Summary Report
Pittard Road Environmental Review
Potential Environmental Issues and Community Concerns
March 17, 2023

Project Authorization

In June 2021 the Athens-Clarke County Unified Government (ACCGov) Mayor and Commission identified a need and allocated funding to investigate potential environmental concerns in the area of Pittard and Dunlap Roads. The nature and extent of the concern was not defined at that time.

Based on the information gathered as part of this report, the environmental concerns related to Pittard Road are generally associated with privately owned land, while the concerns in the area of Dunlap Road involve the Municipal Solid Waste Landfill owned by ACCGov.

Because of the two different types of ownership (public and private), these areas were divided into two sub-projects to better address area-specific concerns and issues.

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Table of Contents

I. Evaluation and Considerations 3

A. Private Land

B. EPD Authority

C. Environmental Justice Concerns

II. Conclusions and Recommendations 3

III. Background – Review of Initial Investigation 4

A. Identifying Concerns 4

B. Identifying Project Boundaries 4

IV. Pittard Road Investigation and Findings 5

A. Preliminary Resident Contact 5

B. Health Investigations – Area of Interest 6

C. Legal Actions - Area of Interest 8

D. Environmental Site Assessments - Area of Interest 8

E. Freedom of Information and

Open Records Request Related to Area of Interest 13

Attachments

1 - Elements of Environmental Review
2a - An Overview of the Brownfield Program in Georgia
2b - Brownfield Frequently Asked Questions
3a and b - Area of Interest -Location Map [MAP]
4a - DHR Chemical Hazard Program
4b - Public Health Assessment Summary
4c - Health Consultation -CancerClusterHC031006-Pittard Road
4d - DHR-Letter and survey sample
4e - Environmental Health Education Needs Assessment
5 - Well Testing Sites – Available Historic Data [MAP]
6 - ACCGov Water Accts [MAP]
7a - DOJ Complaint
7b - Consent Decree
8 - Cover and Reliance Letters
9 - All Phase Environmental Phase I - August 2019
10 - Atlanta Testing [March 1988] and Vetex Reports [July 2018]
11 - Phase II UST study [February 2019]
12 - LAS Site Selection and Evaluation; [January 2020]
13 - EPD Complaint ID 97706 - Public Copy

Pittard Road Environmental Concerns

I. Evaluations and Considerations

The majority of the land in the Area of Interest is in private ownership. As such, ACCGov's legal standing to pursue testing and sampling was investigated by ACCGov Attorney Drake and Environmental Attorney Rebecca Davis. As part of this analysis, Environmental Justice issues were also included. A summary of Attorney Davis's findings are:

A. Private Land

There are no state or local laws, rules or regulations that allow ACCGov to enter private property without consent. The EPA does have the authority to enter property to conduct investigations, studies, and cleanups. However, since there is no known historical contamination that exists and no data that suggests there are any current issues on the site, the U.S. Environmental Protection Agency (EPA} has no evidence suggesting that such an investigation is necessary. Thus, it is unlikely that the EPA would investigate this area.

B. Georgia Environmental Protection Division (EPD) Authority

The EPD also has authority to conduct investigations under certain circumstances. However, given the lack of evidence that the criteria warranting an action has been met, it is unlikely EPD would pursue an investigation in this area.

C. Environmental Justice Concerns

A thorough investigation into available reports, documents, citizen feedback, and legal filings was undertaken. Throughout this process, no evidence was found suggesting that there were environmental, health, or toxic substance release concerns that would raise Environmental Justice related issues.

II. Conclusions and Recommendations

This investigation did not to find any data or evidence that environmentally harmful or toxic releases have taken place within the Pittard Road Area of Interest. Additionally, ACCGov has no standing to pursue this issue on private land and there is no evidence that raises any Environmental Justice-related issues associated with toxic waste. Based upon these findings, it is recommended that:

A. Once presented to the Mayor and Commission, a summary report and associated attachments be made available to the public.

B. ACCGov host a community meeting to share results of investigation.

III. Background – Review of Initial Investigation

A. Identifying Concerns

1. A working group was created that included the Sustainability Office, Manager's Office, Attorney's Office, Solid Waste Department, and Geographic Information Office. As the investigation progressed, there was interest in adding an independent, third party expert to the research team. Attorney, Rebecca Davis with Seyfarth Shaw LLC was hired, adding expertise in environmental issues and regulations along with an independent viewpoint to the team.

2. As the District 9 representative, Commissioner Thornton was contacted, providing historic context and insights related to the concerns of Pittard Road area residents. As a result, the Sustainability and Manager's Office reached out to the community members identified by Commissioner Thornton for additional information.

3. Research was conducted to identify internal, public, and agency documents related to properties located within the general area.

4. Based on finding, a set of maps identifying the "best guess" boundary and existing conditions were created for the Pittard Road area.

5. As part of this investigation, additional research was conducted that included:
   a. Criteria for Environmental Assessments (see *Attachment 1 – Elements of an Environmental Review)*
   b. The Georgia Brownfield Program (see A*ttachments 2a -An Overview of the Brownfield Program in Georgia* and *Attachment 2b - Brownfield Frequently Asked Questions*)
   c. Any law suits or settlements associated with properties in or near the general target area.
   d. Any relevant local, state, or federal investigations or legal actions located in or near the general target area. This included the use of Open Records and Freedom of Information requests to respective agencies.
   e. Any Phase 1 or Phase 2 environmental studies that were conducted in or near the general target area.

B. Identifying Project Boundaries

The boundary of the area of concern remains uncertain. There are private homes and industrial businesses located in the Pittard Road area, including:

1. CSX Corporation – rail line right of way

2. Invista – 278 acres located at 400 Pittard Road consisting of forest and agricultural land; the company produces nylon polymers and products (the 278 acres is undeveloped and a mixture of forest and field; a portion of the site appears to be managed for hay production)

3. Nakanishi Manufacturing – 60 acres that includes forest and buildings located at 1225 Voyles Road

4. Koch RP Holdings II LLC – a 42 acres located adjacent to 110 Voyles Road

5. RWDC Industries – operates a manufacturing facility on 132 acres owned by the Industrial Development Authority. The property includes DuPont Lake and a building located at 110 Voyles Road. The manufacturer focuses on environmentally responsible products and biodegradable plastics.

6. Industrial Development Authority – the IDA owns the 132 acre site located at 110 Voyles Road and holds title for RWDC Industries as part of an economic development agreement.

7. Based on land ownership research, an "Area of Interest" was established *(see Attachments 3a and 3b – Area of Interest maps)*

   Additional Relevant Ownership Information – 110 Voyles Road
   In circa 1970, a DuPont subsidiary, Arteva Specialties, built a textile manufacturing facility at 110 Voyles Road. This plant was in production until it was sold, in approximately 2003. The subsidiary was one of 42 properties worldwide sold by DuPont. Thereafter, Arteva Specialties merged with Koch Industries of Wichita, Kansas and began operating under the name of Invista. The plant made "non-woven" products using nylon fibers and the flooring division of the plant blended yarn for the commercial carpet industry. The property was sold to RWDC Athens Real Estate Holdings September 30, 2019, to RWDC Industries LLC on December 19, 2019, and to the Industrial Development Authority on December 20, 2019.

IV. Pittard Road Investigation and Findings

A. Preliminary Resident Contact

1. Based on information provided by Commissioner Thornton, two area residents were interviewed. They indicated that the general feeling among area residents is that the area they live in is the "forgotten" part of Athens and has, historically,

been treated poorly by ACCGov staff and elected officials. They shared that there is little trust in the government by area residents.

2. One of the community members interviewed lives in the area under consideration expressed concerns related to pollutants associated with rail operations, illegal dumping, and dogs off leash.

3. Another resident interviewed shared the experiences of her family during the time she was growing up in a small residential area off of Pittard Road. This area is surrounded on three sides by property owned by Invista. She indicated that, in 2005-2006 the family expressed concern with the cancer rates experienced by her family and neighbors. She also shared what she was told by her mother, along with her own memories from sometime during the late 1990s/early 2000s. She specifically shared:

    a. An incident when she was driving along Pittard Road and witnessed one or two tanker type trucks that appeared to have what she thought was an Invista company logo releasing some sort of liquid or chemical into a field located near her home. She proceeded to her home to get her Mother and when she returned, the trucks were gone. *(See section IV.D.2.b (2)(a) – page 11 - for possible explanation)*

    b. That her Mother was working with a local attorney in the early 2000s and was told by the attorney that, based on communications with the either the U.S. Environmental Protection Agency or the Georgia Environmental Protection Division, residents were advised not to eat anything grown from the soil of their property. On several occasions, staff requested both copies of any letters, reports, etc. related to the topic from the residents, and the local attorney's contact information in order to follow up on this information. Since the staff has not received any information, no additional follow up has been possible at this time.

B. Health Investigations – Area of Interest

1. Both residents interviewed reported that a "Cancer Study" had been conducted by a government agency sometime around the mid-2000s. Staff research located a U.S Department of Health and Human Services, Public Health Services, Agency for Toxic Substances and Disease Registry *Pittard Road Cancer Cluster Investigation* dated March 10, 2006.
   See *Attachments*
   4a. DHR Chemical Hazard Program

4b. Public Health Assessment Summary
4c. Health Consultation – Pittard Road Cancer Cluster Investigation
4d. DHR Letter and Survey Sample
4e. Environmental Health Education and Needs Assessment

A copy of this study was obtained and shared with the two residents with whom staff met.

2. The Department of Public Health study investigated potential exposure to unspecified contaminants and "cancer cluster" concerns. The study concluded that there was "No Apparent Public Health Hazard." This conclusion was based on
   a. No potential releases of regulated substances in the Pittard Road to air, water, and soil within approximately one mile of the homes in the residential area located within the Area of Interest. This was determined by:

      (1) A sampling of nine wells by the Georgia Environmental Protection Division, which evaluated 130 parameters per sample (see *Attachment 5 – Well Testing Sites; Available Historic Data*). *Note: the map identified the location of the wells based upon best available historic data provided by EPD.*

      (2) A sampling of indoor air quality for Radon

      (3) A well integrity evaluation and well maintenance assistance was provided in partnership with the University of Georgia,

      (4) An investigation of nine confirmed cases of cancer within the study area, finding that 56% of cases were breast cancer and that several of the cases were diagnosed in related women

   b. Concluded that no statistically significant incident rates of cancer were found.

   c. Soil tests were not conducted as part of this study.

3. Based on a GIS review of active Public Utilities Department water meters, it appears residents in the Pittard Road area currently have access to or are on municipal water (See *Attachment 6 – ACCGov Water Accounts*). To determine if there are any wells still in use in the area, individual residents will need to be contacted.

C. Legal Actions - Area of Interest

1. Staff searched for any lawsuits involving DuPont or Invista that might be relevant. This investigation located a Department of Justice Complaint as well as a Consent Decree involving DuPont, Invista and the U.S. Environmental Protection Agency. The plant in Athens was included in the facilities covered by the complaint, but did not appear in the final Consent Decree. (*See Attachments 7a –DOJ Complaint and 7b – Consent Decree)*

2. After reviewing the available documents (Attachments 8a and 8b), ACCGov staff and Environmental Attorney reached the following conclusions:

    a. The DuPont tract was purchased by Invista as part of a larger sale circa 2004.

    b. Invista self-reported hazard waste violations in multiple sites across the US in approximately 2005.

    c. Invista sued DuPont (for lack of disclosure).

    d. The EPA and several states became involved – Georgia was not one of these states.

    e. The Athens site was identified in the Complaint for various registration violations (i.e., certain required paperwork and filings).

    f. A Consent Decree was issued and agreed to by parties involved; the Athens site was not included or involved in any issues contained within the Consent Decree and there is no indication that there were any pollution-related violations at the Athens plant.

D. Environmental Site Assessments - Area of Interest

Research was conducted for any documentation indicating there was an environmental hazard in the Pittard Road Area of Interest. The only tract within the Area of Interest that is in public ownership is 110 Voyles Road, currently owned by the Development Authority as part of an economic package provided to RWDC Industries. Staff reached out to the Development Authority, who voluntarily provided the following.

1. November 2022 Development Authority cover letter and an All Phase Environmental LLC Reliance letter attesting to the findings of Environmental Site Assessments (*See Attachment 8 – Cover and Reliance Letters*.)

2. August 2019 Phase I Environmental Site Assessment

   a. All Phase Environmental Phase I Environmental Site Assessment, *See Attachment 9 – All Phase Environmental Phase I Report)*
   This study was conducted by All Phase Environmental LLC for RWDC Industries. The purpose of the Site Assessment was to "identify, to the extent feasible, the recognized environmental conditions (RECs) of the property according to ASTM publication E 1527-13. This assessment consists of a records review, a site reconnaissance, a review of tax data, two previous Phase I ESA Reports, and a previous Phase 2 Report [February 2019] with monitoring well sampling near the old UST [Underground Storage Tank] basin."

   The study included a search of the Environmental Protection Agencies Environmental Data Base. This data base provides information about Recognized Environmental Conditions (RECs) related to state and federal regulations that require reporting of specific hazardous chemicals and compounds that could potentially pose environmental problems.

   (1) The data requested by All Phase included sites within a 1-mile radius of 110 Voyles Road.

   (2) Invista was listed on eight of the RECs reported in the data base.

   (3) There are no violations reported in the data base and the site "appears to be in compliance with local, state, and federal regulations."

   (4) The investigating consultant (All Phase Environmental LLC) concludes "we do not believe that these RECs will cause detrimental problems for the subject site."

   (5) This report also stated:
   "Hundreds of pages in the previous Phase II reports were devoted to reporting, testing, and lab analysis of wastewater collected, stored, and applied on the spray fields. We do not consider this water as being a REC for the subject site. The two Phase I reports we reviewed reached the same conclusion about the water but included volumes of descriptions and data that can be viewed in their reports. All Phase Environmental has included excerpts from these past reports in the appendix of this report."

b. Land Application Systems and Underground Storage Tanks at 110 Voyles Road (See *Attachment 10 – Atlanta Testing and Vertex Phase I* reports - as excerpts from the All Phase report)

Based on available information, the "spray fields" or Land Application System was used by both DuPont and Invista to treat water coming from the scrubber system at the plant. According to information provided, both companies used the site for "beaming" (winding) yarn for distribution to textile manufactures. Fibers released into the air as part of this process were pulled into an air filtration system where water was used to remove fibers from the air in a closed loop. At a certain point in the cycle, some water (referred to as "finish water") was removed and subsequently sprayed on the land as part of the treatment process. Releases associated with both air quality and Land Applications were in accordance with permits issued by the Georgia Environmental Protection Division.

(1) Atlanta Testing and Engineering Phase I Environmental Assessment
In 1988, the Atlanta Testing consultant was contracted by DuPont to conduct a Groundwater Study to determine if there was an impact resulting from spray fields, fuel tanks, and inadvertent spills on the 132 acre site. The excerpt of the Atlanta Engineering Consultant report that was included in the All Phase Engineering Phase I document reported:

(a) Monitoring wells associated with the spray fields (Land Application System) had been in use from approximately 1979 – 1987. Dr. Wade Nutter of Earth Systems Associates had been responsible for testing and management.

- Data was collected from both shallow surface and ground water.

- Testing was conducted on potable water supplied by the City of Athens as a reference and was compared to groundwater samples.

(b) The consultant concluded that:
- Elevated levels of certain parameters associated with fertilization and liming of the spray fields were measured in the shallow water table aquifer. All concentrations were generally below the [EPA] limits established for drinking water.

- Based on the parameters analyzed, off-site mitigation of contaminated groundwater from the spray fields was not occurring.

- Elevated concentrations of organic vapors were detected near the fuel tank area in soil samples that were collected during drilling of Wells FT-1, FT-2, and FT-3. Concentrations ranges from 0.10 parts per million (ppm) to 613 ppm. The average concentrations for Wells FT-1, FT-2. and FT-3 were approximately 3 ppm, 1.0 ppm, and 84 ppm, respectively.

- The monitor wells installed near the fuel tank area and were sampled for benzene, toluene, ethyl benzene, and xylene (BTEX). No BTEX was detected in wells FT-2 and FT-3. Two samples taken from well FT-1 indicated a xylene concentration of 23 parts per billion (ppb) and 34 ppb. The data indicates that xylene appears to be confined to within the tank pit and has not migrated into the deeper aquifer(s).

(2) Vertext Companies Phase I Environmental Assessment
Also included in the All Phase Environmental LLC report was an excerpt from Vetex Companies. In 2018, Vertex Companies was hired to perform a Phase I Environmental Assessment and the "purpose of this assessment was to identify Recognized Environmental Conditions (RECs), Controlled RECs (CRECs), Historical RECs (HRECs}, and de minimis conditions in connection with the site." Vertex reported that Land Application System monitoring expanded from 1987 – 1994, when the "finish" water was permitted for discharge "directly into the municipal stormwater system." In this report, there was:

(a) An indication that the "finish water was sprayed onto five fields on the site and **an adjacent property to north (formerly associated with the site)*** [bold added for emphasis]. The spraying process was referred to as a Land Application System (LAS), and was permitted by the Georgia Environmental Protection Division (GEPD) via Permit# GA0l-405. Due to the proximity of residential water wells in the vicinity of the site, and the eventual discharge of the on-site lake to the Oconee River, groundwater quality was monitored within the spray fields for drinking water parameters."

**the "adjacent property to the north" may have been the field where the resident reported seeing tanker type trucks dumping what appeared to be some kind of liquid into a field adjacent to a residential area.*

(b) "During the sampling events, groundwater was encountered at depths ranging from 2 feet below ground surface (bgs) to 40 feet bgs. As part of the NPDES permit (GAR0S0000) filed for the site in June 2012 for stormwater discharges associated with industrial activity, annual monitoring of the two on-site stormwater outfalls was required.

(c) "No associated concerns were identified by the GEPD in the most recent report (2017). It should also be noted that the 2012 NPDES permit expired in 2017, and due to discontinued site operations, was not renewed."

(d) "Various administrative violations were identified on the ICIS [Integrated Compliance Information System] database pertaining to the facilities AIRS [Aerometric Information Retrieval Subsystem – now called the Air Quality Subsystem] and NPDES [National Pollutant Discharge Elimination System] permits; however, no formal action or violation descriptions were provided. The facility was not identified on any large quantity petroleum storage, spills, or release databases; no information has been identified indicating a material threat of subsurface contamination; and the site building is currently vacant. As such, these database listings, as well as former LAS operations, are not considered to represent a REC [Recognized Environmental Concern] in connection with the site."

(3) All Phase Environmental Phase II
Based on the findings from the 2018 Vertex report, a Phase II Environmental Assessment was conducted focusing on the Underground Storage Tanks (USTs).

(a) February 2019 Limited Phase II Subsurface Investigation Report
This study was conducted by All Phase Environmental LLC for Alan Gray of the Rooker Company. The Rooker Company appears to be a real estate development and construction management company in Atlanta, Ga.

The purpose of the investigation was to "test for petroleum hydrocarbons in areas near the former heating oil underground storage tanks (USTs). These non-regulated UTS systems were removed prior to the 1988 UST regulations. Heating oil USTs would not require any sampling by today's standards, however, any contamination from

former USTs would be regulated." See *Attachment 11 – Phase II UST Study*.

- Testing was done in two of the three on-site monitoring wells; the third well was dry. Samples were analyzed for BTEX (benzene, toluene, ethylbenzene and xylene) and PAHs (Polycyclic Aromatic Hydrocarbons).

- Samples were taken in a location that captured surface runoff from the site. Test were conducted on:
  - BTEX, PAHs,
  - TPH-DRO and TPH-GRO (hexane, benzene, toluene, xylenes, naphthalene, and fluorene, other constituents of gasoline, jet fuels, mineral oils, and of other petroleum products).

- Results on all samples found contamination levels below laboratory reporting limits in soil, surface waters, and groundwater.

E. Freedom of Information and Open Records Request Related to Area of Interest

As part of due diligence efforts to find environmental hazards within the Area of Interest, a Freedom of Information request was submitted to the U.S. Environmental Protection Agency and an Open Records request was submitted to the Georgia Environmental Protection Division asking for any documentation related to environmental contamination in the target area. A Freedom of Information Request was also submitted to the Department of Justice to determine if they were involved in an enforcement action in the Area of Interest. Information as received and evaluated by environmental attorney Rebecca Davis is as follows:

1. EPD Responses

   a. The Watershed Protection Branch had responsive records for the request, and supplied a Site Selection and Evaluation Report from 2020 for RWDC's Proposed Land Application System (See *Attachment 12, LAS Site Selection Report; Nutter 1.2020*). The investigation was conducted by Nutter and Associates for RWDC Industries.

      (1) This study evaluates "the feasibility for a Land Application System (LAS) that will provide treatment of "recovery water from a biopolymer production facility [RWDC Industries]".

(2) The report indicates that the majority of the flow produced would be reused within the plant following treatment by a "dissolved air flotation and polishing within a constructed wetland recycling system". The study further states "There will be no domestic waste or hazardous constituents included in these streams [i.e. water used for land application], and solids may be utilized as a soil amendment."

b. The GEPD Open Record Act Coordinator provided a closed complaint regarding a prior practice of dumping unprocessed/uncleaned water into drainage ditches (*see Attachment 13 – Complaint ID 97706 – Public Copy*). GEPD followed up on the complaint and did not find any relevant issues of concern. The Environmental Attorney for ACCGov sent a follow up to the local EPD office but no additional information has become available.

c. The GEPD Land Protection Branch, which also regulates underground storage tanks, did not provide any additional documents, and no relevant documents were located under the Land Protection Branch on theG EPD website.

d. EPD's Air Protection Branch has acknowledged receipt of the request, but no additional information has been provided.

2 Environmental Protection Agency and Department of Justice

These agencies have acknowledged receiving the request. No further information has been provided, suggesting there are no additional records.

Attachment 1
Elements of an Environmental Review

Environmental Reviews and the Brownfield Program Discussion and Review

1. Environmental Reviews are associated with land acquisition and there are specific ISO standards outlining the review process. These reviews are typically completed for a single owner or corporation.
    - Phase 1: *A comprehensive background study of historical use and existing conditions to evaluate recognized environmental conditions (RECs) and potential areas where substances may have been released. • Assess potential impacts from petroleum or hazardous substances that may impede redevelopment. • Establish baseline conditions for liability protection. • Support property sale/acquisition activities. • Provide documentation required to secure loans.* Reviews include landowner questions, discussions with landowners or others who may know the history of the site, a site inspection, and historical research related to potential sources of contaminates. It findings indicate a need for further investigation, a Phase 2 is commissioned.
    - Phase 2: *A physical study where samples (e.g. soil, groundwater, air/vapor, surface water and sediments) are collected and analyzed to characterize the type, distribution and extent of substances (if present) in the environment. • Evaluate the findings of the Phase I ESA (if contamination is suspected). • Identify whether a release has occurred. • Support efforts to obtain regulatory closure.* Generally includes the development of a Health and Safety Plan; potential borings (including shallow depth); soil samples; potential installation of wells/well sampling; and vapor, soil, and groundwater evaluation. Owners who agree to allow the phase 2 are financially obligated to mitigate any contaminates found and are required to notify EPD of the presence of contaminates on the site. This leaves the owner with limited choices, potentially go bankrupt, pay for the clean-up, or hope someone else will buy the land knowing the site is contaminated (although the value of the property could be significantly impacted). It is potential that the prospective buyer could submit the property to the Brownfield program.

Brownfields Tax Incentive

A Georgia law passed in 2003 provides tax relief for properties where costs were incurred to obtain a brownfields limitation of liability. Cost documentation is submitted to EPD for review, and a certification of eligible costs is issued to the prospective purchaser who then applies to the local taxing authority for the preferential brownfield assessment.

Preferential brownfield assessment provides tax savings by freezing the *ad valorem* value of the property for up to ten years (unless certified costs are recovered sooner). A recent amendment allows extension of preferential assessment (by a maximum of 5 years) for brownfields properties where construction ceased for 180 days or more and later resumed.

Costs to Participate in the Program

The application for a brownfields limitation of liability must be accompanied by an initial application review fee of $3,000. This non-refundable fee covers the costs incurred by the division during the review of the application. Application reviews are tracked on an hourly basis through issuance of the final limitation of liability certificate, and applicants are invoiced for review costs that exceed the initial fee.

Brownfields Program Results

Since the program began, over 450 applications for limitations of liability have been received. Investigation and cleanup have been completed at over 260 brownfields. These properties represent over 2,500 acres where prospective purchasers have certified that soil is in compliance with risk reduction standards. At two thirds of these properties, compliance with residential standards was achieved.

Applicable Laws and Rules:

Georgia's Brownfields Law:

Hazardous Site Reuse and Redevelopment Act
O.C.G.A. §12-8-200, *et seq.*

Georgia's State Superfund Law and Rules:

Hazardous Site Response Act
O.C.G.A. §12-8-90, *et seq.*

Rules for Hazardous Site Response
Chapter 391-3-19

Environmental Covenants:

Uniform Environmental Covenants Act
O.C.G.A. § 44-16-1

Brownfields Tax Incentive:

Ad Valorem Taxation of Property
O.C.G.A. §48-5-1, *et seq.*

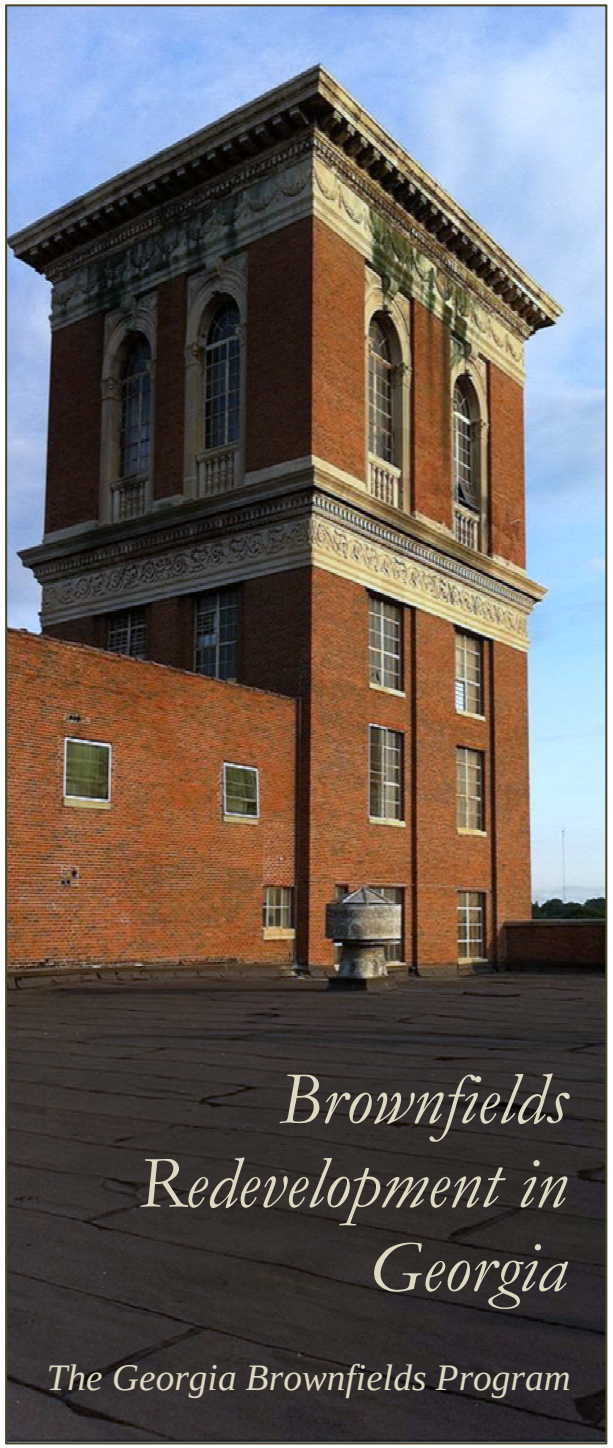
Brownfields Eligibility Form:

www.gaepd.org/Documents/brownfields.html

Contact:

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State of Georgia
Department of Natural Resources
Environmental Protection Division



The Georgia Brownfields Program

Brownfields come in many forms, from corner gas stations to sprawling industrial facilities. Some have extensive contamination requiring significant resources for cleanup; others may be minimally impacted. Regardless of the extent of contamination, uncertainty regarding financial and legal liabilities can affect the market for brownfields, even those with great locations or other desirable features.

The Georgia Environmental Protection Division (EPD) established the Brownfields Program in 2003 to address economic and environmental challenges posed by contaminated properties. The program facilitates voluntary cleanup and reuse of brownfields by offering liability protection and other incentives designed to improve demand for these properties.

With the goal of fostering revitalization, the program uses a collaborative, streamlined approach to the oversight of site investigation and cleanup. This approach can accommodate the time constraints and complexities of real estate transactions and redevelopment projects.

Under the Brownfields Program, prospective purchasers investigate contaminant releases and conduct soil and source material cleanup if needed. In return, prospective purchasers are relieved of liability for groundwater cleanup and third party claims arising from past releases. This limitation of liability transfers to subsequent purchasers of the property.

A companion property tax law provides preferential *ad valorem* tax assessment for brownfields, creating opportunities for recovery of investigation and cleanup costs.

Property Eligibility

- Properties must have a pre-existing release of hazardous constituents or petroleum.
- Any underground storage tank or state superfund program liens must be satisfied.
- Properties listed on the national priorities list or undergoing response activities under federal order are not eligible.
- Hazardous waste facilities are not eligible.

Prospective Purchaser Eligibility

- Persons "contributing to a release" under the state superfund law are not eligible.
- Purchaser must not be related to a person contributing to a release.
- Purchaser must not be in violation of environmental laws.

The Brownfields Application

Prospective purchasers may apply for a limitation of liability by submitting either a corrective action plan (PPCAP) or a compliance status report (PPCSR) prior to purchasing an eligible property. A non-refundable $3,000 application review fee must accompany the application. The Brownfield Eligibility Form, which can be found on EPD's website, should also be completed and included in the application.

Corrective Action Plan

The corrective action plan application is appropriate for most properties. The PPCAP should provide a plan for site characterization, identify a preferred method for soil cleanup should it prove necessary, and provide a schedule through completion of the PPCSR.

Compliance Status Report

Once site investigation and cleanup are complete, a PPCSR documenting compliance of soil and source material with cleanup standards is filed. For some properties, there may be sufficient sampling data at the time the brownfields application is filed to document compliance, and a PPCSR can be submitted as the application in these cases.

Limitation of Liability

The limitation of liability takes effect upon approval of the PPCAP or state concurrence with the certification of compliance, whichever first occurs. Prospective purchasers are not required to perform corrective action for groundwater and are not liable to third parties for claims resulting from pre-existing releases. The limitation of liability automatically transfers to successors in title (excluding only successors "contributing to a release").

Cleanup Standards

Soil and source material must be brought into compliance with risk reduction standards promulgated under the state superfund law. There are five available cleanup standards:

Type 1 Residential standard with default assumptions.
Type 2 Residential standard with site-specific assumptions.
Type 3 Nonresidential standard with default assumptions.
Type 4 Nonresidential standard with site-specific assumptions.
Type 5 Allows use of institutional and/or engineering controls with monitoring, as appropriate, for properties where Types 1-4 are not practicable.

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BROWNFIELDS PROGRAM FREQUENTLY ASKED QUESTIONS

1. **What is a "brownfield"?**

   A brownfield is an abandoned or underused industrial or commercial facility where expansion or redevelopment is complicated by real or perceived environmental contamination.

2. **How do you determine if a site is a brownfield?**

   A site is classified as a brownfield by having an environmental assessment done on the property. The environmental assessment determines the extent of real or perceived contamination.



A "brownfield"

3. **Where are brownfields located?**

   While traditionally seen as an urban issue, brownfields exist in suburban and rural areas as well. Consider the former gas station, an old rail yard or abandoned junk yard. Soil, water and air contamination can be caused by many different land use activities.

4. **What can the property be reused for?**

   Brownfield properties are commonly redeveloped into housing, commercial, office, recreation, or governmental uses.

5. **How does a community benefit from brownfield redevelopment?**

   The community benefits from brownfield redevelopment include but are not limited to:
   -removing health and environmental concerns or perceptions
   -promoting smart growth (reusing of property instead of vacant land)
   -promoting economic growth (increasing tax base and creating jobs)
   -removing blighted property
   -building ties among residents, businesses, and all parties involved
   -building community awareness and empowering communities to address a problem that directly affects them

6. **How does the property owner benefit from brownfield redevelopment?**

   There are a number of benefits to property owners including, but not limited to:
   -avoiding potential environmental enforcement actions
   - tax benefits for cleaning up and reusing the property
   -reducing the likelihood that contamination will migrate off the site or into groundwater and eliminating additional cleanup costs
   -creating good will within the community
   -making the property more valuable and marketable
   -legacy factor-not passing a burden on to heirs

BROWNFIELDS PROGRAM FREQUENTLY ASKED QUESTIONS

7. Is a brownfield site the same as a Superfund site?

No. A Superfund site is land that is more severely contaminated and has high concentrations of hazardous waste or pollution therefore posing a real threat to human health and/or the environment. Brownfields pose less of a serious health or environmental threat, and generally prevent development and therefore stifle local economies.

8. How clean is clean?

The level of cleanup varies depending on several factors including, but not limited to, the intended reuse and location of the property.

9. What are the prime sources of contamination and/or typical land uses that make a property become a Brownfield site?

Some of the most common contaminants identified at Brownfield sites are from fuels such as oil, gasoline, diesel and kerosene from underground storage tanks, floor drains, outside storage of barrels and machinery, and cleaning solvents. Former land uses at Brownfield sites can be any use that uses fuels (including heating) and cleaning solvents. The more common uses include former service stations, dry cleaners, mill buildings, warehouses, parking lots, abandoned railroads and landfills.

10. Aside for assessment funding, what are some other governmental programs that are available to facilitate brownfield redevelopment?

Several programs have been created to aid property owners in the clean up and redevelopment of Brownfield sites. Some of the assistance includes;
-federal, state and local tax incentives
-grants and low interest loans
-technical assistance
-liability protection
-assistance with local approvals



Boring holes to test for ground contamination

11. Does participating in a Brownfields Program increase real or potential liability for existing environmental contamination?

As a participant in the SWRPC Brownfields Program, prospective new purchasers, secured creditors or mortgage holders, municipalities and some current property owners are eligible to participate in state and federal "Covenant Not to Sue" programs. The Covenant Not to Sue programs are designed to provide incentives in the form of liability protections for the investigation, cleanup and redevelopment of contaminated properties by persons who did not cause or contribute to the contamination. These programs were instituted in order to encourage redevelopment of underutilized properties.

Attachment 3a

Location and Current Conditions Map Set

Pittard Road Area of Interest

ACC Parcels

Pittard Rd Area of Interest

N

0 0.5 1 Miles

2019 Ortho; Sustainability Office October 2021

Hull Road

CSX Mainline

US 29 North

10 Loop

Pittard Road

Old Elberton Road

Voyles Road

Attachment 3b

Hull Road

CSX Mainline

Old Elberton Road

Pittard Road

Voyles Road

Pittard Road Area of Interest

ACC Parcels

Pittard Rd Area of Interest

Rivers and Streams

N

0 250 500 1,000 1,500 ft

2019 Ortho; Sustainability Office October 2021



Contact Information

Please call the Chemical Hazards Program staff at the following phone numbers or visit our website:

http://health.state.ga.us/programs/hazards

Chemical Hazards Program

State Office, Atlanta	(404) 657-6534

District Risk Communicators

District 1-1, Rome	(706) 802-5343
District 3-5, DeKalb County	(404) 508-7900
District 5-2, Macon	(478) 751-6113
District 9-3, Brunswick	(912) 264-3931

Supported in part by funds from the Comprehensive Environmental Response, Compensation, and Liability Act trust fund through a cooperative agreement with the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services.

DPH03.016HW

Chemical Hazards Program
Georgia Department of Human Resources
Division of Public Health
2 Peachtree Street, 13th Floor
Atlanta, GA 30303

CHEMICAL HAZARDS PROGRAM

DIVISION OF PUBLIC HEALTH

Environmental Health and Injury Prevention Branch

DHR

Georgia Department of Human Resources

Attachment 4a- DHR Chemical Hazards Program

What is the Chemical Hazards Program?

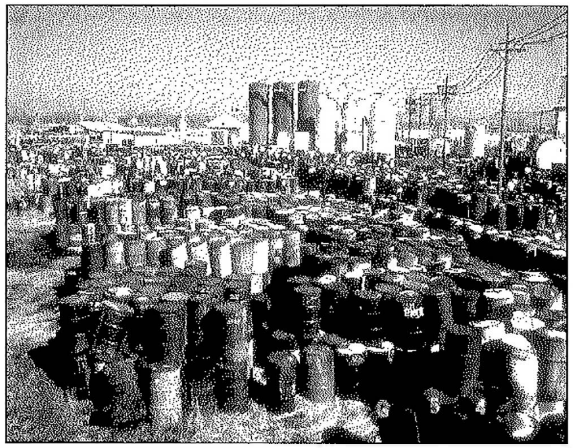
The Chemical Hazards Program is part of the Environmental Health Section of the Georgia Division of Public Health. It was established in 1994 through a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), of the U.S. Public Health Service, to conduct public health investigations at hazardous waste sites in Georgia. Since then, the Chemical Hazards Program has expanded to address all issues and concerns associated with human exposure to toxic chemicals in the environment.

What is the mission of the Chemical Hazards Program?

The mission of the Chemical Hazards Program is to protect the health and promote the quality of life of Georgians through the prevention of exposure to toxic chemicals in the environment.

What are the goals of the Chemical Hazards Program?

The goals of the Chemical Hazards Program are to identify people at risk for health problems from exposure to toxic chemicals in the environment, determine relationships between exposure to toxic chemicals and human diseases, and to reduce or eliminate exposures of health concern.



What services are provided by the Chemical Hazards Program?

To carry out its goals and to serve the needs of the public, the Chemical Hazards Program conducts activities in several areas:

- Public Health Assessments
- Health Consultations
- Health Studies
- Technical Assistance
- Community Education
- Training
- Capacity/Coalition Building

Public Health Assessments (PHA) evaluate data and information on the release of toxic chemicals into the environment to assess all past, current or future impacts on public health.

Health Consultations are similar to PHAs, but they usually discuss one specific, site-related public health question.

Health Studies involve conducting investigations, surveillance, and analytical epidemiologic studies that evaluate exposed persons, and identify the relationship between exposure and adverse health outcomes.

Technical Assistance provides written or oral responses to requests for specific information, usually as a review of and/or comment on regulatory agency documents or data.

Community Education addresses the concerns of residents about the health effects from exposure to chemicals in the environment. Education is provided through presentations, public meetings, publications, and the website.

Training enhances environmental health risk communication resources by training district and local health department staff on how toxic substances in the environment may affect human health, and how to communicate the risk of actual or potential exposure.

Capacity/Coalition Building involves responding to requests from other agencies to gather, review, and evaluate data, interpret exposure pathways, determine the health implications of exposure, define risk groups, and address community concerns.

The Georgia Division of Public Health published a Public Health Assessment for the following site:

PITTARD ROAD CANCER CLUSTER INVESTIGATION
Clarke County, Georgia

PUBLIC HEALTH ASSESSMENT SUMMARY (3/10/2006)

A **Public Health Assessment** provides advice on specific public health issues related to human exposure to toxic chemicals found in the environment. Anyone can request a Public Health Assessment. The Georgia Division of Public Health (GDPH) receives requests to conduct public health assessments from residents, local health departments, and federal and state public health and environmental agencies.

Pittard Road is a neighborhood in Athens, Georgia, located between highway 72 (Hull Road) and Voyles Road on approximately 16 acres near the northeast border of Clarke County (Figure 1). Pittard Road is a small residential community bordered by dense woodland. Approximately in the middle of the length of Pittard Road are two sets of railroad tracks: the eastern end of Pittard Road has single family homes possessing individual water wells, and the western end has single family homes connected to a municipal water source. There are no surface water bodies within one mile.

In 2003, a concerned citizen contacted the Northeast Health District (NEHD) located in Athens about a suspected cancer cluster in the Pittard Road community. Initial information gathered by NEHD revealed that several residents living on Pittard Road reported that they had been diagnosed with cancer, and some residents believed that the cancer cases may be the result of exposure to environmental contamination from nearby industries or unknown sources. Residents with wells are the only population that has expressed concern; therefore, the investigation was limited to those residents living in approximately 35 homes with private wells living east of the railroad tracks. In response to community concerns:

- NEHD and GDPH conducted an investigation into occurrences of cancer in the Pittard Road community, and no statistically significant incidence rates or numbers of cases of cancer were found. Of the confirmed cases (nine), five (56%) were breast cancer; however, several of these were diagnosed in related women.
- GDPH conducted an environmental investigation into known and potential releases of regulated substances to air, water, and soil within approximately one mile of the homes.
- GDPH coordinated a well water sampling event with the Georgia Environmental Protection Division and the NEHD. Nine wells were sampled and analyzed for approximately 130 parameters, including regulated chemicals and bacteria. Results revealed no chemicals above levels of regulatory or health concern. Several wells had elevated levels of coliform bacteria and the homeowners were advised to disinfect there wells using GDPH policies and procedures.
- NEHD coordinated radon sampling and no elevated levels of radon were detected in indoor air.
- GDPH conducted an environmental health education needs assessment to assist with community education, and evaluate public health activities.
- As a result of the needs assessment, GDPH partnered with the University of Georgia Cooperative Extension Service to apply down-well camera technology at no cost to residents of Pittard Road to assess well integrity, and to assist homeowners with well maintenance.
- Information about free breast cancer screening was distributed to residents of Pittard Road.

The public health assessment was distributed to the community and is available to the public upon request by contacting the Chemical Hazards Program at (404) 657-6534. For more information about Public Health Assessments and other activities, please contact:

GEORGIA DEPARTMENT OF HUMAN RESOURCES
Division of Public Health
Environmental Health and Injury Prevention Branch
Chemical Hazards Program
2 Peachtree Street, 13th Floor
Atlanta, Georgia 30303
(404) 657-6534
(404) 657-6533 (Fax)
www.health.state.ga.us/programs/hazards

Health Consultation

PUBLIC COMMENT RELEASE

PITTARD ROAD CANCER CLUSTER INVESTIGATION

ATHENS, CLARKE COUNTY, GEORGIA

MARCH 10, 2006

COMMENT PERIOD END DATE: APRIL 10, 2006

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Agency for Toxic Substances and Disease Registry
Division of Health Studies
Atlanta, Georgia 30333

Health Consultation: A Note of Explanation

An ATSDR health consultation is a verbal or written response from ATSDR to a specific request for information about health risks related to a specific site, a chemical release, or the presence of hazardous material. In order to prevent or mitigate exposures, a consultation may lead to specific actions, such as restricting use of or replacing water supplies; intensifying environmental sampling; restricting site access; or removing the contaminated material.

In addition, consultations may recommend additional public health actions, such as conducting health surveillance activities to evaluate exposure or trends in adverse health outcomes; conducting biological indicators of exposure studies to assess exposure; and providing health education for health care providers and community members. This concludes the health consultation process for this site, unless additional information is obtained by ATSDR which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

You May Contact ATSDR TOLL FREE at
1-888-42ATSDR
or
Visit our Home Page at: http://www.atsdr.cdc.gov

HEALTH CONSULTATION

PUBLIC COMMENT RELEASE

PITTARD ROAD CANCER CLUSTER INVESTIGATION

ATHENS, CLARKE COUNTY, GEORGIA

Prepared by:

Georgia Department of Human Resources
Division of Public Health
Under a cooperative agreement with the
Agency for Toxic Substances and Disease Registry

This information is distributed solely for the purpose of pre-dissemination public comment under applicable information quality guidelines. It has not been formally disseminated by the Agency for Toxic Substances and Disease Registry. It does not represent and should not be construed to represent any agency determination or policy.

TABLE OF CONTENTS

ACRONYMS **2**

SUMMARY **3**

PURPOSE AND HEALTH ISSUES **4**

BACKGROUND **4**

SITE DESCRIPTION 4
SITE HISTORY 4
DEMOGRAPHICS 5
LAND USE 5

COMMUNITY HEALTH CONCERNS **6**

DISCUSSION **6**

ENVIRONMENTAL SAMPLING DATA 6
Groundwater *8*
Indoor Air *9*
Outdoor Air *9*

HEALTH OUTCOME DATA **10**

CANCER CLUSTER INVESTIGATION 10
Criteria *11*
Results *11*

CHILD HEALTH CONSIDERATIONS **13**

CONCLUSIONS **13**

RECOMMENDATIONS **13**

PUBLIC HEALTH ACTION PLAN **13**

ACTIONS COMPLETED 13
ACTIONS PLANNED 14

REFERENCES **15**

PREPARERS AND REVIEWERS OF REPORT **16**

CERTIFICATION **17**

APPENDICES **18**

APPENDIX A-1: DEMOGRAPHIC MAP 19
APPENDIX A-2: AERIAL VIEW OF COMMUNITY [3] 20
APPENDIX A-3: WATER WELL SAMPLE LOCATIONS [3] 21
APPENDIX B: AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY 22
APPENDIX C: EXPLANATION OF TOXICOLOGICAL EVALUATION 24
APPENDIX D: WIND ROSE DATA 28
APPENDIX E: CANCER AND BREAST CANCER FACTORS 31
APPENDIX F: RADON 35

ACRONYMS

NEHD – Northeast District Health Department

GDPH – Georgia Division of Public Health

GEPD – Georgia Environmental Protection Division

ATSDR – Agency for Toxic Substance and Disease Registry

EPA – U.S. Environmental Protection Agency

GCCR – Georgia Comprehensive Cancer Registry

ppb – parts per billion

*p*CI – picoCuries

CV – Comparison Value

VOC – Volatile Organic Compounds

TCE – Tricholorethylene or trichloroethene

Summary

A community member contacted the Georgia Department of Human Resources Northeast Health District (NEHD) regarding cancer cases in the Pittard Road community in Clarke County, Georgia. In response, NEHD and the Georgia Department of Human Resources, Division of Public Health (GDPH) conducted a cancer cluster investigation. In addition, this health consultation was prepared to summarize environmental sampling data, the cancer cluster investigation results, and community concerns to determine the extent of past, current, and future exposure to hazardous chemicals in the environment, and the potential for resulting health effects, including cancer.

This document contains information about the environmental transport and extent of human exposure to hazardous chemicals, conclusions about the health risks posed to residents, and recommendations intended to protect public health. A health consultation is designed to provide the community with information about the public health implications from exposure to hazardous substances at a specific site, and to identify populations for which further health actions are needed. It is not intended to serve the purpose of addressing liability, zoning, or other non-health issues.

The community member provided GDPH with a list of people who have been diagnosed with cancer. After NEHD and GDPH conducted analyses of the available cancer data for this community, it was determined that no elevated cancer rates or patterns are suspected. Although rates for Pittard Road residents may seem high, the cancers are not all one type; they are occurring in populations typically diagnosed with the specific cancer types, and the types of cancer are very common. NEHD and GDPH determined that Pittard Road is not a cancer cluster.

GDPH concludes that residents of the Pittard Road community are not at increased risk for adverse health effects from exposure to hazardous chemicals in groundwater or air, or radon in indoor air. GDPH has determined that there is **No Apparent Public Health Hazard** because: human exposure to contaminated media might be occurring, might have occurred in the past, or might occur in the future, but the exposures are at levels that are not expected to cause known health effects.

There are no recommendations at this time. GDPH will provide health education about cancer and individual water well maintenance to residents of the Pittard Road community. GDPH will review additional data if it becomes available and provide documents, if appropriate.

