-AST04-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:30
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Analytical Method: 1,8081B
Analytical Date: 06/26/24 13:24
Analyst: EMR
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: EPA 3580A
Extraction Date: 06/25/24 15:14
Cleanup Method: EPA 3620B
Cleanup Date: 06/25/24
Cleanup Method: EPA 3660B
Cleanup Date: 06/25/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	16.8	3.28	1	A
Lindane	ND		ug/kg	6.98	3.12	1	A
Alpha-BHC	ND		ug/kg	6.98	1.98	1	A
Beta-BHC	ND		ug/kg	16.8	6.35	1	A
Heptachlor	ND		ug/kg	8.38	3.76	1	A
Aldrin	ND		ug/kg	16.8	5.90	1	A
Heptachlor epoxide	ND		ug/kg	31.4	9.42	1	A
Endrin	ND		ug/kg	6.98	2.86	1	A
Endrin aldehyde	ND		ug/kg	20.9	7.33	1	A
Endrin ketone	ND		ug/kg	16.8	4.31	1	A
Dieldrin	ND		ug/kg	10.5	5.24	1	A
4,4'-DDE	ND		ug/kg	16.8	3.87	1	A
4,4'-DDD	ND		ug/kg	16.8	5.98	1	A
4,4'-DDT	ND		ug/kg	16.8	13.5	1	A
Endosulfan I	ND		ug/kg	16.8	3.96	1	A
Endosulfan II	ND		ug/kg	16.8	5.60	1	A
Endosulfan sulfate	ND		ug/kg	6.98	3.32	1	A
Methoxychlor	ND		ug/kg	31.4	9.77	1	A
Toxaphene	ND		ug/kg	314	88.0	1	A
cis-Chlordane	ND		ug/kg	20.9	5.84	1	A
trans-Chlordane	ND		ug/kg	20.9	5.53	1	A
Chlordane	ND		ug/kg	140	55.5	1	A

Project Name: 3821 RIVER ROAD **Lab Number:** L2433109

Project Number: ASTS PLASTICS **Report Date:** 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02 Date Collected: 06/12/24 11:30

Client ID: LQ-AST04-06122024 Date Received: 06/12/24

Sample Location: 3821 RIVER ROAD TONAWANDA,NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	43		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	54		30-150	B

Project Name: 3821 RIVER ROAD
Lab Number: L2433109
Project Number: ASTS PLASTICS
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02
Client ID: LQ-AST04-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:30
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Analytical Method: 1,8151A
Analytical Date: 06/26/24 15:30
Analyst: EMR
Percent Solids: Results reported on an 'AS RECEIVED' basis.
Methylation Date: 06/26/24 09:03

Extraction Method: EPA 8151A
Extraction Date: 06/25/24 14:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	194	117.	1	A
2,4,5-T	ND		ug/kg	194	58.4	1	A
2,4,5-TP (Silvex)	ND		ug/kg	194	58.4	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	98		30-150	A
DCAA	111		30-150	B

Project Name: 3821 RIVER ROAD
Lab Number: L2433109
Project Number: ASTS PLASTICS
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03
Client ID: LQ-AST05-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 15:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Sludge
Analytical Method: 1,8151A
Analytical Date: 06/26/24 21:40
Analyst: EMR
Percent Solids: 47%
TCLP/SPLP Ext. Date: 06/24/24 17:23
Methylation Date: 06/26/24 11:45

Extraction Method: EPA 8151A
Extraction Date: 06/26/24 04:33

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	**662**	Q	30-150	A
DCAA	**1300**	Q	30-150	B

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03 D
Client ID: LQ-AST05-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 15:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Sludge
Analytical Method: 1,8081B
Analytical Date: 06/27/24 11:38
Analyst: PEG
Percent Solids: 47%
TCLP/SPLP Ext. Date: 06/24/24 17:23

Extraction Method: EPA 3510C
Extraction Date: 06/26/24 07:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Pesticides by EPA 1311 - Westborough Lab							
Lindane	ND		ug/l	2.50	0.542	25	A
Heptachlor	ND		ug/l	2.50	0.388	25	A
Heptachlor epoxide	ND		ug/l	2.50	0.519	25	A
Endrin	ND		ug/l	5.00	0.536	25	A
Methoxychlor	ND		ug/l	25.0	0.855	25	A
Toxaphene	ND		ug/l	25.0	7.84	25	A
Chlordane	ND		ug/l	25.0	5.79	25	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150	A
Decachlorobiphenyl	**0**	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150	B
Decachlorobiphenyl	**0**	Q	30-150	B

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 06/26/24 14:34
Analyst: EMR

Extraction Method: EPA 8151A
Extraction Date: 06/25/24 14:08

Methylation Date: 06/26/24 09:03

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 02 Batch: WG1939157-1						
2,4-D	ND		ug/kg	168	101.	A
2,4,5-T	ND		ug/kg	168	50.5	A
2,4,5-TP (Silvex)	ND		ug/kg	168	50.5	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	97		30-150	A
DCAA	99		30-150	B

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 06/26/24 13:35
Analyst: EMR

Extraction Method: EPA 3580A
Extraction Date: 06/25/24 15:14
Cleanup Method: EPA 3620B
Cleanup Date: 06/25/24
Cleanup Method: EPA 3660B
Cleanup Date: 06/25/24

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 02 Batch: WG1939194-1						
Delta-BHC	ND		ug/kg	13.7	2.68	A
Lindane	ND		ug/kg	5.69	2.54	A
Alpha-BHC	ND		ug/kg	5.69	1.62	A
Beta-BHC	ND		ug/kg	13.7	5.18	A
Heptachlor	ND		ug/kg	6.83	3.06	A
Aldrin	ND		ug/kg	13.7	4.81	A
Heptachlor epoxide	ND		ug/kg	25.6	7.68	A
Endrin	ND		ug/kg	5.69	2.33	A
Endrin aldehyde	ND		ug/kg	17.1	5.98	A
Endrin ketone	ND		ug/kg	13.7	3.52	A
Dieldrin	ND		ug/kg	8.54	4.27	A
4,4'-DDE	ND		ug/kg	13.7	3.16	A
4,4'-DDD	ND		ug/kg	13.7	4.87	A
4,4'-DDT	ND		ug/kg	13.7	11.0	A
Endosulfan I	ND		ug/kg	13.7	3.23	A
Endosulfan II	ND		ug/kg	13.7	4.56	A
Endosulfan sulfate	ND		ug/kg	5.69	2.71	A
Methoxychlor	ND		ug/kg	25.6	7.97	A
Toxaphene	ND		ug/kg	256	71.7	A
cis-Chlordane	ND		ug/kg	17.1	4.76	A
trans-Chlordane	ND		ug/kg	17.1	4.51	A
Chlordane	ND		ug/kg	114	45.2	A

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 06/26/24 13:35
Analyst: EMR

Extraction Method: EPA 3580A
Extraction Date: 06/25/24 15:14
Cleanup Method: EPA 3620B
Cleanup Date: 06/25/24
Cleanup Method: EPA 3660B
Cleanup Date: 06/25/24

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 02 Batch: WG1939194-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	45		30-150	A
2,4,5,6-Tetrachloro-m-xylene	88		30-150	B
Decachlorobiphenyl	70		30-150	B

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 06/26/24 12:51
Analyst: MMG
TCLP/SPLP Extraction Date: 06/24/24 17:23
Methylation Date: 06/26/24 11:45

Extraction Method: EPA 8151A
Extraction Date: 06/26/24 04:33

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Herbicides by EPA 1311 - Westborough Lab for sample(s): 03 Batch: WG1939402-1						
2,4-D	ND		mg/l	0.025	0.001	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	40		30-150	A
DCAA	42		30-150	B

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 06/26/24 13:24
Analyst: SID
TCLP/SPLP Extraction Date: 06/24/24 17:23

Extraction Method: EPA 3510C
Extraction Date: 06/26/24 07:36

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Pesticides by EPA 1311 - Westborough Lab for sample(s): 03 Batch: WG1939504-1						
Lindane	ND		ug/l	0.100	0.022	A
Heptachlor	ND		ug/l	0.100	0.016	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	A
Endrin	ND		ug/l	0.200	0.021	A
Methoxychlor	ND		ug/l	1.00	0.034	A
Toxaphene	ND		ug/l	1.00	0.314	A
Chlordane	ND		ug/l	1.00	0.232	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	79		30-150	A
2,4,5,6-Tetrachloro-m-xylene	91		30-150	B
Decachlorobiphenyl	73		30-150	B

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 06/27/24 09:45
Analyst: MMG
TCLP/SPLP Extraction Date: 06/26/24 09:00
Methylation Date: 06/27/24 07:19