Purpose and Health Issues

In 2003, a member of the Georgia State House of Representatives contacted the Georgia Department of Human Resources, Division of Public Health, Northeast Health District (NEHD) about a suspected cancer cluster in the Pittard Road community, in Athens, Clarke County, Georgia. Initial information collected by NEHD revealed that several residents living along Pittard Road reported that they had been diagnosed with cancer, and some residents believed that the cancer cases may be the result of exposure to environmental contamination.

In response, the NEHD and the Georgia Division of Public Health (GDPH), Comprehensive Cancer Registry, conducted a cancer cluster investigation to determine whether cancer rates, particularly breast cancer, were elevated. More information about the Cancer Registry can be found at *http://health.state.ga.us/programs/gccr*.

In addition, the GDPH conducted this health consultation and a community needs assessment to investigate and respond to environmental health concerns. This health consultation: (1) summarizes the cancer cluster investigation results; (2) provides a description and history of the Pittard Road community; (3) evaluates environmental sampling data; (4) makes conclusions about the potential for exposure to hazardous chemicals and resulting health effects, and (5) addresses community health concerns.

Background

Site Description

The Pittard Road community is a neighborhood between by Highway 72 (Hull Road) and Old Elberton Highway/Spring Valley Road near the northeast border of Clarke County (Appendix A-1). It is a small residential community on approximately 16 acres bordered by woodland. Parallel to Hull Road near the intersection of Hull Road and Pittard Road is a set of railroad tracks dividing Pittard Road. To the south of the railroad tracks are single family homes with individual water wells, and to the north are multiple and single family homes connected to a municipal water source. The topography of Pittard Road is generally flat with a downward slope to the southeast.

Within one mile of the Pittard Road community are small commercial businesses, two mid-sized industrial facilities, a church and an elementary school. There is no history of any other industry in the area. There is no known hazardous waste generating site or landfill within a mile radius of this community. The railroad tracks may have been a source for chemical spills, but there is no evidence or report of such events.

Site History

Residents have expressed concern that they may have been exposed to environmental contamination that is resulting in an increased rate of cancer in the community. In April 2003, GDPH coordinated a well water sampling event and a literature review for potential sources of chemical contamination. NEHD and GDPH staff assisted the Georgia Environmental Protection Division (GEPD) as they collected samples from six wells in the Pittard Road community for chemical and bacteria analyses. Wells that were sampled were selected from a list of residents requesting that their wells be tested. Samples were analyzed for 130 chemicals listed under the U.S. Environmental Protection Agency's

Safe Drinking Water Act, and for coliform bacteria. Concurrently, the Clarke County Health Department sampled three additional wells for bacteria only. No chemical contaminants or bacteria were detected in groundwater above levels of health concern or exceeding environmental regulatory levels [1, 2].

During spring 2003, the Georgia Comprehensive Cancer Registry and NEHD conducted a cancer cluster investigation. No cancer cluster is suspected because the cancer cases did not meet the criteria as meeting the GDPH cancer cluster criteria [2]. For more information about these criteria, see the Cancer Cluster Investigation section below.

In July 2003, NEHD coordinated radon sampling for the homes on Pittard Road and provided residents with radon test kits. No radon levels were found at levels of health concern [1].

In 2004, GDPH began a health consultation investigation to determine if there are known or suspected releases of hazardous chemicals to environmental media (air, groundwater) in the Pittard Road area. GDPH staff reviewed environmental data and available information regarding past and present industrial/commercial land use, and reports of chemical emissions, leaks and spills. There are two mid-sized industrial facilities within one mile of the Pittard Road community. The facilities neither currently nor have in the past been under investigation by state or federal regulatory authorities, and they both remain in compliance with required permitting, rules, and regulations. A literature search indicates that one industry has a permit to release the solvent trichloroethene to outdoor air and, therefore, undergoes routine regulatory inspections. There is no evidence or report that spills or other environmental contamination from these industries have impacted groundwater used by residents or the ambient air in the Pittard Road community.

In Fall 2005, the GDPH also conducted an environmental health education needs assessment to assist NEHD with community health education, and evaluate public health activities. The needs assessment consisted of a community survey to gather specific information about environmental and public health concerns. Because residents with water wells were the only population that had expressed concerns, the needs assessment was limited to those residents living in the Pittard Road community to the south of the railroad tracks where residence use individual water wells [3].

Demographics

Demographic information for a 1-mile radius of the Pittard Road community shows the area is sparsely populated with 626 people. Using 2000 Census data, the Agency for Toxic Substances and Disease Registry (ATSDR) calculated population information for individuals residing within a 1-mile radius of the site using an area-proportion special analysis technique (Appendix A-1). For more information about ATSDR, see Appendix B.

Demographic information specifically for the Pittard Road community south of the railroad tracks has not been collected; however, community meetings and interviews reveal residents are almost exclusively Black/African-American.

Land Use

Land use in the area of Pittard Road is mixed with rural residential adjacent to an industrial zone. The Pittard Road community has single-family homes, and some families have lived on Pittard Road for

generations [3]. Pittard Road has always been a residential area, and no known industrial activity is documented [2, 3].

There are two creeks approximately one-half mile to the east and southwest of Pittard Road. There is no indication that these creeks are used for recreation or fishing.

Residents of the Pittard Road community use individual water wells and septic systems. There are nine drinking water wells in the Pittard Road community; several being shared by several residences.

Community Health Concerns

Several residents living along Pittard Road reported that they had been diagnosed with cancer, and some residents believed that the cancer cases may be the result of exposure to environmental contamination [3]. The NEHD and GDPH staff gathered community health concerns at several public meetings and through interviews and correspondence with area residents, activists, the elected state representative, and local media coverage [3]. During this health consultation investigation, the community also expressed concern about ambient (outside) air emissions from an industry located nearby.

To address Pittard Road residents' concerns, GDPH distributed the following information to each household:

- how to obtain cancer information and free breast cancer screening
- how to conduct water well maintenance and disinfection
- GDPH video "An Important Conversation: Georgia Speaks"
- down-well camera technology at no cost to residents of Pittard Road to assess well integrity, and to assist homeowners with well maintenance

Discussion

Environmental Sampling Data

This section presents results from environmental sampling. Data are presented and discussed along with relevant health-based comparison values. Comparison values (CVs) are screening levels, below which there is little likelihood of adverse health effects from exposure. When contaminant concentrations are below CVs, no further evaluation for human health is necessary and it can be concluded that adverse health impacts are not likely. When contaminant concentrations exceed CVs, it indicates that further evaluation of exposures and health impacts is needed [4, 5]. A detailed description of the CVs used in this health consultation are presented in Appendix D.

GDPH determines exposure to environmental contamination by examining exposure pathways. An exposure pathway is generally classified by environmental medium (e.g., water, soil, air, food). A completed exposure pathway exists when people are actually exposed through ingestion or inhalation of, or by skin contact with a contaminated medium. An exposure pathway consists of five elements: a source of contamination; transport through an environmental medium; a point of exposure; a route of exposure; and a receptor population.

In completed exposure pathways, all five elements are evident and indicate that exposure to a contaminant has occurred in the past, is presently occurring, or will occur in the future. GDPH

considers people as exposed if they come into contact with contamination and an exposure pathway is completed. For example, people who reside in an area with contaminants in air, or who drink water known to be contaminated, or who work or play in contaminated soil are considered to be exposed to contamination.

In potential pathways, at least one of the five elements is not clearly defined, but could exist. Potential pathways indicate that exposure to a contaminant could have occurred in the past, could be occurring or could occur in the future; however, important information regarding a potential pathway may not be available. An exposure pathway can be eliminated if at least one of the five elements is missing and will never be present.

Identification of an exposure pathway does not immediately imply health effects will occur. Exposures to contamination may or may not be at levels of concern. Thus, even if exposure has occurred, human health effects may not necessarily result [4, 5].

The potential exposure pathways for the Pittard Road Community are in Table 1. For this health consultation, groundwater, radon in indoor air, and ambient (outdoor) air are discussed. Environmental sampling data analyses results are presented in Tables 2 and 3.

Table 1. Potential Exposure Pathways

Pathway	Exposure Pathway Elements					Time
	Sources	Medium	Point of Exposure	Route of Exposure	Exposed Population	
Groundwater	Various	Groundwater	Drinking, Cooking, Bathing, Irrigation, Recreation	Ingestion, Inhalation, and Dermal absorption	Residents and Visitors	Past, Present, and Future
Indoor and Outdoor Air	Naturally occurring radon and industry emissions	Air	Respiration, Dermal Contact, Intentional Ingestion	Ingestion, Inhalation, and Dermal absorption	Residents and Visitors	Past, Present, and Future

Groundwater

Six of the nine individual water wells (Appendix A-3) were sampled and analyzed by GEPD for approximately 130 parameters under the Safe Drinking Water Act[1] including pesticides, metals, and coliform bacteria [1, 3]. NEHD sampled groundwater from all nine wells for radon (Appendix A-3) [3]. No samples had chemical or radon concentrations exceeding CVs or EPA Safe Drinking Water Standards[2] [1]. GDPH reviewed the available environmental sampling data, and did not identify any completed exposure pathways that warranted further evaluation. Table 2 summarizes the contaminants found in individual well water.

Table 2. Contaminants in Individual Well Water

Contaminant	Range of Sample Results	ATSDR Comparison Value	
	ppb (ug/L) *p*CI/L	ppb (ug/L) *p*CI/L	CV Type
Lead	0 – 3.8 ppb	15 ppb	MCL
Nitrate/Nitrite	1,600 – 4,800 ppb	10,000 ppb	MCL
Radon	263 – 1147 *pCI*/L	4,000 *p*CI/L	DWHA *

* ATSDR offered an alternative, more conservative comparison value from EPA's Drinking Water Health Advisory (DWHA) for a lifetime.

[1] The Safe Drinking Water Act (SDWA) authorizes the U.S. Environmental Protection Agency to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. (The SDWA does not regulate private wells which serve fewer than 25 individuals.) w*ww.epa.gov/safewater/sdwa*.

[2] U.S. Environmental Protection Agency: National Primary Drinking Water Standards. w*ww.epa.gov/OGWDW/consumer/pdf/mcl.pdf.*

Although chemical contaminants were not detected above levels of health concern, four of the six wells tested positive for bacteria, and residents were referred to the proper agencies to assist them with bacteria contamination [3].

Indoor Air

NEHD assisted 30 residents with testing for radon inside their homes [3]. Radon is a naturally occurring radioactive gas found in soil, air, and water that can cause lung cancer. Radon is odorless and tasteless. It is formed from the radioactive decay of naturally occurring uranium found in most rocks and soil. Radon is found at very low levels in all outdoor air, and can be found at unsafe levels in indoor air if cracks in the basement or foundation and poor ventilation allow radon gas to accumulate in the home [6]. See Appendix F for more information about radon.

Indoor air sample results showed that none of the homes tested had radon levels above CVs. Results are shown in Table 3.

Table 3. Radon in Indoor Air

Contaminant	Range of Sample Results	ATSDR Comparison Values	
	***p*CI/L**	***p*CI/L**	**CV Type**
Radon	0.3 – 1.8	4	EPA Action Limit

Outdoor Air

Ambient (outside) air in the Pittard Road community has not been sampled or monitored. GDPH assessed ambient air quality for the Pittard Road community by reviewing air modeling data for industries within one mile.

GEPD air emission permits are based on expected air emissions and EPA's risk-based exposure and toxicity values [7]. Expected air emissions and climate data are estimated using an EPA computer model called, "Industrial Source Complex Short Term" (ISCST) Model. This model uses stack parameters (height, exit velocity, etc.), actual weather data, and emissions to estimate concentrations of contaminants that may be emitted to air from a particular industrial process [7].

This model was used for emissions from a ball bearing maker, Nakanishi Manufacturing Corporation, which uses trichloroethene (TCE) as a degreaser at its factory at the intersection of Voyles Road and Spring Valley Road. The facility is about one mile from the Pittard Road community, and near Coile Middle School and New Grove Baptist Church. There are no other industries emitting regulated levels of contaminants to air within one mile of Pittard Road.

Nakanishi has an air permit from GEPD to release TCE. It is the largest emitter of TCE in Georgia emitting about half of all TCE in Georgia, and one of the largest emitters in the nation. Nakanishi emitted about 130,000 pounds of TCE in 2002 (350 pounds/day) [8]. From 1992 to 2002, total air

releases from Nakanishi increased 242% [8]. Based on modeled information calculated by GEPD from the Nakanishi facility perimeter for the current permit, TCE is expected to be emitted at 4.74 ug/m^3, which is equivalent to 0.88 parts per billion (ppb). See Appendix C for a detailed discussion about TCE calculations for emissions in air. ATSDR's lowest health based CV for TCE in ambient air is 100 ppb; therefore, the highest concentration modeled for facility perimeter ambient air is approximately 100 times less than the CV. Additional modeling projections for Pittard Road show TCE levels of 0.85 ug/m^3 [7]. Ultraviolet light, heat, and winds further reduce air concentrations of TCE in the Pittard Road community.

Wind Rose Data

GDPH also reviewed Natural Resource Conservation Service wind rose data for Athens. A wind rose is a graphical representation of prevalent wind speeds and wind direction for each month. Wind prevalence patterns revealed seasonal similarities.

Winds do not follow only one set path throughout various increments of time- their directions and speeds are always changing. Wind direction patterns, therefore, are not uniform but are analyzed for general trends. General trends give clues as to how the winds tend to behave at a certain location throughout the year. Wind rose trends are based on 30 years of wind pattern data collected hourly at various locations in Georgia [9]. For detailed information about wind roses, see Appendix D.

In the Athens area wind patterns tend to follow three general directional trends throughout the year. Overall, winds speeds range from 4 - 25 miles per hour (mph), with an average around eight mph. Winds predominantly blow from the northeastern and western (northwest, west, and southwest) directions; however, they may blow in any direction [9]. Winds blow at higher speeds from the northwest and northeast for 8 months out of the year (August through March), and calm winds blow from the western directions for the four months leading into summer (April through July) [9]. Nakanishi is located 1-mile from Pittard Road to the south, and Pittard Road is not in the path of the predominant winds directions.

Health Outcome Data

Cancer Cluster Investigation

The GDPH Comprehensive Cancer Registry (GCCR) is responsible for investigating Georgian's concerns about excess occurrence of cancer in their communities. A cancer cluster is defined as higher than expected rate of cancer cases in a specific area or a group of people or in a defined time period. A suspected cancer cluster is more likely to be a true cluster, rather than coincidence, if it involves:

- A large number of cases of a specific type of cancer rather than several different types;
- A rare type of cancer, rather than common types; and
- An increased number of cases of certain type of cancer in an age group that is not usually affected by that type of cancer.

The purpose of this type of investigation is to use scientific criteria to determine if there is a possible link between the cancer cases in an area and an environmental exposure.

Criteria

Cancer cluster investigation is a multi-stage process. The protocol for investigating possible cancer clusters is described in the Georgia draft *Cancer Cluster Investigation Manual* [2]. The cases under investigation must be confirmed before moving to the next level of inquiry. There are four levels of cancer cluster inquiry. If the criteria for one level of inquiry are met, the investigation proceeds to the next level.

The first step is to collect as much information about the cancer cases as possible from the person reporting the cancer cases. GCCR then compares the case information against its database for case verification and identifies if additional cases exist. Further stages of investigation include literature searches, statistical calculations, and feasibility studies. At each level of investigation, the inquiry should meet certain defined criteria to move to the next level of investigation as defined in the draft *Cancer Cluster Investigation Manual*. The Pittard Road inquiry was investigated using the same protocol [2].

Results

NEHD staff conducted door-to-door interviews with residents of the Pittard Road community and submitted patient listings to GCCR with seven cases of breast cancer and one case each of lymphoma and stomach cancer. Six out of nine cases (including one recurrence) were confirmed with the GCCR database. Not all reported cancer cases were verifiable. In addition, three persons not on the list provided by the NEHD were in the GCCR database. All cases were diagnosed between 1996 and 2002 (except for one breast cancer case diagnosed in 1987). Of the nine confirmed cases, five (56%) were breast cancer cases; the other four cases were lymphonma, lung, stomach (2 cases), and colon cancer [2]. Therefore, breast cancer was, by far, the most frequent cancer diagnosed in the study area.

The GCCR analyzed current (1995 – 2001) cancer incidence and mortality data available for Clarke County, and for zip code 30601. The area within a 1-mile radius of Pittard Road is almost completely contained within Clarke County boundaries and, therefore, Clarke County data were analyzed and compared to surrounding counties and the state of Georgia. Analyses of the cancer cases in the zip code and in Clarke County show that no cancer clusters and/or no statistically significant numbers of cancer cases have been reported [2] (Appendix E).

Data for zip code 30601 show that cancer incidence rates for all sites on the body are less than the expected rates for Clarke County and the state of Georgia. Incidence rates for breast cancer followed this same pattern. All data are age adjusted per 100,000 people. This means that the number of new cases occurring per given population over this time frame is as expected for Clarke County, and is less than expected for the zip code (Figure 1).

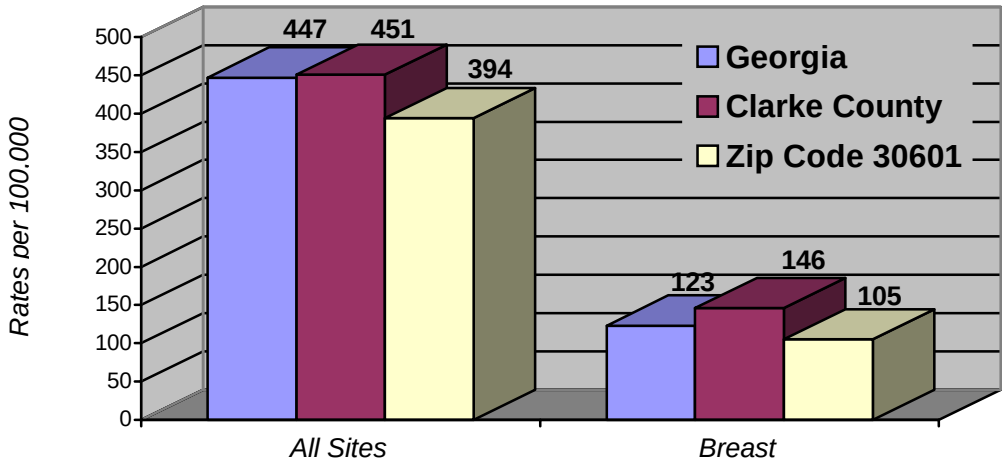
Several factors help to explain the perception that an elevated number of cancer cases exists among residents of the Pittard Road community. Among these factors are population size, familial ties, and variety of common cancers.

The population of the community is small and isolated from other residential areas. There are about 50 to 100 residents of Pittard Road at any given time; therefore, when several people are diagnosed with cancer, it may be considered a large percentage of the population.

Strong correlations suggest that breast cancer cases in the community are occurring in a few families. NEHD reports 40% (three) of Pittard Road community residents with breast cancer were found among members of one family. Early onset breast cancer was diagnosed in three daughters of two sisters. One sister had lived in the Pittard Road community for only one year, and her daughter had never resided in the Pittard Road community [3]. Having a first degree relative (mother - daughter) with cancer increases risk by two, and having two first-degree relatives increases risk of cancer by a factor of five [3, 10]. In addition, studies have not been able to identify any chemical in the environment or in our diets that is likely to cause breast cancer (American Cancer Society, *www.cancer.org*).

The following chart shows the age adjusted cancer incidence rates for Georgia, Clarke County, Zip Code for the Pittard Road community. A cancer incidence rate is the number of newly diagnosed cancers of a specific site/type occurring in a specified population during a year (or group of years), usually sepcified as the number of cancers per 100,000 population at risk. This document presents cancer data and breast cancer data as they are specific community concerns.

Figure 1. Age Adjusted Cancer Incidence Rates



State and county rates for 1999-2000, zip code rates 1995-2001

Source: Georgia Department of Human Resources, Division of Public Health, Comprehensive Cancer Registry, August 31, 2005

After careful consideration of the information collected, it was determined by GCCR that no cancer cluster exists in the area. Although there are an elevated number of breast cancer cases in the area, these cases occur among relatives. The number of cases of each type of cancer does not meet the criteria for determining that elevated rates or a cancer cluster exists. No further cancer cluster investigation activities are planned. If additional data become available, the information will be reviewed by GDPH and take appropriate actions.

There is no other health outcome data related to Pittard Road. According to the Clarke County Health Department, no health studies pertaining to this area have been performed in the community

Child Health Considerations

GDPH recognizes the unique vulnerabilities of young children exposed to chemicals in the environment. Because of their size, body weight, frequent hand to mouth activity, and developing systems, children require special emphasis in communities faced with environmental contamination. They may be more likely to come into contact with contaminants in the environment because they play outdoors, and they often bring food and toys into contaminated areas. Also, they receive higher doses of exposure because children's growing bodies absorb more contamination and can sustain permanent damage if exposures occur during critical growth stages.

This area does not pose a health threat to children because there is no evidence that children are being exposed to contaminants from the environment at levels that could cause adverse health effects. On the basis of current land use and available data, children are not being exposed to regulated contaminants at levels of health concern in groundwater or air, or radon in indoor air. As a general precaution, residents with young children should exercise caution that children do not trespass onto industrial properties to avoid physical danger.

Conclusions

GDPH concludes that residents of the Pittard Road community are not at increased risk for adverse health effects from exposure to the hazardous chemicals listed under the Safe Drinking Water Act, TCE in outdoor air, or radon in indoor air. GDPH has determined that there is **No Apparent Public Health Hazard** because: human exposures to contaminated media might be occurring, might have occurred in the past, or might occur in the future, but the exposures are at levels that are not expected to cause known adverse health effects.

GCCR has determined that cancer rates on Pittard Road are not higher than the county or state rates, and the number of cancer cases does not meet the necessary criteria for an unusual cluster of cancers. Excess cancer cases among residents of Pittard Road have a genetic component and are not associated with exposure to chemicals in the environment.

Recommendations

There are no recommendations at this time.

Public Health Action Plan

GDPH will provide health education about cancer and individual water well maintenance to residents of the Pittard Road community.

Actions Completed

- GDPH conducted a literature review of past and current commercial/industrial land use.
- NEHD and GDPH assisted GEPD with sampling six of the nine individual water wells for chemical and bacterial contaminants.
- The Clarke County Health Department concurrently sampled the remaining three wells for bacteria.
- NEHD conducted radon testing for all individual wells in the community.

- NEHD provided radon test kits for residents to test their homes.
- NEHD and GDPH conducted a cancer cluster investigation.
- GDPH provided each household with health education materials on how to obtain cancer information and free breast cancer screening
- GDPH provided each household with health education materials on how to conduct water well maintenance and disinfection
- GDPH provided each household with the video "An Important Conversation: Georgia Speaks"
- GDPH and the University of Georgia Cooperative Extension Service offered down-well camera technology at no cost to residents of Pittard Road to assess well integrity, and to assist homeowners with well maintenance

Actions Planned

GDPH will conduct health education program evaluation, and provide additional health education and services based on the results. GDPH will continue to respond to health concerns of residents in the area. GDPH will review additional data if it becomes available and provide documents, if appropriate.

References

1. Georgia Environmental Protection Division, *Memorandum: Water Sample Results from Pittard Road*, May 2003.
2. Georgia Division of Public Health, Comprehensive Cancer Registry, *Final Report for Pittard Road, Clarke County Inquiry, Draft*, 5/23/2003.
3. Northeast Health District, *Investigation into Occurrence of Cancer in the Pittard Road Community*, August 2004.
4. Agency for Toxic Substance and Disease Registry, *Comparison Values for Water*, January 10, 2005.
5. Agency for Toxic Substance and Disease Registry, *Comparison Values for Air*, January 10, 2005.
6. Agency for Toxic Substance and Disease Registry, *Fact Sheet: Radon*, www.atsdr.cdc.gov/tfacts145.html
7. Personal communication, Georgia Division of Public Health with Eric Cornwell, Georgia Air Protection Branch, Georgia Environmental Protection Division, September 1, 2005.
8. Personal communication, Georgia Division of Public Health with Heather Abrams, Stationary Source Permitting Program, Georgia Environmental Protection Division, August 11, 2005.
9. Natural Resource Conservation Service, *Wind Rose Data*, www.wcc.nrcs.usda.gov/climate/windrose.html.
10. Amal K. Mitra, M.D., M.P.H., Dr.P.H. et al, *Breast Cancer and Environmental Risks: Where is the Link*, Journal of Environmental Health, 66:7, 24-29, March 2004.

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CERTIFICATION

The Georgia Division of Public Health prepared this Pittard Road Cancer Cluster Investigation, Athens, Clarke County, Georgia, health consultation under a cooperative agreement with the Agency for Toxic Substances and Disease Registry. It is in accordance with approved methodology and procedures existing at the time the health consultation was begun. Editorial review was completed by the Cooperative Agreement partner.

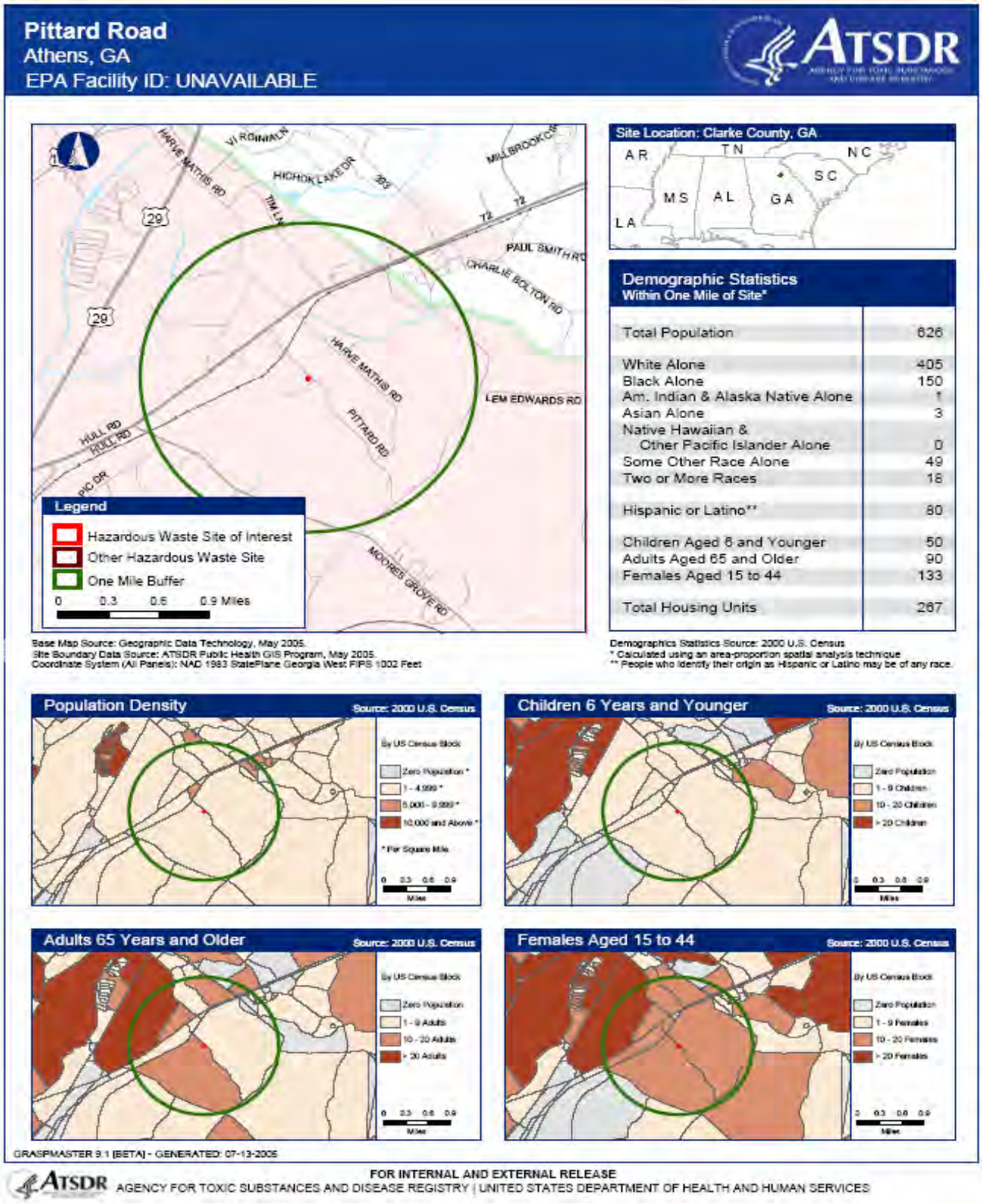
Technical Project Officer, SPAB, DHAC

The Division of Health Assessment and Consultation, ATSDR, has reviewed this health consultation and concurs with the findings.

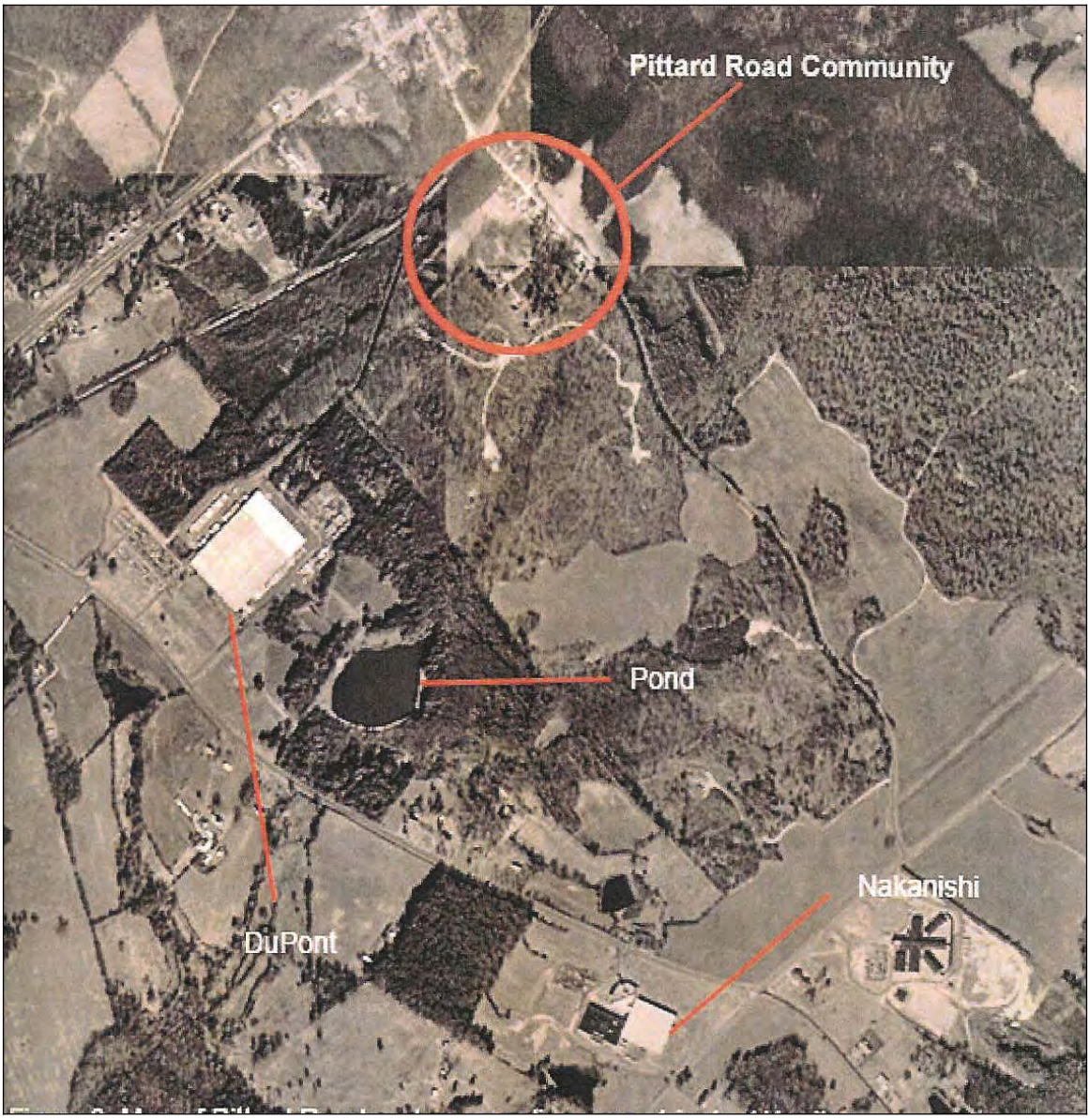
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APPENDICES

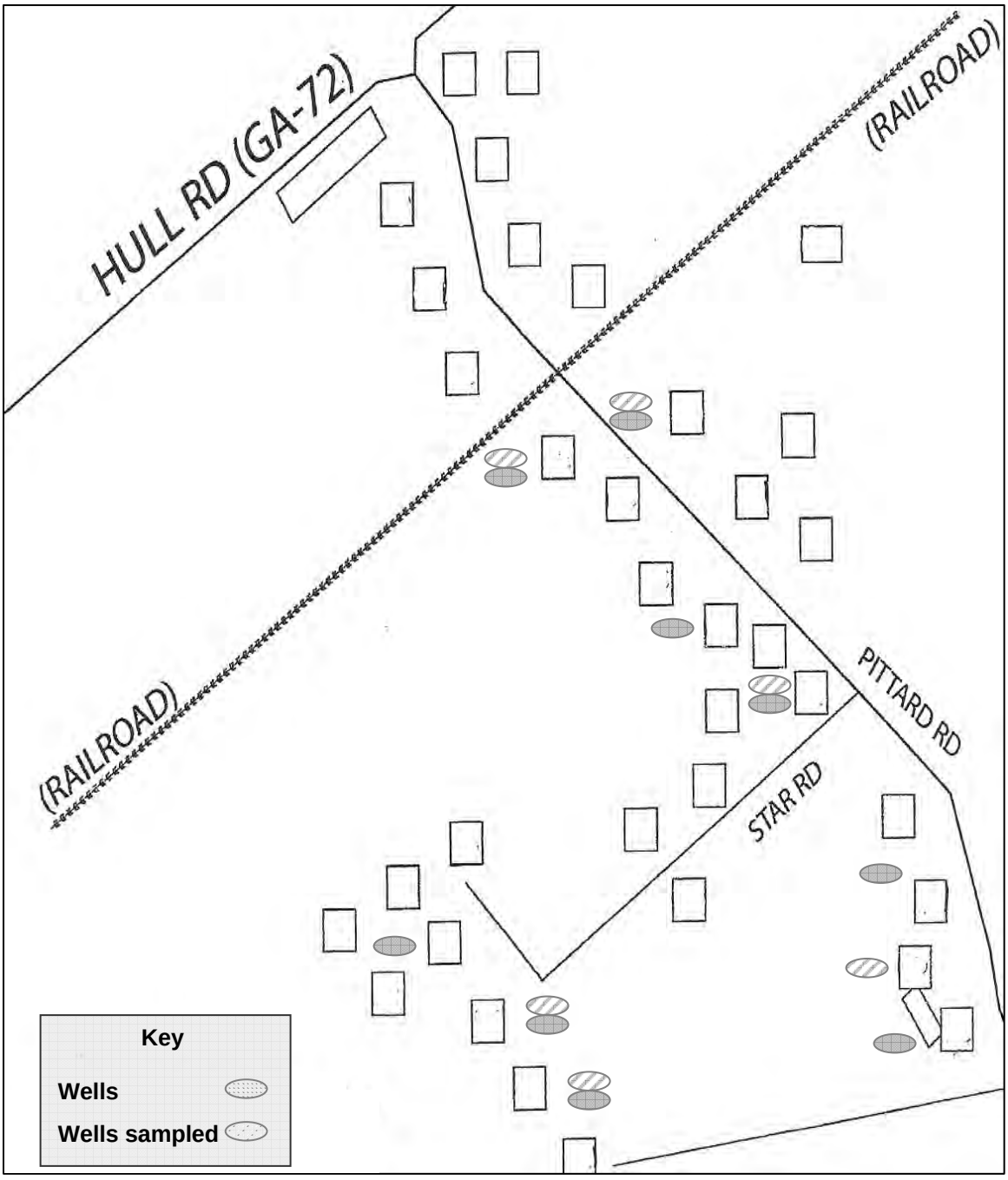
APPENDIX A-1: DEMOGRAPHIC MAP



APPENDIX A-2: AERIAL VIEW OF COMMUNITY [3]



APPENDIX A-3: WATER WELL SAMPLE LOCATIONS [3]



APPENDIX B: AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

What is the Agency for Toxic Substances and Disease Registry (ATSDR)?

ATSDR is the principal federal public health agency involved with hazardous waste issues. The agency helps prevent or reduce the harmful effects of exposure to hazardous substances on human health. The Superfund Law created ATSDR, an agency of the U.S. Department of Health and Human Services, in 1980.

Where is ATSDR located? How big is it?

ATSDR's headquarters are in Atlanta, Georgia. The agency has 10 regional offices and an office in Washington D.C. The multi- disciplinary staff of approximately 400 includes epidemiologists, physicians, toxicologists, engineers, public health educators, health communication specialists, and support staff.

What does ATSDR do?

ATSDR conducts a number of activities to help prevent or reduce the harmful effects of exposure to hazardous substances, including:

- Advises federal and state agencies, community members, and other interested parties on the health impacts of Superfund sites and other petitioned sites.
- Identifies communities where people might be exposed to hazardous substances in the environment.
- Determines the level of public health hazard posed by a site.
- Recommends actions that need to be taken to safeguard people's health.
- Conducts health studies in some communities that are located near Superfund sites or in locations where people have been exposed to toxic materials.
- Funds research conducted by colleges, state agencies, and others who study the relationship between hazardous waste exposure and illnesses.
- Educates physicians, other health care professionals, and community members about the health effects of--and how to lessen exposure to--hazardous substances.
- Provides technical support and advice to other federal agencies and state and local governments.
- Maintains registries of people who are exposed to the most dangerous substances.

What can ATSDR do to help a community that may be exposed to hazardous substances?

ATSDR helps communities in a variety of ways, including:

- Helps communities by working with them to resolve their health concerns.
- Determines whether the community is or was exposed to hazardous substances.
- Visits the community to hear residents voice their health concerns.
- Educates residents about any health hazards posed by environmental contaminants.
- Works with local health care providers to ensure they have the information needed to evaluate possible exposures to hazardous substances in their community.
- Visits a community to draw blood or to collect urine to determine if people have been or are being exposed to a hazardous substance when such actions are required.
- Provides medical monitoring in communities exposed to hazardous substances if such action is needed.

What can't ATSDR do to help a community?

- ATSDR does not have the legal authority to conduct certain activities, such as the following:
- Cannot provide medical care or treatment to people who have been exposed to hazardous substances, even if the exposure has made them ill.
- Cannot provide funds to relocate affected residents or to clean up a site.
- Cannot close down a plant or other business, but can make recommendations to the U.S. Environmental Protection Agency (EPA).

How is ATSDR's role in helping communities different from EPA's role?

Unlike EPA, ATSDR is not a regulatory agency. ATSDR is a public health agency that advises EPA on the health aspects of hazardous waste sites or spills. ATSDR makes recommendations to EPA when specific actions are needed to protect the public's health. For example, ATSDR might recommend providing an alternative water supply, removing contaminated material, or restricting access to a site. EPA usually follows these recommendations. However, ATSDR cannot require EPA to follow its recommendations.

How does ATSDR become involved with a site? How can I get ATSDR involved with a site?

ATSDR is required by the Superfund law to become involved with all sites that are on or proposed for the National Priorities List (NPL). Specifically, ATSDR conducts public health assessments of NPL sites, as well as of all sites proposed for the NPL. EPA, states, local governments, or other federal agencies may request ATSDR's help with a site, such as in cases of accidental spills or releases. Anyone may request or "petition" that ATSDR to do a health consultation. Most requests for health consultations come from EPA and state and local agencies. Anyone may also petition ATSDR to conduct a public health assessment of a site. For more information about how to petition ATSDR to conduct a public health assessment, call ATSDR's toll-free information line, 1-888-42-ATSDR (1-888-422-8737), or send an e-mail request to ATSDRIC@cdc.gov

How does ATSDR work with states and local health departments?

ATSDR has cooperative agreements (partnerships) with 23 states to conduct site-related public health assessments or health consultations, health studies, and health education. In states that have co- operative agreements, ATSDR provides technical assistance and oversees site evaluations and related activities done by state staff. ATSDR also assists local health departments.

Does ATSDR assist communities located near hazardous waste sites that are not on the NPL?

Yes. More than half of the sites ATSDR has worked at are not on the NPL.

What information does ATSDR provide through its Internet web site?

Information that can be accessed through ATSDR's web site includes these items: information about ATSDR; a database containing information on all sites where ATSDR has worked; short, easy-to-read fact sheets on 60 of the most common contaminants at Superfund sites; and links to related sites.

APPENDIX C: EXPLANATION OF TOXICOLOGICAL EVALUATION

Evaluation

For each environmental medium (for example; air, soil, groundwater), GDPH examines the types and concentrations of contaminants of concern (COCs). In preparing this document, GDPH used the ATSDR comparison values (CVs) to screen contaminants that may merit further evaluation. Comparison values are concentrations of contaminants that can reasonably (and conservatively) be regarded as harmless, assuming default conditions of exposure. The CVs generally include built in safety factors to ensure protection of sensitive populations. Because CVs do not represent a minimum level of toxicity, exposure to contaminant concentrations above CVs will not necessarily lead to adverse health effects. GDPH then considers how people may come into contact with the contaminants, such as inhalation, dermal, or ingestion. Because the level of exposure depends on the route and frequency of exposure and the concentration of the contaminants, this exposure information is essential to determine if a public health hazard exists.

When a contaminant exceeds a CV, further toxicological evaluation is required to identify which chemicals and exposure situations are likely to be a health concern. Separate child and adult exposure doses (or the amount of a contaminant that gets into a person's body) are calculated for site-specific scenarios, using assumptions regarding an individual's likelihood of accessing the site and contacting contamination. Exposure to contaminants may be ingested, inhaled, or absorbed through the skin. Exposure to a cancer-causing chemical, even at low concentrations, is assumed to be associated with some increased risk for evaluation purposes.

Step 1--The Screening Process

In order to evaluate the available data, GDPH used comparison values (CVs) to determine which chemicals to examine more closely. CVs are contaminant concentrations found in a specific environmental media (for example: air, soil, or water) and are used to select contaminants for further evaluation. CVs incorporate assumptions of daily exposure to the chemical and a standard amount of air, soil, or water that someone may inhale or ingest each day. CVs are generated to be conservative and non-site specific. The CV is used as a screening level during the health consultation process where substances found in amounts greater than their CVs might be selected for further evaluation. CVs are not intended to be environmental clean-up levels or to indicate that health effects occur at concentrations that exceed these values.

CVs can be based on either carcinogenic (cancer-causing) or non-carcinogenic effects. Cancer-based CVs are calculated from the U.S. Environmental Protection Agency's (EPA) oral cancer slope factors for ingestion exposure, or inhalation risk units for inhalation exposure. Non-cancer CVs are calculated from ATSDR's minimal risk levels, EPA's reference doses, or EPA's reference concentrations for ingestion and inhalation exposure. When a cancer and non-cancer CV exist for the same chemical, the lower of these values is used as a conservative measure. The chemical and media-specific CVs used in the preparation of this health consultation are listed below:

Maximum Contaminant Level (MCL): The maximum permissible level of a contaminant in water delivered to any user of a public system. MCLs are enforceable standards.

Step 2--Evaluation of Public Health Implications

The next step in the evaluation process is to take those contaminants that are above their respective CVs and further identify which chemicals and exposure situations are likely to be a health hazard. Separate child and adult exposure doses (or the amount of a contaminant that gets into a person's body) are calculated for site-specific scenarios, using assumptions regarding an individual's likelihood of accessing the site and contacting contamination. A brief explanation of the calculation of estimated exposure doses used in this health consultation is presented below. Calculated doses are reported in units of milligrams per kilogram per day (mg/kg/day).

Concentration Calculations for Emissions in Air

Concentration in air is measured in parts per billion (ppb). However, air sampling results are expressed in mass per unit volume. Therefore, a conversion from mass per unit volume to concentration in ppb is necessary. The formula used to determine air concentrations is as follows:

Conversion Factor for Air

$$C_{\mu g\ /\ m^3} = C_{ppb} \times \frac{MW(g\ /\ mole)}{24.45}$$

Therefore: concentration in air_{ppb} = $\frac{\text{Conversion Constant}}{\text{Molecular Weight } AMU_{chem.}}$ x concentration of emissions

Concentration of TCE in air

C_{air} = (24.45 /131.4 AMU) (modeled concentration at business property line)

C_{air} = (24.45 AMU /131.4 AMU)(4.74 µg/m^3) = 4.74/5.37 = **0.88 ppb** (at business property line)

Health Based CV (EMEG) = **100 ppb**

Environmental Media Evaluation Guides (EMEGs) are specific comparison values developed by ATSDR for use in selecting environmental contaminants for non-cancer health concerns. EMEGs are derived from Minimal Risk Levels (see below). Exposure to a level of contaminant below this level should not result in any noncancer, adverse health effects.

Non-cancer Health Risks

If a contaminant level exceeds a CV, the doses calculated for exposure to individual chemicals are then compared to an established health guideline, such as an ATSDR minimal risk level (MRL) or an EPA reference dose (RfD), in order to assess whether adverse health impacts from exposure are expected. Health guidelines are chemical-specific values that are based on available scientific literature and are considered protective of human health. Non-carcinogenic effects, unlike carcinogenic effects, are believed to have a threshold, that is, a dose below which adverse health effects will not occur. As a result, the current practice to derive health guidelines is to identify, usually from animal toxicology experiments, a no observed adverse effect level (NOAEL), which indicates that no effects are observed at a particular exposure level. This is the experimental exposure level in animals (and sometimes humans) at which no adverse toxic effect is observed. The known toxicological values are doses derived from human and animal studies that are summarized in ATSDR's *Toxicological Profiles*

(www.atsdr.cdc.gov/toxpro2.html). The NOAEL is modified with an uncertainty (or safety) factor, which reflects the degree of uncertainty that exists when experimental animal data are extrapolated to the human population. The magnitude of the uncertainty factor considers various factors such as sensitive subpopulations (e.g., children, pregnant women, the elderly), extrapolation from animals to humans, and the completeness of the available data. Thus, exposure doses at or below the established health guideline are not expected to cause adverse health effects because these values are much lower (and more human health protective) than doses, which do not cause adverse health effects in laboratory animal studies.

Minimal Risk Levels (MRLs) are estimates of daily humans exposure to a chemical that is likely to be without an appreciable risk of harmful effects (noncarcinogenic) over a specified duration of exposure. MRLs are based on human and animal studies and are reported for Acute (14 days or less), intermediate (15-354 days), and chronic (365 days or more).

If the estimated exposure dose to an individual is less than the health guideline value, the exposure is unlikely to result in non-cancer health effects. If the calculated exposure dose is greater than the health guideline, the exposure dose is compared to known toxicological values for the particular chemical and is discussed in more detail in the text of the health consultation. A direct comparison of site-specific exposures and doses to study-derived exposures and doses found to cause adverse health effects is the basis for deciding whether health effects are likely to occur.

It is important to consider that the methodology used to develop health guidelines does not provide any information on the presence, absence, or level of cancer risk. Therefore, a separate cancer risk evaluation is necessary for potentially cancer-causing contaminants detected at this site.