Extraction Method: EPA 8151A
Extraction Date: 06/26/24 11:13

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Herbicides by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1939660-1						
2,4-D	ND		mg/l	0.025	0.001	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	109		30-150	A
DCAA	112		30-150	B

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 06/27/24 17:29
Analyst: KAB
TCLP/SPLP Extraction Date: 06/26/24 09:00

Extraction Method: EPA 3510C
Extraction Date: 06/27/24 02:58

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Pesticides by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1939999-1						
Lindane	ND		ug/l	0.100	0.022	A
Heptachlor	ND		ug/l	0.100	0.016	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	A
Endrin	ND		ug/l	0.200	0.021	A
Methoxychlor	ND		ug/l	1.00	0.034	A
Toxaphene	ND		ug/l	1.00	0.314	A
Chlordane	ND		ug/l	1.00	0.232	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	A
Decachlorobiphenyl	74		30-150	A
2,4,5,6-Tetrachloro-m-xylene	89		30-150	B
Decachlorobiphenyl	86		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 02 Batch: WG1939157-2 WG1939157-3									
2,4-D	109		102		30-150	7		30	A
2,4,5-T	106		106		30-150	0		30	A
2,4,5-TP (Silvex)	93		96		30-150	3		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	97		107		30-150	A
DCAA	112		120		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02 Batch: WG1939194-2 WG1939194-3									
Delta-BHC	80		82		30-150	2		30	A
Lindane	84		86		30-150	2		30	A
Alpha-BHC	87		91		30-150	4		30	A
Beta-BHC	87		89		30-150	2		30	A
Heptachlor	78		80		30-150	3		30	A
Aldrin	81		83		30-150	2		30	A
Heptachlor epoxide	62		63		30-150	2		30	A
Endrin	80		82		30-150	2		30	A
Endrin aldehyde	67		67		30-150	0		30	A
Endrin ketone	52		51		30-150	2		30	A
Dieldrin	80		83		30-150	4		30	A
4,4'-DDE	76		78		30-150	3		30	A
4,4'-DDD	85		87		30-150	2		30	A
4,4'-DDT	63		63		30-150	0		30	A
Endosulfan I	74		76		30-150	3		30	A
Endosulfan II	80		81		30-150	1		30	A
Endosulfan sulfate	64		64		30-150	0		30	A
Methoxychlor	65		63		30-150	3		30	A
cis-Chlordane	71		72		30-150	1		30	A
trans-Chlordane	76		78		30-150	3		30	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02 Batch: WG1939194-2 WG1939194-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		78		30-150	A
Decachlorobiphenyl	40		39		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		91		30-150	B
Decachlorobiphenyl	66		65		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Herbicides by EPA 1311 - Westborough Lab Associated sample(s): 03 Batch: WG1939402-2 WG1939402-3									
2,4-D	75		83		30-150	10		25	A
2,4,5-TP (Silvex)	34		40		30-150	16		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	49		54		30-150	A
DCAA	30		36		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Pesticides by EPA 1311 - Westborough Lab Associated sample(s): 03 Batch: WG1939504-2 WG1939504-3									
Lindane	90		97		30-150	8		20	A
Heptachlor	90		95		30-150	6		20	A
Heptachlor epoxide	89		93		30-150	5		20	A
Endrin	91		94		30-150	3		20	A
Methoxychlor	107		108		30-150	1		20	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		93		30-150	A
Decachlorobiphenyl	93		94		30-150	A
2,4,5,6-Tetrachloro-m-xylene	89		97		30-150	B
Decachlorobiphenyl	85		91		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Herbicides by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1939660-2 WG1939660-3									
2,4-D	103		111		30-150	7		25	A
2,4,5-TP (Silvex)	89		89		30-150	0		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	116		125		30-150	A
DCAA	110		111		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Pesticides by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1939999-2 WG1939999-3									
Lindane	94		95		30-150	1		20	A
Heptachlor	86		88		30-150	3		20	A
Heptachlor epoxide	94		96		30-150	3		20	A
Endrin	98		101		30-150	3		20	A
Methoxychlor	83		94		30-150	12		20	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		90		30-150	A
Decachlorobiphenyl	81		85		30-150	A
2,4,5,6-Tetrachloro-m-xylene	88		92		30-150	B
Decachlorobiphenyl	114		123		30-150	B

METALS

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-01
Client ID: LQ-AST03-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY
Date Collected: 06/12/24 11:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Liquid
Percent Solids: Results are reported on an 'AS RECEIVED' basis.
TCLP/SPLP Ext. Date: 06/24/24 07:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab											
Arsenic, TCLP	ND		mg/l	10.0	0.190	10	06/26/24 00:10	06/26/24 14:37	EPA 3015	1,6010D	DMC
Barium, TCLP	ND		mg/l	5.00	0.210	10	06/26/24 00:10	06/26/24 14:37	EPA 3015	1,6010D	DMC
Cadmium, TCLP	ND		mg/l	1.00	0.100	10	06/26/24 00:10	06/26/24 14:37	EPA 3015	1,6010D	DMC
Chromium, TCLP	ND		mg/l	2.00	0.210	10	06/26/24 00:10	06/26/24 14:37	EPA 3015	1,6010D	DMC
Lead, TCLP	ND		mg/l	5.00	0.270	10	06/26/24 00:10	06/26/24 14:37	EPA 3015	1,6010D	DMC
Mercury, TCLP	0.0191		mg/l	0.0010	0.0005	1	06/25/24 23:35	06/27/24 01:01	EPA 7470A	1,7470A	MJR
Selenium, TCLP	ND		mg/l	5.00	0.350	10	06/26/24 00:10	06/26/24 14:37	EPA 3015	1,6010D	DMC
Silver, TCLP	ND		mg/l	1.00	0.280	10	06/26/24 00:10	06/26/24 14:37	EPA 3015	1,6010D	DMC

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-01
Client ID: LQ-AST03-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY
Date Collected: 06/12/24 11:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Liquid
Percent Solids: Results are reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	10.0	3.18	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Antimony, Total	1.54	J	mg/l	5.00	0.710	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Arsenic, Total	ND		mg/l	0.500	0.190	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Barium, Total	ND		mg/l	1.00	0.210	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Beryllium, Total	ND		mg/l	0.500	0.0900	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Cadmium, Total	ND		mg/l	0.500	0.100	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Calcium, Total	5.21	J	mg/l	10.0	3.50	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Chromium, Total	ND		mg/l	1.00	0.210	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Cobalt, Total	ND		mg/l	2.00	0.170	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Copper, Total	1.17		mg/l	1.00	0.220	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Iron, Total	80.5		mg/l	5.00	0.900	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Lead, Total	1.91		mg/l	1.00	0.270	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Magnesium, Total	ND		mg/l	10.0	1.53	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Manganese, Total	0.892	J	mg/l	1.00	0.160	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Mercury, Total	0.05625		mg/l	0.01000	0.00457	1	06/26/24 00:17	06/26/24 21:46	EPA 7470A	1,7470A	MJR
Nickel, Total	ND		mg/l	2.50	0.240	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Potassium, Total	38.6	J	mg/l	250.	23.7	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Selenium, Total	ND		mg/l	1.00	0.350	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Silver, Total	ND		mg/l	0.700	0.280	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Sodium, Total	47300		mg/l	200.	12.0	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Thallium, Total	ND		mg/l	2.00	0.250	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Vanadium, Total	ND		mg/l	1.00	0.200	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL
Zinc, Total	0.226	J	mg/l	5.00	0.210	2	06/26/24 00:10	06/26/24 23:41	EPA 3005A	1,6010D	DHL

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02
Client ID: LQ-AST04-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY
Date Collected: 06/12/24 11:30
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Percent Solids: Results are reported on an 'AS RECEIVED' basis.
TCLP/SPLP Ext. Date: 06/25/24 14:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab											
Arsenic, TCLP	ND		mg/l	2.50	0.0475	1	06/26/24 12:22	06/27/24 15:59	EPA 3015	1,6010D	DHL
Barium, TCLP	ND		mg/l	1.25	0.0525	1	06/26/24 12:22	06/27/24 15:59	EPA 3015	1,6010D	DHL
Cadmium, TCLP	ND		mg/l	0.250	0.0250	1	06/26/24 12:22	06/27/24 15:59	EPA 3015	1,6010D	DHL
Chromium, TCLP	ND		mg/l	0.500	0.0525	1	06/26/24 12:22	06/27/24 15:59	EPA 3015	1,6010D	DHL
Lead, TCLP	ND		mg/l	1.25	0.0675	1	06/26/24 12:22	06/27/24 15:59	EPA 3015	1,6010D	DHL
Mercury, TCLP	ND		mg/l	0.0200	0.0092	1	06/26/24 11:54	06/27/24 15:53	EPA 7470A	1,7470A	MJR
Selenium, TCLP	ND		mg/l	0.250	0.0875	1	06/26/24 12:22	06/27/24 15:59	EPA 3015	1,6010D	DHL
Silver, TCLP	ND		mg/l	0.250	0.0700	1	06/26/24 12:22	06/27/24 15:59	EPA 3015	1,6010D	DHL

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02
Client ID: LQ-AST04-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY
Date Collected: 06/12/24 11:30
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Percent Solids: Results are reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/kg	143	38.6	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Antimony, Total	ND		mg/kg	71.4	5.43	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Arsenic, Total	ND		mg/kg	14.3	2.97	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Barium, Total	ND		mg/kg	14.3	2.48	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Beryllium, Total	ND		mg/kg	7.14	0.471	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Cadmium, Total	ND		mg/kg	14.3	1.40	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Calcium, Total	ND		mg/kg	143	50.0	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Chromium, Total	ND		mg/kg	14.3	1.37	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Cobalt, Total	ND		mg/kg	28.6	2.37	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Copper, Total	10.8	J	mg/kg	14.3	3.68	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Iron, Total	6990		mg/kg	71.4	12.9	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Lead, Total	ND		mg/kg	71.4	3.83	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Magnesium, Total	ND		mg/kg	143	22.0	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Manganese, Total	20.3		mg/kg	14.3	2.27	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Mercury, Total	ND		mg/kg	0.077	0.051	1	06/26/24 17:50	06/26/24 21:46	EPA 7471B	1,7471B	MJR
Nickel, Total	ND		mg/kg	35.7	3.46	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Potassium, Total	ND		mg/kg	3570	206.	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Selenium, Total	ND		mg/kg	28.6	3.68	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Silver, Total	ND		mg/kg	7.14	4.04	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Sodium, Total	76.5	J	mg/kg	2860	45.0	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Thallium, Total	ND		mg/kg	28.6	4.50	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Vanadium, Total	ND		mg/kg	14.3	2.90	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC
Zinc, Total	ND		mg/kg	71.4	4.18	10	06/26/24 07:45	06/26/24 23:50	EPA 3050B	1,6010D	DMC

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03
Client ID: LQ-AST05-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY
Date Collected: 06/12/24 15:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Sludge
Percent Solids: 47%
TCLP/SPLP Ext. Date: 06/24/24 17:23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab											
Arsenic, TCLP	ND		mg/l	1.00	0.0190	1	06/26/24 11:04	06/26/24 12:42	EPA 3015	1,6010D	DMC
Barium, TCLP	0.0352	J	mg/l	0.500	0.0210	1	06/26/24 11:04	06/26/24 12:42	EPA 3015	1,6010D	DMC
Cadmium, TCLP	ND		mg/l	0.100	0.0100	1	06/26/24 11:04	06/26/24 12:42	EPA 3015	1,6010D	DMC
Chromium, TCLP	ND		mg/l	0.200	0.0210	1	06/26/24 11:04	06/26/24 12:42	EPA 3015	1,6010D	DMC
Lead, TCLP	1.13		mg/l	0.500	0.0270	1	06/26/24 11:04	06/26/24 12:42	EPA 3015	1,6010D	DMC
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	06/26/24 11:09	06/26/24 13:51	EPA 7470A	1,7470A	MJR
Selenium, TCLP	0.0411	J	mg/l	0.500	0.0350	1	06/26/24 11:04	06/26/24 12:42	EPA 3015	1,6010D	DMC
Silver, TCLP	ND		mg/l	0.100	0.0280	1	06/26/24 11:04	06/26/24 12:42	EPA 3015	1,6010D	DMC

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03
Client ID: LQ-AST05-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY
Date Collected: 06/12/24 15:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Sludge
Percent Solids: 47%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	178		mg/kg	41.8	11.3	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Antimony, Total	26.4		mg/kg	20.9	1.59	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Arsenic, Total	9.74		mg/kg	4.18	0.869	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Barium, Total	209		mg/kg	4.18	0.727	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Beryllium, Total	ND		mg/kg	2.09	0.138	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Cadmium, Total	2.49	J	mg/kg	4.18	0.409	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Calcium, Total	1540		mg/kg	41.8	14.6	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Chromium, Total	111		mg/kg	4.18	0.401	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Cobalt, Total	8.63		mg/kg	8.35	0.693	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Copper, Total	361		mg/kg	4.18	1.08	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Iron, Total	155000		mg/kg	20.9	3.77	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Lead, Total	2000		mg/kg	20.9	1.12	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Magnesium, Total	437		mg/kg	41.8	6.43	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Manganese, Total	590		mg/kg	4.18	0.664	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Mercury, Total	0.096	J	mg/kg	0.136	0.089	1	06/25/24 08:55	06/25/24 18:56	EPA 7471B	1,7471B	MJR
Nickel, Total	84.1		mg/kg	10.4	1.01	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Potassium, Total	ND		mg/kg	1040	60.2	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Selenium, Total	ND		mg/kg	8.35	1.08	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Silver, Total	1.37	J	mg/kg	2.09	1.18	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Sodium, Total	173	J	mg/kg	835	13.2	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Thallium, Total	ND		mg/kg	8.35	1.32	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Vanadium, Total	2.58	J	mg/kg	4.18	0.848	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF
Zinc, Total	806		mg/kg	20.9	1.22	5	06/25/24 08:20	06/25/24 19:19	EPA 3050B	1,6010D	JMF

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG1938850-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Antimony, Total	ND		mg/kg	2.00	0.152	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Arsenic, Total	ND		mg/kg	0.400	0.083	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Barium, Total	ND		mg/kg	0.400	0.070	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Beryllium, Total	ND		mg/kg	0.200	0.013	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Cadmium, Total	ND		mg/kg	0.400	0.039	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Calcium, Total	ND		mg/kg	4.00	1.40	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Chromium, Total	ND		mg/kg	0.400	0.038	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Cobalt, Total	ND		mg/kg	0.800	0.066	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Copper, Total	ND		mg/kg	0.400	0.103	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Iron, Total	0.826	J	mg/kg	2.00	0.361	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Lead, Total	ND		mg/kg	2.00	0.107	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Magnesium, Total	ND		mg/kg	4.00	0.616	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Manganese, Total	ND		mg/kg	0.400	0.064	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Nickel, Total	ND		mg/kg	1.00	0.097	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Potassium, Total	ND		mg/kg	100	5.76	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Selenium, Total	ND		mg/kg	0.800	0.103	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Silver, Total	ND		mg/kg	0.200	0.113	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Sodium, Total	ND		mg/kg	80.0	1.26	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Thallium, Total	ND		mg/kg	0.800	0.126	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Vanadium, Total	ND		mg/kg	0.400	0.081	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL
Zinc, Total	ND		mg/kg	2.00	0.117	1	06/25/24 08:20	06/25/24 10:25	1,6010D	DHL

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG1938853-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	06/25/24 08:55	06/25/24 10:35	1,7471B	MJR

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02 Batch: WG1939052-1										
Aluminum, Total	ND		mg/kg	10.0	2.70	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Antimony, Total	ND		mg/kg	5.00	0.380	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Arsenic, Total	0.520	J	mg/kg	1.00	0.208	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Barium, Total	ND		mg/kg	1.00	0.174	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Beryllium, Total	ND		mg/kg	0.500	0.033	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Cadmium, Total	ND		mg/kg	1.00	0.098	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Calcium, Total	ND		mg/kg	10.0	3.50	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Chromium, Total	ND		mg/kg	1.00	0.096	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Cobalt, Total	ND		mg/kg	2.00	0.166	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Copper, Total	ND		mg/kg	1.00	0.258	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Iron, Total	ND		mg/kg	5.00	0.903	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Lead, Total	ND		mg/kg	5.00	0.268	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Magnesium, Total	ND		mg/kg	10.0	1.54	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Manganese, Total	0.246	J	mg/kg	1.00	0.159	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Nickel, Total	ND		mg/kg	2.50	0.242	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Potassium, Total	ND		mg/kg	250	14.4	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Selenium, Total	1.31	J	mg/kg	2.00	0.258	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Silver, Total	ND		mg/kg	0.500	0.283	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Sodium, Total	ND		mg/kg	200	3.15	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Thallium, Total	ND		mg/kg	2.00	0.315	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Vanadium, Total	ND		mg/kg	1.00	0.203	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC
Zinc, Total	ND		mg/kg	5.00	0.293	1	06/26/24 07:45	06/26/24 23:40	1,6010D	DMC