Cancer Risks

Exposure to a cancer-causing chemical, even at low concentrations, is assumed to be associated with some increased risk for evaluation purposes. The estimated risk for developing cancer from exposure to contaminants associated with the site was calculated by multiplying the site-specific doses by EPA's chemical-specific cancer slope factors (CSFs) available at *www.epa.gov/iris*. This calculation estimates a theoretical excess cancer risk expressed as a proportion of the population that may be affected by a carcinogen during a lifetime of exposure. For example, an estimated risk of 1×10^{-6} predicts the probability of one additional cancer over background in a population of 1 million. An increased lifetime cancer risk is not a specified estimate of expected cancers. Rather, it is an estimate of the increase in the probability that a person may develop cancer sometime in his or her lifetime following exposure to a particular contaminant under specific exposure scenarios. For children, the theoretical excess cancer risk is not calculated for a lifetime of exposure, but from a fraction of lifetime; based on known or suspected length of exposure, or years of childhood.

Because of conservative models used to derive CSFs, using this approach provides a theoretical estimate of risk; the true or actual risk is unknown and could be as low as zero. Numerical risk estimates are generated using mathematical models applied to epidemiological or experimental data for carcinogenic effects. The mathematical models extrapolate from higher experimental doses to lower experimental doses. Often, the experimental data represent exposures to chemicals at concentrations orders of magnitude higher than concentrations found in the environment. In addition, these models

often assume that there are no thresholds to carcinogenic effects--a single molecule of a carcinogen is assumed to be able to cause cancer.

The doses associated with these estimated hypothetical risks might be orders of magnitude lower than doses reported in toxicology literature to cause carcinogenic effects. As such, a low cancer risk estimate of 1×10^{-6} and below may indicate that the toxicology literature supports a finding that no excess cancer risk is likely. A cancer risk estimate greater than 1×10^{-6}, however, indicates that a careful review of toxicology literature before making conclusions about cancer risks is in order.

It should be noted that chemicals known to cause cancer do not necessarily cause cancer in all individuals. Regardless of individual variance, to best protect public health dose calculations assume a worst case scenario (maximum exposure) to estimated associated risks. Additional orders of magnitude are built into the risk calculations to provide additional protection to public health. Therefore, an estimate of one additional cancer case in 1,000,000 is an estimate above average occurance.

APPENDIX D: WIND ROSE DATA

A wind rose gives a very brief but thorough view of how wind speed and direction are typically distributed at a particular location. A wind rose is presented in a circular format, and shows the frequency of winds blowing *from* particular directions. The length of each "spoke" around the circle is related to the frequency with which the wind blows from a particular direction. Each concentric circle represents a different frequency, emanating from zero at the center to increasing frequencies at the outer circles. The wind rose data available for Athens, Georgia, as in the example shown here, contains additional information, in that each spoke is broken down into discrete frequency categories that show the percentage of time that winds blow from a particular direction and at certain speed ranges. All wind roses shown here use 16 cardinal directions, such as north (N), NNE, NE, etc.

This rose shows that June winds in Athens blow from the west much of the time. In fact, the 5 westerly spokes (NW, WNW, W, WSW, and SW) comprise 39% of all hourly wind directions. This is calculated by taking the sum of the frequencies of each of these directions (7+8+8+9+7=39%). Winds from the NE blow 14% of the time, and winds from the south blow 11% of the time. Winds in this example blow from every direction, however, the predominant winds are westerly. This wind rose also shows that the wind rarely blows from the southeast or the north.

Wind roses also provide details on wind speeds from different directions. For example, examining winds from the southwest (the longest spoke) one can determine that approximately 5% of the wind blows from the southwest at speeds between 0.51 and 3.34 meters per second (m/sec). Similarly, winds blow from the southwest at speeds between 3.34 and 5.4 m/sec about 3% of the time (8% minus 5%), and at speeds between 5.4 and 8.49 m/sec about 1% of the time (9% minus 8%). Please note the legend at the bottom of the wind rose that gives the speed categories and their associated colors.

This example was chosen because it is a fair representation of wind rose data for each month throughout the year in Athens. It has to be noted winds from the south are strongest and most frequent in June, and are less frequent over the rest of the year. Therefore, the example presented reflects a worst case scenario. Overall, these three predominant directional trends follow seasonal patterns. Winter and early spring months showed a split trend of predominant winds blowing from the NW and NE. Wind speeds are higher during these months, averaging approximately 8.5 m/sec. Late spring and summer months show a trend of calmer winds blowing primarily from the western directions with a slightly higher frequency of winds blowing from the SW and NE. Summer wind speeds average about 3 m/sec. Winds are calmest in August, but they blow predominantly from the NE. Autumn winds blow predominantly from the NE and pick up speed, averaging approximately 7.5 m/sec.

The legend gives additional information such as the wind speed unit (m/sec), the average wind speed for the month over all hours, percentage of time that the winds are calm, and the data collection period including year data collection began, month of the year, and the hours data was collected. Each wind rose only shows the year in which data collection began. Although the year 1961 is presented, data covers 30 years (1961-1990). 24 readings per day are used to construct these wind roses.

To calculate the amount of time that the wind blows from a particular direction at a particular speed, the respective frequency is multiplied by the appropriate amount of time. In our example with Athens in June, there are 30 days x 24 hours/day in June, or 720 hours. From the wind rose we calculated that winds blow from the southwest at speeds between 0.51 and 5.4 m/sec 8% of the time. This represents

0.09 x 720 =64.8, or about 65 hours typically have winds from the southwest at these speeds at Athens in June.

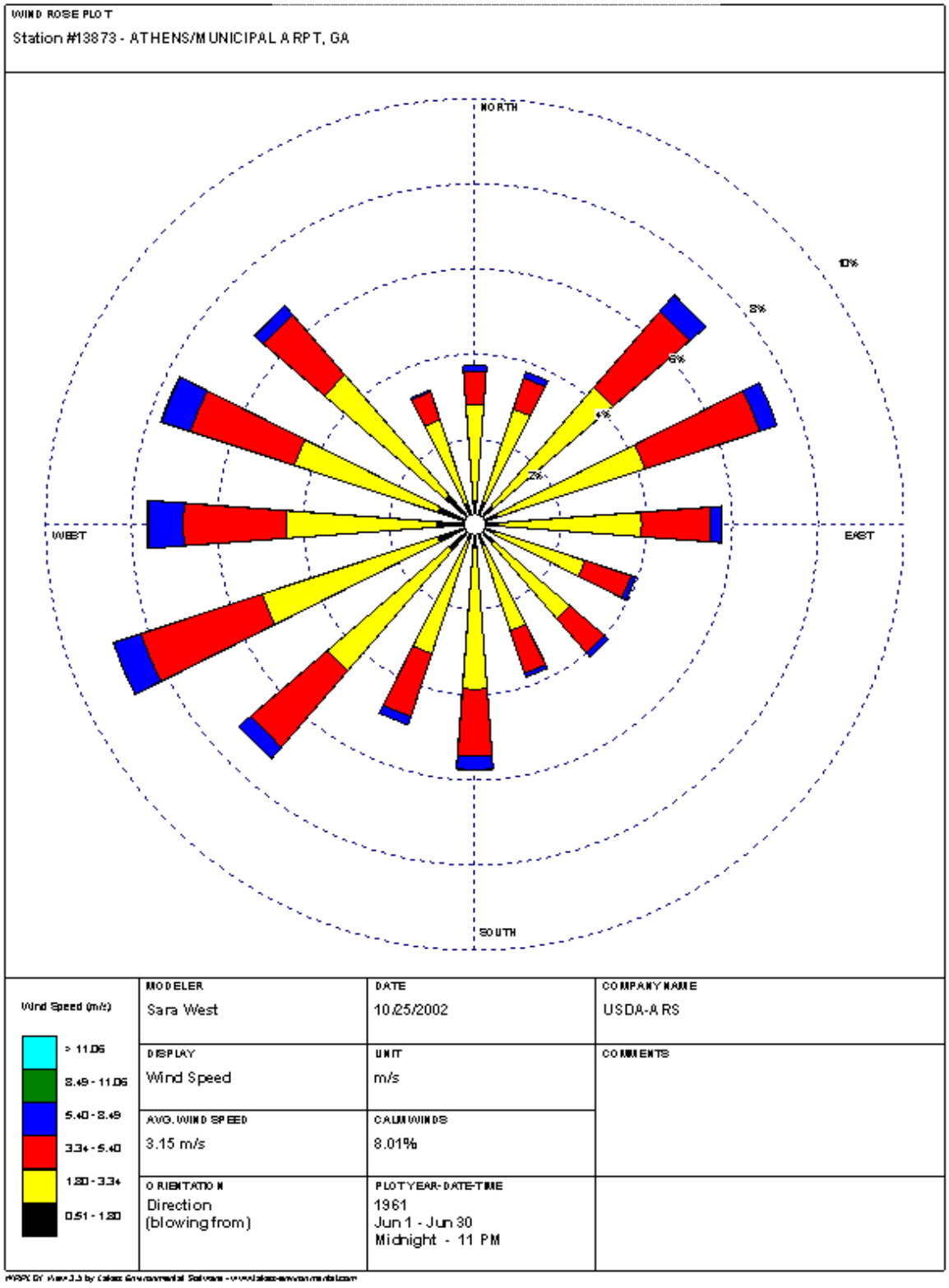
Wind Rose Data Collection

These wind roses are based on hourly data from the Solar and Meteorological Surface Observation Network (SAMSON) available from the National Climatic Data Center (*www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwAW~MP~CD*) for the 1961-1990 period of record. SAMSON is a 3-volume CD-ROM set is divided geographically into Eastern, Central, and Western U.S. regions. It contains hourly solar radiation data along with selected meteorological elements for the period 1961-1990. It encompasses 237 NWS stations in the United States, plus offices in Guam and Puerto Rico. The dataset includes both observational and modeled data.

The hourly winds measured at airports are normally averages of samples taken at the top of every hour. These are not gusts. Newer equipment, particularly the Automated Surface Observation System (ASOS) used at most locations since 1996, automatically records these values from cup anemometer values. Older observations (prior to 1996) represent data recorded by personnel working at weather stations that manually observed wind speed and direction at the top of every. The software used to generate these high-quality wind roses is courtesy of Lakes Environmental Software and is called WR-PLOT.

Source: Natural Resource Conservation Service, Wind Rose Data, www.wcc.nrcs.usda.gov/climate/windrose.html

Wind Rose for Athens, Georgia



APPENDIX E: CANCER AND BREAST CANCER FACTORS

Cancer

Cancer is a group of more than 100 anomalies characterized by uncontrolled growth and spread of abnormal cells. Each type of cancer is usually not caused by only one factor, but is almost always caused by a combination of factors. Some of these factors, such as lifestyle choices, can be controlled. General lifestyle choices such as using tobacco, drinking alcohol, lack of a healthy diet, and lack of exercise are high risk factors in developing cancer. Some factors, such as age genetics (family history), and race cannot be controlled. As we age, the body's ability to respond to various cancer triggers decreases, making it more common for cancer to occur in older people regardless of the type of cancer diagnosed. Also, families with a history of cancer have higher risk of getting cancer.

A cancer cluster is the occurrence of greater numbers of the same type of cancer cases than expected within a period of time and within a geographic area. Cancer clusters are often suspected when people learn that cancer has been diagnosed in several friends, family members, or neighbors. Cancer clusters are also sometimes suspected when people work together or have some other factor in common and are then diagnosed with cancer. Because all cancers are not caused by the same factors, most reported cancer clusters have been found to be chance occurrences, and not related to environmental factors.

Reported clusters of any kind, including suspected cancer clusters, are investigated by epidemiologists (scientists who study the frequency, distribution, causes, and control of diseases in populations). Epidemiologists use their knowledge of diseases, environmental science, lifestyle factors, and biostatistics to try to determine whether a suspected cluster represents a true excess of cancer cases.

Cancer cluster investigations are conducted to verify that an unexpected number of cases of cancer have occurred. If a cause can be determined, measures can be taken to eliminate the cause. A true cancer cluster must meet the following criteria before it can be considered a true cancer cluster, and if any of these criteria are not met, it is not a cancer cluster. A cancer cluster exists if:

- A large number of cases of a specific type of cancer, rather than several different types;
- A rare type of cancer, rather than common types; or
- An increased number of cases of a certain type of cancer in an age group that is not usually affected by that type of cancer.

The Georgia Comprehensive Cancer Registry has developed strategies for active cancer surveillance. This systematic approach to monitoring cancer trends leads to more opportunities for prevention and control of cancer in Georgia.

Breast Cancer

Breast cancer is the most common form of cancer (other than skin cancer) and a leading cause of cancer mortality among women in the United States [1, 3, 8]. Breast cancer rates in the United States are among the highest in the world. Studies of migrants who move from low-incidence areas to high-incidence areas have found that the rates of breast cancer increase to that of the new country, reflecting changes in lifestyle and environmental factors, showing that international differences in rates are not due to genetic factors [1]. While many factors have been associated with the risk of breast cancer, most of the known risk factors for breast cancer are associated with only a moderate two to three times increased risk, suggesting that multiple factors may play a role in each woman's disease and that

unrecognized factors may exist. In addition, only a small proportion of the cases are accounted for by known risk factors [1].

Both genetic and environmental factors are believed to play a role in a woman's risk of developing breast cancer. If either a woman's mother or sister has breast cancer, the woman's risk increases about two to three times [1, 2, 3, 5, 6]. Having both a mother and a sister with breast cancer increases a woman's risk up to six-fold [1, 5, 6]. If that relative had cancer in both breasts or was diagnosed at an early age, the risk may be further increased. In small groups of families, the patterns of breast cancer incidence seem to be consistent with known patterns of genetic inheritance. Scientists have found breast cancer gene and have successfully cloned it [1].

Racial differences also play a role in cancer incidence. [3] From 1973 to 1991, invasive breast cancer incidence in the United States increased 25.8 percent in whites and 30.3 percent in blacks, or roughly 2 percent per year [1]. The reason for the increase in breast cancer incidence is not clearly understood, and may be partly explained by early detection, however there may be changes in other breast cancer risk factors [1, 3].

It is well recognized that certain reproductive events, and the age at which they occur, are strong determinants of subsequent breast cancer risk. The most consistent determinant of risk in various populations is the woman's age at first full-term pregnancy. Women with a first full-term pregnancy after age 30, and women who have never borne a child have about a two- to three-fold increased risk of breast cancer compared to women having a full-term pregnancy before age 20 [1, 3].

Women who are delaying childbirth or remaining childless have increased risk of breast cancer. Early menarche and late menopause also increase a woman's risk, while removal of both ovaries, before menopause, reduces risk. Several recent studies suggest that more than one birth in a row is associated with a reduction in the risk of breast cancer [2, 3]. The effects of breastfeeding is still not clear, although there is the suggestion that breastfeeding reduces risk of breast cancer [1, 3]. These reproductive factors are often thought to affect the risk of breast cancer by their effects on a woman's hormonal status.

Because of the relationship between hormones produced by the body and breast cancer risk, much concern has been raised about the use of exogenous hormones. Most studies suggest no effect from oral contraceptive use on breast cancer incidence [1, 3]. However, some recent studies suggest a possible increase in breast cancer at an early age (before age 45) among long-term oral contraceptive users, and those who started taking oral contraceptives at a young age. There is also evidence that use of estrogen replacement therapy may slightly increase the risk of breast cancer, particularly among long-term users and those who used high doses of estrogen [1, 2]. Further study of the effects of oral contraceptives and hormone replacement therapy is needed, as any associated increases in risk could affect many women.

Incidence rates increase dramatically with age. While the rate of increase in breast cancer incidence is greatest in women under age 50, the majority of cases occur after age 50 [1, 3]. Incidence rates in women before the age of 45 are higher among blacks; after the age of 45, they are higher for whites [1, 3].

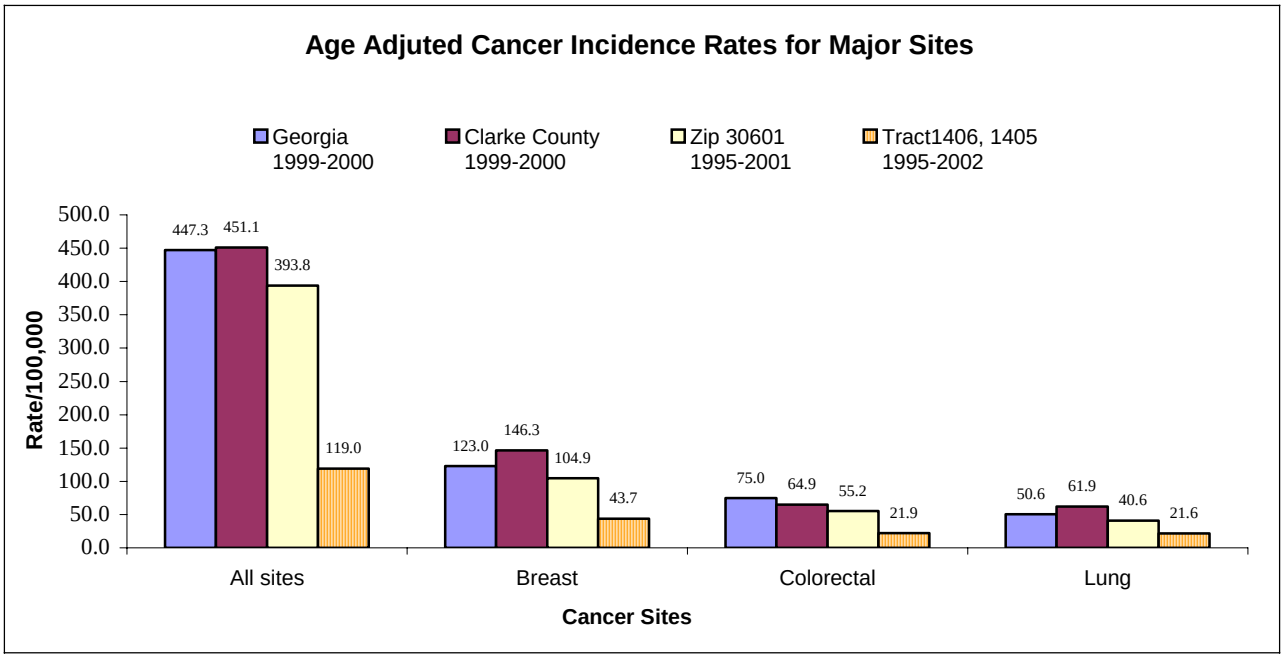
Studies reported a weak increase in breast cancer risk among women consuming high fat diets, while several large prospective studies that evaluated effects of adult dietary fat intake show little if any association with breast cancer risk [1, 3].

Cancer in Georgia

Cancer is very common in the U.S., and many cancers are preventable. One in two males, and one in three females are expected to develop cancer in their lifetime [5, 6, 9]. For 2000 and 2002, 1/3 of approximately 550,000 cancer deaths expected were projected to be related to nutrition, physical inactivity, smoking and alcohol use, and other lifestyle factors, and could have been prevented [7,8]. Environmental pollution is attributed to less than 2% of all cancer deaths [2, 4, 10]. 77% of diagnosed cancers occur after age 55, and up to 10% of cancers are hereditary [5, 6]. In Georgia in 2000, 8% of all cancer deaths were due to breast cancer [5]. Additionally, blacks in Georgia are 27% more likely to die of cancer than whites [5, 6].

Breast cancer among women is very common in the U.S. and in Georgia, and risks of developing breast cancer greatly increase with age, lifestyle, estrogen hormone use, and heredity [8, 12]. In the United States, breast cancer accounts for 31% of all new cancer cases, but only 15% of deaths. Breast cancer incidence in Georgia is less than an most other states in the nation, and age adjusted breast cancer mortality rates have remained unchanged since 1930 [6].

Cancer incidence and mortality rates in Georgia, Clarke County, Madison County, and Oglethorpe County are comparable, although mortality in Madison County is slightly higher than the state rate. Incidence and mortality in women overall, and breast cancer specifically, is less than the state rate in Madison and Oglethorpe counties, however is slightly higher for Clarke County [9]. It should be noted that data for these counties is reportedly only 48% complete and may not reflect all cancer incidence and mortality [10].



Source: Georgia Department of Human Resources, Division of Public Health, Comprehensive Cancer Registry, 8/31/05.

Zip code data for the Pittard Road community show that zip code 30601 cancer incidence rates for all sites on the body are less than the expected rates for the state of Georgia (393.8), but that tract data for 1406 and 1405 combined are less than half the expected rate (119) [10]. Incidence rates for breast, colorectal, and lung cancers followed this same pattern [10]. All zip code and tract data are given are age adjusted per 100,000 people [10].

References for Appendix E

1. National Cancer Institute, *Cancer Facts: Cancer Clusters*, February 26, 2004 http://cis.nci.nih.gov/fact 3_58.htm.
2. Celia Byrne, Ph.D, *Risk Factors: Breast Cancer*, National Cancer Institute National Institute of Health, April 8, 2004 http://rex.nci.nih.gov/NCI_Pub_Interface/raterisk/risks120.html.
3. Amal K. Mitra, M.D., M.P.H., Dr.P.H. et al, *Breast Cancer and Environmental Risks: Where is the Link?,* Journal of Environmental Health, 66:7, 24-29, March 2004.
4. Georgia Division of Public Health and the American Cancer Society, *Georgia Cancer Report 2000*, September 2000.
5. American Cancer Society, *Cancer Facts and Figures, 2002.*
6. American Cancer Society, *Cancer Facts and Figures, 2000.*
7. American Cancer Society, *Cancer Reference Information: Learn about Cancer*, August 2, 2005.
8. American Cancer Society, *Cancer Reference Information: Breast Cancer*, August 2, 2005.
9. Georgia Division of Public Health, Comprehensive Cancer Registry, *Cancer Mortality Rates for 1999-2000*, (raw data/unpublished document), July 2005.
10. Georgia Division of Public Health, Comprehensive Cancer Registry, *Final Report for Pittard Road, Clarke County Inquiry, Draft*, 5/23/2003.

APPENDIX F: RADON

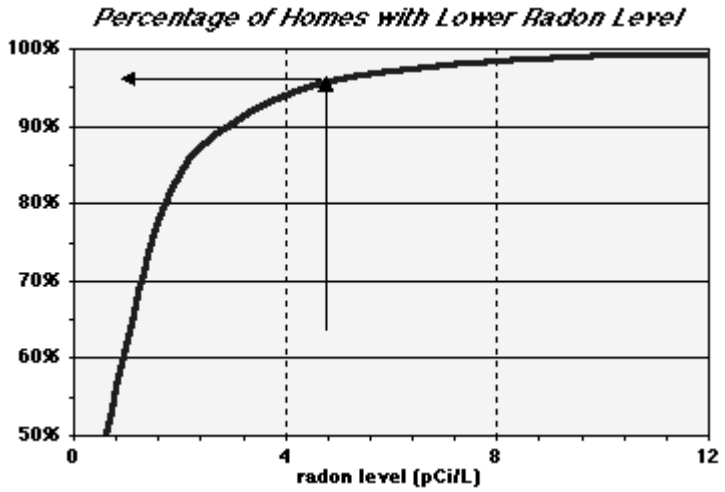
Radon levels in U.S. homes

Radon is a naturally occurring radioactive gas that is odorless and tasteless. It is formed from the radioactive decay of uranium. Uranium is found in small amounts in most rocks and soil. It slowly breaks down to other products such as radium, which breaks down to radon.

When relaxing at home, we breathe in radon. It is soluble in blood and circulates through the body and all organs. Some tends to accumulate in fatty issues. Then, almost all is harmlessly exhaled by lungs or skin. But radon decay products, radioactive solid particles, much smaller than household dust, float in the air and get trapped in our lungs, trachea, and bronchi. Exposure to high levels of radon may result in an increased incidence of lung diseases, such as emphysema, pulmonary fibrosis, and lung cancer.

Outdoor radon levels in the U.S. range from 0.02 to 0.75 pCi/L (picoCuries per liter), averaging 0.4 pCi/L. But homes draw concentrated radon gas from the ground. Because radon is nine times heavier than air, elevated radon levels build up in basements and on lower floors. Although the U.S. Congress has set the natural radon concentration outdoors as the target level for homes, approximately two thirds of homes exceed it. A half of American homes have a radon level above 0.67 pCi/L (the median level). The average (mean) radon level in US homes is 1.25 pCi/L, or three times higher than the average level outdoors.

Nearly 8 million US homes, or one out of every 15, have radon levels above the EPA's 4 pCi/L "action" limit and nearly one out of six homes exceed the EPA's 2 pCi/L "consider action" limit.



It is difficult for people to accept that their home, a place that one looks to for security, is hiding invisible danger. Yet, the average person receives a higher radiation dose from radon at home than from all other natural or man-made sources combined**.**

How about all the other radiation around us?

Background radiation levels are a combination of terrestrial (radium, thorium, radon, etc.) and cosmic radiation (photons, nutrons, etc.) Natural radioactivity is common in the rocks and soil that make up our planet – over 60 radionuclides (radioactive elements) can be found in nature. Sunshine is a radiation. The visible light is in the middle of its range of wavelengths. The long-wave radiation is infrared and it warms the skin. The shortest wavelength is ultraviolet radiation which causes skin cancer.

Beyond the ultraviolet radiation is a higher-frequency radiation emitted from nuclei of unstable radioactive atoms - ionizing radiation**.** It has enough power to knock out electrons from atoms and convert them to electrically charged ions, which can damage the large molecules of living cells. Ionizing radiation damages DNA and just one mutant cell can cause cancer. Radon decay chain offers a full menu of ionizing radiation: alpha and beta particles, and gamma rays. (Nuclear explosions emit one more radiation - neutrons.) Cosmic radiation consists of a variety of very energetic particles, including protons, nutrons, and neutrinos, which bombard the earth from outer space. Radioactivity is all around us and also within us.

However, two thirds of the total effective radiation dose to the average American from all natural sources comes from radon. Radon in homes is more concentrated and far more dangerous than outdoors - the National Academy of Sciences estimates that the outdoor radon causes only 800 out of the total of 21,000 lung cancer deaths caused by radon in the US each year.

Official limits on radon levels

Although radon in homes has been declared a national health problem, there are no federal or state standards. The Environment Protection Agency was given the task of developing practical guidelines. Considering the high cost of mitigation methods available to homeowners in 1980s, EPA did not want to force homeowners to install costly radon mitigation systems, leaving the decision up to each homeowner. But at the same time, EPA has made it clear that the 4 pCi/L action limit is not a "safe" level and warned the public:

Any radon exposure has some risk of causing lung cancer. The lower the radon level in your home, the lower your family's risk of lung cancer.

How safe is the 4 pCi/L radon "action limit"?

People spend most of their time at home - on average 70%, but more in case of women and particularly, children. Although the 4 pCi/L level has become a benchmark for real estate transactions, it still carries risks. The most substantial epidemiological study ever on the link between residential radon and lung cancer was published the University of Iowa in 2000. This 5-year study proves that radon even at the low levels found in homes causes lung cancer and that the risk is proportional to the radon level. The study shows that the exposure of adult women to radon over 15 years at the EPA "action" level of 4 pCi/L increases the lung cancer risk by 50 percent**.**

Sources: ATSDR, ToxFaqs™ For Radon; www.radonseal.com; www.cheec.uiowa.edu/misc/radon.html.

DHR

B. J. Walker, Commissioner

Georgia Department of Human Resources • Division of Public Health • Stuart T. Brown, M.D., Acting Director
2 Peachtree Street NW • Suite 15.470 • Atlanta, Georgia 30303-3142
404-657-2700 • FAX: 404-657-2715

October 17, 2005

Dear Resident:

This letter is to introduce you to the Chemical Hazards Program (CHP) and to invite you to work with us to address concerns you may have about your health and potential environmental exposures. CHP is a part of the Environmental Health Section of the Georgia Division of Public Health. Our agency collaborates with local and federal agencies, health care providers, and communities. Enclosed is a brochure describing general CHP activities.

CHP would like to gather questions and concerns you have and suggestions for future public health activities in your community. We plan to visit your community this fall to speak with you directly. Enclosed are a survey and a return, self-addressed stamped envelope. Please complete the survey and return it to us by October 31st. We will review the completed surveys and report back to you a summary of the results. Any reports created by CHP from the surveys will not contain any personal identifiers, but grouped information only. Additional copies of the survey have been delivered to the New Grove Baptist Church.

If you have any questions, please don't hesitate to contact me.

Sincerely,

Pamela Noah

Pamela Noah
Program Consultant
Chemical Hazards Program

c: New Grove Baptist Church

Enclosures

For Office Use Only
Survey ID: _____

ENVIRONMENTAL HEALTH EDUCATION NEEDS ASSESSMENT SURVEY
Pittard Road Cancer Cluster Investigation
Clarke County, Georgia

Name: _____

Address: _____

The Georgia Division of Public Health (GDPH) is working with residents living in the Pittard Road Community to identify their environmental health education needs. This survey is designed to aid the DPH with identifying these needs, and to develop education programs to meet those needs.

GOAL: The goal of this needs assessment survey is to determine residents' general knowledge about their neighborhood, provide information about cancer, and discuss health and lifestyle behaviors.

OBJECTIVES: The three objectives of this needs assessment survey are:

1. To achieve a 40% return of surveys distributed to residents in the Pittard Road community during October 2005.
2. To analyze and report all survey data during Fall 2005.
3. To develop and carry out a health education program that is based on survey results starting in January 2006.

BACKGROUND: In 2003, the Georgia Comprehensive Cancer Registry conducted a cancer cluster investigation. Private well water at several homes in the Pittard Road Community was analyzed for environmental contamination. In addition, radon levels in homes were tested. Results indicated that there were no elevated levels of contaminants in groundwater or radon in indoor air.

SUMMARY: In October 2005, residents of the Pittard Road Community were invited to participate in this survey. Participation is voluntary and is offered at no cost to residents. The GDPH will analyze the results of the survey to help determine which health education activities will best serve the community. The results of this survey are expected to be available to residents in January 2006.

CONFIDENTIALITY STATEMENT: THE GDPH WILL USE THESE RESULTS TO ESTABLISH SITE-SPECIFIC ENVIRONMENTAL HEALTH EDUCATION. ANY REPORTS CREATED BY THE GDPH FROM THE SURVEY RESULTS WILL NOT CONTAIN ANY PERSONAL IDENTIFIERS SUCH AS NAME OR ADDRESS. THESE REPORTS WILL CONTAIN GROUPED INFORMATION ONLY.

THIS SURVEY MAY BE COPIED, OR FOR ADDITIONAL COPIES, CONTACT:

GEORGIA DEPARTMENT OF HUMAN RESOURCES
Division of Public Health
Environmental Health and Injury Prevention Branch
Chemical Hazards Program
2 Peachtree Street, 13th Floor
Atlanta, Georgia 30303
(404) 657-6534
FAX (404) 657-6533

Supported in part by funds from the Comprehensive Environmental Response, Compensation, and Liability Act trust fund *through a cooperative agreement with the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services.*

Survey ID: _____

INSTRUCTIONS - A survey is to be completed for each individual adult resident aged 18 and older. You can refuse to answer any question, but please answer all questions you choose to answer as truthfully and completely as possible.

When you are finished filling out the survey, please mail or fax the completed survey to the address or fax number on the first page.

To begin, some questions about you.

1.1 Have you received information from any Georgia agency about cancer?

a. Yes
b No
c. Refused to Answer/Don't Know

If Yes, please describe. _____

_____

1.2 Have you ever been tested for cancer?

a. Yes
b. No
b. Refused to Answer/Don't Know

1.3 Are you aware that free breast cancer screening is available in your area?

a. Yes
b. No
c. Refused to Answer/Don't Know

1.4 Have you ever seen the video from the Georgia Division of Public Health about cancer called, *An Important Conversation: Georgia Speaks*?

a. Yes
b. No
d. Refused to Answer/Don't Know

1.5 Do you think the video is an effective tool in raising awareness about cancer screening?

a. Yes
b. No
e. Refused to Answer/Don't Know

General reaction and/or comments about video: _____

_____

1.6 Please describe any specific health concerns you have at this time? _____

_____

1.7 In your opinion, what are the best ways to get information to the public regarding pollution in our environment?

a. Fact sheets delivered to your home
b. Newspaper ads/articles
c. Your doctor or preferred health care professional
d. Local community events
e. Church
f. Internet
g. Refused to Answer/ Don't Know
h. Other: _____

ENVIRONMENTAL HEALTH EDUCATION NEEDS ASSESSMENT

Pittard Road Cancer Cluster Investigation
Athens, Clarke County, Georgia



Private well and surrounding area at Pittard Road residence

Georgia Department of Human Resources
Division of Public Health
Under cooperative agreement with
The Agency for Toxic Substance and Disease Registry

GLOSSARY OF ACRONYMS

ATSDR Agency for Toxic Substances and Disease Registry

CHASE Community Health Assessment Surveillance and Epidemiology

GDPH Georgia Division of Public Health

GEPD Georgia Environmental Protection Division

NEHD Northeast Health District

TABLE OF CONTENTS

GLOSSARY OF ACRONYMS....1
INTRODUCTION AND PURPOSE....3
Methodology....3
SITE DESCRIPTION AND HISTORY....3
ENVIRONMENTAL SAMPLE DATA....4
CANCER CLUSTER INVESTIGATION....4
HEALTH CONSULTATION ACTIVITIES....6
ENVIRONMENTAL HEALTH EDUCATION NEEDS ASSESSMENT....7
Site Visits and Community Meetings....7
Community Survey....7
Results....8
DISCUSSION....12
Strengths....12
Limitations....13
CONCLUSIONS....13
RECOMMENDATIONS....13
Public Health Action Plan....14
REFERENCES....15
PREPARERS AND REVIEWERS OF REPORT....16
FIGURE 1. SITE LOCATION AND DEMOGRAPHICS....17
APPENDIX A. GEORGIA COMPREHENSIVE CANCER REGISTRY....18
APPENDIX B. SITE PHOTOGRAPHS....19
APPENDIX C. RADON....20
APPENDIX D. COMMUNITY SURVEY....22
APPENDIX E. DRAFT HEALTH EDUCATION PROGRAM PLAN....25
ADDENDUM....26

INTRODUCTION AND PURPOSE

An environmental health education needs assessment is designed to assist health departments in working collaboratively with communities to identify environmental health education needs and to develop education programs to meet those needs. This needs assessment report compiles information collected from community members concerned about potential hazardous substances in their environment, and makes a determination about the education activities that would best serve this community.

This environmental health education needs assessment includes:

- site description and history
- demographic information
- area maps
- community health concerns
- self-reported symptoms and diseases
- community members' knowledge, attitudes, and perceptions
- gaps in health information
- communication barriers or challenges
- best methods of exchanging information with a community
- needs assessment results
- recommendations
- action plan

The purpose of this environmental health education needs assessment is to assist the Georgia Division of Public Health (GDPH) and residents living on and near Pittard Road to identify public health concerns and then develop an action plan to address those concerns. The information contained in this report only reflects the concerns of the community and not health agencies.

Methodology

This report is structured into several sections. The first section discusses the public health and environmental investigation activities conducted for the Pittard Road community. The next section presents the GDPH cancer cluster investigation results. Next, the needs assessment methods and results are reported. Finally, conclusions, recommendations, and an action plan are provided to address the continuing health education needs of the community.

SITE DESCRIPTION AND HISTORY

Pittard Road is a neighborhood in Athens, Georgia, located between Highway 72 (Hull Road) and Voyles Road on approximately 16 acres near the northeast border of Clarke County (Figure 1). Pittard Road is a small residential community bordered by dense woodland. Approximately in the middle of the length of Pittard Road are two sets of railroad tracks: the eastern end of Pittard Road has single family homes possessing individual water wells, and the western end has single family homes connected to a municipal water source. There are no surface water bodies that would provide an exposure route within one mile.

Within one-half mile of Pittard Road is a church and a few small commercial businesses. There are also two mid-sized industrial facilities—neither facility is currently or has in the past been under investigation by state or federal regulatory authorities. Records review of the facilities' operations and regulatory histories indicate that they do not pose a health hazard to

residents of Pittard Road. There is no evidence or reports that spills or contamination from these industries has impacted land, air, or groundwater on Pittard Road. There is no history of any other industry in the area. There is no known hazardous waste generating site or landfill within a mile radius of this neighborhood. The railroad tracks may have been a source for chemical spills, but there are no reports of such events.

In 2003, a concerned citizen contacted the Northeast Health District (NEHD) in Athens about a suspected cancer cluster on Pittard Road. Initial information gathered by NEHD revealed that several residents living on Pittard Road reported that they had been diagnosed with cancer, and some residents believed that the cancer cases may be the result of exposure to environmental contamination [1]. Residents with wells are the only population that has expressed concern; therefore, the cancer cluster investigation and this community needs assessment are limited to those residents with private wells living east of the railroad tracks. There were approximately 22 private properties included in the initial investigation, but follow-up documentation notes up to 35 homes, not all are occupied [1].

In response, the NEHD, Community Health Assessment, Surveillance and Epidemiology (CHASE) Unit, conducted an investigation into occurrences of cancer in the Pittard Road community. The Georgia Division of Public Health (GDPH), Comprehensive Cancer Registry, was asked by CHASE to determine whether cancer rates, particularly breast cancer, were elevated. More information about the Georgia Comprehensive Cancer Registry can be found in Appendix A, and at http://health.state.ga.us/programs/gccr/index.asp.

GDPH coordinated a groundwater quality investigation, including individual water well sampling. CHASE coordinated radon sampling for the homes on Pittard Road.

In addition, GDPH conducted this environmental health education needs assessment to assist with community health education, and evaluate public health activities.

ENVIRONMENTAL SAMPLE DATA

In April 2003, CHASE and GDPH staff assisted the Georgia Environmental Protection Division (GEPD) as they conducted individual water well sampling at six homes on Pittard Road (Appendix B—site photographs). Homes with wells that were sampled were selected from a list of residents who requested that their wells be tested. Concurrently, the Clarke County Health Department sampled three additional wells for bacteria. Samples were analyzed for approximately 130 parameters including chemicals and bacteria. No contaminants were detected in groundwater above levels of health concern or exceeding environmental regulatory levels.

In July 2003, CHASE provided 17 homeowners with indoor air radon test kits. Eventually 30 homes were tested for radon. Radon is a leading cause of lung cancer. In addition, CHASE sampled nine wells for radon.
No results indicate elevated radon levels in homes or in groundwater on Pittard Road (Appendix C).

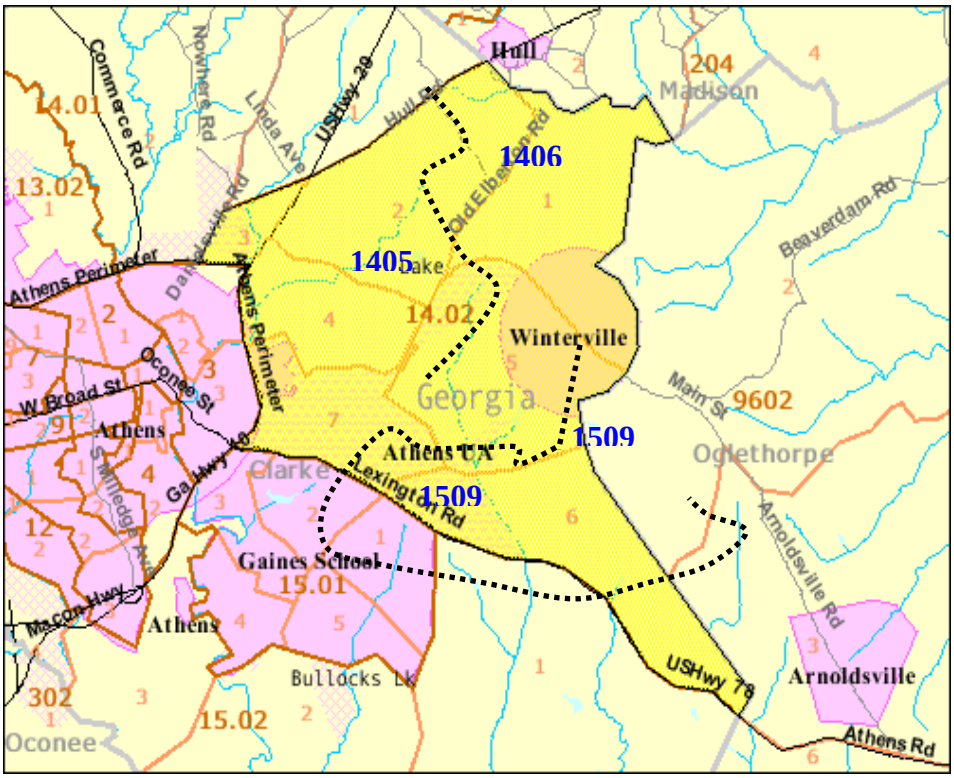
CANCER CLUSTER INVESTIGATION

Beginning in March 2003, CHASE and the Georgia Comprehensive Cancer Registry (GCCR) initiated a cancer cluster investigation in response to citizens' reports of cancer cases. CHASE interviewed 64 residents, former residents and relatives. To collect and document

cancer case reports, various community involvement methods were used: community meetings (held by CHASE staff), coverage of the cancer cluster investigation by local media and door-to-door interviews with residents (conducted by CHASE staff).

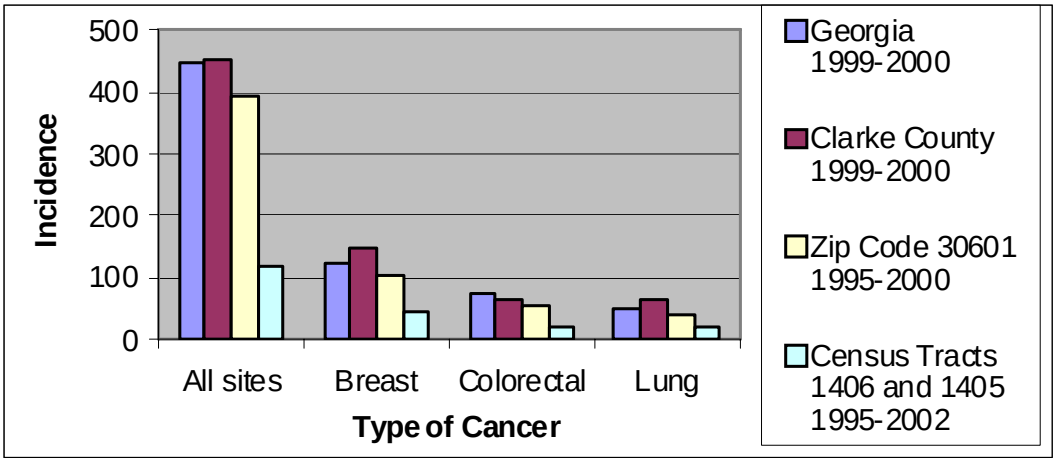
Documentation was also provided by available vital records dating back to 1980. Because diagnosis included cases from 1995 to 2002, two separate U.S. Census tracts (1990 and 2000) were used. This presented a problem as changes to the Census tracts (population address files) were made during this period. Calculations for rates were revised by GDPH in order to include all of these cases. The map below gives an illustration of the changes (dotted lines) to the 1990 Census tract (1402) that the 2000 Census tracts (1405, 1406) reflect. Please note that the proportions and shape are not to scale [2].

CHANGES IN CENSUS TRACTS



In the initial interviews, CHASE found at least 22 reported cases of cancer during the last 34 years and 25 cases of cancer among relatives at other locations [1]. CHASE submitted a list of nine confirmed cancer cases to the GCCR. The most frequent cancer reported was breast cancer in females (Chart 1). A breast cancer diagnosis was confirmed in six current residents by the GCCR database [2]. The cases of breast cancer occur within two families. Two other families reported numerous relatives with cancer, and there were reports of cancer cases in family members who never lived on Pittard Road who had breast cancer, and other types of cancer as well.

Chart 1. AGE ADJUSTED CANCER INCIDENCE RATE BY SITE (per 100,000 population)



Other cancer cases reported from community interviews were: skin cancer, prostate cancer, lung cancer, brain cancer, lymphoma, colon cancer, stomach tumors (non-cancerous), bladder cancer, esophageal cancer, cervical cancer, and unspecified cancer.

After careful consideration of the information collected, it was determined by the GCCR that no cancer cluster exists in the area [2]. The overall cancer rate for Pittard Road over the last 34 years is lower than the expected cumulative rate in Athens/Clarke County. Although there is an elevated number of breast cancer cases in the area; several cases occur among relatives, and the number of cases do not meet the criteria for determining that elevated rates or a cancer cluster exists.

In addition, analyses of cancer rates for Clarke County, as well as for nearby Madison and Oglethorpe Counties, found that there is no indication of elevated rates of cancer in these counties.

- Cancer rates provided by the GCCR indicate that there are no elevated rates of cancer in the area of Pittard Road.
- Breast cancer has a genetic component.
- The rates of cancer incidence for Pittard Road and Clarke County are not statistically significant when compared to other county, state, and national rates.

No further cancer cluster investigation activities are planned. If additional data become available, the information will be reviewed by GDPH and appropriate actions will be taken.

HEALTH CONSULTATION ACTIVITIES

GDPH has characterized this site as **No Apparent Public Health Hazard** because: exposures have not occurred; data are available for all environmental media of concern, and there are no community-specific health outcome data to indicate that the environment has had an adverse impact on human health. If additional data become available, the information will be reviewed by GDPH. GDPH will also respond to any health concerns posed about the site. Furthermore:

1. Based on data available from emission and inspection reports, no industrial facilities are suspected of releasing hazardous substances into the environment that could cause or

contribute to adverse health effects;
2. No suspected exposure to contaminated drinking water has occurred or is occurring;
3. There is no evidence that homes have elevated levels of radon; and
4. Available health outcome data indicate that there is no cancer cluster in the area.

ENVIRONMENTAL HEALTH EDUCATION NEEDS ASSESSMENT

Site Visits and Community Meetings

GDPH and district health department staff visited the Pittard Road community numerous times in 2003, 2004, and 2005 (see photographs of the site and surrounding area (Appendix B). In October 2005, GDPH sent a letter and surveys to Pittard area residents informing them of the plan to conduct an environmental health education needs assessment, and to provide contact information for residents who still have health concerns. On October 13th, staff from GDPH returned to Pittard Road to distribute surveys and gather resident concerns via door-to-door canvassing. The Pittard community is comprised of mostly single family dwellings with no known community group affiliations.

Community Survey

Development

To gather community concerns, GDPH developed, distributed, and analyzed the results of an environmental health education needs assessment survey (Appendix D). Participation in this survey was entirely voluntary and offered at no cost to residents. The survey requested basic demographic information including age, gender, race and ethnicity, and education level, length of residence in the area, tobacco use, and employment history. Respondents were asked if they had received information from any Georgia agency about cancer, if they had ever been tested for cancer, and if they were aware of free breast cancer screening services in their area. In addition, residents were asked to provide descriptions of any specific health concerns they had at the time. Well maintenance and disinfection activities were requested. Furthermore, respondents were asked about their preferred methods for sharing information.

Distribution and Collection

Ninety-five surveys were distributed between October and November 2005. Surveys were distributed by mail to residents living on Pittard Road and to members of a church located near Pittard Road. All residences were visited by GDPH staff to help ensue that the entire neighborhood was included. To determine which method of delivery would yield the most respondents, the surveys were color-coded: white surveys were sent directly to homes via mail, blue surveys were sent to the church via mail, and yellow surveys were delivered via door-to-door canvassing.

Surveys were collected during interviews and by return mail and fax to GDPH, as instructed on the survey. In addition to the survey, community concerns were gathered through telephone conversations with residents, local officials and government agency staff, local media coverage, and at community meetings.

Data Management and Entry

GDPH staff managed, entered, and analyzed all data from completed surveys. Upon receipt at GDPH, surveys were immediately coded and then separated from the cover page, which contained personal identifiers (e.g. name, address, and phone number). Cover pages were stored in a locked cabinet and personal information was not shared with any other agency or individuals. Survey data were entered into an Access 2000 database designed by GDPH staff. Some answers required interpretation. Questions with answers left blank were marked as "refused to answer/don't know" if the logical precedent yes/no question was not a "no" response. Survey data were entered by GDPH staff and cross checked for accuracy by random verification by comparing database entries with the actual surveys.

Data Analyses

Epi Info (version 3.2) database software was used for data analyses. Survey questions were analyzed and compared using analytic techniques appropriate for community survey design. Univariate analyses generated descriptive statistics to characterize data from the survey. Missing data were not included in the analyses and therefore not reported in the results.

Results

Over the two-week collection period, GDPH collected 32 surveys for a 34% return rate. Two respondents were later omitted from the study because their current residences were not near Pittard Road. Survey results were plotted on maps using Geographical Information Systems (Figure 2). Relationships between answers to questions and groupings within the community became more apparent when mapped. These maps give a visual representation of the survey findings.

Survey Response

In delivering surveys to residents, three methods were employed: delivery by mail directly to homes, delivery by mail to a church located near Pittard Road, and door-to-door canvassing. Surveys were color-coded in order to determine the delivery method that would yield the most respondents. The results appear to suggest that canvassing was the delivery method that resulted in the most respondents. However, the number of surveys delivered differed for each method. Thus, in considering the response rate for each method, the results reveal that delivery to the church was actually the method with the highest response rate (Table 1). This is consistent with the respondents' reporting that church was the preferred method of sharing information (Table 3).

Table 1. RESPONSE RATE BY DELIVERY METHOD

Survey Delivery Method	Number of Surveys Delivered	Number of Surveys Returned	Response Rate
Mail to Homes	25	9	36%
Mail to Church	20	9	45%
Door-to-Door	50	12	24%

Demographics

Note: basic demographic information was collected for statistical purposes only to compare survey respondents with the total population of the Pittard Road community.

Demographic characteristics of survey respondents were also compared to the U.S. Census Bureau's 2000 city (Athens), state (Georgia), and national population data.

Race/Ethnicity

Race/Ethnicity data for a one-mile radius of Pittard Road show a total population of approximately 626 (Figure 1). The Pittard Road community (Figure2) is mostly African-American/Black (83%) with 17% (5 individuals) either refusing to respond or choosing more than one race/ethnicity (Table 2). There are no known people with White, Hispanic, Asian or other predominant ethnicity.

Table 2. TOTAL POPULATION AND RACE/ETHNICITY

Total Population	Survey	Athens	Georgia	National
	30	100, 266	8,186,453	281,421,906
Race/Ethnicity	***Percent***			
White	*0*	*65*	*65*	*75*
African American/Black	*83*	*27*	*29*	*12*
Total other (or refused to answer/ don't know)	*17*	*8*	*7*	*13*

Age

The survey contained instructions for surveys to be completed by adults only. No surveys were completed for minors and the youngest survey respondent was 31 years of age. Survey respondents ranged in age from 31 to 92, with a mean age of 55 years.

Gender

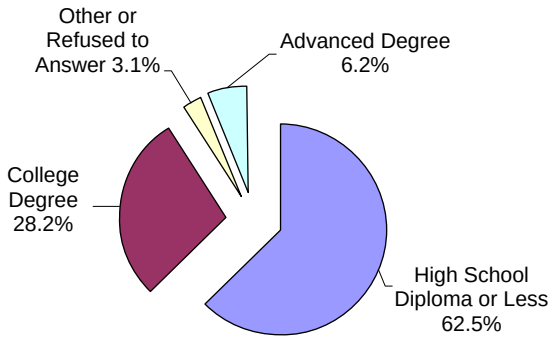
The genders of respondents were 37% male and 63% female. Figure 1 also contains additional data regarding age, gender and sensitive populations (elderly, etc).

Education level

Over half (63%) of survey respondents have a high school education or less, 20% have a degree (Associates or Bachelors) or technical/military training, while 3% have an advanced degree. This question was not answered by 7% of survey respondents.

A map in Figure 2 depicts how education level greater than high school corresponds to having an increased likelihood of having performed well maintenance, including well disinfections.

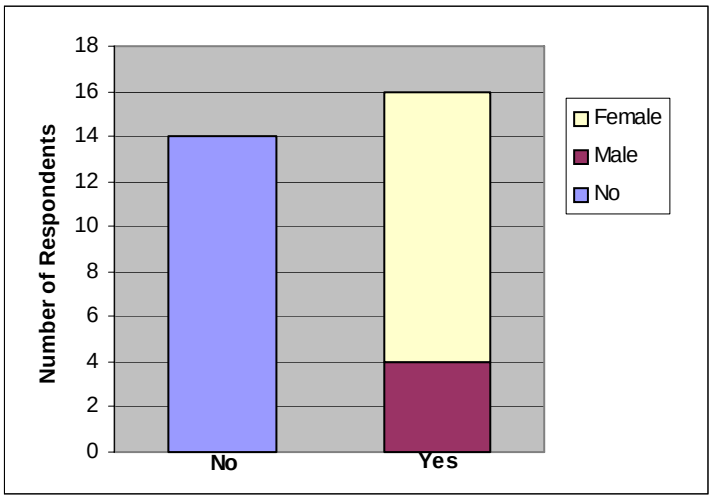
Chart 2. EDUCATION (HIGHEST LEVEL)



Cancer Testing

More than half of respondents (53%) reported they had ever been tested for cancer (Chart 2), and no respondent refused to answer this question even though refusal to answer was an option. A map in Figure 2 shows that most long term residents (10 + years) have been tested for cancer. Although performance of well maintenance and/or disinfection was directly related to education level, testing for cancer and awareness of free breast cancer screening were not. Further analysis of cancer testing history revealed that more women than men had ever been tested for cancer (Chart 2) and that among the women that were tested, their ages ranged from 40 to 67 years, with a mean age of 54.4 years.

Chart 3. CANCER TESTING



Preferred Methods to Receive Information

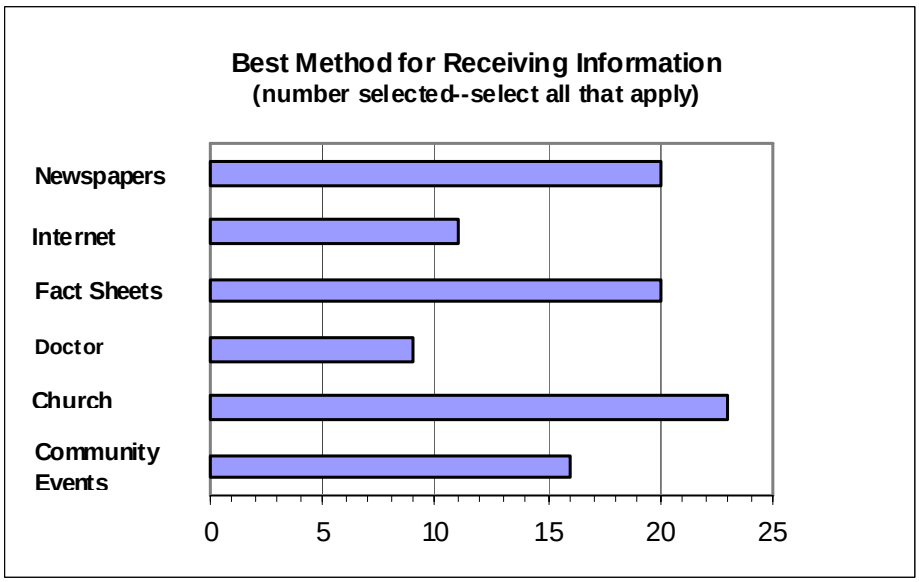
Over three-fourths of the respondents reported they had not received information from a Georgia agency about cancer and cancer screening. There were more residents with greater than a high school education that reported receiving information from a Georgia agency about cancer than those with less education. More than half of the respondents (57%) were not aware of the availability of free breast cancer screening services in their area (Table 4).

Table 4. Knowledge about Cancer and Cancer Screening

	Received Cancer Info from GA Agency?	Aware of Free Breast Cancer Screening?
Yes	17%	40%
No	76%	57%
Refused to answer / don't know	7%	3%

When asked about their preferred method to receive information, the majority of respondents (73%) responded that church was the best way (Chart 5). Others (67%) reported that fact sheets delivered to the home and newspaper ads were the best way. Of all respondents, almost one-quarter (23%) responded with a single answer, and the remaining three-fourths selected multiple answers. Many felt that a variety of methods would best cover the community at large. When offered to provide other ways to receive information, flyers and delivery of information to schools and colleges were suggested.

Chart 5. PREFERED METHODS TO RECEIVE INFORMATION



Length of Residency

- There was a direct relationship between length of residency and awareness of free breast cancer screening in that respondents living in the community greater than 10 years were more (Figure 2) likely to report that they were aware of free breast cancer screening.
- Similarly, there were more residents living in the community greater than 10 years that reported receiving cancer information from a Georgia agency.
- Although receipt of cancer information and awareness of free breast cancer screening did not predict cancer testing, length of residency did. There was an observable difference in cancer testing for residents living more than or less than 10 years in the community. That is, more respondents reporting having lived in the community greater

than 10 years reported having been tested for cancer.
- Performance of well maintenance and/or disinfecting the well was also associated with length of residency. Specifically, all respondents that performed well maintenance and/or disinfection lived in the community greater than 10 years (Figure 2).
- There was an association between survey respondents with higher education and years lived in the community. That is, respondents with greater than a high school education reported living in the community longer (Figure 2).

Health Issues

Most of the survey respondents (56%) did not have any present health concerns, but five respondents (17%), were concerned about cancer. Diabetes, upper respiratory problems and air quality were among the other concerns reported by a minority of residents.

Occupation/Smoking

Occupations were analyzed compared to symptoms experienced and health complaints. Most of the survey respondents who work (91%) reported professional or office occupations in businesses where they are not exposed to chemical emissions as a regular part of duty. Approximately 23% of respondents state they smoke tobacco. There is no indication that there is a correlation between reports of respiratory problems and exposure to respiratory irritants or odors occupationally or from tobacco smoke.

DISCUSSION

1. After careful consideration of the information collected, it was determined that no cancer cluster exists in the area.
2. Although there is an elevated number of breast cancer cases in the area; several cases occur among relatives, and the number of cases do not meet the criteria for determining that an elevated rates exists.
3. To gather community concerns, GDPH developed, distributed, and analyzed the results of an environmental health education needs assessment survey.
4. The survey had a 32% return rate.
5. Survey respondents were primarily Black/African American and at least high school educated.
6. The most common health concerns were cancer, diabetes, upper respiratory problems, and air quality.
7. 53% of the survey population has been tested for cancer.
8. 43% of survey population has performed well maintenance and/or disinfection.
9. Most respondents prefer to receive information through church.

Strengths

Respondents totaled 30; approximately one-third of the population of the Pittard Road community. Written surveys typically have a low response rate of up to about 15%. Thus, the participation rate would be considered successful according to community survey methodology. The majority of respondents answered every question. The survey had many open-ended questions that allowed for more of a descriptive characterization, particularly of present health concerns.

Results of the survey data provide helpful insight for future needs assessments. Specifically,

the results indicate that delivery of surveys to an easily accessible location, such as a church, helps produce a good response rate.

Limitations

Although findings described in this report are the result of a systematic, proven process, limitations do exist.

Several methods were used to distribute the surveys to the entire affected community, yet we did not achieve our objective of a 70% return rate. Although some delivery methods yielded surveys with a high return rate, efforts to provide the opportunity for participation to all community members proved less successful. It is worthy to note that the health concerns expressed by those who completed the surveys may not represent the concerns of the entire community. This is especially evident in the findings that only five community members expressed concerns about cancer, although prior to this needs assessment more residents expressed concern about a cancer cluster at a public meeting.

The survey's length and verbiage may have affected the level of participation. A long survey may not have as high of a response rate as a short one. Verbiage may have confused or misled respondents. For example, when asked about well maintenance and disinfection, respondents may not have had a clear understanding of these terms. When the "Refused to answer/Don't know" answer was given, usually the answer circled was "Don't know". This survey did not distinguish between "Refused to answer" and "Don't know", which may be a limitation. In addition, when asked whether they had ever received information from a Georgia agency about cancer, most respondents reported that they had not. Perhaps if specific agencies and/or specific materials were listed, it may have resulted in an affirmative response. Most residents had been provided information about cancer from the local health department, previous to completing the survey.

CONCLUSIONS

1. The community requests education about cancer and cancer screening, especially among men

2. This community will benefit from information about well maintenance and disinfection.

RECOMMENDATIONS

The information gathered from this community survey indicates that future education efforts should include:

- a brief summary of the findings from this needs assessment
- providing education materials about cancer and cancer screening
- an opportunity for the community to have their well examined using down-well camera technology

A public health assessment should be conducted to gather all site investigation information and publish the findings in a report for the community.

GDPH will review additional data if it becomes available, and provide additional community education and/or site investigation, if appropriate.

Public Health Action Plan

Goals: short term:

- To increase community members' knowledge about the health effects of life style behaviors that lead to cancer.
- To promote cancer screening.
- To promote proper well maintenance and disinfection activities.

Goal: long term:
To provide a resource to address residents' environmental health education needs.

ACTIVITIES:

Short-term Goals/Activities:

1. Distribute education materials about cancer prevention.
2. Distribute education materials about cancer screening.
3. Provide free well inspections using down-well camera technology and provide education materials about proper well maintenance and disinfection.

Long-term Goal/Activity: Conduct follow up interviews in February 2006 to determine if residents who participated in the survey conducted well maintenance and/or received cancer screening.

REFERENCES

1. Northeast Health District, *Investigation into Occurrence of Cancer in the Pittard Road Community* (draft), 8/04.

2. Georgia Department of Human Resources, Division of Public Health, Comprehensive Cancer Registry, *Final Report on Pittard Road, Clarke County Inquiry,* 5/03.

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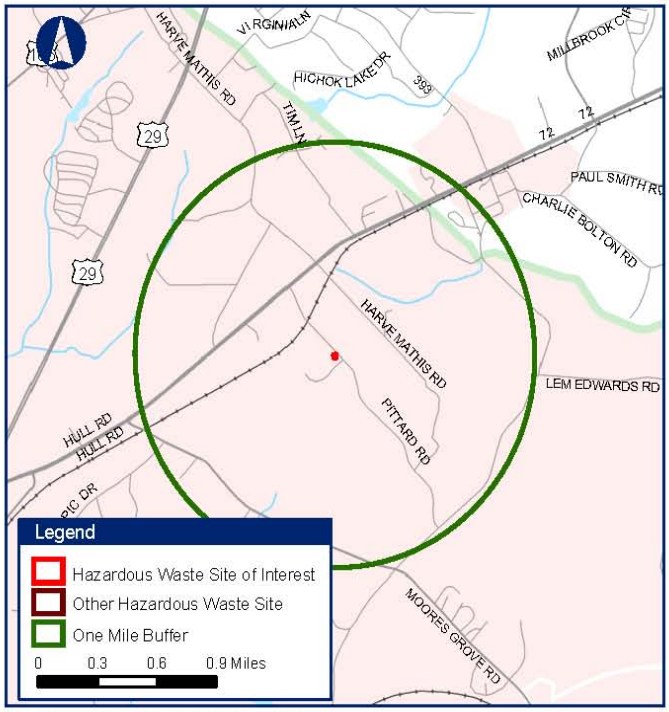
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Agency for Toxic Substances and Disease Registry

FIGURE 1. SITE LOCATION AND DEMOGRAPHICS

Pittard Road
Athens, GA
EPA Facility ID: UNAVAILABLE

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY



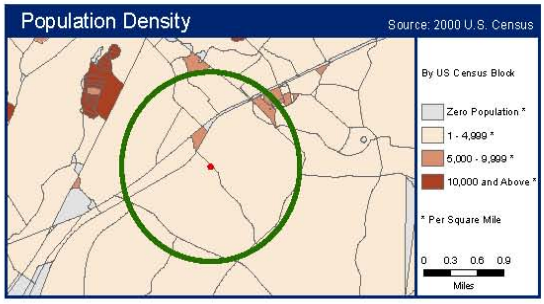
Base Map Source: Geographic Data Technology, May 2005.
Site Boundary Data Source: ATSDR Public Health GIS Program, May 2005.
Coordinate System (All Panels): NAD 1983 StatePlane Georgia West FIPS 1002 Feet

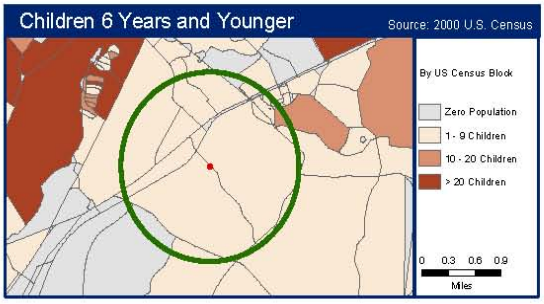


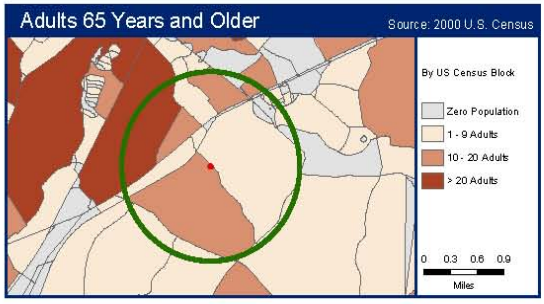
Demographic Statistics
Within One Mile of Site*

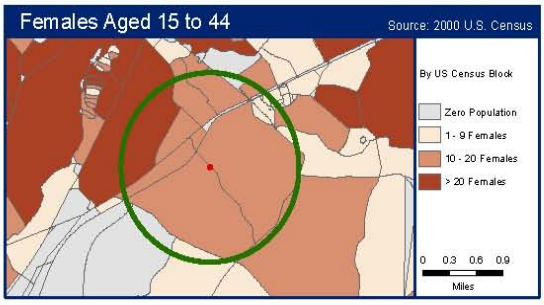
Total Population	626
White Alone	405
Black Alone	150
Am. Indian & Alaska Native Alone	1
Asian Alone	3
Native Hawaiian & Other Pacific Islander Alone	0
Some Other Race Alone	49
Two or More Races	18
Hispanic or Latino**	80
Children Aged 6 and Younger	50
Adults Aged 65 and Older	90
Females Aged 15 to 44	133
Total Housing Units	267

Demographics Statistics Source: 2000 U.S. Census
* Calculated using an area-proportion spatial analysis technique
** People who identify their origin as Hispanic or Latino may be of any race.









GRASPMASTER 9.1 [BETA] - GENERATED: 07-13-2005

FOR INTERNAL AND EXTERNAL RELEASE
ATSDR AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY | UNITED STATES DEPARTMENT OF HEALTH AND HUMAN SERVICES

APPENDIX A. GEORGIA COMPREHENSIVE CANCER REGISTRY

The Georgia Comprehensive Cancer Registry (GCCR) is a statewide population-based cancer registry collecting all cancer cases diagnosed among Georgia residents since January 1, 1995. This information furthers our understanding of cancer and is used to develop strategies and policies for prevention, control, and treatment. The availability of this data at the state level allows health researchers to analyze geographic, racial, and other differences that provide clues that point to risk factors. This data also helps in determining where early detection, educational, or other programs should be directed.

The Department of Human Resources, Division of Public Health has designated the Georgia Center for Cancer Statistics at the Rollins School of Public Health at Emory University as its agent for the purpose of collecting and editing cancer data. GCCR is a participant in the National Program for Cancer Registries that was established by the Centers for Disease Control and Prevention (CDC) in 1992 through the Federal Cancer Registry Amendment Act (Public Law 102-515). NPCR provides funding and guidance for the development of cancer registries throughout the United States. GCCR is also a member of the North American Association of Central Cancer Registries (NAACCR), which is a professional society that was established in 1987. NAACCR provides ongoing development of cancer registries and the establishment of registry standards.

Goals:

- To collect information on all newly diagnosed cancer cases.
- To calculate cancer incidence rates for the state of Georgia.
- To make data available to the public and health care professionals.
- To identify and evaluate cancer morbidity and mortality trends and problems on an ongoing basis.
- To provide cancer incidence and mortality data to cancer control programs to assist them in developing strategies and evaluating their effectiveness.
- To stimulate cancer control research.

Cancer data reports, cancer incidence data, and cancer mortality data for Georgia counties and health districts are available from the GCCR at:

http://health.state.ga.us/programs/gccr/index.asp

Division of Public Health
Cancer Control Section
2 Peachtree Street, 16th Floor
Atlanta, Georgia 30303
404-657-6611
e-mail: healthmatters@dhr.state.ga.us

DHR
GEORGIA
DEPARTMENT OF
HUMAN RESOURCES

APPENDIX B. SITE PHOTOGRAPHS



Public Health staff member distributes needs assessment surveys.



Water samples taken from a private well.



Old dug water well with rusty can of leftover paint stored on top.

APPENDIX C. RADON

Radon levels in Pittard Road Community Homes and Groundwater

In July 2003, the Northeast Health District (NEHD) coordinated radon sampling for indoor air in 30 homes on Pittard Road. NEHD also sampled groundwater from nine residential wells for radon. No air or groundwater samples had radon concentrations exceeding ATSDR Health Guidelines or EPA Safe Drinking Water Standards (Table 1)[1].

TABLE 1. RADON SAMPLING RESULTS [1]

Medium	Number of Tests	Average (pCi/l)	Range (pCi/l)	Risk Level (pCi/l)
Air	30	.5	.3 to 1.8	4 (EPA)
Water	9	535	263 to 1147	40,000 (ATSDR)

pCi/l: picoCuries per liter

Radon levels in U.S. homes

Radon is a naturally occurring radioactive gas that is odorless and tasteless. It is formed from the radioactive decay of uranium. Uranium is found in small amounts in most rocks and soil. It slowly breaks down to other products such as radium, which breaks down to radon.

When relaxing at home, we breathe in radon. It is soluble in blood and circulates through the body and all organs. Some tends to accumulate in fatty issues. Then, almost all is harmlessly exhaled by lungs or skin. But radon decay products, radioactive solid particles, much smaller than household dust, float in the air and get trapped in our lungs, trachea, and bronchi. Exposure to high levels of radon may result in an increased incidence of lung diseases, such as emphysema, pulmonary fibrosis, and lung cancer.

Outdoor radon levels in the U.S. range from 0.02 to 0.75 pCi/L (picoCuries per liter), averaging 0.4 pCi/L. But homes draw concentrated radon gas from the ground. Because radon is nine times heavier than air, elevated radon levels build up in basements and on lower floors. Although the U.S. Congress has set the natural radon concentration outdoors as the target level for homes, approximately two thirds of homes exceed it. A half of American homes have a radon level above 0.67 pCi/L (the median level). The average (mean) radon level in US homes is 1.25 pCi/L, or three times higher than the average level outdoors.

Nearly 8 million US homes, or one out of every 15, have radon levels above the EPA's 4 pCi/L "action" limit and nearly one out of six homes exceed the EPA's 2 pCi/L "consider action" limit. It is difficult for people to accept that their home, a place that one looks to for security, is hiding invisible danger. Yet, the average person receives a higher radiation dose from radon at home than from all other natural or man-made sources combined**.**

How about all the other radiation around us?

Background radiation levels are a combination of terrestrial (radium, thorium, radon, etc.) and cosmic radiation (photons, nutrons, etc.) Natural radioactivity is common in the rocks and soil that make up our planet – over 60 radionuclides (radioactive elements) can be found

in nature. Sunshine is a radiation. The visible light is in the middle of its range of wavelengths. The long-wave radiation is infrared and it warms the skin. The shortest wavelength is ultraviolet radiation which causes skin cancer.

Beyond the ultraviolet radiation is a higher-frequency radiation emitted from nuclei of unstable radioactive atoms - ionizing radiation**.** It has enough power to knock out electrons from atoms and convert them to electrically charged ions, which can damage the large molecules of living cells. Ionizing radiation damages DNA and just one mutant cell can cause cancer. Radon decay chain offers a full menu of ionizing radiation: alpha and beta particles, and gamma rays. (Nuclear explosions emit one more radiation - neutrons.) Cosmic radiation consists of a variety of very energetic particles, including protons, nutrons, and neutrinos, which bombard the earth from outer space. Radioactivity is all around us and also within us.

However, two thirds of the total effective radiation dose to the average American from all natural sources comes from radon. Radon in homes is more concentrated and far more dangerous than outdoors - the National Academy of Sciences estimates that the outdoor radon causes only 800 out of the total of 21,000 lung cancer deaths caused by radon in the US each year.

Official limits on radon levels

Although radon in homes has been declared a national health problem, there are no federal or state standards. The Environment Protection Agency was given the task of developing practical guidelines. Considering the high cost of mitigation methods available to homeowners in 1980s, EPA did not want to force homeowners to install costly radon mitigation systems, leaving the decision up to each homeowner. But at the same time, EPA has made it clear that the 4 pCi/L action limit is not a "safe" level and warned the public:

Any radon exposure has some risk of causing lung cancer. The lower the radon level in your home, the lower your family's risk of lung cancer.

How safe is the 4 pCi/L radon "action limit"?

People spend most of their time at home - on average 70%, but more in case of women and particularly, children. Although the 4 pCi/L level has become a benchmark for real estate transactions, it still carries risks. The most substantial epidemiological study ever on the link between residential radon and lung cancer was published the University of Iowa in 2000. This 5-year study proves that radon even at the low levels found in homes causes lung cancer and that the risk is proportional to the radon level. The study shows that the exposure of adult women to radon over 15 years at the EPA "action" level of 4 pCi/L increases the lung cancer risk by 50 percent**.**

Sources: ATSDR, ToxFaqs™ For Radon.

APPENDIX D. COMMUNITY SURVEY

For Office Use Only
Survey ID: _____

ENVIRONMENTAL HEALTH EDUCATION NEEDS ASSESSMENT SURVEY
Pittard Road Cancer Cluster Investigation
Athens, Clarke County, Georgia

Name: _____

Address: _____

The Georgia Division of Public Health (GDPH) is working with residents living in the Pittard Road Community to identify their environmental health education needs. This survey is designed to aid the GDPH with identifying these needs, and to develop education programs to meet those needs.

GOAL: The goal of this needs assessment survey is to determine residents' general knowledge about their neighborhood, provide information about cancer, and discuss health and lifestyle behaviors.

OBJECTIVES: The three objectives of this needs assessment survey are:

1. To achieve a 40% return of surveys distributed to residents in the Pittard Road community during November 2005.
2. To analyze and report all survey data during January 2006.
3. To develop and carry out a health education program that is based on survey results starting in February 2006.

BACKGROUND: In 2003, the Georgia Comprehensive Cancer Registry conducted a cancer cluster investigation. Private well water at several homes in the Pittard Road Community was analyzed for environmental contamination. In addition, radon levels in homes were also tested. Results indicated that there were no elevated levels of radon present.

SUMMARY: In October 2005, residents of the Pittard Road community were invited to participate in this survey. Participation is voluntary and is offered at no cost to residents. The GDPH will analyze the results of the survey to help determine which health education activities will best serve the community. The results of this survey are expected to be available to residents in January 2006.

CONFIDENTIALITY STATEMENT: THE GEORGIA DIVISION OF PUBLIC HEALTH (GDPH) WILL USE THESE RESULTS TO ESTABLISH SITE-SPECIFIC ENVIRONMENTAL HEALTH EDUCATION NEEDS. ANY REPORTS CREATED BY THE GDPH FROM THE SURVEY RESULTS WILL NOT CONTAIN ANY PERSONAL IDENTIFIERS SUCH AS NAME OR ADDRESS. THESE REPORTS WILL CONTAIN GROUPED INFORMATION ONLY.

THIS SURVEY MAY BE COPIED, OR FOR ADDITIONAL COPIES, CONTACT:

GEORGIA DEPARTMENT OF HUMAN RESOURCES
Division of Public Health
Environmental Health and Injury Prevention Branch
Chemical Hazards Program
2 Peachtree Street, 13th Floor
Atlanta, Georgia 30303
(404) 657-6534
FAX (404) 657-6533

Supported in part by funds from the Comprehensive Environmental Response, Compensation, and Liability Act trust fund through a cooperative agreement with the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services.

INSTRUCTIONS - One survey is to be completed for each individual adult resident aged 18 years or older. Please circle your answer(s). You can refuse to answer any question, but please answer all questions you choose to answer as truthfully and completely as possible. When you are finished filling out the survey, please return the survey as instructed or mail or fax to the address on the front page.

To begin, some questions about you.

1.1 Have you received any education regarding cancer?

a. Yes
b No
c. Refused to Answer/Don't Know

1.2 Do you regularly disinfect your well?

a. Yes
b. No
c. Refused to Answer/Don't Know

1.3 Have you ever taken action to maintain/repair your well?

a. Yes
b. No
c. Refused to Answer/Don't Know

1.4 Have you ever been tested for cancer?

a. Yes
b. No
b. Refused to Answer/Don't Know

1.5 Are you aware that free breast cancer screening is available to you?

a. Yes
b. No
c. Refused to Answer/Don't Know

1.6 In your opinion, what are the best ways to get information to the public regarding pollution in our environment?

a. Fact sheets delivered to your home
b. Newspaper ads/articles
c. Your doctor or preferred health care professional
d. Local community events
e. Church
f. Internet
g. Refused to Answer/ Don't Know
h. Other: _____

1.7 Do you have any specific health concerns at this time?

Survey ID: _____

The following questions are intended to give a general context for the neighborhood and will be used to describe your community only.

2.1 Which one of the following best describes your race?

a. African-American b. White c. Asian

d. Native American e. Pacific Islander

f. Multiracial g. Refused to Answer / Don't Know

h. Other: _____

2.2 What is the highest level of education you have completed:

a. Less than high school graduate b. High school graduate/GED

c. Some college d. Four-year college degree

e. Technical school/Military/Associates degree

f. Graduate/advanced degree g. Refused to Answer/ Don't Know

2.3 What is your date of birth? _____

2.4 Are you: a. Male b. Female

2.5 How long have you lived at your current residence?

a. 0 to 5 years
b. 5 to 10 years
c. More than 10 years
d. More than 20 years
e. Refused to Answer/Don't Know

2.6 What is your occupation?

_____

2.7 Do you smoke?

a. Yes c. I have quit smoking
b. No d. Refused to Answer/Don't Know

APPENDIX E. DRAFT HEALTH EDUCATION PROGRAM PLAN

DRAFT WORK PLAN
September 1, 2005 – March 31, 2006

ACTIVITY	2005				2006		
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Distribute Notice of Involvement to community.							
Conduct community Needs Assessment Survey.							
Enter, manage, and analyze Survey results.							
Design new and gather existing community education materials. Publish and distribute health consultation.							
Publish final Needs Assessment Report and a summary and distribute to the community using preferred methods identified in Survey.							
Distribute health education materials using preferred methods identified in Survey.							
Keep community activists informed and updated of information and activities. They can share information to larger community.							
Develop process and outcome evaluation methods suitable for the education programs provided to the community. Evaluate health education methods.							
Develop and implement exit strategy.							

ADDENDUM

Health Education Action Plan Report
Pittard Road Cancer Cluster Investigation
Athens, Clarke County, Georgia

PURPOSE

Georgia Department of Public Health (GDPH) prepared an Environmental Health Education Needs Assessment (EHENA) for the Pittard Road Cancer Cluster Investigation site area in December, 2005. This needs assessment was a culmination of site work and activity dating back to 2003. This addendum will specifically address the health education efforts conducted by GDPH as recommended by the EHENA.

DISCUSSION

GDPH developed the survey for the Pittard Road EHENA in September 2005. The survey questions were designed in a pre-test/post-test format in order to obtain future outcome measures. Once completed, the survey was distributed in October to area residents at the Pittard Road site. The initial mailing addresses included all those obtained from the August, 2004 report from the Northeast Health District. A total of 28 packets were prepared containing the addresses of 27 residents and the New Grove Baptist Church. Of these, only one was returned to GDPH by the United States Postal Service (USPS) as "return to sender". Each packet contained the following: (1) Introduction letter, (2) needs assessment survey (3) GDPH brochure about the Chemical Hazards Program (Appendix A), (4) GDPH Staff business card, (5) and a self address stamped envelope (SASE). The church received 20 copies and was selected as it is near the community and public meetings have been held there about health issues in the past.

Feedback was immediate. Although we did not receive any telephone calls, (Athens is long distance), many residents did return the survey in the SASE. To better track who, where, and how residents received the surveys, we color coded the surveys. White surveys were in the packet mailing, blue surveys were sent to the church and for our future canvassing efforts, we made yellow copies for drop-off. From this we discovered this most surveys were received from individual residents mailing them back in, either as the white originals or blue copies. This also corresponds to the EHENA survey question
1.7, of preferred method of information distribution, which was found to be, facts sheets delivered to church (45%) followed closely by home delivery (36%).

GDPH staff returned to visit the Pittard community in November 2005 to collect health concerns and to distribute pre-test surveys and cancer screening videos. Early indications reflected the community's desire for more cancer information, so we obtained a video about the importance of cancer screening. GDPH Cancer Control Section had previously developed this video, *An Important Conversation: Georgia Speaks*, and it was to be one of our outcome measures and health education tools. The community was very welcoming and appreciated the fact that we had taken the time to visit with them. There weren't too many health concerns noted at this time although some did report that cancer in the community was still their main concern.

We distributed approximately 95 pre-test surveys between October and November 2005. After collecting all returned surveys, GDPH created and entered the results into a Microsoft Access 2000 database. From these results GIS maps were created to show relationships between survey questions. After examining the results, GDPH prepared a heath education intervention plan in keeping with the EHENA proposed Public Health Action Plan.

A follow-up educational packet to the Pittard community was mailed on December 9, 2005. These packets were distributed only to residents who had completed the pre-test survey. 26 packets were mailed along with one for the New Grove Baptist Church. Of these 3 were returned by the USPS. These returned addresses were supplied to us by area residents who completed the survey during the door-to-door canvassing event. Several of these residents did report as having been former long-term residents. We included them in the EHENA as the Pittard community has had cancer concerns for many decades and it is a tightly knit community with many familial relationships. These packets contained the following: (1) Letter describing our activities, (2) Well inspection flyer, (3) Water well quality brochure, and (4) four cancer brochures (Appendix B).

The flyer described the offering of free well examinations by appointment only. Approximately one month was allowed for residents to contact us to schedule a free down well camera inspection. We also reiterated the need for residents to visit their doctor or local health clinic for cancer screening.

Public Health Action Plan

The EHENA proposed several short and long term goals for the community. Short term goals were related to providing cancer education. Since GDPH Comprehensive Cancer Registry did not validate the presence of a cancer cluster, our health education efforts primarily focused on cancer screening and prevention. We provided a GDPH cancer screening video and four brochures about cancer. One brochure was from the Clarke County Health Department and two of were from the America Cancer Society (Appendix B). We were also available several during our two canvassing events to answer any questions.

Long-term goals involving environmental health education needs would indicate a continued need for on-going well maintenance education. We introduced well maintenance and disinfection guidelines since previous well water sampling events indicated the presence of bacteria and poor well maintenance issues. GDPH developed and distributed to residents a Water Well Quality brochure (Appendix B). This brochure describes ways to keep well drinking water safe and how to disinfect ones private water well. GDPH, in collaboration with the University of Georgia Cooperative Extension Service also offered free down well camera inspections for residents at Pittard Road (Appendix B). Only a handful of residents availed themselves of the opportunity to have their well inspected and well problems identified. Pre-test survey results indicated that regular well maintenance and disinfection were education concerns that needed to be addressed. Upon examination of some of the video footage of these events, it appears that future well inspections would also be encouraged at Pittard Road. We have already referred this community the UGA Cooperative Extension Service for subsequent programs in well maintenance education.

On January 19, 2006 the post-test survey was distributed via USPS. These packets were sent out to the same addresses as were the pre-test. The packets contained a letter, survey and a return SASE. The letter described our activities to date, and included another encouragement for residents to visit their doctor or local health clinic for cancer screening. On January 27th,

GDPH Staff returned to Pittard Road to collect post-test surveys and obtain any remaining questions and concerns. When we returned, few residents took the time to fill-out the surveys as before. There was a marked decrease in interest noted. GDPH staff also captured a few photographs during this event (Appendix C).

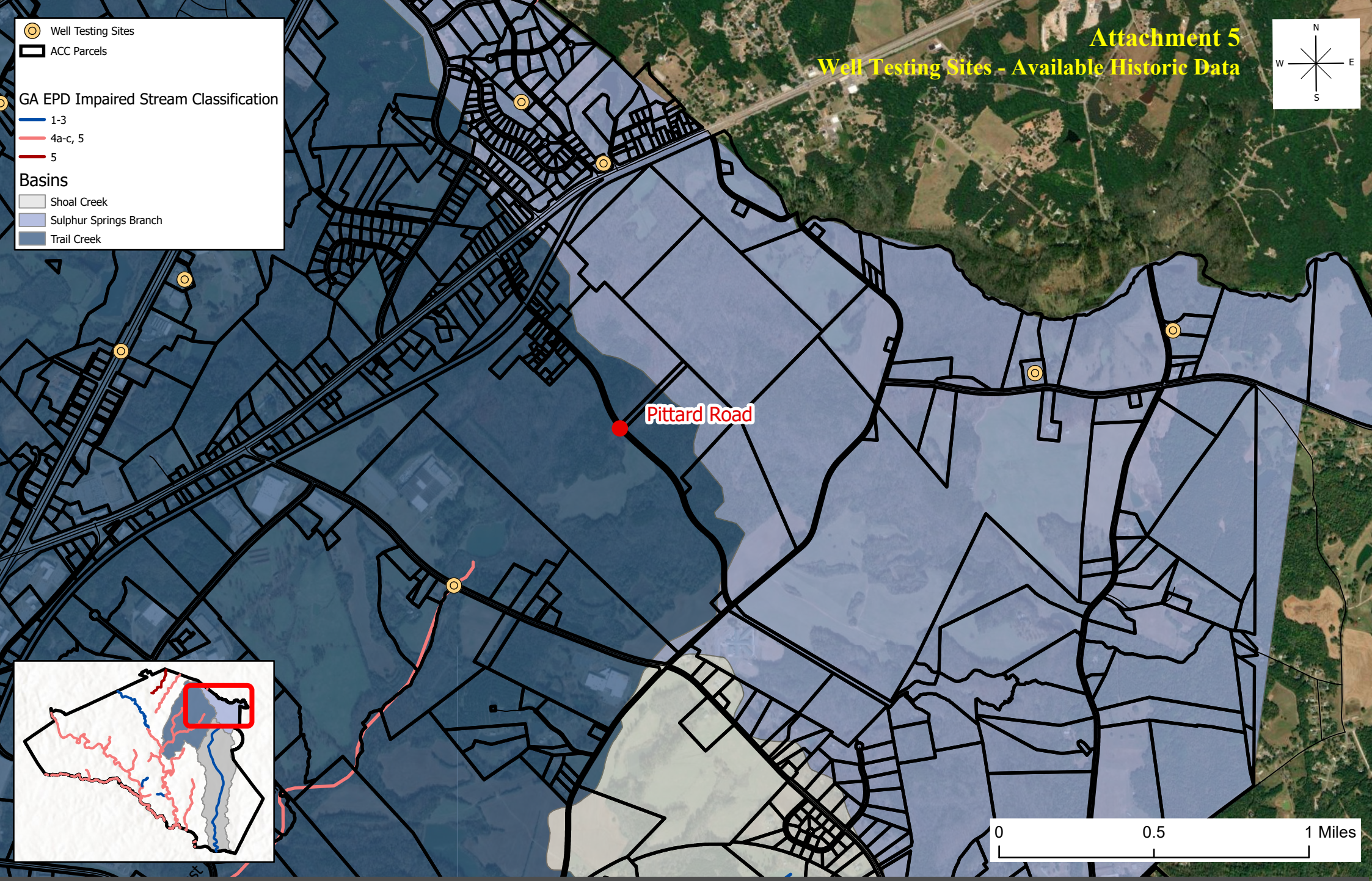
This EHENA survey, distributed first in October 2005 and then again in January 2006, provided a synopsis of what issues concern the Pittard Road community. Through various measures we have collected feedback and provided an education plan to meet many of their needs. The pre- and post-test nature of the survey instrument provided a way for us to capture any changes over the three month period we provided. Our main objectives were to measure changes in two areas, cancer screening and well maintenance. Under cancer screening, we were looking to measure how many residents watched the video and/or made medical appointments related to cancer screening. Involving well maintenance, we were looking to measure how many residents completed well a down well camera well inspections and/or conducted any maintenance or disinfections.

CONCLUSIONS

Conclusions from the needs assessment indicated that the community requested and would benefit from additional information being provided on cancer and cancer screening. We provided that as noted above. Our findings also recommended well examinations and education on well maintenance and disinfection. GDPH collaborated with UGA to provide free down-well camera well inspections (appendix B). GDPH also produced and distributed a well water quality brochure (Appendix B)

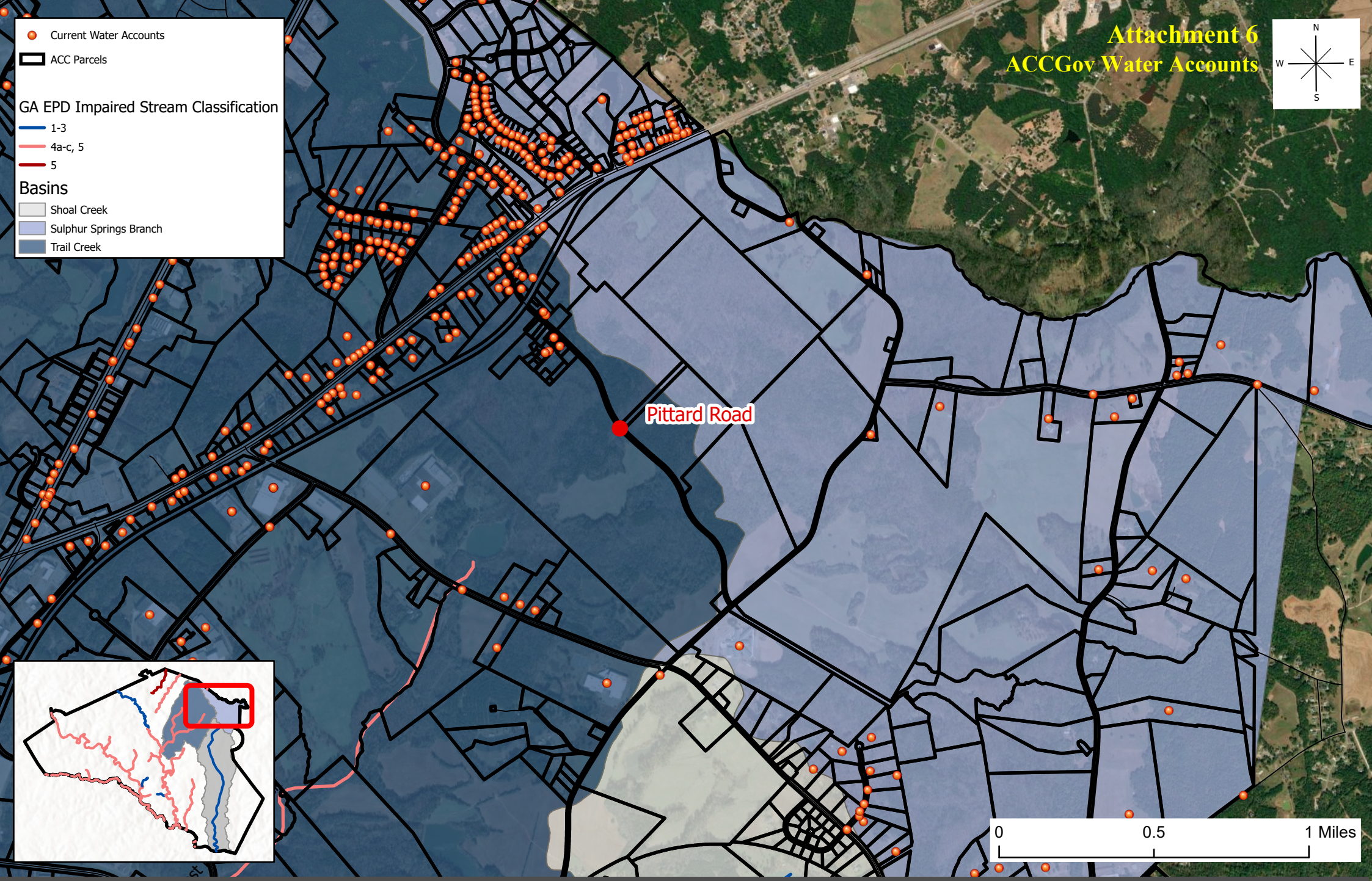
RECOMMENDATIONS

It is recommended that residents receive the one page summary of findings of the EHENA and the Health Education Action Plan Report. This flyer (Appendix D) is to be distributed to area residents and the New Grove Baptists Church upon final publication of the Pittard Road EHENA. It is also recommended that residents are presented with a short video workshop of well results in their community on behalf of UGA.



Pittard Rd. Well Testing Sites

ACC Dataset, Date Accessed: 10/19/2021.
Sustainability Office 10/20/2021.



Pittard Rd. Water Accounts

ACC Dataset, Date Accessed: 10/5/2021
Sustainability Office 10/20/2021.

Attachment 7a
DOJ Complaint

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

UNITED STATES OF AMERICA and SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL Plaintiffs, v. INVISTA S.à r.l. Defendant.	Civil Action No. _____ Judge _____

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), and the South Carolina Department of Health and Environmental Control (SCDHEC) jointly allege the following:

NATURE OF ACTION

1. This is a civil action for civil penalties and injunctive relief brought against INVISTA S.à r.l. ("INVISTA") for violations of the following environmental statutes and their implementing regulations: the Emergency Planning and Community Right-to-Know Act (EPCRA), 42 U.S.C. §§ 11001 to 11050; the Clean Water Act (CWA), 42 U.S.C. §§ 1251 to 1387; the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 to 6992k; the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 7 U.S.C. §§ 136 to 136y; the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9603(a); the Safe Drinking Water Act (SDWA), 42 U.S.C. §§ 300f to 300j and the

Clean Air Act (CAA), 42 U.S.C. §§ 7410 to 7671q; and the requirements adopted as part of the applicable State Implementation Plans (SIPs) at its facilities located at Athens, GA; Calhoun, GA; Camden, SC; Chattanooga, TN; Dalton, GA; Kinston, NC; LaPorte, TX; Martinsville, VA; Orange, TX, Seaford, DE; Victoria, TX; and Waynesboro, VA (hereinafter "Acquired Facilities").

JURISDICTION AND VENUE

2. This Court shall have jurisdiction over this matter pursuant to 28 U.S.C. §§ 157, 1331, 1334, 1345, 1355 and 1367; Sections 113, 167 and 304(b)(1)(B) of the CAA, as amended, 42 U.S.C. §§ 7413, 7477 and 7604(b)(1)(B); Sections 309 and 311(b)(7)(E) of the CWA, 33 U.S.C. §§ 1319, 1321(b)(7)(E); Section 325(c)(4) of the EPCRA, 42 U.S.C. § 11045(c)(4); Sections 16 and 27(a) of FIFRA, 7 U.S.C. § 136n and 136s-2(a); Sections 109(c) and 113(b) of CERCLA, 42 U.S.C. §§ 9609(c), 9613(b); Sections 1414(b) and 1423(b) of the SDWA, 42 U.S.C. §§ 300g-3(b), 300h-2(b); and Sections 3008(a) and 9006 of RCRA, 42 U.S.C. §§ 6928(a), 6991(e). The Complaint states a claim upon which relief may be granted for injunctive relief and civil penalties against INVISTA.

3. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(b)-(c) and 1395(a); CAA § 113(b), 42 U.S.C. § 7413(b); FIFRA § 16, 7 U.S.C. § 136n; CWA §§ 309, 311(b)(7)(E), 33 U.S.C. §§ 1319, 1321(b)(7)(E); EPCRA § 325(a)-(c), 42 U.S.C. § 11045(a)-(c); CERCLA §§ 109(c), 113(b), 42 U.S.C. §§ 9609(c), 9613(b); and RCRA §§ 3008(a), 9006, 42 U.S.C. §§ 6928(a), 6991(e).

NOTICE

4. Pursuant to Section 309(b) of the Clean Water Act, 33 U.S.C. § 1319(b); Section

113(b) of the Clean Air Act, 42 U.S.C. § 7413(b); Section 1413(a)(2)(B) of the SDWA, 42 U.S.C. § 300g-2(a)(2)(B); and Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2), notice of commencement of this action has been given to the State of Tennessee, the Commonwealth of Virginia, the State of Texas, the State of Georgia and the State of North Carolina.

5. Pursuant to Section 113(a)(1) of the CAA, 42 U.S.C. § 7413(a)(1), notice of the violations of the Delaware, South Carolina, Tennessee and Texas SIPs that are alleged in this complaint have been given to the States or the authorized applicable regulatory agencies of Delaware, South Carolina, Tennessee and Texas and INVISTA at least 30 days prior to the filing of this complaint.

6. Pursuant to Section 27(a) of FIFRA, 42 U.S.C. § 136w-2, notice of the violations has been given to the State of Texas and no enforcement action has been taken within 30 days prior to filing of this complaint.

DEFENDANT

7. INVISTA is a privately-owned integrated fibers and polymers company registered as a foreign limited liability company in the State of Delaware and headquartered in Wichita, Kansas. INVISTA is a person, as defined by Section 302(e) of the CAA, 42 U.S.C. § 7602(e), Section 311(a)(7) of the CWA, 33 U.S.C. § 1321(a)(7), Section 2(s) of FIFRA, 7 U.S.C. § 136(s), Section 1004(15) of RCRA, 42 U.S.C. § 6903(15), Section 103(a) of CERCLA, 42 U.S.C. § 9603(a), and Section 1410(12) of SDWA, 42 U.S.C. § 300f(12). INVISTA is an "owner or operator" of the Acquired Facilities within the meaning of Section 304(a) and (b) of EPCRA, 42 U.S.C. § 11004(a), (b), or Section 329(7) of EPCRA, 42 U.S.C. § 11049(7).

8. INVISTA is the current owner and operator of the following INVISTA facilities

located in: Athens, GA; Calhoun, GA; Camden, SC; Chattanooga, TN; Dalton, GA; LaPorte, TX; Martinsville, VA; Orange, TX, Seaford, DE; Victoria, TX; Waynesboro, VA. INVISTA is the former owner of a facility located in Kinston, NC.

STATUTORY AND REGULATORY BACKGROUND

CLEAN AIR ACT REQUIREMENTS

9. The Clean Air Act established a regulatory scheme designed to protect and enhance the quality of the nation's air so as to promote the public health and welfare and the productive capacity of its population. Section 101(b)(1) of the Act, 42 U.S.C. § 7401(b)(1).

10. Section 109 of the Act, 42 U.S.C. § 7409, requires the Administrator of EPA to promulgate regulations establishing primary and secondary national ambient air quality standards ("NAAQS" or "ambient air quality standards") for certain criteria air pollutants. The primary NAAQS are to be adequate to protect the public health, and the secondary NAAQS are to be adequate to protect the public welfare, from any known or anticipated adverse effects associated with the presence of the air pollutant in the ambient air.

11. Section 110 of the CAA, 42 U.S.C. § 7410, requires each state to adopt and submit to EPA for approval a SIP that provides for the attainment and maintenance of the NAAQS.

12. Under Section 107(d) of the CAA, 42 U.S.C. § 7407(d), each state is required to designate those areas within its boundaries where the air quality is better or worse than the NAAQS for each criteria pollutant, or where the air quality cannot be classified due to insufficient data. These designations have been approved by EPA and are located at 40 C.F.R. Part 81. An area that meets the NAAQS for a particular pollutant is classified as an "attainment"

area; one that does not is classified as a "non-attainment" area.

13. At the times relevant to this Complaint, the Camden Facility located in Camden, South Carolina has been classified as either an attainment area or unclassifiable for nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and ozone.

14. At the times relevant to this Complaint, the Chattanooga Facility located in Chattanooga, Tennessee has been classified as either an attainment area or unclassifiable for NO_2, SO_2, and ozone.

15. At the times relevant to this Complaint, the Seaford Facility located in Seaford, Delaware has been classified as either an attainment area or unclassifiable for NO_2, SO_2, and particular matter (PM-10). The Seaford Facility is located in a nonattainment area for ozone.

16. At the times relevant to this Complaint, the Victoria Facility located in Victoria, Texas has been classified as either an attainment area or unclassifiable for NO_2.

New Source Review and Prevention of Significant Deterioration Requirements

17. Part C of Title I of the CAA, 42 U.S.C. §§ 7470-7492, sets forth requirements for the prevention of significant deterioration ("PSD") of air quality in those areas designated as attaining the NAAQS standards. These requirements are designed to protect public health and welfare, to assure that economic growth will occur in a manner consistent with the preservation of existing clean air resources, and to assure that any decision to permit increased air pollution is made only after careful evaluation of all the consequences of such a decision and after public participation in the decision-making process. These provisions are referred to herein as the "PSD program."

18. Section 165(a) of the CAA, 42 U.S.C. § 7475(a), prohibits the construction and

subsequent operation of a major emitting facility in an area designated as attainment unless a PSD permit has been issued. Section 169(1) of the CAA, 42 U.S.C. § 7479(1), defines "major emitting facility" as a source with the potential to emit 250 tons per year (tpy) or more of any air pollutant.

19. As set forth at 40 C.F.R. § 52.21(k), the PSD program generally requires a person who wishes to construct or modify a major emitting facility in an attainment area to demonstrate, before construction commences, that construction of the facility will not cause or contribute to air pollution in violation of any ambient air quality standard or any specified incremental amount.

20. As set forth at 40 C.F.R. § 52.21(i), any major emitting facility in an attainment area that intends to construct a major modification must first obtain a PSD permit. "Major modification" is defined at 40 C.F.R. § 52.21(b)(2)(i) as meaning any physical change in or change in the method of operation of a major stationary source that would result in a significant net emission increase of any criteria pollutant subject to regulation under the CAA. "Net emissions increase" is defined by 40 C.F.R. § 52.21(b)(3)(i) as "the amount by which the sum of the following exceeds zero: (a) Any increase in actual emissions [as defined by 40 C.F.R. § 52.21(b)(21)] from a particular physical change or change in method of operation at a stationary source; and (b) Any other increases and decreases in actual emissions [as defined by 40 C.F.R. § 52.21(b)(21)] at the source that are contemporaneous with the particular change and are otherwise creditable." A net emissions increase is "significant" if it is equal to or exceeds the rate for that pollutant which is provided in the table at 40 C.F.R. § 52.21(b)(23)(i) (1994). The significance level for nitrogen oxides (NO_x) and SO_2 is 40 tons per year; PM is 25 tons per year.

21. As set forth at 40 C.F.R. § 52.21(j), a new major stationary source or a major

modification in an attainment area shall install and operate best available control technology ("BACT") for each pollutant subject to regulation under the CAA that it would have the potential to emit in significant quantities.

22. Section 161 of the CAA, 42 U.S.C. § 7471, requires SIPs to contain emission limitations and such other measures as may be necessary, as determined under the regulations promulgated pursuant to these provisions, to prevent significant deterioration of air quality in attainment areas.

23. A state may comply with Section 161 of the CAA either by being delegated the authority by EPA to enforce the federal PSD regulations set forth at 40 C.F.R. § 52.21, or by having its own PSD regulations approved as part of its SIP by EPA, which must be at least as stringent as those set forth at 40 C.F.R. § 51.166.

24. Pursuant to PSD regulations, any owner or operator who commences construction or modification of a major source without applying for and receiving approval for such construction or modification is subject to an enforcement action. 40 C.F.R. §§ 52.21, 51.166.

Nonattainment New Source Review

25. Part D of Title I of the CAA, 42 U.S.C. §§ 7501-7515, sets forth provisions for New Source Review requirements for areas designated as being in nonattainment with the NAAQS standards. These provisions are referred to herein as the "Nonattainment NSR" or "NNSR" program. The Nonattainment NSR program is intended to reduce emissions of air pollutants in areas that have not attained NAAQS so that the areas make progress towards meeting the NAAQS. Prior to the effective date of the 1990 Clean Air Act Amendments, P. Law 101-549, effective November 15, 1990, the NNSR provisions were set forth at 42 U.S.C.

§§ 7501-7508.

26. Under Section 172(c)(5) of the NNSR provisions of the CAA, 42 U.S.C. § 7502(c)(5), each state is required to adopt Nonattainment NSR SIP rules that include provisions to require permits which conform to the requirements of Section 173 of the CAA, 42 U.S.C. § 7503, for the construction and operation of modified major stationary sources within nonattainment areas. Section 173 of the CAA, in turn, sets forth a series of minimum requirements for the issuance of permits for major modifications to major stationary sources within nonattainment areas. 42 U.S.C. § 7503.

27. Section 173(a) of the CAA, 42 U.S.C. § 7503(a), provides that construction and operating permits may be issued if, *inter alia*: (a) sufficient offsetting emission reductions have been obtained to reduce existing emissions to the point where reasonable further progress towards meeting the national ambient air quality standards is maintained; and (b) the pollution controls to be employed will reduce emissions to the "lowest achievable emission rate" (LAER).

28. Section 182(f) of the CAA, 42 U.S.C. 7511a(f), enacted as part of the Clean Air Amendments of 1990, sets forth additional requirements to take effect no later than November 15, 1992, regarding the construction and operation of new or modified major stationary sources of NO_x located within nonattainment areas for ozone. Section 182(f) defines NO_x as a pollutant that must be treated as a contributor to the criteria pollutant ozone in an ozone nonattainment area. 42 U.S.C. § 7511a(f). For the purposes of Section 182, a "major stationary source" of NO_x is one that emits or has the potential to emit 100 tons per year or more of a regulated pollutant. 40 C.F.R. § 52.21(b)(1)(i). A "significant" net emissions increase of NO_x is one that would result in increased emissions of 40 tons per year or more. 42 U.S.C. 7511a. 40 C.F.R.

§ 52.24(b)(23)(I).

29. Upon EPA approval, state SIP requirements are federally enforceable under Section 113 of the CAA, 42 U.S.C. §§ 7413(a), (b); 40 C.F.R. § 52.23.

30. Delaware PSD/NNSR Requirements - At all times relevant to this Complaint, the State of Delaware SIP has included PSD and NNSR provisions approved by EPA, as set forth in Title 7 "Conservation" of the Delaware Code, Chapter 60 and its implementing regulations. Delaware regulations require a major stationary source or modification to meet the PSD permit requirements prior to construction. 7 Del. Code Regs. § 1125.3.7.1 (2005). The Delaware PSD and NNSR regulations are federally enforceable.

31. South Carolina PSD Requirements - At all times relevant to this Complaint, the South Carolina SIP has included PSD regulations approved by EPA, as set forth in South Carolina Regulation 61-62.5, Standard 7. South Carolina Regulation 61-62-5, Standard 7 provides that no construction or operation of a major stationary source or modification of a major stationary source may occur in an area designated as attainment without first obtaining a PSD permit. The South Carolina PSD regulations are federally enforceable.

32. Chattanooga PSD Requirements - At all times relevant to this Complaint, the State of Tennessee SIP has included PSD regulations approved by EPA. Tennessee Air Pollution Control Regulations, Chapter 1200-3-9 requires a major stationary source or modification to meet the PSD permit requirements prior to construction The Chattanooga-Hamilton County Air Pollution Control Board is operating under a certificate of exemption as the delegated authority pursuant to Tennessee Code Annotated, Section 68-201-115. 61 Fed. Reg. 13101 (Mar. 26, 1996). The Tennessee Code provides that a local board may issue and enforce local air pollution

regulations. Under this authority, the CHCAPCB has issued a set of regulations governing PSD requirements that are federally enforceable. Chattanooga City Code § 4-41, Rule 18.

33. Texas PSD Requirements - In 1992 EPA approved Texas' SIP for implementing a PSD program. 57 Fed.Reg. 28093 (June 24, 1992, effective July 24, 1992), 40 C.F.R. §§ 52.2270(c)(73) and 52.2303. The SIP for Texas contains the PSD requirements discussed above in TAC Chapter 116, 40 C.F.R. §§ 52.2270(c) and 52.2299(c). After July 24, 1992, EPA's PSD regulations at 40 C.F.R. § 52.21 were incorporated by reference into the Texas SIP at Section 116.160, and thus, in conjunction with other state PSD requirements, continued to apply in Texas to new major stationary sources and major modifications to existing sources. 40 C.F.R. §§ 52.2270(c) and 52.2299(c)(73), (78) and (102). The Texas PSD requirements are federally enforceable.

34. Pursuant to Section 113(b)(1) of the CAA, 42 U.S.C. § 7413(b)(1), the violation of any requirement or provision of an applicable implementation plan is a violation of the CAA.

35. Whenever any person has violated, or is in violation of, any requirement or prohibition of any SIP, Section 113(b) of the CAA, 42 U.S.C. § 7413(b), authorizes the Administrator to initiate a judicial enforcement action for a permanent or temporary injunction, and/or for a civil penalty of up to $25,000 per day for each violation occurring before January 31, 1997; up to $27,500 per day for each such violation occurring on or after January 31, 1997 and before March 15, 2004; up to $32,500 for each such violation occurring on or after March 15, 2004 and before January 19, 2009; and up to $37,500 for each such violation occurring on or after January 19, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended.

New Source Performance Standards

36. Section 111(b)(1)(A) of the CAA, 42 U.S.C. § 7411(b)(1)(A), requires the Administrator of EPA to publish a list of categories of stationary sources that emit or may emit any air pollutant. The list must include any categories of sources which are determined to cause or significantly contribute to air pollution which may endanger public health or welfare.

37. Section 111(b)(1)(B) of the CAA, 42 U.S.C. § 7411(b)(1)(A), requires the Administrator of EPA to promulgate regulations establishing federal standards of performance for new source of air pollutants within each of these categories. "New Sources" are defined as stationary sources, the construction or modification of which is commenced after the publication of the regulations or proposed regulations prescribing a standard of performance applicable to such source. 42 U.S.C. § 7411(a)(2). These standards are known as New Source Performance Standards ("NSPS")

38. Section 111(e) of the CAA, 42 U.S.C. § 7411(e), prohibits an owner or operator of a new source from operating that source in violation of a NSPS after the effective date of the applicable NSPS to such source.

39. The provisions of 40 C.F.R. Part 60 Subpart J apply to specified "affected facilities," including, *inter alia*, fuel gas combustion devices that commenced construction or modification after June 11, 1973. 40 C.F.R. §§ 60.100(a),(b).

40. Pursuant to Section 111(b) of the CAA, 42 U.S.C. § 7411(b), EPA has promulgated general NSPS provisions, codified at 40 C.F.R. Part 60, Subpart A, §§ 60.1-60.19, that apply to owners or operators of any stationary source that contains an "affected facility"

subject to regulation under 40 C.F.R. Part 60.

41. Section 111(e) of the CAA, 42 U.S.C. § 7411(e), prohibits the operation of any new source in violation of an NSPS applicable to such source. Thus, a violation of an NSPS is a violation of Section 111(e) of the CAA.

42. Whenever any person has violated, or is in violation of, any requirement or prohibition of any applicable New Source Performance Standard, Section 113(b) of the CAA, 42 U.S.C. § 7413(b), authorizes the Administrator to initiate a judicial enforcement action for a permanent or temporary injunction, and/or for a civil penalty of up to $25,000 per day for each violation occurring before January 31, 1997; up to $27,500 per day for each such violation occurring on or after January 31, 1997 and before March 15, 2004; up to $32,500 for each such violation occurring on or after March 15, 2004 and before January 19, 2009; and up to $37,500 for each such violation occurring on or after January 19, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended.

Benzene Waste NESHAP

43. The CAA requires EPA to establish emission standards for each "hazardous air pollutant" ("HAP") in accordance with Section 112 of the CAA, 42 U.S.C. § 7412.

44. In March 1990, EPA promulgated national emission standards applicable to benzene-containing waste waters. Benzene is a listed HAP and a known carcinogen. The benzene waste regulations are set forth at 40 C.F.R. Part 61 Subpart FF, (National Emission Standard for Benzene Waste Operations). Benzene is a naturally-occurring constituent of the textile production and nylon production processes petroleum product and petroleum waste and is highly volatile. Benzene emissions can be detected anywhere where benzene-containing waste

materials are exposed to the ambient air.

45. Pursuant to the Benzene waste NESHAP, facilities are required to tabulate the total annual benzene ("TAB") content in their wastewater. If the TAB is over 10 Mg per year, the facility is required to elect a control option for control of benzene.

46. Whenever any person has violated, or is in violation of, any requirement or prohibition of any applicable National Emission Standard for a Hazardous Air Pollutant, Section 113(b) of the CAA, 42 U.S.C. § 7413(b), Section 113(b) of the CAA, 42 U.S.C. § 7413(b), authorizes the Administrator to initiate a judicial enforcement action for a permanent or temporary injunction, and/or for a civil penalty of up to $25,000 per day for each violation occurring before January 31, 1997; up to $27,500 per day for each such violation occurring on or after January 31, 1997 and before March 15, 2004; up to $32,500 for each such violation occurring on or after March 15, 2004 and before January 19, 2009; and up to $37,500 for each such violation occurring on or after January 19, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended.

Leak Detection and Repair

47. Pursuant to Section 111 of the CAA, 42 U.S.C. § 7411, EPA promulgated New Source Performance Standards for equipment leaks. Pursuant to Section 112 of the CAA, 42 U.S.C. § 7412, EPA promulgated emission standards for hazardous air pollutants ("National Emission Standards for Hazardous Air Pollutants" or "NESHAPs") at 40 C.F.R. Part 61, and NESHAPs for source categories at 40 C.F.R. Part 63. The relevant standards for equipment leaks are found at 40 C.F.R. Part 60, and the relevant source categories are found at 40 C.F.R. Part 60, Subpart Kb (for volatile organic liquid storage vessels), Subpart VV (for volatile organic

chemicals ("VOCs") from the synthetic organic chemicals manufacturing industry), and Subpart KKK (for equipment leaks of VOC from onshore natural gas processing plants). Pursuant to Section 112 of the CAA, 42 U.S.C. § 7412, EPA promulgated emission standards for hazardous air pollutants ("National Emission Standards for Hazardous Air Pollutants" or "NESHAPs") at 40 C.F.R. Part 61, and the NESHAPs for source categories at 40 C.F.R. Part 63. The relevant NESHAPs are found at 40 C.F.R. Part 61, Subpart J (for equipment leaks of benzene), Subpart Kb (for volatile organic liquid storage vessels), and Subpart V (for equipment leaks); and 40 C.F.R. Part 63, Subpart F (for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry), Subpart G (for process vents, storage vessels, transfer operations, and wastewater), and Subpart H (for organic hazardous air pollutants for equipment leaks.

48. The focus of the LDAR program is the facility-wide inventory of all possible leaking equipment, the regular monitoring of that equipment to identify leaks, and the repair of leaks as soon as they are identified.

49. Whenever any person has violated, or is in violation of, any requirement or prohibition of any applicable New Source Performance Standard or any applicable National Emission Standard for a Hazardous Air Pollutant, Section 113(b) of the CAA, 42 U.S.C. § 7413(b), Section 113(b) of the CAA, 42 U.S.C. § 7413(b), authorizes the Administrator to initiate a judicial enforcement action for a permanent or temporary injunction, and/or for a civil penalty of up to $25,000 per day for each violation occurring before January 31, 1997; up to $27,500 per day for each such violation occurring on or after January 31, 1997 and before March 15, 2004; up to $32,500 for each such violation occurring on or after March 15, 2004 and before

January 19, 2009; and up to $37,500 for each such violation occurring on or after January 19, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended.

Other Clean Air Act Requirements

50. Section 110 of the CAA, 42 U.S.C. § 7410, requires each state to adopt and submit to EPA for approval a SIP that provides for the maintenance, implementation and enforcement of NAAQS. Under Section 110(a)(2) of the CAA, 42 U.S.C. § 7410(a)(2), each SIP must include a permit program to regulate the modification and construction of any stationary source of air pollution, including stationary sources in attainment and nonattainment areas of the state, as necessary to assure that NAAQS are achieved.

51. EPA subsequently approved and made federally enforceable the SIPs for the states of Delaware, South Carolina, Tennessee, Texas and Virginia. See 40 C.F.R. Part 52, Subpart I; 40 C.F.R. Part 52, Subpart PP; 40 C.F.R. Part 52, Subpart RR; 40 C.F.R. Part 52, Subpart SS; 40 C.F.R. Part 52, Subpart VV.

52. A violation of a federally enforceable SIP requirement is a violation of Section 110 of the Clean Air Act, 42 U.S.C. § 7410.

53. Title V of the CAA, 42 U.S.C. §§ 7661-7661f, establishes an operating permit program for certain sources, including "major sources." The purpose of Title V is to ensure that all "applicable requirements" for compliance with the CAA, including PSD, NNSR and NSPS requirements, are collected in one place.

54. Delaware Title V - The State of Delaware's Title V program was granted full approval in 2001. Delaware's Title V permit program is currently codified in Title 7

(Conservation), Chapter 60, Subchapter VIII. Clean Air Act Title V Operating Permit Program.

55. North Carolina Title V - North Carolina's Title V operating permit program was granted final approval by EPA on October 1, 2001. North Carolina's Title V Program is currently codified in Title 15A, Subchapter 2Q of the North Carolina Administrative Code.

56. South Carolina Title V - South Carolina's Title V operating permit program was granted final approval by EPA on June 26, 1995. South Carolina's Title V operating permit program is currently codified in the South Carolina Pollution Control Act, S.C. Code Ann. 48-1-10 et seq. (Revised 2008), as implemented by 24A S.C. Code Ann. Regulation 61-62.70 (Cum. Supp. 2008).

57. Chattanooga Title V - Chattanooga-Hamilton County Air Pollution Control Bureau's Title V permit was approved by EPA on April 25, 1996, at 61 Fed. Reg. 13101.

58. Texas Title V - Texas's title V operating permit program was approved on December 6, 2001 at 66 Fed. Reg. 63318 and has been amended several times since then.

59. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), and the Title V operating permit programs identified in Paragraphs 52-56 above have at all relevant times made it unlawful to violate any requirement of a permit issued under Title V or to operate a major source except in compliance with a permit issued by a permitting authority under Title V.

60. Section 504(a) of the CAA, 42 U.S.C. § 7661c(a), implementing regulations of the CAA, 40 C.F.R. § 70.2, and the Title V operating permit program regulations identified in Paragraphs 52-56 above have at all relevant times required that each Title V permit include, among other things, enforceable emission limitations and standards as are necessary to assure compliance with applicable requirements of the CAA and the requirements of the applicable SIP,

including any PSD requirement to comply with an emission rate that meets BACT and any NNSR requirement to comply with an emission rate that meets LAER, and any applicable NSPS requirement.

61. Section 112 of the CAA, 42 U.S.C. § 7412, and the regulations at 40 C.F.R. Parts 61 and 63 provide emissions requirements for owners and operators of major stationary sources that emit hazardous air pollutants.

62. Section 114 of the CAA, 42 U.S.C. § 7414, and the implementing regulations thereto, establishes the authority of the Administrator or an authorized representative to require any person who may have information necessary for the purposes of CAA Section 114 or who is subject to a requirement of the CAA, except for certain specified provisions, to require production of records, an inspection, monitoring and/or entry.

63. Subchapter VI of the CAA, 42 U.S.C. §§ 7671-7671q ("Stratospheric Ozone Protection") implements the Montreal Protocol on Substances that deplete the Ozone Layer, and mandates, the elimination or control of emissions of substances which are known or suspected to cause or significantly contribute to harmful effects on the stratospheric ozone layer, referred to as Class I and Class II substances.

64. Section 603 of the CAA, 42 U.S.C. § 7671b, and the implementing regulations, establishes reporting and monitoring requirements for each person who produces, imports or exports Class I and Class II substances which are identified in Section 602 of the CAA, 42 U.S.C. § 7671a.

65. Section 608 of Subchapter VI, 42 U.S.C. § 7671g ("National Recycling and Emission Reduction Program") requires that the EPA promulgate regulations establishing

standards and requirements regarding the use and disposal of Class I and Class II ozone-depleting substances during the service, repair, or disposal of appliances and industrial process refrigeration.

66. EPA promulgated the regulations required by Section 608, codified at 40 C.F.R. Part 82, Subpart F, §§ 82.150- 82.166, ("Recycling and Emissions Reduction") (hereinafter "Subpart F Regulations"), on May 14, 1993. 58 Fed. Reg. 28,712.

67. Section 608 of the CAA states, "it shall be unlawful for any person, in the course of maintaining, servicing, repairing, or disposing of an appliance of industrial process refrigeration, to knowingly vent or otherwise release or dispose of any such Class I or Class II substances used as a refrigerant in such appliance (or industrial process refrigeration) in a manner which permits such substance to enter the environment." 42 U.S.C. § 7671g(c)(1). The Subpart F Regulations reiterate this prohibition, effective June 14, 1993. 40 C.F.R. § 82.154(a).

68. The Subpart F Regulations contain leak repair requirements for industrial process equipment containing more than fifty (50) pounds of refrigerant. These regulations are aimed at reducing emissions of Class I and Class II ozone-depleting substances in the atmosphere.

69. Section 113(a)(1) of the CAA, 42 U.S.C. § 7413(a)(1), provides that:

> Whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated or is in violation of any requirement or prohibition of an applicable implementation plan or permit, the Administrator shall notify the person and the State in which the plan applies of such finding. At any time after the expiration of 30 days following the date on which the notice of violation is issued, the

> Administrator may . . . bring a civil action in accordance with subsection (b) of this section.

70. Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), provides that:

> "Except for a requirement or prohibition enforceable under the preceding provisions of this subsection, whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated, or is in violation of, any other requirement or prohibition of this subchapter . . . including, but not limited to, a requirement or prohibition of any rule, plan, order, waiver, or permit promulgated, issued or approved under those provisions or subchapters . . .the Administrator may . . . bring a civil action in accordance with subsection (b) of this section . . . ."

71. Section 113(b)(1) of the CAA, 42 U.S.C. § 7413(b)(1), and 40 C.F.R. § 52.23 authorize the Administrator and a State to initiate a civil action for a permanent or temporary injunction, and/or for a civil penalty of up to $25,000 per day of violation for violations occurring before January 30, 1997; up to $27,500 per day for each such violation occurring between January 30, 1997 and March 15, 2004; up to $32,500 for each such violation occurring on or after March 15, 2004 and before January 19, 2009; and up to $37,500 for each such violation occurring on or after January 19, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by the Debt Collection Improvement Act of 1996, 31 U.S.C. § 3701, against any person whenever such person has violated, or is in violation of, any requirement or prohibition of an applicable implementation plan.

72. Section 113(b)(2) of the CAA, 42 U.S.C. § 7413(b)(2), authorizes the Administrator and a State to initiate a civil action for a permanent or temporary injunction, and/or for a civil penalty of up to $25,000 per day of violation for violations occurring before January 30, 1997, up to $27,500 per day for each such violation occurring between January 30, 1997 and March 15, 2004, up to $32,500 for each such violation occurring on or after March 15, 2004 and before January 19, 2009; and up to $37,500 for each such violation occurring on or after January 19, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by 31 U.S.C. § 3701, against any person whenever such person has violated, or is in violation of, requirements of the Act other than those specified in Section 113(b)(1), 42 U.S.C. § 7413(b)(1), including violations of Section 165(a), 42 U.S.C. § 7475(a) and Section 111, 42 U.S.C. § 7411.

73. Section 167 of the CAA, 42 U.S.C. § 7477, authorizes the Administrator and a State to initiate an action for injunctive relief, as necessary, to prevent the construction, modification, or operation of a major emitting facility which does not conform to PSD requirements.

CLEAN WATER ACT

74. The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the waters of the United States. 33 U.S.C. § 1251(a).

75. Section 301(a) of the CWA, 33 U.S.C. § 1251(a), prohibits the discharge of any pollutant into navigable waters of the United States by any person except in compliance with, inter alia, a National Pollutant Discharge Elimination ("NPDES") permit issued by EPA or an authorized state pursuant to Section 402 of the CWA, 33 U.S.C. § 1342.

76. EPA or an authorized state, in issuing NPDES permits, shall prescribe conditions for such permits as the permitting authority determines are necessary to carry out the provisions of the CWA. 33 U.S.C. § 1342(a).

77. Each NPDES permit includes effluent limitations which are applicable to outfalls which discharge pollutants from a permitted facility. Failure to comply with the effluent limits and other requirements of an NPDES permit is a violation of Section 301(a) of the CWA, 33 U.S.C. § 1311(a).

78. "Effluent limitation" means any restriction imposed by the permitting authority on quantities, discharge rates, and concentrations of "pollutants" which are "discharged" from "point sources" into "waters of the United States. . . ." 40 C.F.R. § 122.2.

79. "Discharge of a pollutant" includes "any addition of any pollutant to navigable waters from any point source." CWA § 502(12), 33 U.S.C. § 1362(12).

80. "Pollutant" is defined as "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water." CWA § 502(6), 33 U.S.C. § 1362(6).

81. "Navigable water" is defined as the "waters of the United States," and includes lakes, rivers, and streams. CWA § 502(7), 33 U.S.C. § 1362(7); 40 C.F.R. § 122.2.

82. "Point source" is defined as "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, . . . conduit, . . . [or] container . . . , from which pollutants are or may be discharged." CWA § 502(14), 33 U.S.C. § 1362(14); 40 C.F.R. § 122.2.

83. "Person" is defined as "an individual, corporation, partnership, association, State, municipality, commission, or political subdivision of a State, or any interstate body." CWA § 502(5), 33 U.S.C. § 1362(5).

84. Pursuant to CWA § 311(j)(1)(C), 33 U.S.C. § 1321(j)(1)(C), EPA promulgated Spill Prevention Control and Countermeasure Plan ("SPCC Plan") regulations, codified at 40 C.F.R. Part 112, which establish requirements for procedures, methods and equipment to prevent discharges of oil from onshore facilities into or upon the navigable waters of the United States or adjoining shorelines.

85. The SPCC Plan regulations in 40 C.F.R. Part 112 are applicable to owners or operators of non-transportation related onshore facilities engaged in storing or consuming oil when the facility has an above-ground storage capacity of no less than 1320 gallons of oil or in a single container of more than 660 gallons of oil, and which, due to their location, could reasonably be expected to discharge oil in harmful quantities as defined in 40 C.F.R. Part 110.

86. Under the SPCC Plan regulations, 40 C.F.R. § 112.3, the owner or operator of an onshore facility that has discharged or, due to its location, could reasonably be expected to discharge oil in harmful quantities into or upon the navigable waters of the United States or adjoining shorelines, must prepare a SPCC plan in writing within six months after the date that such facility begins operations. The Plan must be in accordance with the requirements and guidelines set forth in the SPCC Plan regulations at 40 C.F.R. § 112.7.

87. Section 311(b)(7)(C) of the CWA, 33 U.S.C. § 1321(b)(7)(C), as amended by the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, and the Debt Collection Improvement Act of 1996, 31 U.S.C. § 3701, and 40 C.F.R. §§ 19.2 and 19.4 (Table),

provides that any person who fails or refuses to comply with any regulation issued pursuant to CWA § 311(j)(1)(C), 33 U.S.C. § 1321(j)(1)(C), shall be subject to a civil penalty in an amount up to $25,000 per day of violation for violations occurring before January 30, 1997, up to $27,500 per day for each such violation occurring between January 30, 1997 and March 15, 2004, up to $32,500 for each such violation occurring on or after March 15, 2004 and before January 19, 2009; and up to $37,500 for each such violation occurring on or after January 19, 2009.

EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT

88. Section 302(c) of EPCRA, 42 U.S.C. § 11002(c), and its implementing regulations found at 40 C.F.R. Part 370, requires each facility subject to the EPCRA Section 302 requirements to notify the State Emergency Response Commission ("SERC") for the State where the facility is located that the facility is subject to EPCRA Section 302 requirements if a substance exceeds the threshold planning quantity, or if there is a revision to such a list within 60 days after either such substance is acquired at the facility or when the list is revised.

89. Section 304 of EPCRA, 42 U.S.C. § 11004, and its implementing regulations found at 40 C.F.R. Part 370, requires the owner or operator of a facility at which an extremely hazardous substance is released to immediately provide notice to any Local Emergency Planning Committee ("LEPC") and the SERC in the area likely to be affected by the release. With respect to transportation, the owner or operator shall call 911, or the operator in the absence of 911, upon the release of an extremely hazardous substance. The notice must meet the requirements must include the information specified in Section 304(b)(2) of EPCRA, 42 U.S.C. § 11004(b)(2).

90. Section 311 of EPCRA, 42 U.S.C. § 11021, and its implementing regulations

found at 40 C.F.R. Part 370, requires the owner or operator of any facility which is required to prepare or have available a material safety data sheet ("MSDS") for each hazardous chemical listed under the Occupational Safety and Health Act ("OSH Act") of 1970, 29 U.S.C. § 651 et seq., and regulations promulgated under that Act, to submit the MSDS (or in the alternative a list of chemicals) to the LEPC, the SERC, and also the fire department with jurisdiction over the facility, by October 17, 1987, or within three months of first becoming subject to the requirements of EPCRA § 311, 42 U.S.C. § 11021.

91. Section 312 of EPCRA, 42 U.S.C. § 11022, and the regulations found at 40 C.F.R. Part 370, require the owner or operator of a facility which is required to have a MSDS for a hazardous chemical under the OSH Act of 1970, 29 U.S.C. § 651 et. seq., and regulations promulgated under that Act, to prepare and submit an emergency and hazardous chemical inventory form (Tier I or Tier II, as described in 40 C.F.R. Part 370) containing the information required by those sections to the LEPC, SERC, and also the fire department with jurisdiction over the facility, by March 1, 1988 or March 1 of the first year after the facility first becomes subject to the requirements of EPCRA § 312, 42 U.S.C. § 11022, and annually thereafter.

92. Section 313 of EPCRA, 42 U.S.C. § 11023, and the regulations found at 40 C.F.R. Part 370, require the owner or operator of a facility to complete a toxic chemical release form for each toxic chemical listed in Section 313(c) of EPCRA, 42 U.S.C. § 11023(c), that was manufactured, processed, or otherwise used in quantities exceeding the toxic chemical threshold quantity established by Section 313(f) of EPCRA, 42 U.S.C. § 11023(f) during the preceding calendar year at the facility.

93. Section 325(c)(1) of EPCRA, 42 U.S.C. § 11045(c)(1), as amended by the Federal

Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, and the Debt Collection Improvement Act of 1996, 31 U.S.C. § 3701, and 40 C.F.R. §§ 19.2 and 19.4 (Table), provides that any person who violates any requirement of EPCRA § 312, 42 U.S.C. § 11022, shall be liable to the United States for a civil penalty in an amount up to $25,000 per day of violation for violations occurring before January 30, 1997, up to $27,500 per day for each such violation occurring between January 30, 1997 and March 15, 2004, up to $32,500 for each such violation occurring on or after March 15, 2004 and before January 19, 2009; and up to $37,500 for each such violation occurring on or after January 19, 2009.

RESOURCE CONSERVATION AND RECOVERY ACT

94. RCRA and its amendments establish a comprehensive regulatory program for generators of hazardous waste and for the management of facilities that treat, store, or dispose of hazardous waste. Pursuant to the authority granted by RCRA, EPA has promulgated regulations applicable to such generators and hazardous waste management facilities, codified at 40 C.F.R. Parts 260-271.

95. RCRA's Subchapter III (RCRA §§ 3001 - 3023, 42 U.S.C. §§ 6921 - 6940) (also known as "Subtitle C") requires EPA to promulgate regulations establishing performance standards applicable to facilities that generate, transport, treat, store and dispose of hazardous wastes.

96. Section 3002 of RCRA, 42 U.S.C. § 6922, directs the Administrator to promulgate regulations establishing standards applicable to generators of hazardous waste. These regulations are codified at 40 C.F.R. Part 262.

97. Section 3004 of RCRA, 42 U.S.C. § 6924, directs the Administrator to

promulgate regulations establishing standards applicable to owners and operators of hazardous waste treatment, storage, and disposal facilities. These regulations are codified at 40 C.F.R. Part 265.

98. RCRA and its implementing regulations provide for government regulation of hazardous waste management facilities primarily through a permitting process. Section 3005(a) of RCRA, 42 U.S.C. § 6925(a), requires each person owning or operating a hazardous waste treatment, storage or disposal facility to have a permit and prohibits the treatment, storage or disposal of hazardous waste except in accordance with a permit.

99. Section 3005(e)(1) of RCRA, 42 U.S.C. § 6925(e)(1), provides that a hazardous waste facility that was in existence on November 19, 1980, may obtain "interim status," and treatment, storage, or disposal of hazardous waste at the facility may continue until EPA takes final action with respect to the facility's permit application, as long as the facility satisfies specified conditions. These conditions include filing a timely notice under Section 3010 of RCRA, 42 U.S.C. § 6930, and filing an application for a hazardous waste permit.

100. Section 3006(g) of RCRA, 42 U.S.C. § 6926(g), provides that EPA must carry out new requirements promulgated pursuant to the HSWA until such time as the State is authorized to carry out such program. The requirements established by the HSWA are effective in all states regardless of their authorization status and are implemented by EPA until a State is granted final authorization with respect to these requirements.

101. Under Section 3006(b) of RCRA, 42 U.S.C. § 6926(b), and 40 C.F.R. Part 271, any State may apply for and receive authorization to enforce its own hazardous waste management program in lieu of the federal hazardous waste management program, provided the

state requirements are consistent with and equivalent to the federal requirements. To the extent that the State hazardous waste program is authorized by EPA pursuant to Section 3006 of RCRA, 42 U.S.C. § 6926, the requirements of the State program are effective in lieu of the federal hazardous waste management program set forth in 40 C.F.R. Part 260. EPA retains independent authority to enforce requirements established pursuant to RCRA regardless of whether a state has been authorized to carry out such program.

102. Under Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), the United States retains jurisdiction and authority to initiate an independent enforcement action to address any violations of the requirements of an authorized State program.

103. Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), provides that when any person has violated or is in violation of any requirement of RCRA, including provisions of a federally-approved state hazardous waste management program, the Administrator of EPA and a State may commence a civil action in U.S. District Court for appropriate relief, including a temporary or permanent injunction.

104. Section 3008(g) of RCRA, 42 U.S.C. § 6928(g), as amended by the Federal Civil Penalties Adjustment Act of 1990, 104 Stat. 890 (codified as amended at 28 U.S.C. § 2461), provides that any person who violates a requirement of RCRA shall be liable for a civil penalty of up to $25,000 per day of violation for violations occurring before January 30, 1997, up to $27,500 per day for each such violation occurring between January 30, 1997 and March 15, 2004, up to $32,500 for each such violation occurring on or after March 15, 2004 and before January 19, 2009; and up to $37,500 for each such violation occurring on or after January 19, 2009.

105. Pursuant to Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), whenever the Administrator determines that there has been a release of hazardous waste into the environment from a facility that has interim status, that once had interim status, or that should have had interim status, the Administrator may commence a civil action for appropriate relief, including an injunction requiring the defendant to take corrective action necessary to protect human health and the environment.

106. The states of Delaware, North Carolina, South Carolina, Georgia, Texas, and Virginia have corrective action programs.

Relevant State RCRA Programs

107. Delaware - On June 8, 1984, EPA authorized the State of Delaware to administer and enforce a hazardous waste program in lieu of the federal hazardous waste management program established under Subchapter III of RCRA, 42 U.S.C. §§ 6921-6935, 40 C.F.R. § 272.401. Subsequent program revisions were approved on August 8, 1996, August 18, 1998, July 12, 2000, and August 8, 2002. 67 Fed. Reg. 51478 (Aug. 8, 2002). The authorized Delaware hazardous waste regulations were incorporated by reference as part of the hazardous waste management program under subtitle C of RCRA, 42 U.S.C. § 6921, et. seq. 40 C.F.R. § 272.401. The State of Delaware's hazardous waste regulations are set forth in 7 Delaware Code Annotated §§ 6301 through 6317.

108. Georgia - Georgia initially received final authorization for its base RCRA program effective on August 21, 1984. The State of Georgia's hazardous waste regulations are set forth in Title 12, Chapter 8, Article 3 of the Georgia Code.

109. North Carolina - North Carolina initially received final authorization for its base

RCRA program on December 14, 1984. The State of North Carolina's hazardous waste regulations are set forth chapter 15 of the North Carolina Administrative Code.

110. South Carolina - South Carolina initially received final authorization for its base RCRA program effective on November 22, 1985. South Carolina's Hazardous Waste Management Act is set forth in Title 44 Chapter 56 of the South Carolina Code, as implemented by 25 S.C. Ann. 61-79 (Cum Supp. 2008).

111. Texas - On December 26, 1984, EPA authorized the State of Texas to administer and enforce a hazardous waste program in lieu of the federal hazardous waste management program established under Subchapter III of RCRA, 42 U.S.C. §§ 6921-6935, 40 C.F.R. § 272.2201. The State of Texas's hazardous waste regulations are set forth in Chapter 361 of the Texas Solid Waste Disposal Act. The authorized Texas hazardous waste regulations were incorporated by reference as part of the hazardous waste management program under subtitle C of RCRA, 42 U.S.C. § 6921, et. seq. 40 C.F.R. § 272.2201.

112. Virginia - Virginia received final authorization to implement its hazardous waste management program effective December 18, 1984. The State of Virginia's hazardous waste regulations are set forth in Virginia Administrative Code 9 VAC 20-60-263 and 9 VAC 20-60-420 through 9 VAC 20-60-500.

113. At all times relevant to the violations alleged in this Complaint, the States of North Carolina, South Carolina, Virginia, Texas, Georgia, and Delaware have been authorized to issue permits and to administer their own hazardous waste programs.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT

114. Section 103(a) of CERCLA, 42 U.S.C. § 9603(a), requires a person in charge of a facility to immediately notify the National Response Center of a release of a hazardous substance from such facility in an amount equal to or greater than the amount determined pursuant to Section 102 of CERCLA, 42 U.S.C. § 9602 (the "reportable quantity").

115. Section 109(c) of CERCLA, 42 U.S.C. § 9609(c), as amended by the Federal Civil Penalties Adjustment Act of 1990, 104 Stat. 890 (codified as amended at 28 U.S.C. § 2461), provides that any person who violates the provisions of Section 103(a) of CERCLA, 42 U.S.C. § 9603(a), shall be liable to the United States for civil penalties of up to $25,000 per day of violation for violations occurring before January 30, 1997, up to $27,500 per day for each such violation occurring between January 30, 1997 and March 15, 2004, up to $32,500 for each such violation occurring on or after March 15, 2004 and before January 19, 2009; and up to $37,500 for each such violation occurring on or after January 19, 2009.

FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT (FIFRA)

116. FIFRA establishes a comprehensive scheme for regulating the distribution, use and sale of pesticides.

117. Section 12(A)(2)(g) of FIFRA, 7 U.S.C. § 136j, makes it unlawful for any person to use any registered pesticide in a manner inconsistent with its labeling.

118. Section 14(a)(1) of FIFRA, 7 U.S.C. § 136*l*(a), as amended by the Federal Civil Penalties Adjustment Act of 1990, 104 Stat. 890 (codified as amended at 28 U.S.C. § 2461), provides that any person who violates of Section 12(a)(2)(G) of FIFRA, 7 U.S.C. § 136j(a)(2)(G), shall be liable to the United States for civil penalties of up to $25,000 per day of violation for violations occurring before January 30, 1997, up to $27,500 per day for each such

violation occurring between January 30, 1997 and March 15, 2004, up to $32,500 for each such violation occurring on or after March 15, 2004 and before January 19, 2009; and up to $37,500 for each such violation occurring on or after January 19, 2009.

SAFE DRINKING WATER ACT (SDWA)

119. In 1976, Congress enacted the SDWA to protect the nation's drinking water sources.

120. Section 1412(c) of the SDWA, 42 U.S.C. § 300-g-1(c) and the regulations promulgated by EPA thereunder establish national secondary drinking water standards.

121. Section 1414 of the SDWA, 42 U.S.C. § 300g-3(b), authorizes the Administrator to commence a civil action to require compliance with any applicable requirement of Section 1412(c) of the SDWA, and any person in violation of such requirement is liable to the United States for a civil penalty, as amended by the Federal Civil Penalties Adjustment Act of 1990, 104 Stat. 890 (codified as amended at 28 U.S.C. § 2461), of up to $25,000 per day of violation for violations occurring before January 30, 1997, up to $27,500 per day for each such violation occurring between January 30, 1997 and March 15, 2004, up to $32,500 for each such violation occurring on or after March 15, 2004 and before January 19, 2009; and up to $37,500 for each such violation occurring on or after January 19, 2009.

122. Part C of the SDWA, 42 U.S.C. § 300h et. seq., was enacted to prevent contamination of underground sources of drinking water.

123. Section 1421 of the SDWA, 42 U.S.C. § 300h, directs the Administrator of EPA to regulate underground injection control programs by establishing requirements to prevent contamination of underground sources of drinking water through wells.

124. Sections 1423(a)(2) and 1423(b) of the SDWA, 42 U.S.C. §§ 300h-2(a)(2) and 300-h-2(b), authorize the Administrator to commence a civil action "for the appropriate relief as protection of public health may require," when any person has violated or is in violation of any requirement of the underground injection control program.

125. Pursuant to Section 1423(b) of the SDWA, 42 U.S.C. §§ 300h-2(b), as amended by the Federal Civil Penalties Adjustment Act of 1990, 104 Stat. 890 (codified as amended at 28 U.S.C. § 2461), any person in violation of Section 1421 of the SDWA is liable to the United States for a civil penalty of up to $25,000 per day of violation for violations occurring before January 30, 1997, up to $27,500 per day for each such violation occurring between January 30, 1997 and March 15, 2004, up to $32,500 for each such violation occurring on or after March 15, 2004 and before January 19, 2009; and up to $37,500 for each such violation occurring on or after January 19, 2009.

FIRST CLAIM FOR RELIEF
(CAA PSD/NNSR Violations at Covered Facilities)

126. Paragraphs 1 though 125 are re-alleged and incorporated by reference as is fully set forth herein.

127. INVISTA owns and operates the facilities at Seaford, Delaware, Camden, South Carolina, Chattanooga, Tennessee, and Victoria, Texas.

128. At all times pertinent to this civil action, the Seaford Facility was a "major stationary source," within the meaning of the Act for SO_2, NO_x and PM for purposes of PSD and NNSR.