Prep Information

Digestion Method: EPA 3050B

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01 Batch: WG1939213-1										
Arsenic, TCLP	ND		mg/l	1.00	0.0190	1	06/26/24 00:10	06/26/24 14:01	1,6010D	DMC
Barium, TCLP	ND		mg/l	0.500	0.0210	1	06/26/24 00:10	06/26/24 14:01	1,6010D	DMC
Cadmium, TCLP	ND		mg/l	0.100	0.0100	1	06/26/24 00:10	06/26/24 14:01	1,6010D	DMC
Chromium, TCLP	ND		mg/l	0.200	0.0210	1	06/26/24 00:10	06/26/24 14:01	1,6010D	DMC
Lead, TCLP	ND		mg/l	0.500	0.0270	1	06/26/24 00:10	06/26/24 14:01	1,6010D	DMC
Selenium, TCLP	ND		mg/l	0.500	0.0350	1	06/26/24 00:10	06/26/24 14:01	1,6010D	DMC
Silver, TCLP	ND		mg/l	0.100	0.0280	1	06/26/24 00:10	06/26/24 14:01	1,6010D	DMC

Prep Information

Digestion Method: EPA 3015
TCLP/SPLP Extraction Date: 06/24/24 07:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01 Batch: WG1939214-1										
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	06/25/24 23:35	06/27/24 00:55	1,7470A	MJR

Prep Information

Digestion Method: EPA 7470A
TCLP/SPLP Extraction Date: 06/24/24 07:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1939248-1										
Aluminum, Total	ND		mg/l	0.100	0.0318	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Antimony, Total	ND		mg/l	0.0500	0.0071	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Arsenic, Total	ND		mg/l	0.0050	0.0019	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Barium, Total	ND		mg/l	0.0100	0.0021	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Beryllium, Total	ND		mg/l	0.0050	0.0009	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Cadmium, Total	ND		mg/l	0.0050	0.0010	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Calcium, Total	ND		mg/l	0.100	0.0350	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Chromium, Total	ND		mg/l	0.0100	0.0021	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Cobalt, Total	ND		mg/l	0.0200	0.0017	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Copper, Total	ND	mg/l	0.0100	0.0022	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Iron, Total	ND	mg/l	0.0500	0.0090	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Lead, Total	ND	mg/l	0.0100	0.0027	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Magnesium, Total	ND	mg/l	0.100	0.0153	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Manganese, Total	ND	mg/l	0.0100	0.0016	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Nickel, Total	ND	mg/l	0.0250	0.0024	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Potassium, Total	ND	mg/l	2.50	0.237	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Selenium, Total	ND	mg/l	0.0100	0.0035	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Silver, Total	ND	mg/l	0.0070	0.0028	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Sodium, Total	ND	mg/l	2.00	0.120	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Thallium, Total	ND	mg/l	0.0200	0.0025	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Vanadium, Total	ND	mg/l	0.0100	0.0020	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL
Zinc, Total	ND	mg/l	0.0500	0.0021	1	06/26/24 00:10	06/26/24 23:33	1,6010D	DHL

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1939252-1										
Mercury, Total	ND		mg/l	0.00020	0.00009	1	06/26/24 00:17	06/26/24 21:29	1,7470A	MJR

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 03 Batch: WG1939474-1										
Arsenic, TCLP	ND		mg/l	1.00	0.0190	1	06/26/24 11:04	06/26/24 12:14	1,6010D	DMC
Barium, TCLP	ND		mg/l	0.500	0.0210	1	06/26/24 11:04	06/26/24 12:14	1,6010D	DMC
Cadmium, TCLP	ND		mg/l	0.100	0.0100	1	06/26/24 11:04	06/26/24 12:14	1,6010D	DMC
Chromium, TCLP	ND		mg/l	0.200	0.0210	1	06/26/24 11:04	06/26/24 12:14	1,6010D	DMC
Lead, TCLP	ND		mg/l	0.500	0.0270	1	06/26/24 11:04	06/26/24 12:14	1,6010D	DMC
Selenium, TCLP	ND		mg/l	0.500	0.0350	1	06/26/24 11:04	06/26/24 12:14	1,6010D	DMC

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Silver, TCLP	ND	mg/l	0.100	0.0280	1	06/26/24 11:04	06/26/24 12:14	1,6010D	DMC

Prep Information

Digestion Method: EPA 3015
TCLP/SPLP Extraction Date: 06/23/24 23:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 03 Batch: WG1939477-1										
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	06/26/24 11:09	06/26/24 13:35	1,7470A	MJR

Prep Information

Digestion Method: EPA 7470A
TCLP/SPLP Extraction Date: 06/23/24 23:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 02 Batch: WG1939624-1										
Arsenic, TCLP	ND		mg/l	1.00	0.0190	1	06/26/24 12:22	06/27/24 15:52	1,6010D	DHL
Barium, TCLP	ND		mg/l	0.500	0.0210	1	06/26/24 12:22	06/27/24 15:52	1,6010D	DHL
Cadmium, TCLP	ND		mg/l	0.100	0.0100	1	06/26/24 12:22	06/27/24 15:52	1,6010D	DHL
Chromium, TCLP	ND		mg/l	0.200	0.0210	1	06/26/24 12:22	06/27/24 15:52	1,6010D	DHL
Lead, TCLP	ND		mg/l	0.500	0.0270	1	06/26/24 12:22	06/27/24 15:52	1,6010D	DHL
Selenium, TCLP	ND		mg/l	0.100	0.0350	1	06/26/24 12:22	06/27/24 15:52	1,6010D	DHL
Silver, TCLP	ND		mg/l	0.100	0.0280	1	06/26/24 12:22	06/27/24 15:52	1,6010D	DHL

Prep Information

Digestion Method: EPA 3015
TCLP/SPLP Extraction Date: 06/23/24 23:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 02 Batch: WG1939626-1										
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	06/26/24 11:54	06/27/24 15:46	1,7470A	MJR

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS
Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 7470A
TCLP/SPLP Extraction Date: 06/23/24 23:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02 Batch: WG1939810-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	06/26/24 17:50	06/26/24 21:40	1,7471B	MJR

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG1938850-2								
Aluminum, Total	105		-		80-120	-		
Antimony, Total	105		-		80-120	-		
Arsenic, Total	99		-		80-120	-		
Barium, Total	102		-		80-120	-		
Beryllium, Total	104		-		80-120	-		
Cadmium, Total	102		-		80-120	-		
Calcium, Total	100		-		80-120	-		
Chromium, Total	102		-		80-120	-		
Cobalt, Total	104		-		80-120	-		
Copper, Total	103		-		80-120	-		
Iron, Total	103		-		80-120	-		
Lead, Total	100		-		80-120	-		
Magnesium, Total	100		-		80-120	-		
Manganese, Total	100		-		80-120	-		
Nickel, Total	101		-		80-120	-		
Potassium, Total	105		-		80-120	-		
Selenium, Total	101		-		80-120	-		
Silver, Total	102		-		80-120	-		
Sodium, Total	103		-		80-120	-		
Thallium, Total	96		-		80-120	-		
Vanadium, Total	105		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG1938850-2					
Zinc, Total	104	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG1938853-2					
Mercury, Total	101	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG1939052-2					
Aluminum, Total	99	-	80-120	-	
Antimony, Total	98	-	80-120	-	
Arsenic, Total	100	-	80-120	-	
Barium, Total	100	-	80-120	-	
Beryllium, Total	95	-	80-120	-	
Cadmium, Total	103	-	80-120	-	
Calcium, Total	94	-	80-120	-	
Chromium, Total	103	-	80-120	-	
Cobalt, Total	106	-	80-120	-	
Copper, Total	104	-	80-120	-	
Iron, Total	101	-	80-120	-	
Lead, Total	101	-	80-120	-	
Magnesium, Total	94	-	80-120	-	
Manganese, Total	94	-	80-120	-	
Nickel, Total	102	-	80-120	-	
Potassium, Total	98	-	80-120	-	
Selenium, Total	104	-	80-120	-	
Silver, Total	94	-	80-120	-	
Sodium, Total	98	-	80-120	-	
Thallium, Total	92	-	80-120	-	
Vanadium, Total	103	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG1939052-2					
Zinc, Total	100	-	80-120	-	
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 Batch: WG1939213-2					
Arsenic, TCLP	80	-	75-125	-	20
Barium, TCLP	90	-	75-125	-	20
Cadmium, TCLP	86	-	75-125	-	20
Chromium, TCLP	90	-	75-125	-	20
Lead, TCLP	87	-	75-125	-	20
Selenium, TCLP	80	-	75-125	-	20
Silver, TCLP	91	-	75-125	-	20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 Batch: WG1939214-2					
Mercury, TCLP	88	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1939248-2					
Aluminum, Total	105	-	80-120	-	
Antimony, Total	81	-	80-120	-	
Arsenic, Total	97	-	80-120	-	
Barium, Total	103	-	80-120	-	
Beryllium, Total	103	-	80-120	-	
Cadmium, Total	100	-	80-120	-	
Calcium, Total	102	-	80-120	-	
Chromium, Total	100	-	80-120	-	
Cobalt, Total	101	-	80-120	-	
Copper, Total	102	-	80-120	-	
Iron, Total	100	-	80-120	-	
Lead, Total	102	-	80-120	-	
Magnesium, Total	101	-	80-120	-	
Manganese, Total	99	-	80-120	-	
Nickel, Total	99	-	80-120	-	
Potassium, Total	107	-	80-120	-	
Selenium, Total	102	-	80-120	-	
Silver, Total	104	-	80-120	-	
Sodium, Total	106	-	80-120	-	
Thallium, Total	102	-	80-120	-	
Vanadium, Total	101	-	80-120	-	