129. At all times pertinent to this civil action, the Camden Facility and the Chattanooga

Facility were a "major stationary source," within the meaning of the Act for SO_2, and NO_x for purposes of PSD.

130. At all times pertinent to this civil action, the Victoria Facility was a "major stationary source," within the meaning of the Act for NO_x for purposes of PSD.

131. INVISTA has modified emissions units at its facilities at Seaford, Delaware, Camden, South Carolina, Chattanooga, Tennessee, and Victoria, Texas as set forth in Appendix B to this Complaint.

132. Each modification specified in Appendix B at the Seaford, Camden, Chattanooga, and Victoria Facilities was a "major modification" within the meaning of 40 C.F.R. § 52.21(b)(2), for PSD violations, or of 40 C.F.R. § 52.24(b)(2), for NNSR violations, to existing major stationary sources that resulted in a significant net emissions increase of: NO_x, SO_2, and/or PM from the Facility.

133. Since the major modifications of the Facilities, as identified in Appendix B, the Seaford, Camden, Chattanooga, and Victoria Facilities have been in violation of Sections 165(a), 502(a) and 504(a) of the CAA, 42 U.S.C. §§ 7475(a), 7661a(a), 7661c(a), the implementing regulations at 40 C.F.R. §§ 52.21, 52.24, and Part 70, and the Delaware, South Carolina, Tennessee, and Texas SIPs, by (1) failing to undergo PSD or NNSR review, (2) failing to obtain proper or adequate PSD, NNSR, or Title V permits, and (3) failing to install BACT or LAER technology for the control of those pollutants for which a significant net emissions increase occurred.

134. Unless restrained by an Order of the Court, these violations of the Clean Air Act and the implementing regulations will continue.

135. Pursuant to Section 113(b) of the Act, 42 U.S.C. § 7413(b), INVISTA is subject to injunctive relief and civil penalties up to $25,000 per day for each violation occurring on or before January 30, 1997; $27,500 per day for each violation occurring between January 31, 1997 and March 15, 2004; $32,500 per day for each violation occurring between March 16, 2004 and January 12, 2009; and $37,500 per day for each violation occurring after January 12, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 (as amended).

SECOND CLAIM FOR RELIEF
(CAA/NSPS Violation at Flaring Device)

136. The allegations in Paragraphs 1 through 135 are hereby re-alleged and incorporated by reference as if fully set forth herein.

137. INVISTA is the "owner or operator," within the meaning of Section 111(a)(5) of the CAA, 42 U.S.C. § 7411(a)(5), and 40 C.F.R. § 60.2, of the start-up flaring device located at the Orange Facility.

138. The start-up flare at Orange is a "fuel gas combustion device" as defined in 40 C.F.R. § 60.101(g), and a stationary source as "stationary sources" is defined in Sections 111(a)(3) and 302(z) of the CAA, 42 U.S.C. §§ 7411(a)(3) and 7602(z).

139. The flaring device is an "affected facility" within the meaning of 40 C.F.R. §§ 60.2 and 60.100(a), and a new source as "new sources" is defined in Section 111(a)(2) of the CAA, 42 U.S.C. § 7411(a)(2).

140. The start-up flare at Orange is subject to the emission limitations set forth in 40 C.F.R. § 60.18.

141. INVISTA's operation of the start-up flare fails to meet the emissions requirements under 40 C.F.R. § 60.18.

142. Unless restrained by an order of the Court, this violation of the CAA and the implementing regulations will continue.

143. As provided in Section 113(b) of the Act, 42 U.S.C. § 7413(b), and Section 167 of the Act, 42 U.S.C. § 7477, the violations set forth above subject INVISTA to injunctive relief and civil penalties of up to $25,000 per day for each violation occurring on or before January 30, 1997; $27,500 per day for each violation occurring between January 31, 1997 and March 15, 2004; $32,500 per day for each violation occurring between March 16, 2004 and January 12, 2009; and $37,500 per day for each violation occurring after January 12, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 (as amended).

THIRD CLAIM FOR RELIEF
(Benzene Waste NESHAP)

144. The allegations in Paragraphs 1 through 143 are hereby re-alleged and incorporated by reference as if fully set forth herein.

145. The Victoria Facility and the Orange Facility have Total Annual Benzene ("TAB") wastes of over 10 megagrams per year ("mg/yr"), and have been subject to the requirements of the Benzene Waste NESHAP set forth at 40 C.F.R. § 61, Subpart FF. At all times relevant to this Complaint, INVISTA has asserted that the TAB at the LaPorte Facility is less than 10 mg/yr, and is not subject to the control requirements of 40 C.F.R. § 61, Subpart FF.

146. The Victoria Facility and the Orange Facility have failed to comply with the requirements of the Benzene Waste NESHAP regulations and the CAA as specified in Appendix

C. The LaPorte Facility has failed to comply with the requirements of the Benzene Waste NESHAP that are applicable to facilities with a TAB of less than 10 mg/yr as specified in Appendix A.

147. Unless restrained by an order of the Court, these violations of the CAA and its implementing regulations will continue.

148. As provided in Sections 113(b) and 167 of the CAA, 42 U.S.C. §§ 7413(b) and 7477, the violations set forth above subject INVISTA to injunctive relief and civil penalties of up to $25,000 per day for each violation occurring on or before January 30, 1997; $27,500 per day for each violation occurring between January 31, 1997 and March 15, 2004; $32,500 per day for each violation occurring between March 16, 2004 and January 12, 2009; and $37,500 per day for each violation occurring after January 12, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 (as amended).

FOURTH CLAIM FOR RELIEF
(Leak Detection and Repair Requirements)

149. The allegations in Paragraphs 1 through 148 are re-alleged and incorporated by reference as if fully set forth herein.

150. INVISTA has failed to accurately monitor the valves and other components, to report the valves and other components that were leaking, and to repair all leaking VOC valves and other components in a timely manner at the Victoria and Orange Facilities as identified in Appendix C.

151. INVISTA's acts or omissions referred to in the preceding Paragraphs constitute violations of 40 C.F.R. Part 60, Subparts Kb, VV and KKK; 40 C.F.R. Part 61, Subparts J,

Kb,and V; and 40 C.F.R. Part 63, Subparts F, G, and H, as specified in Appendix C.

152. Unless restrained by an order of the Court, these violations of the CAA and its implementing regulations will continue.

153. As provided in Sections 113(b) and 167 of the CAA, 42 U.S.C. §§ 7413(b) and 7477, the violations set forth above subject INVISTA to injunctive relief and civil penalties of up to $25,000 per day for each violation occurring on or before January 30, 1997; $27,500 per day for each violation occurring between January 31, 1997 and March 15, 2004; $32,500 per day for each violation occurring between March 16, 2004 and January 12, 2009; and $37,500 per day for each violation occurring after January 12, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 (as amended).

FIFTH CLAIM FOR RELIEF
(Other Violations of Clean Air Act)

154. The allegations of paragraphs 1 through 152 above are realleged and fully incorporated herein by reference.

155. INVISTA violated and continues to violate the applicable SIP provisions for the Camden, Chattanooga, Seaford, Waynesboro, LaPorte, Sabine and Victoria Facilities as identified in Appendices A and B.

156. INVISTA violated its applicable Title V requirements, its Title V permits and/or the requirements of CAA § 502 at the Camden, Chattanooga, Seaford, LaPorte, Sabine, Victoria and Kinston Facilities as identified in Appendix A.

157. INVISTA violated Section 112 of the Clean Air Act by failing to meet the regulatory requirements for emissions of hazardous air pollutants at the Camden, Seaford, Waynesboro, LaPorte, Sabine, and Victoria Facilities as identified in Appendix A.

158. INVISTA violated Section 113 of the Clean Air Act by failing to meet the requirements for emissions in Section 113 and its implementing regulations at the Waynesboro, LaPorte, Sabine, and Victoria Facilities.

159. INVISTA violated Section 114 of the Clean Air Act by failing to meet the requirements for producing information in Section 114 and its implementing regulations at the Victoria Facility.

160. INVISTA violated Section 603 of the Clean Air Act by failing to monitor and/or report Class I or Class II substances in accordance with the requirements of Section 603 and the implementing regulations at the Chattanooga, Seaford, Waynesboro, LaPorte, Orange, and Victoria Facilities as identified in Appendix A.

161. INVISTA violated Section 608 of the Clean Air Act by failing to comply with the use and disposal requirements established in Section 608 and its implementing regulations at the Camden, Seaford, LaPorte, and Orange Facilities as identified in Appendix A.

162. As provided in Section 113(b) of the Act, 42 U.S.C. § 7413(b), and Section 167 of the Act, 42 U.S.C. § 7477, the violations set forth above subject INVISTA to injunctive relief and civil penalties of up to $25,000 per day for each violation occurring on or before January 30, 1997; $27,500 per day for each violation occurring between January 31, 1997 and March 15, 2004; $32,500 per day for each violation occurring between March 16, 2004 and January 12, 2009; and $37,500 per day for each violation occurring after January 12, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 (as amended).

SIXTH CLAIM FOR RELIEF
(Violation of the Clean Water Act)

163. The allegations of paragraphs 1 through 162 above are realleged and fully

incorporated herein by reference.

164. INVISTA is engaged in storing or consuming oil or oil products for backup generators located at the Athens, Calhoun, Camden, Chattanooga, Kinston, LaPorte, Martinsville, Orange, Seaford, Victoria, and Waynesboro Facilities in "harmful quantities," as defined by 40 C.F.R. §110.3.

165. INVISTA's Athens, Calhoun, Camden, Chattanooga, Kinston, LaPorte, Martinsville, Orange, Seaford, Victoria, and Waynesboro Facilities are onshore facilities within the meaning of Section 311(a)(10) of the CWA, 33 U.S.C. §1321(a)(10), and 40 C.F.R. Part 112, which, due to their location, could reasonably be expected to discharge oil to a navigable water of the United States (as defined by Section 502(7) of the Act, 33 U.S.C. §1362(7), and 40 C.F.R. §110.1) or its adjoining shoreline that may either (1) violate applicable water quality standards or (2) cause a film or sheen or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

166. Based on the above, and pursuant to Section 311(j)(1)(C) of the CWA and its implementing regulations, INVISTA is subject to the Oil Pollution Prevention requirements of 40 C.F.R. Part 112.

167. INVISTA has violated the CWA as specified in Appendix A at the Athens, Calhoun, Camden, Chattanooga, Kinston, LaPorte, Martinsville, Orange, Seaford, Victoria, and Waynesboro Facilities by failing to appropriately prepare and implement a SPCC Plan, as required by Section 311(j)(1)(C) of the CWA, 33 U.S.C. §1321(j)(1)(C), and the regulations found at 40 C.F.R. §112.3 through §112.7.

168. INVISTA has been granted NPDES permits by the relevant states which allow for the discharge of process and sanitary wastewater in accordance with its terms at its Athens, Calhoun, Camden, Chattanooga, Kinston, LaPorte, Martinsville, Orange, Seaford, Victoria, and Waynesboro Facilities. The permits identify the outfalls that INVISTA may use for such discharge and the types and amounts of pollutants that may be lawfully discharged.

169. INVISTA has violated the requirements of its NPDES permit or the Facilities' NPDES permit and/or stormwater requirements in violation of Sections 301 and 402 of the CWA at its Athens, Calhoun, Camden, Chattanooga, Kinston, LaPorte, Martinsville, Orange, Seaford, Victoria, and Waynesboro Facilities as identified in Appendix A.

170. Pursuant to Sections 309 and 311 of the CWA, 33 U.S.C. §§ 1319, 1321, the above violations subject INVISTA to penalties of up to $25,000 per day for each violation occurring on or before January 30, 1997; $27,500 per day for each violation occurring between January 31, 1997 and March 15, 2004; $32,500 per day for each violation occurring between March 16, 2004 and January 12, 2009; and $37,500 per day for each violation occurring after January 12, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 (as amended).

SEVENTH CLAIM FOR RELIEF
(EPCRA Violations)

171. The allegations of paragraphs 1 through 170 above are realleged and fully incorporated herein by reference.

172. At all times pertinent to this complaint, INVISTA's Athens and Seaford Facilities have had extremely hazardous substances in an amount in excess of the threshold planning quantity established pursuant to EPCRA §§ 302(a)(2), (b), 42 U.S.C. § 11002(a)(2), (b).

173. INVISTA has violated Section 302(c) of EPCRA, 42 U.S.C. § 11002(c),and the regulations found at 40 C.F.R. Part 370 by failing to provide the notice required under this Section to the State emergency response commission at its Athens and Seaford Facilities as identified in Appendix A.

174. Each of the INVISTA Facilities is a "facility" at which "hazardous chemicals" are produced, used, or stored, within the meaning of Section 304(a) and (b) of EPCRA, 42 U.S.C. § 11004(a), (b).

175. INVISTA has violated Section 304 of EPCRA, 42 U.S.C. § 11004, and the regulations found at 40 C.F.R. Part 370 by failing to provide immediate notice to the LEPC and/or the SERC after the release of an extremely hazardous substance at its Camden, Chattanooga, and Waynesboro Facility as identified in Appendix A.

176. INVISTA's Athens, Calhoun, Camden, Chattanooga, Kinston, LaPorte, Martinsville, Orange, Seaford, Victoria, and Waynesboro Facilities are required to prepare or have a material safety data sheet for a hazardous chemical under the OSH Act of 1970 and the regulations promulgated under that Act.

177. INVISTA has violated Section 311 of EPCRA, 42 U.S.C. § 11021, and the regulations found at 40 C.F.R. Part 370 by failing to prepare or have an MSDS for each hazardous chemical listed under the OSH Act of 1970 and the regulations promulgated under that Act, and submit the MSDS to the LEPC, the SERC, and the fire department with jurisdiction over the facility within three months of becoming subject to the requirements of EPCRA Section 311 at its Martinsville Facility, as identified in Appendix A.

178. INVISTA has violated Section 312 of EPCRA, 42 U.S.C. § 11022, and the

regulations found at 40 C.F.R. Part 370 by failing to prepare and submit an emergency and hazardous chemical inventory form (Tier I or Tier II, as described in 40 C.F.R. Part 370) containing the information required by those sections to the LEPC, SERC, and the fire department with jurisdiction over the facility by March 1, 1988 (or March 1 of the first year after the facility first becomes subject to the requirements of EPCRA Section 312), and annually thereafter at its Athens, Calhoun, Camden, Chattanooga, Kinston, LaPorte, Orange, Seaford, Victoria, and Waynesboro Facilities, as identified in Appendix A.

179. INVISTA has violated Section 313 of EPCRA, 42 U.S.C. § 11023, and the regulations found at 40 C.F.R. Part 370, by failing to complete a toxic chemical release form for each toxic chemical listed in Section 313(c) of EPCRA, 42 U.S.C. § 11023(c), that was manufactured, processed, or otherwise used in quantities exceeding the toxic chemical threshold quantity established by Section 313(f) of EPCRA, 42 U.S.C. § 11023(f) during the preceding calendar year at the Camden, Chattanooga, Kinston, LaPorte, Orange, Seaford, Victoria and Waynesboro Facilities, as identified in Appendix A.

180. Pursuant to Section 325(c) of EPCRA, 42 U.S.C. § 11045(c), the violations above subject INVISTA to civil penalties of up to $25,000 per day for each violation occurring on or before January 30, 1997; $27,500 per day for each violation occurring between January 31, 1997 and March 15, 2004; $32,500 per day for each violation occurring between March 16, 2004 and January 12, 2009; and $37,500 per day for each violation occurring after January 12, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 (as amended).

EIGHTH CLAIM FOR RELIEF
(RCRA Violations)

181. Paragraphs 1 through 180 are re-alleged and incorporated by reference as if fully set forth herein.

182. At all times relevant to the violations alleged in this Complaint, INVISTA is the "owner" and "operator" of the Acquired Facilities, within the meaning of 40 C.F.R. § 260.10 and the applicable state laws and regulations.

183. INVISTA is a "generator" of hazardous waste within the meaning of 40 C.F.R. § 260.10 and applicable state laws and regulations at the Acquired Facilities.

184. As relative to this Complaint, INVISTA generates RCRA-regulated hazardous wastes at its Acquired Facilities.

185. INVISTA has violated Section 3002 of RCRA, 42 U.S.C. § 6922, the applicable regulations at 40 C.F.R. Part 262 and the applicable state regulations establishing standards applicable to generators of hazardous waste at INVISTA's Athens, Calhoun, Camden, Chattanooga, Dalton, Martinsville, Seaford, Waynesboro, LaPorte, Orange, and Victoria Facilities as identified in Appendix A.

186. INVISTA has violated Section 3004 of RCRA, 42 U.S.C. § 6924, the applicable regulations at 40 C.F.R. Part 265 and the applicable state regulations which establish requirements for owners and operators of hazardous waste treatment, storage, and disposal facilities at its Athens, Calhoun, Camden, Chattanooga, Dalton, Martinsville, Seaford, Waynesboro, LaPorte and Orange Facilities, as identified in Appendix A.

187. INVISTA has violated Section 3005 of RCRA, 42 U.S.C. § 6925, and the applicable federal and state regulations promulgated under this Section which establish permit application requirements for owners and operators of hazardous waste treatment, storage, and

disposal facilities at its Athens, Orange, and Victoria Facilities, as identified in Appendix A.

188. INVISTA has violated Section 3006 of RCRA, 42 U.S.C. § 6926, and the applicable federal and state regulations promulgated under this Section at its Orange Facility, as identified in Appendix A.

189. INVISTA has violated Section 3008 of RCRA, 42 U.S.C. § 6928, and the applicable federal and state regulations promulgated under this Section at its LaPorte Facility, as identified in Appendix A.

190. INVISTA has violated Section 3010 of RCRA, 42 U.S.C. § 6930, and the applicable federal and state regulations promulgated under this Section at its LaPorte Facility, as identified in Appendix A.

191. Pursuant to Section 3008 of RCRA, 42 U.S.C. § 6928, the violations above subject INVISTA to civil penalties of up to $25,000 per day for each violation occurring on or before January 30, 1997; $27,500 per day for each violation occurring between January 31, 1997 and March 15, 2004; $32,500 per day for each violation occurring between March 16, 2004 and January 12, 2009; and $37,500 per day for each violation occurring after January 12, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 (as amended).

NINTH CLAIM FOR RELIEF
(CERCLA Violations)

192. Paragraphs 1 through 191 are re-alleged and incorporated by reference as if fully set forth herein.

193. Section 103(a) of CERCLA, 42 U.S.C. § 9603(a), requires a person in charge of a facility to immediately notify the National Response Center of a release of a hazardous substance

from such facility in an amount equal to or greater than the amount determined pursuant to Section 102 of CERCLA, 42 U.S.C. § 9602 (the "reportable quantity").

194. INVISTA is "in charge of" the Waynesboro, Chattanooga, and Camden Facilities, within the meaning of Section 103(a) of CERCLA, 42 U.S.C. § 9603(a).

195. INVISTA has failed to immediately notify the National Response Center of releases from the Waynesboro, Chattanooga, and Camden Facilities of hazardous substances in an amount equal to or greater than the reportable quantity for those substances, as specified in Appendix A.

196. The acts or omissions referred to in the preceding paragraph constitute violations of Section 103(a) of CERCLA, 42 U.S.C. § 9603.

197. Pursuant to Section 109(c)(1) of CERCLA, 42 U.S.C. § 9609(c)(1), the violations above subject INVISTA to civil penalties of up to $25,000 per day for each violation occurring on or before January 30, 1997; $27,500 per day for each violation occurring between January 31, 1997 and March 15, 2004; $32,500 per day for each violation occurring between March 16, 2004 and January 12, 2009; and $37,500 per day for each violation occurring after January 12, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 (as amended).

TENTH CLAIM FOR RELIEF
(FIFRA Violations)

198. Paragraphs 1 through 194 are re-alleged and incorporated by reference as if fully set forth herein.

199. INVISTA has violated Section 12(A)(2)(g) of FIFRA, 7 U.S.C. § 136j by using a registered pesticide in a manner inconsistent with its labeling at its Athens, Camden,

Chattanooga, LaPorte, Orange, Seaford, and Waynesboro Facilities, as specified in Appendix A.

200. Pursuant to Section 14 of FIFRA, 7 U.S.C. § 136*l*, the violations above subject INVISTA to civil penalties of up to $1,000 per day for each violation occurring on or before January 30, 1997; $1,00 per day for each violation occurring between January 31, 1997 and March 15, 2004; $1,100 per day for each violation occurring between March 16, 2004 and January 12, 2009; and $1,100 per day for each violation occurring after January 12, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 (as amended).

ELEVENTH CLAIM FOR RELIEF
(SDWA Violations)

201. Paragraphs 1 through 200 are re-alleged and incorporated by reference as if fully set forth herein.

202. INVISTA has violated Section 1412(c) of the SDWA by failing to meet the secondary treatment standards at its Camden Facility, as specified in Appendix A.

203. INVISTA has violated Section 1423 of the SDWA by failing to meet the requirements for underground injection at its Camden Facility, as specified in Appendix A.

204. Pursuant to Sections 1414 and 1423 of SDWA, 42 U.S.C. §§ 1414, 1423, the violations above subject INVISTA to civil penalties of up to $25,000 per day for each violation occurring on or before January 30, 1997; $27,500 per day for each violation occurring between January 31, 1997 and March 15, 2004; $32,500 per day for each violation occurring between March 16, 2004 and January 12, 2009; and $37,500 per day for each violation occurring after January 12, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 (as amended).

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs, the United States and SCDHEC, respectfully request that this Court:

1. Order INVISTA to immediately comply with the statutory and regulatory requirements cited in this Complaint;

2. Order INVISTA to take appropriate measures to mitigate the effects of its violations;

3. Assess civil penalties against INVISTA for up to the maximum amounts provided in the applicable statutes; and

4. Grant the United States and SCDHEC such other relief as this Court deems just and proper.

Respectfully submitted,
FOR THE UNITED STATES OF AMERICA

Date: April 8, 2009

/s/ JOHN C. CRUDEN
JOHN C. CRUDEN
Acting Assistant Attorney General
Environment and Natural Resources Division
United States Department of Justice

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FOR THE SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Date: April 6, 2009

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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

UNITED STATES OF AMERICA, STATE OF DELAWARE DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL, SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL and the CHATTANOOGA-HAMILTON COUNTY AIR POLLUTION CONTROL BOARD Plaintiffs, v. INVISTA S.à r.l. Defendant.	Civil Action No. _____ Judge _____

CONSENT DECREE

TABLE OF CONTENTS

I. JURISDICTION AND VENUE 3

II. PARTIES BOUND 4

III. DEFINITIONS 4

IV. NONATTAINMENT NEW SOURCE REVIEW (NNSR) / PREVENTION OF SIGNIFICANT DETERIORATION (PSD) REQUIREMENTS 11

A. ELECTION PROVISIONS AND INTERIM CONTROLS 11

B. NO_x EMISSIONS CONTROLS AND LIMITS 12

C. SO_2 EMISSION REDUCTIONS AND CONTROLS 23

D. PARTICULATE MATTER EMISSIONS LIMIT 25

E. PROHIBITION ON NETTING CREDITS OR OFFSETS FROM REQUIRED CONTROLS 25

V. NSPS FLARING DEVICES 27

VI. BENZENE WASTE NESHAP PROGRAM ENHANCEMENTS 27

VII. LEAK DETECTION AND REPAIR PROGRAM ENHANCEMENTS 35

VIII. RESOLUTION OF CLAIMS 43

IX. PAYMENT OF CIVIL PENALTIES 44

X. STIPULATED PENALTIES / VIOLATION OF CONSENT DECREE 45

XI. INVISTA'S CERTIFICATIONS 50

XII. PERIODIC REPORTING 51

XIII. REVIEW AND APPROVAL OF SUBMITTALS 52

XIV. FORCE MAJEURE 52

XV. DISPUTE RESOLUTION 54

XVI. PERMITS 55

XVII. INFORMATION COLLECTION AND RETENTION 57

XVIII. NOTICES 58

XIX. SALES OR TRANSFERS OF OWNERSHIP INTERESTS 60

XX. EFFECTIVE DATE 61

XXI. RETENTION OF JURISDICTION 61

XXII. MODIFICATION 62

XXIII. PUBLIC COMMENT 62

XXIV. GENERAL PROVISIONS 62

XXV. COSTS OF SUIT 63

XXVI. ENTRY OF CONSENT DECREE 63

XXVII. TERMINATION OF CONSENT DECREE 64

XXVIII. SIGNATORIES/SERVICE 65

XXIX. FINAL JUDGMENT 65

TABLE OF APPENDICES

Appendix A:	List of Violations Resolved From Tabs 3-16 of INVISTA's Corporate Audit Agreement Final Report – General Audit Findings
Appendix B:	List of Violations Resolved From Tabs 3-16 of INVISTA's Corporate Audit Agreement Final Report – PSD/NNSR and NSPS Audit Findings
Appendix C:	List of Violations Resolved From Tabs 3-16 of INVISTA's Corporate Audit Agreement Final Report – Summary of Benzene/NESHAP and LDAR Audit Findings
Appendix D:	INVISTA's Corporate Audit Agreement Final Audit Report, Tabs 3-16

CONSENT DECREE

Whereas, this Consent Decree is made by and between the United States of America, at the request and on behalf of the Administrator of the United States Environmental Protection Agency ("EPA"), the State of Delaware Department of Natural Resources and Environmental Control, the South Carolina Department of Health & Environmental Control, the Chattanooga-Hamilton County Air Pollution Control Board (collectively "Plaintiffs") and INVISTA S.à r.l ("INVISTA").

Whereas, Plaintiffs, by and through their undersigned counsel, have simultaneously filed Complaints and lodged this Consent Decree against INVISTA.

Whereas, INVISTA is a privately-owned integrated fibers and polymers company registered as a foreign limited liability company in the State of Delaware and headquartered in Wichita, Kansas.

Whereas, on April 30, 2004 (the "Closing Date"), E.I. du Pont de Nemours and Company and INVISTA finalized the sale of the DuPont Textiles & Interiors assets to INVISTA S.à r.l. The transaction involved over forty sites worldwide. Twelve facilities were located in the United States, specifically at: Athens, GA; Calhoun, GA; Camden, SC; Chattanooga, TN; Dalton, GA; Kinston, NC; LaPorte, TX; Martinsville, VA; Orange, TX; Seaford, DE; Victoria, TX; and Waynesboro, VA ("Acquired Facilities").

Whereas, EPA recognizes the critical role of environmental auditing in protecting human health and the environment by identifying, correcting, and ultimately preventing violations of environmental laws, particularly by responsible corporate citizens and new owners.

Whereas, as a result of the identification and disclosure of certain pre-Closing Date environmental noncompliance existing at some of the Acquired Facilities, INVISTA and EPA in July and August 2004 agreed that, pursuant to EPA's Policy on Incentives for Self-Policing: Discovery, Disclosure, Correction, and Prevention of Violations, 65 Fed. Reg. 19618 (Apr. 11, 2000) ("EPA's Audit Policy"), INVISTA would continue implementation of its Compliance Assurance Management System ("CAMS") and conduct audits at the Acquired Facilities (hereinafter referred to as the "Corporate Audit Agreement"). In order to avail itself of the benefits afforded under EPA's Audit Policy, INVISTA entered into the Corporate Audit Agreement and was required thereunder to complete environmental compliance audits in addition to continued implementation of its CAMS at the Acquired Facilities covering the following statutes and implementing regulations thereof, corresponding state or local laws and regulations, and any permits issued under these laws (hereinafter referred to collectively as "Environmental Requirements"): the Emergency Planning and Community Right-to-Know Act (EPCRA), 42 U.S.C. §§ 11001 to 11050; the Clean Water Act (CWA), 42 U.S.C. §§ 1251 to 1387; the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 to 6992k; the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 7 U.S.C. §§ 136 to 136y; Section 103(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9603(a); the Safe Drinking Water Act (SDWA), 42 U.S.C. §§ 300f to 300j-26; and the Clean Air Act (CAA), 42 U.S.C. §§ 7401 to 7671q.

Whereas, over the course of 33 months, INVISTA conducted 23 comprehensive and 22 focused environmental audits examining the pre- and post-Closing Date compliance of the Acquired Facilities with the Environmental Requirements. During and upon completion of those audits, consistent with EPA's Audit Policy, INVISTA timely disclosed the violations identified in Appendices A, B, and C.

Whereas for the findings contained in Appendices A, B, and C, the Plaintiffs performed reviews of INVISTA's quarterly and final reports submitted pursuant to the Corporate Audit Agreement, which detailed the auditors' factual, technical, and legal findings. The Plaintiffs' review also included site visits to three Acquired Facilities that were related to the findings of violation and consideration of appropriate remedies, a series of technical meetings, legal and technical correspondence regarding the findings of violations and consideration of appropriate remedies, supplemental information requests, and a review of information and site-specific data submitted by INVISTA in response to Plaintiffs' requests. After that review the Plaintiffs determined, based on the foregoing, that violations of Environmental Requirements had occurred as set forth in Appendices A, B, and C.

Whereas, based upon the results of those audits, the United States alleges that violations of Environmental Requirements have taken place at INVISTA's Acquired Facilities as set forth in Appendices A, B, and C, and that INVISTA has certified that all violations in Appendix A have been corrected.

Whereas, due to significant complexities requiring further investigation, analysis, and potential corrective actions, INVISTA and EPA have agreed to resolve RCRA and CWA disclosures pertaining to the wastewater treatment and conveyance systems at INVISTA's LaPorte, Orange, and Victoria facilities in a future agreement, if necessary, with the understanding that this Consent Decree shall not prevent such disclosures from receiving coverage under EPA's Audit Policy.

Whereas, based on the representations by INVISTA, EPA has determined that the violations as set forth in Appendices A, B, and C have met the conditions of EPA's Audit Policy and are appropriate for resolution in accordance with the Policy.

Whereas, based upon the results of the audits, the United States, the State of Delaware Department of Natural Resources and Environmental Control, the South Carolina Department of Health & Environmental Control, and the Chattanooga-Hamilton County Air Pollution Control Board allege that violations of certain Clean Air Act programs and their implementing federal, state, and/or local regulations have been and/or are continuing to take place at certain of INVISTA's Acquired Facilities, including: the Nonattainment New Source Review and/or Prevention of Significant Deterioration programs (NNSR/PSD), 42 U.S.C. §§ 7502, 7503, and 7475; the New Source Performance Standards (NSPS), 42 U.S.C. § 7411; National Emissions Standards for Hazardous Air Pollutants (NESHAP), 42 U.S.C. § 7412; and Leak Detection and Repair (LDAR) requirements 42 U.S.C. §§ 7411-7412.

Whereas, the Plaintiffs and INVISTA wish to resolve the violations of Environmental Requirements that INVISTA has already corrected or is required to correct under this Decree by

providing for the performance of injunctive relief and payment of civil penalties for the disclosed violations, as provided herein.

Whereas, the Plaintiffs and INVISTA agree that the amount of civil penalty set forth herein was negotiated in recognition of INVISTA's audit of the Acquired Facilities and agreement to disclose the violations it discovered.

Whereas, the Plaintiffs and INVISTA agree, and this Court by entering this Consent Decree finds, that: (i) this Consent Decree has been negotiated by the Parties in good faith and at arm's length; (ii) settlement of this matter will avoid prolonged and complicated litigation among the Parties; and (iii) this Consent Decree is fair, reasonable, in the public interest and consistent with the goals of the Environmental Requirements.

Whereas, INVISTA consents to the simultaneous filing of the complaints and lodging of this Consent Decree against INVISTA, without the admission of liability or any adjudication on any issue of fact or law.

THEREFORE, upon the consent and agreement of the Parties to this Consent Decree by their attorneys and/or authorized officials, the Parties agree as follows:

I. JURISDICTION AND VENUE

1. This Court shall have jurisdiction over this matter pursuant to 28 U.S.C. §§ 157, 1331, 1334, 1345, 1355 and 1367; Sections 113, 167 and 304(b)(1)(B) of the CAA, as amended, 42 U.S.C. §§ 7413, 7477 and 7604(b)(1)(B); Sections 309 and 311(b)(7)(E) of the CWA, 33 U.S.C. §§ 1319, 1321(b)(7)(E); Section 325(c)(4) of EPCRA, 42 U.S.C. § 11045; Section 109 of CERCLA, 42 U.S.C. § 9609; Sections 16 and 27(a) of FIFRA, 7 U.S.C. §§ 136n and 136w-2(a); Sections 1414(b) and 1423(b) of the SDWA, 42 U.S.C. §§ 300g-3(b), 300h-2(b); and Sections 3008(a) and 9006(e) of RCRA, 42 U.S.C. §§ 6928(a), 6991(e).

2. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(b)-(c) and 1395(a); CAA § 113(b), 42 U.S.C. § 7413(b); FIFRA § 16, 7 U.S.C. § 136n; CWA §§ 309(b), 311(b)(7)(E), 33 U.S.C. §§ 1319(b), 1321(b)(7)(E); CERCLA § 109(c), 42 U.S.C. § 9609(c); EPCRA §§ 325(a)-(c), 42 U.S.C. §§ 11045(a)-(c); SDWA §§ 1414(b) and 1423(b), 42 U.S.C. §§ 300g-3(b), 300h-2(b); and RCRA §§ 3008(a), 9006, 42 U.S.C. §§ 6928(a), 6991e(a).

3. Solely for the purposes of this Consent Decree and the underlying Complaints, INVISTA waives all objections and defenses that it may have to the Court's jurisdiction over this action, to the Court's jurisdiction over INVISTA, and to venue in this District. For purposes of the Complaint filed by the Plaintiffs in this matter and resolved by the Consent Decree, and for purposes of entry and enforcement of this Consent Decree, INVISTA waives any defense or objection based on standing. This Consent Decree shall not create any rights in or grant any cause of action to any party other than the Plaintiffs and INVISTA. This Consent Decree does not limit or affect the rights of INVISTA or of any of the Plaintiffs against third parties who are not a party to this Consent Decree, nor shall this Consent Decree be construed to create rights in, or grant any cause of action to, any third parties not a party to this Consent Decree. Except as

provided in Section XXIII (Public Comment) of this Consent Decree, the Parties consent to entry of this Consent Decree.

II. PARTIES BOUND

4. The provisions of this Consent Decree shall apply to the Acquired Facilities. This Consent Decree is binding on the United States, the State of Delaware Department of Natural Resources and Environmental Control, the South Carolina Department of Health & Environmental Control, the Chattanooga-Hamilton County Air Pollution Control Board, INVISTA and INVISTA's successors, transferees, grantees and assigns until the Consent Decree is terminated pursuant to Section XXVII (Termination). No transfer of ownership or operation of an Acquired Facility shall relieve INVISTA of its obligation to ensure that the terms of the Decree are implemented, unless the requirements of Section XIX (Sales or Transfers) are met.

5. INVISTA shall provide a copy of the applicable provisions of this Consent Decree to all vendors, suppliers, consultants, contractors, agents and any other company or other organization performing any of the work described under Sections IV (NNSR/PSD), V (NSPS), VI (BWON), or VII (LDAR) of this Consent Decree. Notwithstanding any retention of contractors, subcontractors, or agents to perform any work required under this Consent Decree, INVISTA shall be responsible for ensuring that all work is performed in accordance with the requirements of this Consent Decree. In any action to enforce this Consent Decree, INVISTA shall not assert as a defense the failure of its officers, directors, employees, servants, agents or contractors to take actions necessary to comply with this Consent Decree, unless INVISTA establishes that such failure resulted from a Force Majeure event as defined in this Consent Decree.

III. DEFINITIONS

6. Unless otherwise defined herein, terms used in this Consent Decree shall have the meaning given to those terms in the CWA, EPCRA, CAA, FIFRA, CERCLA, and RCRA and the regulations promulgated thereunder. Whenever the terms listed below are used in this Consent Decree, the following definitions shall apply:

A. A "24-Hour Rolling Average Emission Rate" shall be expressed as lb/MMBTU for each pollutant in question and calculated in accordance with the following procedure: first, sum the total pounds of the pollutant in question emitted from the Unit during the most recent clock hour and the previous 23 clock hours; second, sum the total heat input to the Unit in MMBTU during the most recent clock hour and the previous 23 clock hours; and third, divide the total number of pounds of the pollutant emitted during the 24 hour period by the total heat input during the 24 hour period. A new 24-Hour Rolling Average Emission Rate shall be calculated for each additional clock hour of operation.

B. A "30-Day Rolling Average Emission Rate" shall be expressed as lb/MMBTU for each pollutant in question and calculated in accordance with the following procedure: first, sum the total pounds of the pollutant in question emitted from the Unit during an Operating Day and the previous 29 Operating Days; second, sum the total heat input to the Unit

in MMBTU during an Operating Day and the previous 29 Operating Days; and third, divide the total number of pounds of the pollutant emitted during the 30 Operating Days by the total heat input during the 30 Operating Days. A new 30-Day Rolling Average Emission Rate shall be calculated for each Operating Day. Each 30-Day Rolling Average Emission Rate shall include all emissions that occur during all periods of Startup, Shutdown, and Malfunction within an Operating Day.

C. A "24-Hour Rolling Average Removal Efficiency" means the percent reduction in the mass of each pollutant in question achieved by a Unit's pollution control device over a 24-hour period. This percent reduction shall be calculated by subtracting the outlet 24-Hour Rolling Average Emission Rate from the inlet 24-Hour Rolling Average Emission Rate, dividing that difference by the inlet 24-Hour Rolling Average Emission Rate, and then multiplying by 100. A new 24-Hour Rolling Average Removal Efficiency shall be calculated for each new hour.

D. A"30-Day Rolling Tonnage" means the sum of the tons of each pollutant in question emitted from the Unit or Units in the most recent calendar day and the previous twenty-nine (29) calendar days. A 30-Day Rolling Tonnage shall be calculated for each new calendar day in accordance with the provisions of this Consent Decree. The calculation of each 30-Day Rolling Tonnage shall include the pollutants emitted during periods of Startup, Shutdown, and Malfunction within each calendar month.

E. A "12-Month Rolling Heat Input Percentage" means the sum of the total heat input from the fuel type in question in the most recent complete month and the previous eleven (11) months divided by the sum of the total heat input from all fuel types in the most recent complete month and the previous eleven (11) months.

F. A "12-Month Rolling Tonnage" means the sum of the tons of the pollutant in question emitted from the Unit or Units in the most recent complete month and the previous eleven (11) months. A 12-Month Rolling Tonnage shall be calculated for each new complete calendar month in accordance with the provisions of this Consent Decree. The calculation of a 12-Month Rolling Tonnage shall include the pollutants emitted during periods of Startup, Shutdown, and Malfunction within each calendar month. Calculation of the first 12-Month Rolling Tonnage shall commence 12 months after the applicable emission limit takes effect.

G. "Acquired Facilities" shall mean the INVISTA facilities located at: Athens, GA; Calhoun, GA; Camden, SC; Chattanooga, TN; Dalton, GA; Kinston, NC; LaPorte, TX; Martinsville, VA; Orange, TX; Seaford, DE; Victoria, TX; and Waynesboro, VA.

H. "ADN" shall mean adiponitrile.

I. "ADN Area" shall mean the area where adiponitrile is manufactured and does not include the HCN process or Promoter Area at the Orange Facility or the HCN process area at Victoria.

J. "Applicable Co-Plaintiff" shall mean the following parties with respect to the following Acquired Facilities: Camden Facility - the SCDHEC; Chattanooga Facility - the CHCAPCB; and Seaford Facility - State of Delaware through the DNREC.

K. "Audit," except as used in Section VII (Leak Detection and Repair Program Enhancements), shall mean the assessments of compliance with the Environmental Requirements conducted by or at the direction of INVISTA at the Acquired Facilities pursuant to the Corporate Audit Agreement between INVISTA and EPA.

L. "Athens Facility" means the INVISTA facility located at 110 Voyles Road, Athens, Georgia.

M. "Calhoun Facility" means the INVISTA facility located at 220 Boling Industry Way, Calhoun, Georgia.

N. "Camden Facility" means the INVISTA facility located at 643 Highway 1 South, Lugoff, South Carolina.

O. "CEMS" or "Continuous Emission Monitoring System" means, for obligations involving NO_x and SO_2 under this Consent Decree, the devices defined in 40 C.F.R. § 60 Appendix B and installed and maintained as required by 40 C.F.R. Part 60; for the Camden Facility, which is subject to 40 C.F.R. Part 75, its CEMS may be installed, certified, and maintained under 40 C.F.R. Part 75, provided that the Facility reports emissions required by this Consent Decree pursuant to the provisions of 40 C.F.R. Part 60.

P. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601-9675, and its implementing regulations.

Q. "CHCAPCB" means the Chattanooga-Hamilton County Air Pollution Control Board and any successor departments or agencies.

R. "Chattanooga Facility" means the INVISTA facility located at 4501 N. Access Road, Chattanooga, Tennessee.

S. "Clean Air Act" or "CAA" means the federal Clean Air Act, 42 U.S.C. §§7401-7671q, and its implementing regulations.

T. "Clean Water Act" or "CWA" means the Federal Water Pollution Control Act, 33 U.S.C. §§ 1251-1387, and its implementing regulations.

U. "Cold Startup Period" occurs whenever there has been no fire in the boiler of a Unit (no combustion of any Fossil Fuel) for a period of six (6) hours or more, and means the time between the beginning of the combustion of fuel in a Unit until 20 minutes after the SCR reaches the vendor's recommended design minimum temperature for injection of a reducing agent, a period not to exceed four (4) hours.

V. "Consent Decree" or "Decree" shall mean this Consent Decree.

W. "Continuously Operate" or "Continuous Operation" means that when an SCR, FGD, Mobotec, or other pollution control or treatment device or process is used at a Unit, except during a Malfunction, it shall be operated at all times such Unit is in operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for such equipment and the Unit so as to minimize emissions to the greatest extent practicable.

X. "Dalton Facility" means the facility at 403 Holiday Ave., Dalton, Georgia.

Y. "Date of Lodging" shall mean the date the Consent Decree is lodged in the United States District Court.

Z. "Day" shall mean a calendar day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or a federal holiday, the period shall run until the close of business of the next business day.

AA. "DNREC" means the Delaware Department of Natural Resources and Environmental Control and any successor departments or agencies.

BB. "Duct-injection" means a pollution control technology that employs injection of selected sorbents into the flue gas to control SO_2 emissions.

CC. "Election Date" shall mean, for the Chattanooga Facility, the fourth anniversary of the Entry Date.

DD. "Emission Rate" means, in the case of an instantaneous emission, the number of pounds of pollutant emitted per million BTU of heat input (lb/MMBTU) measured in accordance with this Consent Decree; in the case of mass emissions, Emission Rate means the total number of tons of pollutant emitted over a defined period of time, measured in accordance with this Consent Decree.

EE. "Entry Date" or "Date of Entry" shall mean the date this Consent Decree is signed by a United States District Court Judge.

FF. "Environmental Requirements" shall mean the following federal statutes and their implementing regulations: the Emergency Planning and Community Right-to-Know Act (EPCRA), 42 U.S.C. §§ 11001 to 11050; the Clean Water Act (CWA), 42 U.S.C. §§ 1251 to 1387; the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 to 6992k; the Clean Air Act (CAA), 42 U.S.C. §§ 7401 to 7671q; the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601 to 9675; the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 7 U.S.C. §§ 136 to 136y; the Safe Drinking Water Act (SDWA), 42 U.S.C. §§ 300f to 300j-26 and corresponding state and local laws and regulations and any permits issued under these laws.

GG. "EPA" shall mean the United States Environmental Protection Agency, and any successor departments or agencies of the United States.

HH. "EPCRA" means the federal Emergency Planning and Community Right-to-Know Act," 42 U.S.C. §§ 11001-11050, and its implementing regulations.

II. "Flue Gas Desulfurization System," or "FGD," means a pollution control device that employs flue gas desulfurization technology for the reduction of sulfur dioxide.

JJ. "Fossil Fuel" shall have the same meaning as set forth in 40 C.F.R. § 60.41.

KK. "INVISTA" means INVISTA S.à r.l.

LL. "Kinston Facility" means the former INVISTA facilities located at 4695 Highway 11 North, Kinston, North Carolina.

MM. "LaPorte Facility" means the INVISTA facility located at 12455 Strang Road, LaPorte, Texas.

NN. "lb/MMBTU" means one pound of a pollutant per million British thermal units of heat input.

OO. "Malfunction" shall mean, as that term is defined under 40 C.F.R. § 60.2, "any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operations are not malfunctions."

PP. "Martinsville Facility" means the INVISTA facility located at 1008 DuPont Road, Martinsville, Virginia.

QQ. "Mobotec ROFA" means the pollution control device manufactured by Mobotec USA that employs rotating opposed fired air technology to reduce NO_x emissions.

RR. "Mobotec ROFA with Rotamix" means the pollution control device manufactured by Mobotec USA that employs rotating opposed fired air technology and rotary mixing of chemicals to reduce NO_x emissions.

SS. "MW" means a megawatt or one million Watts.

TT. "NAAQS" means national ambient air quality standards that are promulgated pursuant to Section 109 of the Clean Air Act, 42 U.S.C. § 7409.

UU. "NO_x" means oxides of nitrogen, measured in accordance with the provisions of this Consent Decree.

VV. "Nonattainment NSR" or "NNSR" means the nonattainment area New Source Review program under Part D of Subchapter I of the Clean Air Act, 42 U.S.C. §§ 7501-7515 as implemented in 40 C.F.R. Part 51 and the applicable State Implementation Plans.

WW. "NSPS" means New Source Performance Standards within the meaning of Part A of Subchapter I, of the Clean Air Act, 42 U.S.C. § 7411, 40 C.F.R. Part 60.

XX. "Operating Day" means any calendar day on which a Unit fires Fossil Fuel.

YY. "Orange Facility" shall means the INVISTA facility located at 3055A FM 1006, Orange, Texas.

ZZ. "Over-fire Air" means a pollution control device to reduce NO_x formation in a Unit boiler by directing a portion of the air to be combusted through ports above the level of the cyclones in the furnace.

AAA. "Ownership Interest" means all or part of INVISTA's legal or equitable interest in any of INVISTA's Acquired Facilities.

BBB. "Parties" shall mean the United States, the State of Delaware Department of Natural Resources and Environmental Control, the South Carolina Department of Health and Environmental Control, the Chattanooga-Hamilton County Air Pollution Control Board and INVISTA.

CCC. "Permitting Authority" shall mean the following with respect to the following Acquired Facilities: Camden Facility - the SCDHEC; Chattanooga Facility - the CHCAPCB; and Seaford Facility - State of Delaware through the DNREC.

DDD. "Plaintiffs" means the United States of America, the State of Delaware Department of Natural Resources and Environmental Control, the South Carolina Department of Health and Environmental Control, and the Chattanooga-Hamilton County Air Pollution Control Board.

EEE. "PPM" means parts per million.

FFF. "Promoter Area" means the area where the catalyst for the ADN process is manufactured.

GGG. "PSD" means Prevention of Significant Deterioration within the meaning of Part C of Subchapter I of the Clean Air Act, 42 U.S.C. §§ 7470 - 7492 and 40 C.F.R. Parts 51 and 52 and the applicable State Implementation Plans.

HHH. "RCRA" means the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-6992k, and its implementing regulations.

III. "SDWA" means the Public Health Service Act, as amended by the Safe Drinking Water Act, 42 U.S.C. §§ 300f to 300j-26, and its implementing regulations.

JJJ. "SCDHEC" means the South Carolina Department of Health and Environmental Control and any successor departments or agencies.

KKK. "Seaford Facility" means INVISTA's facility located at 25876 DuPont Road, Seaford, Delaware.