Lab Control Sample Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1939248-2					
Zinc, Total	100	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1939252-2					
Mercury, Total	90	-	80-120	-	
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 03 Batch: WG1939474-2					
Arsenic, TCLP	102	-	75-125	-	20
Barium, TCLP	106	-	75-125	-	20
Cadmium, TCLP	107	-	75-125	-	20
Chromium, TCLP	108	-	75-125	-	20
Lead, TCLP	103	-	75-125	-	20
Selenium, TCLP	105	-	75-125	-	20
Silver, TCLP	108	-	75-125	-	20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 03 Batch: WG1939477-2					
Mercury, TCLP	88	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 02 Batch: WG1939624-2					
Arsenic, TCLP	95	-	75-125	-	20
Barium, TCLP	100	-	75-125	-	20
Cadmium, TCLP	94	-	75-125	-	20
Chromium, TCLP	95	-	75-125	-	20
Lead, TCLP	96	-	75-125	-	20
Selenium, TCLP	90	-	75-125	-	20
Silver, TCLP	97	-	75-125	-	20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 02 Batch: WG1939626-2					
Mercury, TCLP	88	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG1939810-2					
Mercury, Total	91	-	80-120	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1938850-3 QC Sample: L2435549-01 Client ID: MS Sample												
Aluminum, Total	11600	186	12400	**431**	Q	-	-		75-125	-		20
Antimony, Total	ND	46.4	41.9	90		-	-		75-125	-		20
Arsenic, Total	7.82	11.1	18.7	98		-	-		75-125	-		20
Barium, Total	6.88	186	193	100		-	-		75-125	-		20
Beryllium, Total	0.191J	4.64	4.92	106		-	-		75-125	-		20
Cadmium, Total	ND	4.92	4.72	96		-	-		75-125	-		20
Calcium, Total	80.1	928	972	96		-	-		75-125	-		20
Chromium, Total	5.73	18.6	24.0	98		-	-		75-125	-		20
Cobalt, Total	0.466J	46.4	45.8	99		-	-		75-125	-		20
Copper, Total	2.00	23.2	25.6	102		-	-		75-125	-		20
Iron, Total	7810	92.8	7750	**0**	Q	-	-		75-125	-		20
Lead, Total	4.57J	49.2	53.3	108		-	-		75-125	-		20
Magnesium, Total	277	928	1160	95		-	-		75-125	-		20
Manganese, Total	56.4	46.4	115	**126**	Q	-	-		75-125	-		20
Nickel, Total	1.42J	46.4	45.8	99		-	-		75-125	-		20
Potassium, Total	117J	928	1050	113		-	-		75-125	-		20
Selenium, Total	0.736J	11.1	11.8	106		-	-		75-125	-		20
Silver, Total	ND	4.64	4.70	101		-	-		75-125	-		20
Sodium, Total	43.2J	928	971	105		-	-		75-125	-		20
Thallium, Total	ND	11.1	10.8	97		-	-		75-125	-		20
Vanadium, Total	13.1	46.4	59.1	99		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1938850-3 QC Sample: L2435549-01 Client ID: MS Sample									
Zinc, Total	13.4	46.4	58.7	98	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1938853-3 QC Sample: L2435549-01 Client ID: MS Sample									
Mercury, Total	0.087	1.55	1.62	99	-	-	80-120	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1939052-3 QC Sample: L2433109-02 Client ID: LQ-AST04-06122024										
Aluminum, Total	ND	549	581	106		-	-	75-125	-	20
Antimony, Total	ND	137	133	97		-	-	75-125	-	20
Arsenic, Total	ND	33	29.6	90		-	-	75-125	-	20
Barium, Total	ND	549	568	103		-	-	75-125	-	20
Beryllium, Total	ND	13.7	13.4	98		-	-	75-125	-	20
Cadmium, Total	ND	14.6	13.0J	**0**	Q	-	-	75-125	-	20
Calcium, Total	ND	2750	2760	100		-	-	75-125	-	20
Chromium, Total	ND	54.9	57.4	104		-	-	75-125	-	20
Cobalt, Total	ND	137	130	95		-	-	75-125	-	20
Copper, Total	10.8J	68.7	91.0	**132**	Q	-	-	75-125	-	20
Iron, Total	6990	275	12600	**2040**	Q	-	-	75-125	-	20
Lead, Total	ND	146	139	96		-	-	75-125	-	20
Magnesium, Total	ND	2750	2790	102		-	-	75-125	-	20
Manganese, Total	20.3	137	170	109		-	-	75-125	-	20
Nickel, Total	ND	137	126	92		-	-	75-125	-	20
Potassium, Total	ND	2750	2760J	**0**	Q	-	-	75-125	-	20
Selenium, Total	ND	33	29.7	90		-	-	75-125	-	20
Silver, Total	ND	13.7	14.3	104		-	-	75-125	-	20
Sodium, Total	76.5J	2750	2900	106		-	-	75-125	-	20
Thallium, Total	ND	33	28.8	87		-	-	75-125	-	20
Vanadium, Total	ND	137	135	98		-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1939052-3 QC Sample: L2433109-02 Client ID: LQ-AST04-06122024										
Zinc, Total	ND	137	123	90		-	-	75-125	-	20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1939213-3 QC Sample: L2433109-01 Client ID: LQ-AST03-06122024										
Arsenic, TCLP	ND	1.2	1.16J	**0**	Q	-	-	75-125	-	20
Barium, TCLP	ND	20	18.5	92		-	-	75-125	-	20
Cadmium, TCLP	ND	0.53	0.501J	**0**	Q	-	-	75-125	-	20
Chromium, TCLP	ND	2	1.92J	**0**	Q	-	-	75-125	-	20
Lead, TCLP	ND	5.3	5.06	95		-	-	75-125	-	20
Selenium, TCLP	ND	1.2	1.07J	**0**	Q	-	-	75-125	-	20
Silver, TCLP	ND	0.5	0.519J	**0**	Q	-	-	75-125	-	20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1939214-3 QC Sample: L2433109-01 Client ID: LQ-AST03-06122024										
Mercury, TCLP	0.0191	0.025	0.0429	95		-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1939248-3 WG1939248-4 QC Sample: L2434802-03 Client ID: MS Sample										
Aluminum, Total	ND	2	2.19	110		2.20	110	75-125	0	20
Antimony, Total	ND	0.5	0.523	105		0.518	104	75-125	1	20
Arsenic, Total	0.0098	0.12	0.139	108		0.142	110	75-125	2	20
Barium, Total	0.066	2	2.16	105		2.19	106	75-125	1	20
Beryllium, Total	ND	0.05	0.0519	104		0.0526	105	75-125	1	20
Cadmium, Total	ND	0.053	0.0534	101		0.0528	100	75-125	1	20
Calcium, Total	177	10	182	**50**	Q	186	90	75-125	2	20
Chromium, Total	0.028	0.2	0.230	101		0.229	100	75-125	0	20
Cobalt, Total	ND	0.5	0.501	100		0.498	100	75-125	1	20
Copper, Total	0.043	0.25	0.301	103		0.301	103	75-125	0	20
Iron, Total	12.2	1	13.0	80		13.1	90	75-125	1	20
Lead, Total	ND	0.53	0.545	103		0.554	104	75-125	2	20
Magnesium, Total	36.8	10	46.6	98		46.5	97	75-125	0	20
Manganese, Total	0.852	0.5	1.33	96		1.36	102	75-125	2	20
Nickel, Total	0.008J	0.5	0.491	98		0.485	97	75-125	1	20
Potassium, Total	15.8	10	26.8	110		27.3	115	75-125	2	20
Selenium, Total	ND	0.12	0.130	108		0.132	110	75-125	2	20
Silver, Total	ND	0.05	0.0525	105		0.0525	105	75-125	0	20
Sodium, Total	11.7	10	22.3	106		22.8	111	75-125	2	20
Thallium, Total	ND	0.12	0.121	101		0.124	103	75-125	2	20
Vanadium, Total	ND	0.5	0.523	105		0.522	104	75-125	0	20

Matrix Spike Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1939248-3 WG1939248-4 QC Sample: L2434802-03 Client ID: MS Sample									
Zinc, Total	0.021J	0.5	0.513	103	0.509	102	75-125	1	20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1939252-3 QC Sample: L2433275-01 Client ID: MS Sample									
Mercury, Total	ND	0.005	0.00489	98	-	-	75-125	-	20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1939474-3 QC Sample: L2435683-01 Client ID: MS Sample									
Arsenic, TCLP	ND	1.2	1.20	100	-	-	75-125	-	20
Barium, TCLP	0.145J	20	20.6	103	-	-	75-125	-	20
Cadmium, TCLP	ND	0.53	0.546	103	-	-	75-125	-	20
Chromium, TCLP	ND	2	2.06	103	-	-	75-125	-	20
Lead, TCLP	ND	5.3	5.21	98	-	-	75-125	-	20
Selenium, TCLP	ND	1.2	1.21	101	-	-	75-125	-	20
Silver, TCLP	ND	0.5	0.522	104	-	-	75-125	-	20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1939477-3 QC Sample: L2435683-01 Client ID: MS Sample									
Mercury, TCLP	ND	0.025	0.0243	97	-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1939624-3 QC Sample: L2433109-02 Client ID: LQ-AST04-06122024									
Arsenic, TCLP	ND	3	2.70	90	-	-	75-125	-	20
Barium, TCLP	ND	50	46.6	93	-	-	75-125	-	20
Cadmium, TCLP	ND	1.32	1.13	85	-	-	75-125	-	20
Chromium, TCLP	ND	5	4.38	88	-	-	75-125	-	20
Lead, TCLP	ND	13.2	12.0	90	-	-	75-125	-	20
Selenium, TCLP	ND	3	2.66	89	-	-	75-125	-	20
Silver, TCLP	ND	1.25	1.12	90	-	-	75-125	-	20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1939626-3 QC Sample: L2433109-02 Client ID: LQ-AST04-06122024									
Mercury, TCLP	ND	0.5	0.4736	95	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1939810-3 QC Sample: L2433109-02 Client ID: LQ-AST04-06122024									
Mercury, Total	ND	0.139	0.144	103	-	-	80-120	-	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1938850-4 QC Sample: L2435549-01 Client ID: DUP Sample						
Aluminum, Total	11600	12700	mg/kg	9		20
Antimony, Total	ND	ND	mg/kg	NC		20
Arsenic, Total	7.82	9.06	mg/kg	15		20
Barium, Total	6.88	6.93	mg/kg	1		20
Beryllium, Total	0.191J	0.195J	mg/kg	NC		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Calcium, Total	80.1	83.4	mg/kg	4		20
Chromium, Total	5.73	6.85	mg/kg	18		20
Cobalt, Total	0.466J	0.690J	mg/kg	NC		20
Copper, Total	2.00	2.19	mg/kg	9		20
Iron, Total	7810	8570	mg/kg	9		20
Lead, Total	4.57J	4.87	mg/kg	NC		20
Magnesium, Total	277	445	mg/kg	**47**	Q	20
Manganese, Total	56.4	72.5	mg/kg	**25**	Q	20
Nickel, Total	1.42J	1.81J	mg/kg	NC		20
Potassium, Total	117J	128J	mg/kg	NC		20
Selenium, Total	0.736J	0.587J	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Sodium, Total	43.2J	45.7J	mg/kg	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1938850-4 QC Sample: L2435549-01 Client ID: DUP Sample					
Thallium, Total	ND	ND	mg/kg	NC	20
Vanadium, Total	13.1	14.6	mg/kg	11	20
Zinc, Total	13.4	14.6	mg/kg	9	20
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1938853-4 QC Sample: L2435549-01 Client ID: DUP Sample					
Mercury, Total	0.087	0.077J	mg/kg	NC	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	Duplicate Sample	Units	RPD		RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1939052-4 QC Sample: L2433109-02 Client ID: LQ-AST04-06122024						
Aluminum, Total	ND	ND	mg/kg	NC		20
Antimony, Total	ND	ND	mg/kg	NC		20
Arsenic, Total	ND	ND	mg/kg	NC		20
Barium, Total	ND	ND	mg/kg	NC		20
Beryllium, Total	ND	ND	mg/kg	NC		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Calcium, Total	ND	ND	mg/kg	NC		20
Chromium, Total	ND	1.80J	mg/kg	NC		20
Cobalt, Total	ND	ND	mg/kg	NC		20
Copper, Total	10.8J	14.0J	mg/kg	NC		20
Iron, Total	6990	8920	mg/kg	**24**	Q	20
Lead, Total	ND	ND	mg/kg	NC		20
Magnesium, Total	ND	ND	mg/kg	NC		20
Manganese, Total	20.3	22.6	mg/kg	11		20
Nickel, Total	ND	ND	mg/kg	NC		20
Potassium, Total	ND	ND	mg/kg	NC		20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Sodium, Total	76.5J	ND	mg/kg	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1939052-4 QC Sample: L2433109-02 Client ID: LQ-AST04-06122024					
Thallium, Total	ND	ND	mg/kg	NC	20
Vanadium, Total	ND	ND	mg/kg	NC	20
Zinc, Total	ND	ND	mg/kg	NC	20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1939213-4 QC Sample: L2433109-01 Client ID: LQ-AST03-06122024					
Arsenic, TCLP	ND	ND	mg/l	NC	20
Barium, TCLP	ND	ND	mg/l	NC	20
Cadmium, TCLP	ND	ND	mg/l	NC	20
Chromium, TCLP	ND	ND	mg/l	NC	20
Lead, TCLP	ND	ND	mg/l	NC	20
Selenium, TCLP	ND	ND	mg/l	NC	20
Silver, TCLP	ND	ND	mg/l	NC	20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1939214-4 QC Sample: L2433109-01 Client ID: LQ-AST03-06122024					
Mercury, TCLP	0.0191	0.0199	mg/l	4	20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1939252-4 QC Sample: L2433275-01 Client ID: DUP Sample					
Mercury, Total	ND	ND	mg/l	NC	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1939474-4 QC Sample: L2435683-01 Client ID: DUP Sample					
Arsenic, TCLP	ND	ND	mg/l	NC	20
Barium, TCLP	0.145J	0.138J	mg/l	NC	20
Cadmium, TCLP	ND	ND	mg/l	NC	20
Chromium, TCLP	ND	ND	mg/l	NC	20
Lead, TCLP	ND	ND	mg/l	NC	20
Selenium, TCLP	ND	ND	mg/l	NC	20
Silver, TCLP	ND	ND	mg/l	NC	20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1939477-4 QC Sample: L2435683-01 Client ID: DUP Sample					
Mercury, TCLP	ND	ND	mg/l	NC	20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1939624-4 QC Sample: L2433109-02 Client ID: LQ-AST04-06122024					
Arsenic, TCLP	ND	ND	mg/l	NC	20
Barium, TCLP	ND	ND	mg/l	NC	20
Cadmium, TCLP	ND	ND	mg/l	NC	20
Chromium, TCLP	ND	ND	mg/l	NC	20
Lead, TCLP	ND	ND	mg/l	NC	20
Selenium, TCLP	ND	ND	mg/l	NC	20
Silver, TCLP	ND	ND	mg/l	NC	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1939626-4 QC Sample: L2433109-02 Client ID: LQ-AST04-06122024					
Mercury, TCLP	ND	ND	mg/l	NC	20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1939810-4 QC Sample: L2433109-02 Client ID: LQ-AST04-06122024					
Mercury, Total	ND	ND	mg/kg	NC	20

INORGANICS
&
MISCELLANEOUS

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03
Client ID: LQ-AST05-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 15:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Sludge

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Wet Paste
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	06/21/24 16:23	1,1030	GEF

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-01
Client ID: LQ-AST03-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/kg	0.96	0.22	1	06/24/24 12:00	06/24/24 16:01	1,9010C/9012B	JER
pH (H)	10.4		SU	-	NA	1	-	06/25/24 18:20	1,9045D	AAS
Nitrogen, Ammonia	9.6		mg/kg	7.3	0.05	1	06/27/24 13:33	06/27/24 18:46	121,4500NH3-BH	AT
Flash Point	>150		deg F	70	NA	1	-	06/24/24 11:00	1,1010A	JBB
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	06/25/24 13:40	06/26/24 16:44	1,7196A	LOF
Cyanide, Reactive	ND		mg/kg	10	10.	1	06/25/24 16:26	06/25/24 17:42	125,7.3	JLB
Sulfide, Reactive	ND		mg/kg	10	10.	1	06/25/24 16:26	06/25/24 17:57	125,7.3	JLB