LLL. "Selective Catalytic Reduction System" or "SCR" means a pollution control device that employs selective catalytic reduction technology for the reduction of NO_x emissions.

MMM. "Selective Non-Catalytic Reduction System" or "SNCR" means a pollution control device for reducing NO_x emissions through the use of selective non-catalytic reduction technology.

NNN. "Shutdown" means the cessation of operation of equipment for any purpose.

OOO. "SO_2" means sulfur dioxide, measured in accordance with the provisions of this Consent Decree.

PPP. "Startup" means the setting into operation of the equipment for any purpose.

QQQ. "State of Delaware" or "Delaware" means the State of Delaware Department of Natural Resources and Environmental Control.

RRR. "Title V Permit" means the permit required of INVISTA's major sources under Subchapter V of the Clean Air Act, 42 U.S.C. §§ 7661-7661e and the applicable State Implementation Plans.

SSS. "Unit" shall mean a piece of equipment or an emissions source that is subject to a requirement within this Consent Decree.

TTT. "United States" shall mean the United States of America, on behalf of EPA.

UUU. "Vapor Combustion Unit" means equipment used for combustion or destruction of organic vapors.

VVV. "Vaporizer" means a combustion unit designed for use in process industries and that produces process heat using recirculating fluids at low operating pressure.

WWW. "Victoria Facility" means the INVISTA facility located at 2695 Old Bloomington Road North, Victoria, Texas.

XXX. "Waynesboro Facility" means the INVISTA facility located at 400 DuPont Boulevard, Waynesboro, Virginia.

IV. NONATTAINMENT NEW SOURCE REVIEW (NNSR) / PREVENTION OF SIGNIFICANT DETERIORATION(PSD) REQUIREMENTS

Summary: This Consent Decree requires NNSR/PSD Controls at four Acquired Facilities: the Camden Facility, the Chattanooga Facility, the Seaford Facility and the Victoria Facility.

The Camden Facility has four coal-fired steam generating boilers, designated as Boilers 1, 2, 3 and 4, and four vaporizers. Camden Boilers 3 and 4 and the Camden Vaporizers have pollution control and/or emission reduction requirements under this Decree as described in Paragraphs 10, 26-27, 34 and 37 below.

The Chattanooga Facility has two natural gas-fired steam generating boilers (Boilers 1 and 2) capable of firing either natural gas or fuel oil, three coal-fired steam generating boilers (Boilers 3, 4, and 5), and six vaporizers. Chattanooga Boilers 3, 4, and 5 and the Chattanooga Vaporizers have pollution control and/or emission reduction requirements under this Decree as described in Paragraphs 7, 8, 11, 26, 28, 35 and 37 below.

The Seaford Facility has seven vaporizers and four steam-generating boilers, three of these boilers are capable of operating by burning either coal or fuel oil, which are designated as Boilers 1, 2, and 3, and one boiler is capable of operating by burning natural gas or fuel oil, designated as Boiler 4 (package boiler). Seaford Boilers 1, 2, and 3 and the Seaford Vaporizers have pollution control and/or emission reduction requirements under this Decree as described in Paragraphs 9, 12-16, 26, 29-33, 36, 37, and 38 below.

The Victoria Facility has six boiler and industrial furnaces ("BIF boilers") that burn liquid and gaseous streams, which are designated as Boilers 1, 2, 3, 4, 7, and 8. The Victoria Facility has one gas-fired co-generation unit designated as the Cogen Unit. Victoria Boilers 1, 2, 3, 4, 7, 8, the Cogen Unit, and any new boiler constructed at the Victoria Facility have pollution control and/or emission reduction requirements under this Decree as described in Paragraphs 17-26 below.

A. ELECTION PROVISIONS AND INTERIM CONTROLS

Chattanooga Facility Election Provision and Interim Controls

7. No later than four years after the Entry Date ("Election Date"), INVISTA shall

elect to either: (a) install and Continuously Operate by no later than eighteen (18) months after the Election Date the NO_x emission controls and SO_2 emission controls for Chattanooga Boilers 3, 4, and 5 pursuant to Paragraphs 11 and 28; or (b) retire and permanently cease to operate Chattanooga Boilers 3, 4, and 5 no later than four years after the Entry Date. INVISTA shall inform the United States and the CHCAPCB of its election in writing.

8. Beginning on the Entry Date, INVISTA shall reduce its emission rate for Chattanooga Boilers 3, 4, and 5 to achieve a 12-Month Rolling Tonnage of no greater than 292 tons NO_x and 870 tons SO_2 until it exercises its election under Paragraph 7.

Seaford Facility Election Provision

9. By no later than the Entry Date, INVISTA shall select one of the following emissions reduction options set forth below for the Seaford Facility, and shall notify the United States and the State of Delaware in writing as to which option INVISTA has selected. After providing the United States and the State of Delaware with written notice of its selected approach, INVISTA shall implement the selected approach in compliance with the schedule set forth in this Consent Decree.

a. Seaford Option A - INVISTA shall install and Continuously Operate pollution control technology on Boilers 1 and 3, and shall implement operational and fuel limitations on Boiler 2, in compliance with Paragraphs 12, 14-16, 29-32 of this Consent Decree. The 12-Month Rolling Tonnage from Seaford Boilers 1 and 3 under this Option shall not exceed 598 tons of NO_x and 1446 tons of SO_2.

b. Seaford Option B -By no later than May 1, 2009, INVISTA shall cease coal firing on Boilers 1 and 3, shall discontinue use of Boiler 2, shall install and Continuously Operate a natural gas-fired boiler with SCR technology, and shall operate Boilers 1 and/or 3 on fuel oil only in compliance with Paragraphs 13 and 33 of this Consent Decree. The 12-Month Rolling Tonnage from the natural gas-fired boiler under this Option, while burning natural gas only, shall not exceed 12 tons NO_x and 1 ton SO_2. The 12-Month Rolling Tonnage from Boilers 1 and 3 (while burning either #6 residual oil containing no more than 1% sulfur on an annual average basis or #2 distillate oil), and the new natural gas fired boiler (while burning #2 distillate oil), shall not exceed 118 tons NO_x and 353 tons SO_2. INVISTA shall operate the SCR technology according to the vendor recommendations regardless of fuel type burned.

B. NO_x EMISSIONS CONTROLS AND LIMITS

Camden Facility NO_x Emission Controls

10. By December 31, 2011, INVISTA shall convert Camden Boiler 3 to a natural gas-fired boiler. INVISTA shall install and Continuously Operate SCR control technology on Camden Boiler 3. INVISTA shall install and Continuously Operate Mobotec ROFA with Rotamix designed to achieve a removal efficiency for NO_x of at least sixty-five percent (65%) on Camden Boiler 4. The 30-Day Rolling Tonnage of combined NO_x emissions from Camden Boilers 3 and 4 shall not exceed 23 tons; and the 12-Month Rolling Tonnage of combined NO_x

emissions from Boilers 3 and 4 shall not exceed 202 tons.

Chattanooga Facility NO_x Emission Controls

11. Pursuant to Paragraph 7, if INVISTA elects to install and Continuously Operate emission controls on Chattanooga Boilers 3, 4, and 5, then eighteen months after that election, INVISTA shall comply with the requirements of either option (a) or (b) as outlined below in this Paragraph.

a. INVISTA shall install and commence Continuous Operation of Mobotec ROFA and/or Over-fire Air designed to achieve a removal efficiency for NO_x of at least fifty percent (50%) on Chattanooga Boilers 3, 4, and 5. The 30-Day Rolling Tonnage from Chattanooga Boilers 3-5 combined under this Subparagraph shall not exceed 23 tons NO_x; and the 12-Month Rolling Tonnage shall not exceed 194 tons NO_x.

b. INVISTA shall convert one or more of Boilers 3, 4, and 5 to burn exclusively natural gas. INVISTA shall install and Continuously Operate ultra low-NO_x burner technology or an SCR on each Boiler converted to natural gas firing. For each Boiler 3, 4, or 5 that is not converted to natural gas firing, INVISTA shall install and commence Continuous Operation of Mobotec ROFA and/or Over-fire Air designed to achieve a removal efficiency for NO_x of at least fifty percent (50%), and shall limit NO_x emissions to a 30-Day Rolling Average Emissions Rate of no greater than 0.3 lb/MMBTU for each Boiler that has Mobotec ROFA installed. The 30-Day Rolling Tonnage of NO_x emissions from Chattanooga Boilers 3-5 combined under this Subparagraph shall not exceed 20 tons; and the 12-Month Rolling Tonnage of NO_x emission shall not exceed 160 tons NO_x.

Seaford Facility NO_x Emission Controls

DEFINITIONS: For purposes of Paragraphs 12-16 only, the terms "Startup" and "Shutdown" shall have the following meanings:

a. "Startup" means the one-hour period immediately following the beginning of combustion of fuel in a Unit, except during a Cold Startup Period.

b. "Shutdown" means the period of no more than one hour that immediately precedes the cessation of fuel combustion in a Unit.

12. If INVISTA elects Seaford Option A, then by no later than May 1, 2009, INVISTA shall install and Continuously Operate Mobotec ROFA with Rotamix that is designed to achieve a removal efficiency for NO_x of at least sixty-five percent (65%) on Seaford Boilers 1 and 3. The 12-Month Rolling Tonnage of NO_x emissions under this option shall not exceed 272 tons for Boiler 1 and 326 tons for Boiler 3. The 24-Hour Rolling Average Emissions Rate for each Boiler shall be determined in compliance with the Optimization of NO_x Controls under Paragraph 14-16 of this Consent Decree.

13. If INVISTA elects Seaford Option B, then by no later than May 1, 2009, INVISTA shall install and Continuously Operate a natural gas fired boiler with SCR that

achieves 5 ppmvd NO_x corrected to 3% Oxygen on a 3-hour rolling average basis while burning natural gas only, to be calculated as follows:

a. The 3-hour rolling average basis shall be expressed as the average concentration of NO_x in parts per million by dry volume ("ppmvd"), corrected to 3% O_2, as averaged over three (3) hours (which may be nonconsecutive, partial hours) during which the boiler operates on natural gas only. In determining the 3-hour rolling average basis, INVISTA shall use CEMS in accordance with the applicable reference methods specified in 40 C.F.R. § 60.13(h) to calculate the emissions for each 15-minute interval within each clock hour, except during a Cold Startup Period or as otherwise provided in this Paragraph;

b. Compliance with the 3-hour rolling average basis shall be demonstrated by averaging all valid CEMS data points for the 3-hour interval readings while burning natural gas only, except during a Cold Startup Period. A minimum of two (2) 15-minute CEMS interval reading per clock hour is required to determine compliance with the 3-hour rolling average basis. All emissions recorded by CEMS shall be reported in 3-hour averages;

c. NO_x emissions above 5 ppmvd during periods of Malfunction of the natural gas-fired boiler or during Malfunction of the SCR will not be used in determining compliance with the 3-hour rolling average basis established pursuant to this Paragraph. For any event to be considered a Malfunction, INVISTA must satisfy each of the following:

   i. The Seaford facility was at the time of the event being operated in a prudent and professional manner and in compliance with generally accepted industry operations and maintenance procedures;

   ii. The 3-hour average NO_x emissions above the 5 ppmvd basis did not occur as a result of improperly designed equipment; lack of preventative maintenance; careless or improper operation; or the tampering with, interfering with, altering or adjusting any equipment in any way that conceals or disguises the type and quantity of emissions;

   iii. During the period of the event INVISTA takes all reasonable steps to minimize levels of NO_x emissions from the gas-fired boiler and takes all reasonable measures to minimize the duration of such event and to prevent the recurrence of such event in the future;

   iv. The operating conditions causing the event are recorded in the Seaford Facility's operating log within 24 hours of the event, and

in the CEMS by 5 p.m. the next business day following the event. The notations in the log and CEMS must describe the data, list the time of entry into the log, and describe the plant operating conditions responsible for the event;

v. The 3-hour average NO_x concentration does not exceed 30 ppmvd, when calculated under this Paragraph;

vi. INVISTA provides written notice of the Malfunction claim to DNREC within two (2) business days of the Malfunction period containing: a description of the event, any steps taken to mitigate emissions, and any corrective actions taken; and

vii. Within thirty (30) calendar days of the event, INVISTA files a report with DNREC and EPA that sets forth the information that demonstrates the applicability of Subparagraphs 13.c.i – 13.c.vi to the Malfunction event. This report shall also contain: (1) the cause of, and INVISTA's response to, the Malfunction; (2) whether INVISTA has taken all reasonable and prudent steps to abide by the emissions limit conditions; (3) whether INVISTA has taken all reasonable and prudent steps to minimize the emissions associated with the Seaford Facility; (4) the degree to which INVISTA has reduced throughput to the boiler and the basis for such degree of reduction; (5) the estimated emissions associated with a complete Shutdown of the boiler; (6) whether INVISTA had reviewed all prior similar causes of Malfunctions and had taken all reasonable and prudent actions necessary to avoid future similar outages; and (7) the actual emissions during the period of Malfunction;

d. Commencing sixty (60) days from the installation of the natural gas-fired boiler, Subparagraph 13.c may apply to no more than ten (10) 3-hour averages of NO_x per calendar year, and it is INVISTA's burden to demonstrate to DNREC and EPA that it has met the conditions of Subparagraphs 13.c.i-vi. All NO_x emissions during these 3-hour periods covered by Subparagraph 13.c shall be included when calculating the 12-Month Rolling Tonnage of NO_x emissions for the natural gas-fired boiler; and

e. Nothing in this Paragraph shall be construed to relieve INVISTA of any obligation under any applicable law, regulation, or permit to report emissions during periods of Malfunction, or to document the occurrence and/or cause of a Malfunction event.

Optimization of NO_x Controls Under Option A:

14. INVISTA's operation of the NO_x controls for Seaford Boilers 1 and 3 for an initial period of 180 days at the Seaford Facility shall constitute the "Optimization Period" for this technology, and shall commence upon completion of construction and operation of the NO_x controls for each Boiler. During each Boiler's Optimization Period, INVISTA shall commence a period of combustion tuning to optimize performance of the controls. This will include an evaluation of the effect of operating parameters on NO_x emissions, the monitoring of NO_x emissions and the other relevant operating parameters to identify optimum operating parameters that minimize NO_x emissions. Thereafter, INVISTA shall operate the NO_x controls at the Units in accordance with those parameters to minimize NO_x emissions to the greatest extent possible. INVISTA shall meet the performance test requirements set forth in Section XII, Paragraph 98 of this Consent Decree during each 180 day Optimization Period.

15. Initial Emissions Reports: No later than 90 days after the completion of each Optimization Period pursuant to Paragraph 14, INVISTA shall submit Initial Emissions Reports to EPA and DNREC. Each report shall include a summary of the 24-Hour Rolling Average Emission Rate for each respective Boiler, emission monitoring data during the Optimization Period including relevant CEMS data, and the operating parameter limits that INVISTA proposes to monitor for compliance demonstration. Each report shall also include INVISTA's proposed 24-Hour Rolling Average Emissions Rate (lb/MMBTU) for each Boiler, which shall be set at a level at least as stringent as the designed to achieve removal efficiency for NO_x specified in Paragraph 12 above.

16. Proposed and Final Emission Limits: DNREC shall set the final 24-Hour Rolling Average Emission Rate (lb/MMBTU) for each Boiler and operating parameters based on INVISTA's Initial Emissions Reports under Paragraph 15, process variability, a reasonable certainty of compliance and any other information pertinent to the specific emission unit. INVISTA shall comply with the proposed emission limit for each respective Boiler immediately following submission of the Initial Report for that Boiler, and shall comply with the final limit no later than sixty (60) days following INVISTA's receipt of notice from DNREC regarding the final emission limit or upon issuance of an operating permit from DNREC, whichever is earlier.

Victoria NO_x Emission Controls

Boiler Controls

17. By no later than December 31, 2011, INVISTA shall route all Low Boiler Waste streams at the Victoria Facility to Boilers 7 and 8 only and INVISTA shall install and commence Continuous Operation of SNCR technology, in compliance with Paragraph 21, on one of Boilers 7 or 8 by no later than December 31, 2011, and on the other by no later than December 31, 2012.

18. Victoria SCR Feasibility Pilot Study. INVISTA shall complete a pilot study (the "Victoria SCR Feasibility Pilot Study" or "Study") using an *in situ* pilot-scale SCR slipstream reactor designed to achieve a NO_x removal efficiency of at least ninety percent (90%) and that shall be designed to simulate the treatment of exhaust gases generated during normal

representative operating loads (including Startup and Shutdown). The pilot-scale SCR slipstream reactor will utilize a medium temperature range, honeycomb catalyst SCR system and will include regular soot blowing and a sacrificial catalyst layer inside the SCR vessel. The Study will be conducted on one or, at INVISTA's election, more of Boilers 1-4 at the Victoria Facility, which Boiler(s) are to be selected by INVISTA.

a. The Study shall be comprised of a "Combined Waste Phase" with a potential second "Gas Waste Phase," if applicable. The first phase will be the "Combined Waste Phase" and will evaluate the application of SCR technology on a boiler firing combined liquid and gas wastes at the Victoria Facility. The first phase of the Study shall be complete by no later than December 31, 2011. A second phase, if applicable, will be the "Gas Waste Phase" and shall evaluate the application of SCR technology on a boiler firing only gas at the Victoria Facility. The second phase of the Study, if applicable, shall be complete by no later than December 31, 2012. Except as set forth in Subparagraph 18.h.ii(a) regarding the optional Gas Waste Phase of the Study, data collection during each phase shall be conducted for at least six months. The Study shall take into account catalyst erosion and poisoning, with catalyst measurements taken regularly. Except as provided in Subparagraph 18.d, normal vendor recommended best operating practices to maximize catalyst life for an SCR system shall be included in the Study.

b. The Victoria SCR Feasibility Pilot Study shall not be conducted on a boiler while combusting either Low Boiler Waste or the C12 WFE stream.

c. INVISTA shall submit its plan for each phase of the Study, as applicable, to EPA for approval no less than 60 days prior to commencement of each phase of the Study. Within 50 days of receipt of the plan for the Study, EPA shall notify INVISTA of whether it approves or disapproves the plan. Approval of the plan shall not be unreasonably withheld.

d. During the Victoria SCR Feasibility Pilot Study, INVISTA shall use all reasonable efforts to operate the boiler and the pilot SCR in a manner that is representative of current and historic operating conditions (including Startup and Shutdown) and maximizing NO_x removal efficiency; provided, however, that INVISTA shall not be required to operate the boiler or SCR in a manner that creates a safety risk or impairs boiler operation unless reasonable efforts can be taken to compensate for such impairment. For purposes of this Paragraph, "reasonable efforts" do *not* include the installation and operation of pretreatment technologies, including, but not limited to, a baghouse control system, electrostatic precipitator, scrubber(s), or a sacrificial guard bed or vessel.

e. INVISTA shall provide updates of test results to EPA every other month via electronic mail and shall provide any other information relevant to the Study that EPA determines it needs upon request.

f. If at the completion of the Combined Waste Phase of the Victoria SCR Feasibility Pilot Study, INVISTA believes that SCR will not be feasible, as defined by Subparagraph 18.i, to treat combined liquid/gas wastes at the Victoria Facility Boilers, INVISTA may opt to commence the Gas Waste Phase of the Pilot Study, as set forth in Subparagraph 18.h.ii, in advance of submitting its report for the Combined Waste Phase of the Study pursuant

to Subparagraph 18.g below.

g. Within ninety (90) days after completion of each phase of the Victoria SCR Feasibility Pilot Study, as applicable, INVISTA shall submit a written report to EPA summarizing the results of the Study. This report shall include the catalyst measurements, emission monitoring data, and operating data compiled on a daily or daily average basis.

h. Based on the results of the Combined Waste Phase of the Victoria SCR Feasibility Study, INVISTA shall include in its report for that phase a recommendation as to whether the installation and operation of SCR technology to treat combined liquid/gas wastes on the Victoria Boilers is feasible, as defined by Subparagraph 18.i.

i. In the event INVISTA asserts that SCR is feasible, as defined in Subparagraph 18.i, and EPA agrees pursuant to Subparagraph 18.j, INVISTA shall propose for EPA approval a schedule to install and Continuously Operate SCR technology designed to achieve a NO_x removal efficiency of at least ninety percent (90%) on one of Boilers 1-4 by December 31, 2013, and on each of the remaining three Boilers by no later than December 31, 2016;

ii. If INVISTA asserts in its report that SCR is not feasible, as defined in Subparagraph 18.i, to treat combined liquid/gas wastes at the Victoria Boilers, INVISTA may opt to conduct a Gas Waste Phase of the Victoria SCR Feasibility Pilot Study.

(a) The Gas Waste Phase shall evaluate the application of SCR technology on a gas-only waste boiler at the Victoria Facility, and shall be conducted in accordance with the requirements of this Paragraph 18, with the exception that INVISTA may propose a Study of less than six months if EPA agrees that there will be sufficient data for it to properly evaluate the feasibility of SCR pursuant to Subparagraphs 18.i and 18.j;

(b) If INVISTA elects not to conduct the Gas Waste Phase of the Study or, if in the report submitted pursuant to Subparagraph 18.g for the Gas Waste Phase of the Study INVISTA asserts that SCR on a gas-only waste boiler is feasible, as defined in Subparagraph 18.i, and EPA agrees pursuant to Subparagraph 18.j, INVISTA shall propose for EPA approval a schedule for the conversion of one of Boilers 1-4 to a gas-only waste boiler and the installation and Continuous Operation of SCR technology designed to achieve a NO_x removal efficiency of at least ninety percent (90%) on the gas-fired boiler by December 31, 2013, and SNCR on the remaining boilers by no later than December 31, 2016;

(c) If, in the report submitted pursuant to Subparagraph 18.g

for the Gas Waste Phase of the Study, INVISTA asserts that SCR is not feasible, as defined by Subparagraph 18.i, and EPA agrees pursuant to Subparagraph 18.j, then INVISTA shall propose for EPA approval a schedule for the installation and Continuous Operation of SNCR technology on one of Boilers 1-4 by December 31, 2013, and on the remaining Boilers by December 31, 2016;

iii. Further, if INVISTA asserts that SCR is not feasible, as defined in Subparagraph 18.i, to treat combined liquid/gas wastes at the Victoria Boilers, and EPA agrees pursuant to Subparagraph 18.j, INVISTA may, at any time after December 31, 2012, re-route the Low Boiler Waste streams from Boiler(s) 7 and/or 8 to any Boiler(s) 1-4 equipped with SNCR technology. When combusting Low Boiler Waste in any boiler after December 31, 2012, INVISTA shall, to the greatest extent practicable, operate the boiler in accordance with optimum operating parameters for minimizing NO_x emissions that were identified during the Optimization Period for Boilers 7 and/or 8 under Subparagraph 21.a.

i. "Feasibility" Determination. For purposes of this Paragraph, the feasibility of SCR shall be determined based only on the following criteria:

i. If the data collected during the Study indicate that the catalyst in a full-scale SCR for the relevant liquid/gas or, as applicable, gas-only boiler would need to be replaced at a rate of more than once per 12-month period in order to maintain a NO_x removal efficiency greater than that of SNCR, then SCR is considered infeasible for the purpose of this Paragraph 18;

ii. If the data collected during the Study indicate that a full-scale SCR for the relevant liquid/gas or, as applicable, gas-only boiler would require space velocity of less than 7,000 hr^{-1}, then SCR is considered infeasible for the purpose of this Paragraph 18; or

iii. If the data collected during the Study indicate that the amount of catalyst required in a full-scale SCR for the relevant liquid/gas or, as applicable, gas-only boiler would create a back pressure that exceeds the current structural/mechanical limitations of the boiler, then SCR is considered infeasible for the purpose of this Paragraph 18.

j. SCR Feasibility Determination and Installation Schedule.

i. Within 120 days of receipt of each report and schedule submitted by INVISTA pursuant to Subparagraph 18.g or Subparagraph 18.h,

if applicable, EPA will review and either approve or conditionally approve INVISTA's selected technology and proposed implementation schedule or will specify another NO_x control technology (limited to SCR in lieu of an INVISTA-proposed SNCR or SNCR in lieu of an INVISTA-proposed SCR) or schedule to be implemented by INVISTA under Subparagraph 18.h;

ii. EPA will not specify the installation of SCR if EPA determines that any one of the criteria listed in Subparagraph 18.i demonstrates that SCR is infeasible under Paragraph 18;

iii. If EPA conditionally approves INVISTA's proposed technology or implementation schedule or if EPA rejects INVISTA's technology or implementation schedule and specifies that SCR be implemented in lieu of SNCR (or vice versa) or that the technology be implemented according to a different schedule, then within sixty (60) days of its receipt of EPA's determination, INVISTA shall either submit a revised schedule for implementing the EPA-specified SCR or SNCR technology, submit a revised proposal that responds to EPA's conditional approval, or invoke the Dispute Resolution provisions of Section XV.

k. If SCR is selected as the NO_x control technology, INVISTA shall comply with the optimization protocol set forth for SCR in Paragraph 19, below. If SNCR is selected as the NO_x control technology, INVISTA shall comply with the optimization protocol set forth for SNCR in Paragraph 21, below, and shall Continuously Operate the SNCR using best efforts to maximize NO_x emissions reductions across all of the Victoria Boilers.

l. INVISTA shall comply with the implementation schedule approved by EPA pursuant to this Paragraph 18.

19. Optimization of SCR Controls.

a. Immediately after installation of the SCR technology under Paragraph 18, as applicable, INVISTA shall begin a 16-month period of optimizing the performance of each SCR (the "SCR Optimization Period") in a manner that optimizes the Unit consistent with design requirements and the ammonia feedrate so as to achieve the optimal design efficiency of the SCR technology. The SCR Optimization Period will include an evaluation of the effect of operating parameters on NO_x emissions, the monitoring of NO_x emissions and the other relevant operating parameters to identify optimum operating parameters that minimize NO_x emissions. After the SCR Optimization Period, INVISTA shall operate the SCR for that boiler in accordance with the parameters that minimize NO_x emissions to the greatest extent possible based on the evaluation conducted under this Subparagraph 19.a.

b. Initial SCR Emissions Report: By no later than ninety (90) days after

completion of each SCR Optimization Period, INVISTA shall submit an emissions report to EPA. This report shall include a summary of NO_x emission monitoring data during the SCR Optimization Period for the boiler, including relevant CEMS data, operating data on a daily or daily average basis, and the operating parameter limits that INVISTA proposes to monitor for compliance demonstration. This report shall also include INVISTA's proposed NO_x emission limit for the Unit(s).

c. Proposed and Final Emission Limits: EPA shall set the final NO_x emission limit and operating parameters based on INVISTA's Initial SCR Emissions Report under Subparagraph 19.b, process variability, a reasonable certainty of compliance, and any other information pertinent to the specific emission Unit. INVISTA shall comply with the proposed NO_x emission limit immediately following submission of the Initial SCR Emissions Report, and shall comply with the final NO_x limit no later than thirty (30) days following INVISTA's receipt of notice from EPA regarding the final NO_x emission limit or upon issuance of an operating permit from the Permitting Authority, whichever is earlier.

20. Except, as set forth below, if, based on operations during the SCR Optimization Period, INVISTA asserts and EPA agrees that the catalyst in the SCR technology at any boiler needs to be replaced at a rate of once every six (6) to twelve (12) months in order to maintain a NO_x removal efficiency greater than that of SNCR, INVISTA may, after written approval from EPA, which shall not be unreasonably withheld, elect to cease to operate the SCR technology and, upon Shutdown of the SCR technology, commence Continuous Operation of SNCR technology. If, based on operations during the SCR Optimization Period, INVISTA asserts and EPA agrees that the catalyst needs to be replaced at a rate greater than once every six (6) months in order to maintain a NO_x removal efficiency greater than that of SNCR, INVISTA may, after written approval from EPA, which shall not be unreasonably withheld, elect to cease to operate the SCR technology and, within five months of Shutdown of the SCR technology, shall commence Continuous Operation of SNCR technology. INVISTA shall submit its analysis and supporting documentation to EPA. The emissions limit for such an SNCR will be determined by the procedure outlined in Paragraph 21.

21. Optimization of SNCR Controls.

a. Immediately after the installation of SNCR on each boiler pursuant to Paragraph 17 and Paragraphs 18 or 20, if applicable, INVISTA shall begin a 180-day period of optimizing the performance of the SNCR for that boiler (the "SNCR Optimization Period"). This will include an evaluation of the effect of operating parameters on NO_x emissions and the monitoring of NO_x emissions and the other relevant operating parameters to identify optimum operating parameters that minimize NO_x emissions. Thereafter, INVISTA shall operate the SNCR at the boilers in accordance with those parameters to minimize NO_x emissions to the greatest extent possible based on the evaluation conducted under this Subparagraph 21.a.

b. Initial SNCR Emissions Report: No later than ninety (90) days after the completion of the last SNCR Optimization Period pursuant to Subparagraph 21.a, INVISTA shall submit an emissions report to EPA. This report shall include a summary of NO_x emission monitoring data for each Boiler's SNCR Optimization Period including relevant CEMS data, operating data on a daily or daily average basis, and the operating parameter limits that

INVISTA proposes to monitor for compliance demonstration. This report shall also include INVISTA's proposed NO_x emission limits for the boilers and, if INVISTA elects to install a Thermal Oxidizer under Paragraph 23, for the Thermal Oxidizer that controls the C12 WFE.

c. Proposed and Final Emission Limits: EPA will set the final NO_x emission limits and operating parameters for each boiler (and the C12 WFE Thermal Oxidizer, as applicable) based on INVISTA's Initial SNCR Emissions Report under Subparagraph 21.b, process variability, a reasonable certainty of compliance, and any other information pertinent to the specific emission Unit. INVISTA shall comply with the proposed NO_x emission limits submitted under Subparagraph 21.b immediately following submission of the Initial SNCR Emissions Report, and shall comply with the final NO_x emissions limits no later than thirty (30) days following INVISTA's receipt of notice from EPA regarding the final NO_x emission limit or upon issuance of an operating permit from the Permitting Authority, whichever is earlier.

Cogen Unit and WFE Controls

22. By no later than December 31, 2011, INVISTA shall install and commence Continuous Operation of SCR at the Victoria Cogen Unit designed to achieve a NO_x reduction efficiency of at least ninety percent (90%) and emissions shall not exceed 10 ppmvd NO_x based on a 30-day rolling average or a 12-Month Rolling Tonnage of 85 tons NO_x.

23. By no later than December 31, 2013, INVISTA shall elect one of the following control options for the C12 WFE waste stream and shall notify the United States in writing as to which option INVISTA has selected:

a. Option A: By no later than December 31, 2015, INVISTA shall route the C12 WFE waste stream to a location offsite from the Victoria Facility;

b. Option B: By no later than December 31, 2015, INVISTA shall route the C12 WFE waste stream to a Thermal Oxidizer that is in compliance with all applicable federal and state permitting requirements;

c. Option C: By no later than December 31, 2015, INVISTA shall route the C12 WFE waste stream to a boiler equipped with SNCR control technology.

24. If INVISTA elects Option C and, during the SNCR Optimization Period or at any time thereafter for the boiler to which the C12 WFE stream is routed, INVISTA determines that combustion of the C12 WFE stream is causing or will likely cause the boiler to operate in excess of the emissions limits applicable to the boiler, INVISTA may, after written notice to EPA, elect to implement Option A or Option B under Paragraph 23.

25. If INVISTA elects to install a Thermal Oxidizer pursuant to Subparagraph 23.b (Option B), INVISTA shall include the emissions from the Thermal Oxidizer in its emissions report and proposed emission limits required under Subparagraph 21.b. Immediately upon installation of the Thermal Oxidizer, INVISTA shall operate the Thermal Oxidizer in a manner that minimizes NO_x emissions. A Thermal Oxidizer installed pursuant to this Paragraph shall be subject to the emissions limitations established under Subparagraph 21.c, above.

General NO_x Provision

26. All Units, except the Vaporizers, that have NO_x emissions limits under this Consent Decree shall be equipped with CEMS to measure NO_x emissions no later than the date the Unit has such requirements under this Consent Decree, with the exception that Units at Chattanooga shall be equipped with CEMS by no later than June 30, 2010.

C. SO_2 EMISSION REDUCTIONS AND CONTROLS

Camden SO_2 Emission Controls

27. By December 31, 2011, INVISTA shall convert and Continuously Operate Camden Boiler 3 as a natural gas-fired boiler. The 12-Month Rolling Tonnage for SO_2 emissions from Camden Boiler 3 under this option shall not exceed 1 ton.

Chattanooga SO_2 Emission Controls

28. Pursuant to Paragraph 7 above, if INVISTA elects to install and Continuously Operate emission controls on Chattanooga Boilers 3, 4, and 5, then eighteen months after the Election Date, INVISTA shall comply with the requirements of either option (a) or (b) as outlined below in this Paragraph:

a. INVISTA shall install and commence Continuous Operation of duct-injection technology on Chattanooga Boilers 4 and 5 designed to achieve a removal efficiency for SO_2 of at least fifty percent (50%) combined with other control measures as may be necessary to meet the emissions requirements under this Subparagraph. The 30-Day Rolling Tonnage of SO_2 emissions from Chattanooga Boilers 3, 4, and 5 combined under this Subparagraph shall not exceed 60 tons; and the 12-Month Rolling Tonnage shall not exceed 530 tons SO_2. INVISTA shall operate the duct-injection technology installed under this Subparagraph in a manner that optimizes the technology consistent with design requirements to achieve the optimal design removal efficiency as identified in this Subparagraph;

b. INVISTA shall convert one or both Boilers 4 and 5 to burn exclusively natural gas. For the Boiler 4 or 5 that is not converted to natural gas firing, INVISTA shall install and commence Continuous Operation of duct injection technology designed to achieve a removal efficiency for SO_2 of at least fifty percent (50%) combined with other control measures that may be necessary to meet the emissions requirements under this Subparagraph. The 30-Day Rolling Tonnage of SO_2 emissions from Chattanooga Boilers 3-5 combined under this Subparagraph shall not exceed 45 tons; and the 12-Month Rolling Tonnage shall not exceed 445 tons SO_2. INVISTA shall operate the duct-injection technology installed under this Subparagraph in a manner that optimizes the technology consistent with design requirements to achieve the optimal design removal efficiency as identified in this Subparagraph.

Seaford SO_2 Emission Controls

DEFINITIONS: For purposes of Paragraphs 29-33 only, the terms "Startup" and "Shutdown"

shall have the following meanings:

a. "Startup" means the one-hour period immediately following the beginning of combustion of fuel in a Unit, except during a Cold Startup Period.

b. "Shutdown" means the period of no more than one hour that immediately precedes the cessation of fuel combustion in a Unit.

29. If INVISTA elects Seaford Option A as described in Paragraph 9, then by January 1, 2010, INVISTA shall install and Continuously Operate a dry Flue Gas Desulfurization (FGD) System on Seaford Boiler 1 designed to achieve a 24-Hour Rolling Average Removal Efficiency for SO_2 of at least ninety percent (90%), except during Startup and Shutdown. The 12-Month Rolling Tonnage for SO_2 emissions shall not exceed 311 tons.

30. If INVISTA elects Seaford Option A as described in Paragraph 9, then by January 1, 2010, INVISTA shall install and Continuously Operate duct-injection technology on Seaford Boiler 3 designed to achieve a 24-Hour Rolling Average Removal Efficiency for SO_2 of at least fifty percent (50%), except during Startup and Shutdown. The 12-Month Rolling Tonnage of SO_2 emissions shall not exceed 1135 tons.

Seaford Facility Fuel and Operating Limitations

31. If INVISTA elects Seaford Option A as described in Paragraph 9, then by no later than May 1, 2009, INVISTA shall only burn either #6 residual oil or #2 distillate fuel oil in Seaford Boiler 2. If INVISTA burns #6 residual oil in Boiler 2, that residual oil shall contain no greater than 1% sulfur based on a 12-month rolling average.

32. If INVISTA elects Seaford Option A as described in Paragraph 9, then by no later than May 1, 2009, INVISTA shall only use Seaford Boiler 2 as a backup Boiler during Start-up, Shutdown, Malfunction, or maintenance of Boilers 1 or 3 which necessitates additional heat output from Boiler 2 to maintain normal operations.

33. If INVISTA elects Seaford Option B, as described in Paragraph 9, then by no later than May 1, 2009, INVISTA shall be authorized to burn either #6 residual oil (with a sulfur content of no greater than 1% based on a 12-month rolling average) or #2 distillate oil only in Boilers 1 and 3, and only #2 distillate oil in the new natural gas-fired boiler for a combined period of time not to exceed 2,880 hours based on a 12-month rolling summation of total hours and subject further to the 12-Month Rolling Tonnages set forth in Subparagraph 9.b, above. Notwithstanding the foregoing, in the event INVISTA is unable to install and operate Option B by May 1, 2009, due to delay in construction and/or permitting, INVISTA shall be authorized to burn either #6 residual oil or #2 distillate oil only in any of the existing Boilers for a period not to exceed two (2) months after May 1, 2009, without violation or penalty of any term or condition of this Consent Decree, including but not limited to the provision on "installation and operation" of controls (Paragraphs 9 and 13, herein). The number of hours of oil burning during this 2-month period shall be deducted from INVISTA's initial allocation of 2,880 hours during the first 12 months after May 1, 2009. Compliance with the 12-month rolling summation of 2,880 hours of oil-burning shall be determined by summing the number of hours plus any

increment of an hour (increments less than one hour shall count as one hour) of continuous oil-burning, on a 12-month rolling basis.

Vaporizers

34. Camden Facility - Beginning sixty (60) days after the Entry Date, the Vaporizers 1-4 at the Camden Facility shall burn no more than 75% fuel oil and no less than 25% natural gas, calculated as a 12-Month Rolling Heat Input Percentage calculated from the total heat input to the vaporizers by each fuel type. The fuel oil used in the Camden Vaporizers 1-4 shall not exceed a 1% sulfur content based on a 12-month rolling average.

35. Chattanooga Facility - Beginning on the Entry Date, the Vaporizers 1-6 at the Chattanooga Facility shall burn no less than 95% natural gas and no more than 5% fuel oil as a 12-Month Rolling Heat Input Percentage calculated from the total heat input to the vaporizers by each fuel type. The fuel used in the Chattanooga Vaporizers 1-6 shall not exceed a 0.3% sulfur content based on a 12-month rolling average.

36. Seaford Facility - Beginning on the Entry Date, the Vaporizers at the Seaford Facility shall burn #2 distillate or #6 residual fuel oil with a sulfur content no greater than 1% sulfur based on a 12-month rolling average.

General SO_2 Provisions

37. All Units, except the Vaporizers, Units firing natural gas, and Seaford Units firing only fuel oil as described under Paragraph 33, that have SO_2 emissions limits under this Consent Decree shall be equipped with CEMS to measure SO_2 emissions no later than the date the Unit has such requirements under this Consent Decree, with the exception that Units at Chattanooga shall be equipped with CEMS by no later than June 30, 2010.

D. PARTICULATE MATTER EMISSIONS LIMIT

Seaford Facility PM Limit

38. If INVISTA selects Option A as described in Paragraph 9, then by no later than May 1, 2009, INVISTA shall: (a) comply with a final PM emission limit of 0.015 lbs/MMBtu at Boilers 1 and 3; and (b) Boilers 1 and 3 shall be equipped with CEMS to measure PM emissions.

E. PROHIBITION ON NETTING CREDITS OR OFFSETS FROM REQUIRED CONTROLS

39. Emission reductions generated by INVISTA to comply with the requirements of this Consent Decree shall not be considered as a creditable contemporaneous emission decrease for the purpose of obtaining a netting credit under the Clean Air Act's Nonattainment NSR and PSD programs.

40. The limitations on the generation and use of netting credits or offsets set forth in

the previous Paragraph 39 do not apply to emission reductions achieved by INVISTA Units that are greater than those required under this Consent Decree. For purposes of this Paragraph 40, emission reductions from an INVISTA Unit are greater than those required under this Consent Decree if they result from INVISTA compliance with federally enforceable emission limits that are more stringent than those limits imposed on Units under this Consent Decree and under applicable provisions of the Clean Air Act or the applicable SIP. Nothing in this Consent Decree is intended to preclude the emission reductions generated under this Consent Decree from being considered by DNREC, SCDHEC, CHCAPCB, or EPA as creditable contemporaneous emission decreases for the purpose of attainment demonstrations submitted pursuant to section 110 of the Act, 42 U.S.C. § 7410, or in determining impacts on NAAQS, PSD increment, or air quality related values, including visibility, in a Class I area.

Exception to General Prohibition for Seaford Option B

41. Exception to the General Prohibition against the Use or Generation of Consent Decree Emissions Reductions for Seaford Option B.

a. Notwithstanding the general prohibition set forth in Paragraph 39, INVISTA may use 50 tons per year of NO_x and 50 tons per year of SO_2 from the emissions reductions required by Paragraphs 13 and 33 as credits or offsets in any PSD, major nonattainment and/or minor NSR permit or permit proceeding occurring after the Date of Lodging of the Consent Decree, provided that INVISTA remains in compliance with the requirements of this Consent Decree. Utilization of this exception is subject to the following conditions:

i. This exception is only available in the event INVISTA chooses to implement Seaford Option B as set forth in Paragraph 9 above;

ii. Under no circumstances shall INVISTA use emissions reductions required by this Consent Decree for netting and/or offsets prior to the time that actual emissions reductions have occurred;

iii. This exception may be used only at the Seaford Facility;

iv. The emissions requirements of this Consent Decree are for purposes of this Consent Decree only and neither INVISTA, nor any other entity, may use emissions reductions required by this Consent Decree for any purpose, including in any subsequent permitting or enforcement proceeding, except as provided herein; and

v. INVISTA still shall be subject to all federal and state regulations applicable to the PSD, major non-attainment and/or minor NSR permitting process.

V. NSPS FLARING DEVICES

42. INVISTA shall Continuously Operate an HCN startup flare at the Orange Facility that will comply with 40 C.F.R. § 60.18 and 40 C.F.R. § 63.11(a) by no later than December 31, 2010, if the final design of the flare calls for replacement of the flare tip or the flare can be reconstructed in three weeks; or (b) by no later than December 31, 2011, if the final design of the flare calls for reconstruction that cannot be completed in three weeks. Until the new flare design is constructed, INVISTA shall implement good air pollution control practices to minimize emissions from the flare.

VI. BENZENE WASTE NESHAP PROGRAM ENHANCEMENTS

43. Summary: As of the Date of Entry, INVISTA's Victoria Facility and Orange Facility have total annual benzene (TAB) amounts above 10 Mg. Upon the Date of Entry, the Victoria and Orange Facilities shall utilize the exemptions set forth in 40 C.F.R. §§ 61.342(c)(2) and (c)(3)(ii) (hereinafter referred to as the "2 Mg Compliance Option") to comply with 40 C.F.R. § 61.342(c).

44. INVISTA shall undertake the measures set forth in this Subsection VI to ensure continuing compliance with 40 C.F.R. Part 61, Subpart FF ("Benzene Waste NESHAP," "BWON," or Subpart FF) and to minimize or eliminate fugitive benzene emissions at the Victoria and Orange Facilities. By no later than December 31, 2010, INVISTA shall elect for each of the Victoria and Orange Facilities one of the following benzene emission reduction options, and shall notify the United States in writing as to which option INVISTA has selected for each Facility. After providing the United States with written notice of its election, INVISTA shall implement the selected option in compliance with the schedule set forth in this Consent Decree.

a. Option A - INVISTA shall install and fully implement a new ADN production technology that is expected to eliminate benzene from the ADN production process as follows: (i) for the first (or only, as applicable) Facility for which this option is elected, by no later than December 31, 2013, and (ii) for the second, if applicable, Facility for which this option is elected, by no later than December 31, 2016. If INVISTA elects to implement this new technology pursuant to this Option A at the Victoria and/or Orange Facility(ies), the other requirements of this Section VI and their corresponding stipulated penalties provisions of this Consent Decree (Subparagraphs 89.i – 89.t) shall not apply to the relevant Facility(ies). Until the new technology referenced above is fully implemented under this Option, INVISTA will continue to comply with the 2 Mg Compliance Option.

b. Option B - INVISTA shall continue to comply with the 2 Mg Compliance Option, and shall undertake the measures set forth in this Section VI to ensure continuing compliance with the Benzene Waste NESHAP, to further address the findings in Appendix C, and to minimize or eliminate fugitive benzene emissions at the relevant Facility.

Orange Facility - Actions to Correct Non-Compliance

45. By no later than December 31, 2012, INVISTA shall Continuously Operate a

stripper at the Orange Facility to serve as a "benzene treatment process," for all regulated aqueous waste streams in the ADN Area in compliance with 40 C.F.R. § 61.348.

46. By no later than December 31, 2012, INVISTA shall install one or more vapor combustion device(s) that achieve(s) a 99% benzene destruction efficiency to control emissions from continuous process vents that are currently controlled by the ADN operating flare, excluding the HCN offgas, in the ADN Area and the Promoter Area at the Orange Facility with backup to the existing ADN operating flare or other vapor combustion device. INVISTA shall install at least one knock-out drum for all the common vent headers for the Vapor Combustion Units and operating flares within the ADN Area and Promoter Area at the Orange Facility.

47. By no later than December 31, 2012, INVISTA shall segregate the storm water streams from the process water waste streams in the ADN Area at the Orange Facility. INVISTA shall comply with the requirements of 40 C.F.R. § 61.346 for all regulated components of the process wastewater drain system.

Victoria Facility - Actions to Correct Non-Compliance

48. Within 180 days after Entry Date, INVISTA shall Continuously Operate the benzene flasher, Nitrile Stripper Column, or other benzene treatment process at the Victoria Facility to serve as a "benzene treatment process," for all regulated aqueous waste streams in the ADN area in compliance with 40 C.F.R. § 61.348. The following technologies are acceptable under this Paragraph: thermal oxidizer, hydrolysis column, and benzene stripper. INVISTA may install a benzene treatment process other than those specified in this Paragraph once INVISTA receives the United States' approval in writing prior to the time a contract for its purchase is executed.

49. By no later than December 31, 2012, INVISTA shall install and Continuously Operate one or more vapor combustion device(s) that achieve(s) a 99% benzene destruction efficiency with backup to a flare to control emissions from all continuous process vents, excluding the HCN offgas, from the 311 and ADN Areas at the Victoria Facility that are currently controlled by the ADN operating or the 101 flares. INVISTA shall install at least one knock-out drum for all the common vent headers for the Vapor Combustion Units and operating flares within the ADN Area at the Victoria Facility.

50. By no later than December 31, 2012, INVISTA shall segregate all stormwater streams from the process water streams in the ADN area of the Victoria Facility. INVISTA shall comply with the requirements of 40 C.F.R. § 61.346 for all regulated components of the process wastewater drain system.

51. Testing, Monitoring, and Reporting Requirements for New and Existing Installations. INVISTA shall comply with all applicable Subpart FF testing, monitoring, and reporting requirements set forth in Benzene Waste NESHAP regulations for any new installations or existing installations improved pursuant to Paragraphs 45, 46, 48, and 49. INVISTA shall conduct a test of each such installation following entry of this Decree. INVISTA shall submit these test results to EPA demonstrating that each installation meets the applicable

requirements of Subpart FF.

52. Certification of Compliance with the 2 Mg Compliance Option. Within ninety (90) days after Entry, INVISTA shall submit a report to EPA certifying that the Orange and Victoria Facilities comply with the Benzene Waste NESHAP. If additional actions are determined to be necessary to ensure compliance with the 2 Mg Compliance Option, INVISTA will include such actions in its written report.