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-02
Client ID: LQ-AST04-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 11:30
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/kg	0.95	0.22	1	06/24/24 12:00	06/24/24 16:04	1,9010C/9012B	JER
pH (H)	6.31		SU	-	NA	1	-	06/25/24 18:20	1,9045D	AAS
Nitrogen, Ammonia	ND		mg/kg	7.4	0.05	1	06/27/24 13:33	06/27/24 18:48	121,4500NH3-BH	AT
Flash Point	>150		deg F	70	NA	1	-	06/26/24 13:30	1,1010A	JBB
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	06/25/24 13:40	06/26/24 16:44	1,7196A	LOF
Cyanide, Reactive	ND		mg/kg	10	10.	1	06/25/24 16:26	06/25/24 17:43	125,7.3	JLB
Sulfide, Reactive	ND		mg/kg	10	10.	1	06/25/24 16:26	06/25/24 17:58	125,7.3	JLB

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

SAMPLE RESULTS

Lab ID: L2433109-03
Client ID: LQ-AST05-06122024
Sample Location: 3821 RIVER ROAD TONAWANDA,NY

Date Collected: 06/12/24 15:00
Date Received: 06/12/24
Field Prep: Not Specified

Sample Depth:
Matrix: Sludge

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	46.5		%	0.100	NA	1	-	06/19/24 13:11	121,2540G	ROI
Cyanide, Total	ND		mg/kg	2.0	0.42	1	06/24/24 12:00	06/24/24 16:05	1,9010C/9012B	JER
pH (H)	3.79		SU	-	NA	1	-	06/25/24 18:20	1,9045D	AAS
Nitrogen, Ammonia	ND		mg/kg	7.5	5.3	1	06/27/24 13:33	06/27/24 18:49	121,4500NH3-BH	AT
Chromium, Hexavalent	1.35	J	mg/kg	1.72	0.344	1	06/25/24 13:40	06/26/24 16:44	1,7196A	LOF
Cyanide, Reactive	ND		mg/kg	10	10.	1	06/25/24 16:26	06/25/24 17:43	125,7.3	JLB
Sulfide, Reactive	ND		mg/kg	10	10.	1	06/25/24 16:26	06/25/24 17:58	125,7.3	JLB
Paint Filter Liquid	Positive		-	0	NA	1	-	06/20/24 18:58	1,9095B	AAS

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1938450-1										
Cyanide, Total	ND		mg/kg	0.92	0.22	1	06/24/24 12:00	06/24/24 15:16	1,9010C/9012B	JER
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1939021-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	06/25/24 13:40	06/26/24 16:44	1,7196A	LOF
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1939184-1										
Cyanide, Reactive	ND		mg/kg	10	10.	1	06/25/24 16:26	06/25/24 17:42	125,7.3	JLB
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1939192-1										
Sulfide, Reactive	ND		mg/kg	10	10.	1	06/25/24 16:26	06/25/24 17:56	125,7.3	JLB
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1940304-1										
Nitrogen, Ammonia	ND		mg/kg	7.5	0.05	1	06/27/24 13:33	06/27/24 18:43	121,4500NH3-BH	AT

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1938450-2 WG1938450-3								
Cyanide, Total	90		93		80-120	3		35
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1938574-1								
Flash Point	99		-		96-104	-		
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1939021-2								
Chromium, Hexavalent	**75**	Q	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1939184-2								
Cyanide, Reactive	107		-		30-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1939192-2								
Sulfide, Reactive	94		-		60-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1939257-1								
pH	100		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1939761-1								
Flash Point	101		-		96-104	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3821 RIVER ROAD

Project Number: ASTS PLASTICS

Lab Number: L2433109

Report Date: 07/01/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1940304-2					
Nitrogen, Ammonia	96	-		-	

Matrix Spike Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1938450-4 WG1938450-5 QC Sample: L2433109-01 Client ID: LQ-AST03-06122024												
Cyanide, Total	ND	9.3	9.2	99		9.9	100		75-125	1		35
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1939021-4 QC Sample: L2433109-01 Client ID: LQ-AST03-06122024												
Chromium, Hexavalent	ND	1260	1340	107		-	-		75-125	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1940304-4 QC Sample: L2433109-01 Client ID: LQ-AST03-06122024												
Nitrogen, Ammonia	9.6	371	390	101		-	-			-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1936331-1 QC Sample: L2434265-01 Client ID: DUP Sample						
Solids, Total	87.9	87.7	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1939021-6 QC Sample: L2433109-01 Client ID: LQ-AST03-06122024						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1939184-3 QC Sample: L2434341-02 Client ID: DUP Sample						
Cyanide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1939192-3 QC Sample: L2434341-02 Client ID: DUP Sample						
Sulfide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1939257-2 QC Sample: L2434643-21 Client ID: DUP Sample						
pH	7.07	7.04	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1939761-2 QC Sample: L2433949-01 Client ID: DUP Sample						
Flash Point	<70	<70	deg F	NC		
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1940304-3 QC Sample: L2433109-01 Client ID: LQ-AST03-06122024						
Nitrogen, Ammonia	9.6	11	mg/kg	11		

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2433109-01A	Glass 60mL/2oz unpreserved	A	NA		4.1	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),NI-TI(180),SE-TI(180),PB-TI(180),CU-TI(180),SB-TI(180),CO-TI(180),HG-T(28),MN-TI(180),FE-TI(180),MG-TI(180),NA-TI(180),CD-TI(180),CA-TI(180),K-TI(180)
L2433109-01B	Vial Large Septa unpreserved (4oz)	A	NA		4.1	Y	Absent		NYTCL-8260-R2(14),TCLP-EXT-ZHE(14)
L2433109-01C	Vial Large Septa unpreserved (4oz)	A	NA		4.1	Y	Absent		NYTCL-8260-R2(14),TCLP-EXT-ZHE(14)
L2433109-01D	Glass 120ml/4oz unpreserved	A	NA		4.1	Y	Absent		SUB-BTU()
L2433109-01E	Glass 120ml/4oz unpreserved	A	NA		4.1	Y	Absent		TCN-9010(14),REACTS(14),FLASH(),PH-9045(1),NYTCL-8082-LVI(365),REACTCN(14),HEXCR-7196(30),NH3-4500(28)
L2433109-01F	Glass 250ml/8oz unpreserved	A	NA		4.1	Y	Absent		TCN-9010(14),REACTS(14),FLASH(),PH-9045(1),NYTCL-8082-LVI(365),REACTCN(14),HEXCR-7196(30),NH3-4500(28)
L2433109-01G	Glass 500ml/16oz unpreserved	A	NA		4.1	Y	Absent		TCN-9010(14),REACTS(14),FLASH(),PH-9045(1),NYTCL-8082-LVI(365),REACTCN(14),HEXCR-7196(30),NH3-4500(28)
L2433109-01K	Amber 120ml unpreserved Extracts	NA	NA			Y	Absent		TCLP-8270(14)
L2433109-01L	Amber 120ml unpreserved Extracts	NA	NA			Y	Absent		PEST-TCLP*(14)
L2433109-01V	Amber 120ml unpreserved Extracts	NA	NA			Y	Absent		HERB-TCLP*(14)
L2433109-01W	Plastic 120ml HNO3 preserved Extracts	NA	NA			Y	Absent		CD-CI(180),BA-CI(180),AS-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180)
L2433109-01X	Vial MeOH preserved split	NA	NA			Y	Absent		NYTCL-8260-R2(14),TCLP-EXT-ZHE(14)
L2433109-01Y	Vial MeOH preserved split	NA	NA			Y	Absent		NYTCL-8260-R2(14),TCLP-EXT-ZHE(14)
L2433109-01Z	Vial unpreserved Extracts	NA	NA			Y	Absent		TCLP-VOA(14)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2433109-02A	Glass 60mL/2oz unpreserved	A	NA		4.1	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),TL-TI(180),AL-TI(180),ZN-TI(180),CU-TI(180),SB-TI(180),SE-TI(180),PB-TI(180),CO-TI(180),V-TI(180),MN-TI(180),FE-TI(180),MG-TI(180),HG-T(28),K-TI(180),CA-TI(180),CD-TI(180),NA-TI(180)
L2433109-02B	Vial Large Septa unpreserved (4oz)	A	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2433109-02C	Vial Large Septa unpreserved (4oz)	A	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2433109-02D	Glass 120ml/4oz unpreserved	A	NA		4.1	Y	Absent		SUB-BTU()
L2433109-02E	Glass 120ml/4oz unpreserved	A	NA		4.1	Y	Absent		NYTCL-8270(14),REACTS(14),TCN-9010(14),HERB-APA(14),FLASH(),PH-9045(1),NYTCL-8081(14),NYTCL-8082(365),REACTCN(14),NH3-4500(28),HEXCR-7196(30)
L2433109-02F	Glass 250ml/8oz unpreserved	A	NA		4.1	Y	Absent		NYTCL-8270(14),REACTS(14),TCN-9010(14),HERB-APA(14),FLASH(),PH-9045(1),NYTCL-8081(14),NYTCL-8082(365),REACTCN(14),NH3-4500(28),HEXCR-7196(30)
L2433109-02G	Glass 500ml/16oz unpreserved	A	NA		4.1	Y	Absent		NYTCL-8270(14),REACTS(14),TCN-9010(14),HERB-APA(14),FLASH(),PH-9045(1),NYTCL-8081(14),NYTCL-8082(365),REACTCN(14),NH3-4500(28),HEXCR-7196(30)
L2433109-02W	Plastic 120ml HNO3 preserved Extracts	NA	NA			Y	Absent		CD-CI(180),BA-CI(180),AS-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180)
L2433109-02X	Vial MeOH preserved split	NA	NA			Y	Absent		NYTCL-8260-R2(14)
L2433109-02X9	Tumble Vessel	NA	NA			Y	Absent		-
L2433109-02Y	Vial unpreserved	NA	NA			Y	Absent		NYTCL-8260-R2(14)
L2433109-02Z	Vial unpreserved	NA	NA			Y	Absent		NYTCL-8260-R2(14)
L2433109-03A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.1	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),TL-TI(180),NI-TI(180),CR-TI(180),CU-TI(180),SE-TI(180),ZN-TI(180),SB-TI(180),PB-TI(180),CO-TI(180),V-TI(180),MN-TI(180),FE-TI(180),HG-T(28),MG-TI(180),K-TI(180),NA-TI(180),CA-TI(180),CD-TI(180)
L2433109-03B	Vial Large Septa unpreserved (4oz)	A	NA		4.1	Y	Absent		NYTCL-8260-R2(14),TCLP-EXT-ZHE(14)
L2433109-03C	Vial Large Septa unpreserved (4oz)	A	NA		4.1	Y	Absent		NYTCL-8260-R2(14),TCLP-EXT-ZHE(14)

*Values in parentheses indicate holding time in days

Project Name: 3821 RIVER ROAD
Project Number: ASTS PLASTICS

Lab Number: L2433109
Report Date: 07/01/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2433109-03D	Glass 120ml/4oz unpreserved	A	NA		4.1	Y	Absent		IGNIT-1030(14),NYTCL-8270(14),REACTS(14),TCN-9010(14),NYTCL-8082-3540C(365),TS(7),PH-9045(1),PAINTF(),REACTCN(14),HEXCR-7196(30),NH3-4500(28)
L2433109-03E	Glass 120ml/4oz unpreserved	A	NA		4.1	Y	Absent		IGNIT-1030(14),NYTCL-8270(14),REACTS(14),TCN-9010(14),NYTCL-8082-3540C(365),TS(7),PH-9045(1),PAINTF(),REACTCN(14),HEXCR-7196(30),NH3-4500(28)
L2433109-03F	Glass 250ml/8oz unpreserved	A	NA		4.1	Y	Absent		SUB-BTU()
L2433109-03G	Glass 500ml/16oz unpreserved	A	NA		4.1	Y	Absent		IGNIT-1030(14),NYTCL-8270(14),REACTS(14),TCN-9010(14),NYTCL-8082-3540C(365),TS(7),PH-9045(1),PAINTF(),REACTCN(14),HEXCR-7196(30),NH3-4500(28)
L2433109-03T	Vial unpreserved Extracts	A	NA		4.1	Y	Absent		TCLP-VOA(14)
L2433109-03U	Vial unpreserved Extracts	A	NA		4.1	Y	Absent		TCLP-VOA(14)
L2433109-03W	Amber 1000ml unpreserved Extracts	A	NA		4.1	Y	Absent		TCLP-8270(14),PEST-TCLP*(14),HERB-TCLP*(14)
L2433109-03X	Plastic 120ml HNO3 preserved Extracts	A	NA		4.1	Y	Absent		CD-CI(180),BA-CI(180),AS-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180)
L2433109-03X9	Tumble Vessel	A	NA		4.1	Y	Absent		-
L2433109-03Y	Vial MeOH preserved split	A	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2433109-03Y1	Vial Water preserved split	NA	NA			Y	Absent	**25-JUN-24 03:53**	NYTCL-8260-R2(14)
L2433109-03Y2	Vial Water preserved split	NA	NA			Y	Absent	**25-JUN-24 03:53**	NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	3821 RIVER ROAD	**Lab Number:**	L2433109
Project Number:	ASTS PLASTICS	**Report Date:**	07/01/24

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

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

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

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

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

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

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

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

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

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	3821 RIVER ROAD	**Lab Number:**	L2433109
Project Number:	ASTS PLASTICS	**Report Date:**	07/01/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	3821 RIVER ROAD	**Lab Number:**	L2433109
Project Number:	ASTS PLASTICS	**Report Date:**	07/01/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

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

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

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	3821 RIVER ROAD	**Lab Number:**	L2433109
Project Number:	ASTS PLASTICS	**Report Date:**	07/01/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

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

125 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates IIIA, April 1998.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

ALPHA ANALYTICAL

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193
Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 6/13/24

ALPHA Job #: L2433109

Project Information
Project Name: 3821 River Road
Project Location: 3821 River Road Tonawanda, NY
Project # ASTs Plastics
(Use Project name as Project #) ☐
Project Manager: James Edwards
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Client Information
Client: Inventum Engineering
Address: 441 Carlisle Drive Suite C Herndon, VA 20170
Phone: 716-720-3256
Fax: Corey.bryerton@inventumeng.com
Email: james.edwards@inventumeng.com

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables
☐ ASP-A ☐ ASP-B
☒ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☒ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL VOCs 8260D	NYTCL SVOCs 8270E	Haz. Waste Characteristics	TCL PCBs 8082A	TCLP Complete Analysis	Ammonia Nitrogen 4500	T. Cyanide	Paint Filter	Hex chrom. 7196	TAL metals 6010D	BTU Analysis	Sample Specific Comments	Total Bottle
33109-01	Lg-AST03-06122024	6/12/24	11:00	non-AQ	CB	X	X	X	X	X	X	X	X	X	X	X		
02	Lg-AST04-06122024	6/12/24	11:30	non-AQ	CB	X	X	X	X	X	X	X	X	X	X	X		
03	Lg-AST05-06122024	6/12/24	15:00	~~non-AQ~~ sludge	CB	X	X	X	X	X	X	X	X	X	X	X	Heavy odors - may be hazardous	

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

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

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

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
	6/12/24 4:35		6-12-24 4:35
	6-12-24 16:45		6-13-24 02:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Sterling Analytical, Inc.
15 Agawam Avenue
West Springfield, MA 01089
Phone (413) 214-6541 Fax (413) 214-6842

Visit our website: www.sterlinganalytical.com

Report Date June 27, 2024

Customer	Contact	Laboratory Supervisor	eMail
Alpha Analytical Lab	C. Fox	Dale Percoski	customerservice@sterlinganalytical.com

Sample Description
Analysis of Oil & Sludge Samples

Samples Analyzed

Enclosed are Report No(s): 83401 to 83403

Sludge sample reported on dry basis.

Thank you for your business

Dale Percoski

Dale Percoski, Laboratory Supervisor

6/27/2024

Date

Visit our website: www.sterlinganalytical.com

Sample Analysis

Work Order 24-1895

Sample	Description	Source	Taken/Time	Received
83401	L2433109-01D LQ-AST03	Alpha Analytical Lab	6/12/24 11:00	6/20/24

Parameter		Results	RDL	Method	Analyzed/Time	Tech
BTU/Lb	Less Than	500	500.00	ASTM D240	06/24/24	sjr

Sample	Description	Source	Taken/Time	Received
83402	L2433109-02D LQ-AST04	Alpha Analytical Lab	6/12/24 11:30	6/20/24

Parameter		Results	RDL	Method	Analyzed/Time	Tech
BTU/Lb		18,683	500.00	ASTM D240	06/24/24	sjr

Sample	Description	Source	Taken/Time	Received
83403	L2433109-03F LQ-AST05	Alpha Analytical Lab	6/12/24 15:00	6/20/24

Parameter		Results	RDL	Method	Analyzed/Time	Tech
BTU/Lb		11,279	500.00	ASTM D5865	06/24/24	sjr

(1) MA & CT do not certify this parameter