53. Carbon Canisters. INVISTA shall continue to implement the requirements of this Paragraph at all locations at the Victoria and Orange Facilities where a carbon canister(s) is utilized as a control device under the Benzene Waste NESHAP.

a. Within ninety (90) days after the Entry Date, INVISTA shall insure that installation of primary and secondary carbon canisters has occurred at locations currently utilizing single canisters and shall operate them in series. For any permanent unit, within thirty (30) days following completion of the installation of dual canisters, INVISTA shall submit a report to EPA certifying the completion of the installation. The report shall include: (i) a list of all locations at the Victoria and Orange Facilities where carbon canister systems are used as a control device under Subpart FF; (ii) an indication, for each location, whether there was a pre-existing secondary carbon canister or whether a secondary carbon canister was installed under this Paragraph; (iii) the installation date of each such secondary canister installed under this Paragraph and the date that each secondary canister was put into operation; and (iv) an indication, for each location, whether volatile organic compounds ("VOC") or benzene will be used to monitor for breakthrough under and as required by Subparagraph 53.d.

b. Except as expressly permitted under Subparagraph 53.f, INVISTA shall not use single carbon canisters for any new units or installations at the Victoria or Orange Facilities.

c. For dual carbon canister systems, "breakthrough" between the primary and secondary canister is defined as any reading equal to or greater than 5 ppm benzene.

d. INVISTA shall continue to monitor for breakthrough between the primary and secondary carbon canisters weekly, or in accordance with the frequency specified in 40 C.F.R. § 61.354(d), whichever is more frequent. This requirement shall commence: (i) upon the Entry Date where dual carbon canisters currently are in service; and (ii) no later than seven days after installation of a new dual carbon canister system.

e. INVISTA shall continue to replace the original primary carbon canister (or route the flow to an appropriate alternative control device) immediately when breakthrough is detected between the primary and secondary canister. The original secondary carbon canister (or a fresh canister) will become the new primary carbon canister and a fresh carbon canister will become the secondary canister. For purposes of this Subparagraph, "immediately" shall mean within twenty-four (24) hours of the detection of a breakthrough for canisters greater than 55 gallons. In lieu of replacing the primary canister immediately, INVISTA may elect to monitor the outlet of the secondary canister beginning on the day the breakthrough between the primary

and secondary canister is identified and each calendar day thereafter. This daily monitoring shall continue until the primary canister is replaced. If benzene is detected at the outlet of the secondary canister during this period of daily monitoring, both canisters must be replaced within eight (8) hours of the detection of a breakthrough.

f. Temporary Applications. For a period not longer than forty-five (45) days, INVISTA may utilize properly-sized single canisters for short-term operations such as with temporary storage tanks or as temporary control devices. For canisters 55 gallons or less operated as part of a single canister system, "breakthrough" is defined for purposes of this Consent Decree as any reading of VOC above background or benzene above 1 ppm (whichever is monitored). For canisters greater than 55 gallons, "breakthrough" is defined for purposes of this Consent Decree as any reading of benzene above 10 ppm. Beginning no later than the Entry Date, INVISTA shall monitor for breakthrough from a single carbon canister system once every calendar day that there is actual flow to the carbon canister. INVISTA shall replace the single carbon canister with a fresh carbon canister, discontinue flow, or route the stream to an alternate, appropriate device immediately when breakthrough is detected. For purposes of this Subparagraph, "immediately" shall mean within twenty-four (24) hours. If a single canister has been found to exceed the applicable breakthrough concentration, flow must be discontinued to that canister immediately. Such a spent canister may not be placed back into Benzene Waste NESHAP vapor control service until it has been appropriately regenerated.

g. INVISTA shall continue to maintain a readily-available supply of fresh carbon canisters at all times for the Victoria and Orange Facilities where canisters are used as a control device or shall otherwise ensure that such canisters are readily available to implement the requirements of this Paragraph 53. For purposes of this Paragraph, readily-available shall mean that INVISTA shall maintain a supply of fresh carbon canisters that are available within eight (8) hours for canisters that are 55 gallons or less and with twenty-four (24) hours for carbon canisters that are greater than 55 gallons.

h. INVISTA shall continue to maintain records associated with the requirements of this Paragraph, including all carbon canister monitoring readings and the constituents being monitored for at least five (5) years after such readings occur.

54. Annual Review. Within sixty (60) days after the Entry Date, INVISTA shall modify, to the extent necessary, its existing written management of change procedures to provide for an annual review of process information for the Victoria and Orange Facilities, including but not limited to construction projects, to ensure that all new benzene waste streams are included in the waste stream inventory. INVISTA shall conduct such reviews on an annual basis.

55. Laboratory Audits. INVISTA shall conduct audits of all laboratories that perform analyses of INVISTA's Benzene Waste NESHAP samples to ensure that proper analytical and quality assurance/quality control procedures are followed for such samples.

a. Within 180 days after the Entry Date, INVISTA shall complete initial audits of half the laboratories used by the Orange and Victoria Facilities, and shall complete the audits for the remaining laboratories within 365 days of the Entry Date. INVISTA shall also

audit any new laboratory to be used for analyses of benzene samples from the Orange and Victoria Facilities prior to use of the new laboratory. If INVISTA has completed an audit of any laboratory on or after January 1, 2006, initial audits of those laboratories pursuant to this Subparagraph shall not be required.

b. During the term of this Consent Decree, INVISTA shall conduct subsequent laboratory audits such that each laboratory is audited once every two (2) calendar years.

c. INVISTA may conduct audits itself, retain third parties to conduct these audits, or use audits conducted by others as its own, but the responsibility and obligation to ensure compliance with this Consent Decree, this Paragraph and Subpart FF are solely INVISTA's.

56. Benzene Spills. For any spill at either the Victoria or Orange Facility after the Entry Date, INVISTA shall review the spill to determine if any benzene waste, as defined by Subpart FF, was generated as a result of the spill. INVISTA shall continue to account for all benzene wastes generated through spills that are not managed in controlled equipment, in an enhanced biotreatment unit, or shipped offsite in accordance with 40 C.F.R. §§ 61.342-348 in its annual calculation against the 2 Mg compliance option.

57. Training.

a. Within 90 days after the Entry Date, INVISTA shall develop and implement a program for annual (i.e. once each calendar year) training for all employees who draw benzene samples for Benzene Waste NESHAP purposes.

b. Within 120 days after the Entry Date, INVISTA shall complete the development of standard operating procedures (where they do not already exist) for all control devices and treatment processes used to comply with the Benzene Waste NESHAP at the Victoria and Orange Facilities.

c. Within 180 days after the Entry Date, INVISTA shall complete an initial training program regarding these procedures for all operators assigned to the relevant equipment, if such training has not already been provided. Comparable training shall also be provided to any persons who subsequently become operators, prior to their assumption of this duty. "Refresher" training in these procedures shall be performed on a three-year cycle (i.e., once every three calendar years).

d. INVISTA shall require any contractors hired to perform any of the requirements of this Subsection VI to provide evidence that its employees are properly trained to implement any requirements that they are hired to perform pursuant to Paragraphs 51, 53, 58, 60, and 61 of this Consent Decree.

58. Sampling Under the 2 MG Compliance Option. INVISTA shall conduct quarterly sampling as described by this Paragraph at the Victoria and Orange Facilities for the purpose of

calculating quarterly, uncontrolled benzene quantities.

a. Within 180 days after the Entry Date, INVISTA shall submit to EPA for approval a sampling plan for the Victoria and Orange Facilities designed to identify the quarterly benzene quantity in uncontrolled benzene waste streams. That sampling plan shall include, but need not be limited to: (i) proposed sampling locations and methods for flow calculations at the "end of line" of the uncontrolled benzene waste streams; (ii) quarterly sampling of all uncontrolled waste streams that count toward the 2 Mg/yr calculation and contain greater than 0.05 Mg/yr of benzene; (iii) quarterly sampling of all uncontrolled waste streams that qualify for the 10 ppmw exemption (40 C.F.R. § 61.342(c)(2)) and that contain greater than 0.1 Mg/yr of benzene. The Sampling Plans may identify commingled, exempt waste streams for sampling, provided INVISTA demonstrates that the benzene quantity of those commingled streams will not be underestimated. Subparagraph 58.a(i) above shall not apply so long as the configuration of the sewer systems at the Victoria and Orange Facilities are not modified from the 2007 configuration, except as contemplated by Paragraphs 47 and 50.

b. If changes in processes, operations, or other factors lead INVISTA to conclude that its approved Sampling Plan may no longer provide an accurate measure of the Facility's quarterly benzene quantity in uncontrolled benzene waste streams, INVISTA shall submit a revised sampling plan to EPA for approval within 60 days after discovery of an issue under this Paragraph occurs.

c. INVISTA shall commence sampling under its Sampling Plan during the first full calendar quarter following submittal of the Plan, regardless of whether or not the Plan is approved at that time. INVISTA shall take, and have analyzed, at least three representative samples from each identified sampling location. INVISTA shall use the average of all samples taken and the identified flow calculations to determine its quarterly benzene quantity in uncontrolled waste streams and to estimate a calendar year value for the Facility.

d. After at least eight quarters of sampling under an approved Sampling Plan under this Paragraph 58, INVISTA may submit a report to EPA that requests a change in the monitoring frequency for the Victoria and/or Orange Facilities. If EPA determines, after an opportunity for consultation with INVISTA, that the information presented in the report supports a change in the monitoring frequency for one or more of the facilities, then the monitoring frequency requirement under this Paragraph will be modified in accordance with Paragraph 141 (Modification).

59. Quarterly and Annual Estimations of Uncontrolled Benzene Quantity. At the end of each calendar quarter following commencement of quarterly sampling, INVISTA shall calculate a quarterly uncontrolled benzene quantity and shall estimate a projected calendar year uncontrolled benzene quantity based on the quarterly sampling results and the approved flow calculations. INVISTA shall submit the uncontrolled benzene quantity in the Semi-Annual Reports due under Section XII of this Decree.

60. Corrective Measures.

a. Applicability. If the calculations in Paragraph 59 indicate that the quarterly uncontrolled benzene quantity exceeds 0.5 Megagrams or the projected calendar year uncontrolled benzene quantity exceeds 2.0 Megagrams, INVISTA shall submit in its Semi-Annual Report all relevant information and identify whether any action should be taken to reduce benzene quantities in its waste streams for the remainder of the calendar year. If additional actions are determined to be necessary to ensure compliance with the 2 Mg Compliance Option, INVISTA will include in the Semi-Annual Report, a BWON Corrective Measures Plan as specified in Subparagraph 60.b.

b. BWON Corrective Measures Plan. The BWON Corrective Measures Plan required by this Paragraph shall identify: (i) the cause of the potentially elevated benzene quantities; (ii) all corrective actions that INVISTA has taken or plans to take to ensure that the cause will not recur; and (iii) an appropriate strategy and schedule that INVISTA shall implement to ensure that INVISTA complies with the 2 Mg Compliance Option. If a spill event is the main cause of the potentially elevated benzene quantities, the BWON Corrective Measures Plan will focus on the spill event and on future measures to minimize and address spills. INVISTA shall implement its BWON Corrective Measures Plan in accordance with the schedule provided therein.

c. Third-Party TAB Study and Compliance Review. After a second consecutive quarter in which at least one of the conditions in Subparagraph 60.a continues to exist and INVISTA is not then able to identify the cause(s) and/or appropriate corrective measures to ensure compliance with the 2 Mg Compliance Option, INVISTA shall retain a third-party contractor to undertake a comprehensive TAB study and compliance review ("Third-Party TAB Study and Compliance Review") at the applicable Facility. By no later than the last day of the next following quarter, INVISTA shall submit a proposal to EPA that identifies the contractor, the contractor's scope of work, and the contractor's schedule for the Third-Party TAB Study and Compliance Review. Unless EPA disapproves or seeks modifications of the proposal within thirty (30) days after its receipt, INVISTA shall authorize the contractor to commence work. INVISTA shall ensure that the work is completed in accordance with the schedule provided therein. No later than thirty (30) days after INVISTA receives the results of the Third-Party TAB Study and Compliance Review, INVISTA shall submit the results to EPA. After the report is submitted to EPA, INVISTA and EPA shall discuss informally the results of the Third-Party TAB Study and Compliance Review. No later than ninety (90) days after INVISTA receives the results of the Third-Party TAB Study and Compliance Review or at such other time as INVISTA and EPA may agree, INVISTA shall submit to EPA a plan and schedule for remedying any deficiencies identified in the Third-Party TAB Study and Compliance Review and any deficiencies that EPA identified following the Third-Party TAB Study and Compliance Review. Unless EPA disapproves or seeks modifications of the proposal within thirty (30) days after its receipt, INVISTA shall implement the remedial plan in accordance with the schedule included in its plan.

61. Miscellaneous Measures

a. By no later than sixty (60) days after the Entry Date, INVISTA shall:

i. Conduct monthly visual inspections of and, if appropriate, refill all Subpart FF water traps within the Orange and Victoria Facilities individual drain systems;

ii. If INVISTA utilizes conservation vents, visually inspect all Subpart FF conservation vents or indicators on process sewers for detectable leaks on a weekly basis, reset any vents where leaks are detected, and record the results of the inspections. After two (2) years of weekly inspections, and based upon an evaluation of the recorded results, INVISTA may submit a request to EPA Region 6 to modify the frequency of the inspections. Alternatively, for conservation vents with indicators that identify whether flow has occurred, INVISTA may elect to visually inspect such indicators on a monthly basis and, if flow is then detected, INVISTA shall then visually inspect that indicator on a weekly basis for four weeks. If flow is detected during any two of those four weeks, INVISTA shall install a carbon canister on that vent until appropriate corrective action(s) can be implemented to prevent such flow. Nothing in this Subparagraph shall require INVISTA to monitor conservation vents on fixed roof tanks.

b. By no later than sixty (60) days after completing the segregation project under Paragraph 47 and 50, INVISTA shall identify and mark at the drain all area drains in the ADN Area that are segregated stormwater drains.

62. Recordkeeping and Reporting Requirements for this Section VI: Outside of the Reports Required under 40 C.F.R. § 61.357 and the Semi-Annual Reports Required by Section XII (Periodic Reporting). At the times specified in the applicable provisions of this Section VI, INVISTA will submit, as and to the extent required, the following reports to EPA:

a. a certification of compliance under Paragraph 52;

b. a report certifying the completion of installation of dual carbon canisters (under Subparagraph 53.a);

c. a BWON Sampling Plan (under Subparagraph 58.a), and revised BWON Sampling Plan, if necessary (under Subparagraph 58.b).

63. Recordkeeping and Reporting Requirements for this Section VI: As Part of the Semi-Annual Reports Required by Section XII (Periodic Reporting). INVISTA shall submit the following information in the Semi-Annual Reports submitted pursuant to Section XII (Periodic Recordkeeping) for the six month period covered by the Report:

a. An identification of all laboratory audits, if any, completed during the six month period, including a description of the methods used in the audit and the results of the audit;

b. A description of the measures taken, if any, during the six month period to comply with the training provisions of Paragraph 57; and

c. A summary of the sampling results required under Paragraph 58, including the quarterly and projected annual uncontrolled benzene quantities or TAB, as applicable.

VII. LEAK DETECTION AND REPAIR PROGRAM ENHANCEMENTS

64. In order to minimize or eliminate fugitive emissions of volatile organic compounds ("VOCs"), benzene, volatile hazardous air pollutants ("VHAPs"), and organic hazardous air pollutants ("HAPs") from equipment in light liquid and/or in gas/vapor service, INVISTA shall undertake the enhancements identified in this Section VII to its leak detection and repair ("LDAR") programs at the Victoria and Orange Facilities under all applicable federal Clean Air Act, and analogous state and local LDAR requirements.

65. Written LDAR Program Description. By no later than sixty (60) days after the Entry Date, INVISTA shall develop and maintain a written LDAR Program Description for a program for compliance with all federal, state, and local LDAR regulations applicable to the Victoria and Orange Facilities. INVISTA shall update the LDAR Program Description as may be necessary to ensure continuing compliance. The LDAR Program Description shall include, at a minimum:

a. A set of leak rate goals for the Victoria and Orange Facilities that will be a target for achievement on a process-unit-by-process-unit basis. Such targets shall have the purpose of facilitating lower leak rates and are not intended as enforceable requirements;

b. An identification of all equipment in light liquid and/or in gas/vapor service that is subject to periodic monitoring requirements via 40 C.F.R. Part 60, EPA Reference Test Method 21 under any applicable federal, state, or local LDAR regulation and that has the potential to leak VOCs, HAPs, VHAPs, and benzene within the Victoria and Orange Facilities process units.

c. Procedures for identifying leaking equipment within the Victoria and Orange Facilities process units;

d. Procedures for repairing and keeping track of leaking equipment;

e. Procedures for identifying and including new equipment to be added to the LDAR program;

f. A process for evaluating new and replacement equipment to promote consideration and installation of equipment that will minimize leaks and/or eliminate chronic leakers;

g. A description of the Facility's LDAR monitoring organization and a designation of the person or position responsible for LDAR management who has the authority to implement LDAR improvements at the Facility, as required by Paragraph 67; and

h. A procedure for regularly communicating LDAR information to appropriate INVISTA personnel.

66. Training. INVISTA shall continue to implement its current training program, which includes the following features, and within ninety (90) days of completion of the written LDAR Program Description, INVISTA shall begin to implement a new training program at the Victoria and Orange Facilities which includes the following features:

a. For personnel newly-assigned to LDAR responsibilities, INVISTA shall require LDAR training prior to each employee beginning such work;

b. For all personnel assigned LDAR responsibilities, INVISTA shall provide and require completion of annual LDAR training or require its LDAR contractor to provide such training (initial annual LDAR training for all such personnel will be completed not later than one year after the Entry Date);

c. For all other Facility operations and maintenance personnel (including contract personnel) who have duties relevant to LDAR, INVISTA shall provide and require completion of an initial training program that includes instruction on aspects of LDAR that are relevant to the person's duties (initial LDAR training for all such personnel will be completed not later than one year after the Entry Date); and

d. For the individuals covered by this Paragraph, "refresher" training in LDAR shall be performed on a cycle of no longer than three years.

67. LDAR Personnel. By no later than 180 days after the Entry Date, INVISTA shall establish a program that holds each person assigned LDAR responsibilities accountable for assuring compliance with LDAR. By no later than ninety (90) days after the Entry Date, INVISTA shall establish and maintain a person or position with responsibility for LDAR management and authority to implement LDAR improvements.

68. LDAR Audits. INVISTA shall implement Facility-wide LDAR Audits – including an Initial LDAR Audit and Regular LDAR Audits – as set forth in this Paragraph to ensure the Victoria and Orange Facilities' compliance with all applicable LDAR requirements. Each LDAR Audit shall include, but shall not be limited to: (i) performing comparative

monitoring; (ii) reviewing records to ensure monitoring and repairs were completed in the required periods; (iii) reviewing component identification procedures, tagging procedures, and data management procedures; and (iv) observing LDAR technicians' calibration and monitoring techniques. During each LDAR Audit, leak rates shall be calculated for each process unit where comparative monitoring was performed.

a. Initial LDAR Audit. INVISTA shall retain a third-party contractor to complete an Initial LDAR Audit for the Victoria Facility by no later than December 31, 2009, and for the Orange Facility by no later than June 30, 2010.

b. Initial Audit Report. Within ninety (90) days of completion of each audit, INVISTA shall report to EPA any areas of non-compliance identified as a result of its audit and submit in writing a proposed compliance schedule for correcting the non-compliance. If the proposed compliance schedule extends greater than ninety (90) days beyond the audit completion date, INVISTA must seek approval of the compliance schedule from EPA. INVISTA shall implement the compliance schedule as proposed until the schedule is approved or disapproved by EPA. Within ninety (90) days of completing each audit, INVISTA shall certify to EPA that the facility: is in compliance; has completed related corrective action (if necessary); and/or is on a compliance schedule, and shall specifically certify that all affected equipment has been identified and included in the facility LDAR program. Violations identified in the report of the initial audit conducted pursuant to Subparagraph 68.a and corrected by INVISTA as required in Paragraph 69 shall not be subject to the stipulated penalties in Paragraph 89.

c. Regular LDAR Audits.

i. Third-Party Audits. INVISTA shall retain a contractor to perform a Third-Party LDAR Audit of the Victoria and Orange Facilities' LDAR program at least once every four (4) calendar years after the Initial LDAR Audit is completed under Subparagraph 68.a (with approximately 48 months between the Audits).

ii. Internal Audits. Internal LDAR Audits of the Victoria and Orange Facilities' LDAR program shall be completed by having an audit performed by personnel familiar with the LDAR program and its requirements. INVISTA shall complete an Internal LDAR Audit by no later than two (2) years from the date of the completion of the third-party audits required in Subparagraphs 68.a and 68.c.i. INVISTA shall perform an internal audit of the Victoria and Orange Facilities' LDAR program at least once every four (4) calendar years (with approximately 48 months between the Audits). INVISTA may elect to retain third-parties to undertake an Internal Audit, provided that a Regular LDAR Audit at the Victoria and Orange Facilities occurs every two (2) years.

iii. Timing. To ensure that an LDAR Audit occurs every two (2) years at the Victoria and Orange Facilities, once the Initial Audit is

completed, the remaining Third-Party Audits and Internal Audits shall be separated by not more than two (2) calendar years (with approximately 24 months between the Audits).

69. Implementation of Actions Necessary to Correct Non-Compliance. If the results of any of the LDAR Audits conducted pursuant to Paragraph 68 identify any areas of noncompliance, INVISTA shall implement, as soon as practicable, all steps necessary to correct or otherwise address such area(s) of non-compliance and to prevent, to the extent practicable, a recurrence of the cause of such non-compliance. For purposes of this Paragraph, a ratio of the process unit valve leak percentage, established through a comparative monitoring audit conducted under Paragraph 68 to determine the average valve leak percentage reported for the process unit for the four quarters immediately preceding the audit, in excess of 3.0 shall be deemed a cause for corrective action. If the calculated ratio yields an infinite result, INVISTA shall assume one leaking valve was found in the process unit through its routine monitoring during the four-quarter period. INVISTA shall, during the term of this Consent Decree, retain the Initial Audit Report and all other LDAR Audit reports generated pursuant to Paragraph 68, and shall maintain a written record of all corrective actions that INVISTA takes in response to deficiencies identified in any LDAR Audits. After the completion of any LDAR Audit other than the Initial Audit, INVISTA shall include the following information in the next Semi-Annual Report due under Section XII of this Consent Decree: (a) a summary, including findings, of each such LDAR Audit; and (b) a list of corrective actions taken during the reporting period and any schedule for implementing future corrective actions.

70. Internal Leak Definition for Valves and Pumps. Unless otherwise exempt from monitoring under all applicable regulatory requirements, INVISTA shall continue to utilize the following internal leak definitions for valves and pumps in light liquid and/or gas/vapor service, unless other permit(s), regulations, or laws require the use of lower leak definitions. If INVISTA's compliance with the Consolidated Federal Air Rule ("CAR") at 40 C.F.R. Part 65 is at least as stringent as the requirements under this Paragraph and compliance with CAR is achieved on or before the deadlines set pursuant to this Paragraph, then compliance with CAR shall constitute compliance with this Paragraph.

a. Leak Definition for Valves. By no later than 365 days after the Entry Date, INVISTA shall utilize an internal leak definition of 500 ppm VOCs for valves that have not been previously subject to this internal leak definition at the Victoria and Orange Facilities, excluding pressure relief devices.

b. Leak Definition for Pumps. By no later than 365 days after the Entry Date, INVISTA shall utilize an internal leak definition of 2000 ppm for centrifugal pumps that have not been previously subject to this internal leak definition at the Victoria and Orange Facilities. Reciprocating pumps, connectors, compressors, and other components shall retain their applicable regulatory leak definition.

71. LDAR Monitoring Frequency. If INVISTA's compliance with CAR (40 C.F.R. Part 65) is at least as stringent as the requirements under this Paragraph and compliance with CAR is achieved on or before the deadlines set pursuant to this Paragraph, then compliance with CAR shall constitute compliance with this Paragraph.

a. Pumps. When the lower internal leak definition for pumps becomes applicable under Subparagraph 70.b, and unless more frequent monitoring is required by applicable LDAR requirements, INVISTA shall monitor pumps at the internal leak definition on a monthly basis.

b. Valves. When the lower internal leak definition for valves becomes applicable under Subparagraph 70.a, and unless more frequent monitoring is required by applicable LDAR requirements, INVISTA shall monitor valves (other than difficult to monitor or unsafe to monitor valves) at the internal leak definition on a quarterly basis, with no ability to skip periods on a process-unit-by-process-unit basis.

72. Reporting, Recording, Tracking, Repairing and Remonitoring Leaks of Valves and Pumps Based on the Internal Leak Definitions. If INVISTA's compliance with CAR (40 C.F.R. Part 65) is at least as stringent as the requirements under this Paragraph and compliance with CAR is achieved on or before the deadlines set pursuant to this Paragraph, then compliance with CAR shall constitute compliance with this Paragraph.

a. Reporting. For regulatory reporting purposes, INVISTA may continue to report leak rates in valves and pumps against the reporting requirements stated in applicable regulations, or may use the lower, internal leak definitions specified in Paragraph 70.

b. Recording, Tracking, Repairing and Remonitoring Leaks. INVISTA shall record, track, repair, and re-monitor all leaks in excess of the internal leak definitions of Paragraph 70 (at such time as those definitions become applicable). Except as provided otherwise in this Section VII, INVISTA shall make a first attempt at repair and remonitor the component within five (5) calendar days after a leak is detected and, if continuing to leak, either complete repairs and re-monitor leaks or place such component on the Facility's delay of repair list according to Paragraph 77 within thirty (30) days after a leak is detected. All records of repairs, repair attempts, and remonitoring shall be maintained for the life of the Consent Decree.

73. Initial Attempt at Repair on Certain Valves. By no later than ninety (90) days after the Date of Entry, INVISTA shall promptly make an "initial attempt" at repair after detecting a leak at a reading greater than 200 ppm of VOCs at any valve, excluding pressure relief devices, control valves, valves that are on the delay of repair list, and components that LDAR personnel are not authorized to repair. INVISTA or its designated contractor shall re-monitor the valve in question within five (5) calendar days after the "initial attempt" to repair. If the remonitored leak reading is below the applicable leak definition, no further action will be necessary. If the re-monitored leak reading is greater than the applicable leak definition, INVISTA shall repair the valve according to the requirements of Subparagraph 72.b, except that no first repair attempt requirement shall apply. If INVISTA can demonstrate with sufficient, statistically significant monitoring data over a period of at least two years that "initial attempts"

to repair at 200 ppm worsen or do not improve leak rates, INVISTA may request EPA to reconsider or amend this requirement.

74. Electronic Monitoring, Storing, and Reporting of LDAR Data.

a. Electronic Storing and Reporting of LDAR Data. INVISTA has and shall continue to maintain an electronic database for storing and reporting LDAR data at the Victoria and Orange Facilities.

b. Electronic Data Collection During LDAR Monitoring and Transfer Thereafter. By no later than 180 days after the Entry Date, INVISTA shall use data loggers and/or electronic data collection devices during all LDAR monitoring at the Victoria and Orange Facilities. INVISTA, or its designated contractor, shall use its best efforts to transfer, by the end of the next business day, the electronic data from electronic data logging devices to the electronic database maintained pursuant to Subparagraph 74.a. For all monitoring events in which an electronic data collection device is used, the collected monitoring data shall include a time and date stamp, and identification of the instrument and operator. INVISTA may only use paper logs where necessary or more feasible (e.g., small rounds, re-monitoring, or when data loggers are unavailable or broken, etc.), and shall record, at a minimum, the identity of the technician, the date, the monitoring starting and ending times, all monitoring readings, and an identification of the monitoring equipment. INVISTA shall use its best efforts to transfer any manually recorded monitoring data to the electronic database maintained pursuant to Subparagraph 74.a within seven (7) days of the monitoring event.

75. QA/QC of LDAR Data. By no later than 90 days after the Entry Date, INVISTA (or a third-party contractor retained by INVISTA) shall develop and implement procedures for quality assurance/quality control ("QA/QC") reviews of all data generated by LDAR monitoring technicians. INVISTA shall ensure that monitoring data provided by monitoring technicians is reviewed daily for QA/QC. At least once per calendar quarter, INVISTA shall perform a QA/QC review of each contractor's monitoring data which shall include, but not be limited to, a review of: (i) the number of components monitored per technician; (ii) the time between monitoring events; and (iii) abnormal data patterns.

76. Calibration/Calibration Drift Assessment.

a. Calibration. INVISTA shall conduct all calibrations of LDAR monitoring equipment at the Victoria and Orange Facilities using methane as the calibration gas, and in accordance with 40 C.F.R. Part 60, EPA Reference Test Method 21.

b. Calibration Drift Assessment. By no later than 365 days after the Entry Date, INVISTA shall conduct calibration drift assessment re-checks of the LDAR monitoring equipment at least at the end of each day and anytime a machine shuts off. INVISTA shall conduct the calibration drift assessment re-check using a calibration gas with a concentration approximately equal to the applicable internal leak definition for the life of this Consent Decree as defined in Section XXVII (Termination of Consent Decree). If any calibration drift assessment after the initial calibration shows a negative drift of more than 10% from the previous

calibration, INVISTA shall remonitor all valves that were monitored since the last calibration or calibration drift assessment that had a reading greater than 200 ppm and shall remonitor all pumps that were monitored since the last calibration or calibration drift assessment that had a reading greater than 500 ppm.

77. Delay of Repair.

a. By no later than ninety (90) days after the Entry Date, INVISTA shall take the following actions for any equipment at the Victoria and Orange Facilities that INVISTA intends to place on the "delay of repair" list, under applicable regulations:

i. INVISTA shall require sign-off by the unit supervisor within thirty (30) days of identifying that a piece of equipment is leaking at a rate greater than the applicable leak definition and that such equipment qualifies for delayed repair under applicable regulations;

ii. INVISTA shall include equipment that is placed on the "delay of repair" list in INVISTA's regular LDAR monitoring;

iii. INVISTA shall use its best efforts to isolate and repair centrifugal pumps identified as leaking at a rate of 2,000 ppm or greater; and

iv. Beginning no later than six (6) months from the Date of Lodging of the Consent Decree, on valves subject to the LDAR Regulations, other than control valves and pressure relief valves, that are leaking at a rate of 10,000 ppm or greater, INVISTA will use a "drill and tap" or equivalent method for fixing such leaking valves, unless INVISTA can demonstrate that there is a safety, mechanical, or adverse environmental concern posed by attempting to repair the leak in this manner. INVISTA will perform the first "drill and tap" (or equivalent repair method) within fifteen (15) days, and a second attempt (if necessary) within thirty (30) days after the leak is detected. If a new method develops for repairing such valves, INVISTA will advise EPA prior to implementing the use of such new method in place of drill and tap for repairs required under this Decree.

78. Chronic Leakers. A valve shall be classified as a "chronic leaker" under this Paragraph if it leaks above 5,000 ppm twice in any consecutive four (4) quarters after the Entry Date, unless the valve has not leaked in the twelve (12) consecutive quarters prior to the relevant process unit turnaround. Following the identification of a "chronic leaker" non-control valve, INVISTA shall replace, repack, or perform similarly effective repairs on the chronic leaker during the next process unit turnaround.

79. Alternate Leak Detection Method. As an alternative to the LDAR requirements

outlined in Paragraphs 75 and 76 above, INVISTA may begin using an alternate leak detection method – such as a method employing "Smart LDAR" technology – within one year of Entry Date.

80. Recordkeeping and Reporting Requirements for this Section.

a. In the Semi-Annual Reports submitted by INVISTA pursuant to Section XII (Periodic Reporting), INVISTA shall include the following information in the Report for the period in which the identified activity occurred or was required:

i. A copy of the LDAR Program Description under Paragraph 65;

ii. A certification that the training program has been implemented as required by Paragraph 66;

iii. An identification of the person or position responsible for LDAR performance as required by Paragraph 67;

iv. A certification that the lower leak definitions and increased monitoring frequencies have been implemented according to Paragraphs 70 and 71;

v. A certification of the implementation of the "initial attempt" to repair program under Paragraph 73;

vi. A certification of the implementation of QA/QC procedures for review of data generated by LDAR technicians as required by Paragraph 75;

vii. A certification of the implementation of the calibration drift assessment procedures of Paragraph 76;

viii. A certification of the implementation of the "delay of repair" procedures of Paragraph 77;

ix. A list of the process units monitored during the reporting period;

x. The number of valves and pumps present in each process unit;

xi. The number of valves and pumps monitored in each process unit;

xii. The number of valves and pumps found leaking for each process unit;

xiii. The number of "difficult to monitor" pieces of equipment monitored;

xiv. The projected month and year of the next monitoring event for that unit;

xv. A list of all equipment currently on the "delay of repair" list and the date each component was placed on the list;

xvi. The number of repairs not attempted within five (5) days and thirty (30) days pursuant to Subparagraph 72.b;

xvii. The number of initial attempts at repair not made promptly and remonitored within five (5) days pursuant to Paragraph 73;

xviii. The number of repairs not completed at the next process unit turnaround pursuant to Paragraph 78; and

xix. The number of repairs not completed within fifteen (15) days and thirty (30) days under Subparagraph 77.a.iv.

b. Special Requirement for Initial Semi-Annual Report Each Year. As part of the first Semi-Annual Report submitted each year pursuant to Section XII (Periodic Reporting), INVISTA shall identify each LDAR Audit that was conducted under Paragraph 68 in the previous calendar year, including an identification of the auditors, a summary of the audit results, and the actions that INVISTA took or intends to take to correct identified deficiencies.

VIII. RESOLUTION OF CLAIMS

81. Claims Based on Violations in Appendix A. Entry of this Consent Decree shall resolve INVISTA's civil and administrative liability to the Plaintiffs for the alleged violations specified in Appendix A.

82. Claims Based on Violations in Appendix B. Satisfaction of the requirements in Sections IV and V of this Consent Decree shall resolve INVISTA's civil and administrative liability to the Plaintiffs for NNSR/PSD or NSPS claims, as applicable, arising out of the alleged violations specified in Appendix B. Notwithstanding the resolution of liability in this Paragraph, the release of liability by the Plaintiffs to INVISTA for claims arising out of the alleged violations specified in Appendix B shall be rendered void if INVISTA materially fails to comply with the obligations and requirements of Section IV (relating to NNSR/PSD Requirements) or Section V (relating to NSPS Flaring Devices) of this Consent Decree; provided, however, that the release in this Paragraph shall not be rendered void if INVISTA remedies such failure and pays any stipulated penalties due as a result of such material failure.

83. Claims Based on BWON and LDAR Violations. Satisfaction of the requirements in Section VI and VII of this Consent Decree shall resolve INVISTA's civil and administrative liability to the Plaintiffs for (1) BWON and LDAR claims arising out of the alleged violations specified in Appendix C and (2) violations of federal or federally-enforceable state or local

LDAR requirements applicable to the Victoria and Orange facilities that commence prior to the Date of Lodging, provided that the events giving rise to such violations are identified by INVISTA in its initial third party audit reports submitted pursuant to Paragraph 68.b and corrected by INVISTA as required under Paragraph 69. Notwithstanding the resolution of liability in this Paragraph, the releases of liability by the Plaintiffs to INVISTA for claims arising out of the alleged violations specified in Appendix C or identified in the Paragraph 68.b initial audit report shall be rendered void if INVISTA materially fails to comply with the obligations and requirements of Sections VI and VII (relating to BWON and LDAR Requirements) of this Consent Decree; provided, however, that the releases in this Paragraph shall not be rendered void if INVISTA remedies such failure and pays any stipulated penalties due as a result of such material failure.

84. Nothing in this Consent Decree is intended nor shall be construed as a waiver by EPA, the United States or of any of the Plaintiffs of its right to institute an administrative or civil action against INVISTA for any past, present, or future civil violations of any statutes, rules or regulations other than for those violations listed in Appendix A, B, or C. Nothing in this Consent Decree is intended nor shall be construed to operate in any way to resolve any criminal liability of INVISTA. Except as otherwise provided in Paragraphs 81-83, INVISTA's compliance with this Consent Decree shall be no defense in law or equity to any action commenced by the Plaintiffs pursuant to any federal, state or local law, regulation, or permit.

85. The United States', DNREC's, SCDHEC's and the CHCAPCB's agreement to the terms of this Consent Decree is expressly conditioned on the completeness, accuracy and truth of INVISTA's certifications set forth in Subparagraphs 97.a through 97.h of this Consent Decree. In the event that INVISTA has made any material misrepresentations or omissions in any Subparagraph 97.a through 97.h of this Consent Decree:

a. The Resolution of Claims in Paragraphs 81-83 shall be jointly voidable by action of the United States and the Applicable Co-Plaintiff, except that any civil penalty or stipulated penalty payments already made by INVISTA under this Consent Decree shall be forfeited by INVISTA; and

b. The Plaintiffs may pursue all civil and criminal remedies and sanctions available to them under law on account of Defendant's violations, including criminal prosecution for perjury or false swearing.

86. In the event that INVISTA has made a nonmaterial misrepresentation or omission in any Subparagraph 97.a through 97.h then the Resolution of Claims in Paragraphs 81-83 shall be jointly voidable by action of the United States and the Applicable Co-Plaintiff solely with respect to the violations to which such nonmaterial misrepresentation related, but not voidable in their entirety.

IX. PAYMENT OF CIVIL PENALTIES

87. Within thirty (30) days after Date of Entry of this Consent Decree, INVISTA shall pay to the Plaintiffs a civil penalty totaling $1,700,000 dollars in accordance with Subparagraphs 87.a – 87.f below, in settlement of the civil violations alleged in the Plaintiffs' Complaints.

a. INVISTA shall pay the amount of $850,000 to the U.S. Treasury. Such payment shall be made by EFT to the U.S. Department of Justice lockbox bank in accordance with instructions provided by the United States to INVISTA upon execution of the Consent Decree, and shall reference USAO File Number _____ and DOJ Case Number 90-5-2-1-08892. Any such EFT received at that lockbox bank after 11:00 a.m. (Eastern Time) will be credited on the following business day.

b. INVISTA shall pay the amount of $500,000 to DNREC.

c. INVISTA shall pay the amount of $250,000 to SCDHEC.

d. INVISTA shall pay the amount of $100,000 to the CHCAPCB.

e. INVISTA shall pay any amounts due to DNREC, SCDHEC, or the CHCAPCB by certified or corporate check payable to that entity and sent by first-class mail to the first person listed under the Notice section (Section XVIII) below.

f. INVISTA shall send notice to the United States that payment has been made in accordance with Section XVIII of this Consent Decree (Notices).

88. INVISTA shall not deduct any penalties paid under this Decree pursuant to this Section or Section X (Stipulated Penalties) in calculating its federal or State income taxes.

X. STIPULATED PENALTIES / VIOLATION OF CONSENT DECREE

89. For any failure by INVISTA to comply with the terms of this Consent Decree, and subject to the provisions of Sections XIV (Force Majeure) and XV (Dispute Resolution), INVISTA shall pay, within thirty (30) days after receipt of written demand to INVISTA, the following stipulated penalties to the United States and/or the Applicable Co-Plaintiff:

Consent Decree Violation	**Stipulated Penalty (Per day per violation, unless otherwise specified)**
a. Failure to pay the civil penalty as specified in Section IX (Payment of Civil Penalties) of this Consent Decree	$10,000
b. Failure to comply with any applicable 3-Hour Rolling Average, 24-Hour Rolling Average Emissions Rate, 30-Day Emissions Rate, 30-Day Rolling Tonnage	$100 for each 3-hour limit exceeded; $1,000 for each 24-hour limit exceeded; and $1,500 for each 30-day limit exceeded.
c. Failure to comply with any applicable 12-Month Rolling Average Emission Rate or 12-Month Rolling Tonnage.	$5,000 for each ton exceeding the limit up to 100 tons; $10,000 for each ton exceeding 100 tons above the limit
d. Failure to install, commence operation, or Continuously Operate the NO_x or SO_2	$5,000 during the first 30 days, $7,000 for 31st through 60th day; and $10,000

control devices on any Unit, or failure to retire a Unit	thereafter or an amount equal to 1.2 times the economic benefit of non-compliance (as defined below in Paragraph 91), whichever is greater
e. Failure to comply with the fuel limitations at a Unit, as required by Paragraphs 31-36	$1,750 during the first 30 days, $5,000, or an amount equal to 1.2 times the economic benefit of non-compliance (as defined below in Paragraph 91), whichever is greater
f. Failure to install or operate CEMS as required in Paragraph 26, 37, or 38	$1,000
g. Failure to apply for any permit required by Section XVI	$1,000
h. Failure to install and fully implement new ADN technology as required by Paragraph 44.a, if applicable	$7,500 per month
i. Failure to complete any action to correct noncompliance as required by Paragraphs 45, 47-48, or 50	$7,500 per month
j. Failure to timely install Benzene NESHAP controls required by Paragraph 46 or 49	$1,000
k. Failure to timely install or replace carbon canisters as required by Paragraph 53	$1,000
l. Failure to maintain the records or materials required by Section VI of this Decree	$2,000
m. Failure to establish an annual review program to identify new benzene waste streams as required by Paragraph 54	$2,500 per month
n. Failure to perform laboratory audits as required by Paragraph 55	$5,000 per month
o. Failure to implement training measures specified in Paragraph 57	$10,000 per quarter
p. Failure to conduct sampling in accordance with the sampling plans required in Paragraph 58	- $2,500 per week per stream - $15,000 per quarter per stream, whichever is greater, but not to exceed $150,000 per quarter per facility
q. Failure to identify/mark segregated stormwater drains as required by Paragraph 61.b	$1,000 per drain per week
r. Failure to monitor conservation vents or oil-water separators as required by Paragraph 61.a.ii	$1,000 per month

s. Failure to deliver written deliverables as specified in Paragraph 62 or 63	$1,000 per week
t. If it is discovered by an EPA or state investigator or inspector, or their agent, that INVISTA failed to include all benzene waste streams in its TAB, for each waste stream:	- $250 for streams less than 0.03Mg/yr - $1000 for streams between 0.03 and 0.5Mg/yr - $5,000 for streams greater than 0.5Mg/yr
u. Failure to timely develop an LDAR program as required by Paragraph 65	$3,500 per week
v. Failure to timely implement a training program as required by Paragraph 66	$10,000 per month
w. Failure to conduct any audits as required by Paragraph 68	$5,000 per month per audit
x. Failure to perform monitoring utilizing the lower internal leak rate definitions in Subparagraph 70(a) and (b) or to repair and remonitor leaks in accordance with Paragraph 72	$100 per component, but not greater than $10,000 per month per process unit
y. Failure to implement the initial attempt at repair program in Paragraph 73	$100 per component, but not greater than $10,000 per month per facility
z. Failure to implement the quarterly QA/QC procedures described in Paragraph 75	$10,000 per month per facility
aa. Failure to implement and comply with the LDAR monitoring program in the Written LDAR Program Description under Paragraph 65.	$100 per component but not greater than $10,000 per month per facility
bb. If it is determined through a federal, state or local investigation that INVISTA failed to include all valves and pumps in its LDAR program, INVISTA shall pay $2000 for those it failed to include. If INVISTA discovers it has failed to include all valves and pumps in its LDAR program, it shall pay $75 per component that it failed to include.	
cc. Failure to timely submit, modify, or implement, as approved, the reports, plans, studies, analyses, protocols, or other submittals required by this Consent Decree, except as otherwise specified in this Paragraph 89, above.	$750 during the first ten days, $1,000 thereafter

90. Violation of an emissions limit based on a 3-Hour Rolling Average basis is a violation for each 3-hour period during which the specified limit is exceeded. Violation of a 24-

Hour Rolling Average or a 30-Day Rolling Average is a violation for each calendar day on which the average exceeds the specified limit. Violation of 12-Month Rolling Tonnages is a violation for each calendar month during which the average exceeds the limit.

91. For those provisions where a stipulated penalty of either a fixed amount or 1.2 times the economic benefit of non-compliance is available, the decision of which alternative to seek shall rest exclusively within the discretion of the EPA and the Applicable Co-Plaintiff. For purposes of this Section X, the term "economic benefit of non-compliance" means the economic benefit accrued from delaying a capital investment, delaying a one-time expenditure, and avoiding recurring costs (such as operation and maintenance costs) over the period of non-compliance. The overall "economic benefit of non-compliance" will be calculated based on the total number of days of non-compliance, and will be multiplied by 1.2 to compute the total stipulated penalty amount under a particular provision of this Section X. That total stipulated penalty amount will be assessed for the full period of non-compliance, and will not be assessed "per day." In no event shall any stipulated penalty assessed against INVISTA exceed $37,500 (or any inflation-adjusted increase in that maximum penalty amount set pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1996) per day for any individual violation of this Consent Decree.

92. All stipulated penalties shall begin to accrue on the day after the performance is due or on the day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Where a single event triggers more than one stipulated penalties provision in this Consent Decree, only the provision providing for the higher stipulated penalty shall apply, and that stipulated penalty is accrued for each day of violation unless otherwise specified in Paragraph 89.

93. INVISTA shall pay all stipulated penalties to the United States and the Applicable Co-Plaintiffs within sixty (60) days of receipt of written demand to INVISTA from the United States and/or the Applicable Co-Plaintiff, and shall continue to make such payments every thirty (30) days thereafter until the violation(s) no longer continues, unless INVISTA elects within thirty (30) days of receipt of written demand to INVISTA from the United States and/or the Applicable Co-Plaintiff to dispute the accrual of stipulated penalties in accordance with the provisions in Section XVI (Dispute Resolution) of this Consent Decree. A demand from either the United States or an Applicable Co-Plaintiff shall be deemed a demand from both, but the United States and the Applicable Co-Plaintiff shall consult with each other prior to making a demand. A demand for the payment of stipulated penalties will identify the particular violation(s) to which the stipulated penalty relates, the stipulated penalty amount that the United States or the Applicable Co-Plaintiff is demanding for each violation (as can be best estimated), the calculation method underlying the demand, and the grounds upon which the demand is based. After consultation with each other, the United States and the Applicable Co-Plaintiff may, in their unreviewable discretion, waive payment of all or any portion of stipulated penalties that may accrue under this Consent Decree. Stipulated penalties shall be paid to the United States and Applicable Co-Plaintiff in the following manner:

a. Stipulated penalties owed by INVISTA shall be paid 50% to the United States and 50% to the Applicable Co-Plaintiff. If there is no Applicable Co-Plaintiff, stipulated

penalties owed by INVISTA shall be paid 100% to the United States. Stipulated penalties owing to the United States of under $10,000 will be paid by check and made payable to "U.S. Department of Justice," referencing DOJ Case Number 90-5-2-1-08892 and USAO File Number _____, and delivered to the U.S. Attorney's Office. Stipulated penalties owing to the United States of $10,000 or more and stipulated penalties owing to an Applicable Co-Plaintiff will be paid in the manner set forth in Section IX (Payment of Civil Penalties) of this Consent Decree.

94. Should INVISTA dispute the United States' and/or an Applicable Co-Plaintiff's demand for all or part of a stipulated penalty, it may avoid liability for failure to pay a stipulated penalty by placing the disputed amount demanded in a commercial escrow account pending resolution of the matter and by invoking the dispute resolution provisions of Section XV within the time provided in Paragraph 93 for the payment of stipulated penalties. If the dispute is thereafter resolved in INVISTA's favor, the escrowed amount plus accrued interest shall be returned to INVISTA: otherwise, the United States and the Applicable Co-Plaintiff shall be entitled to the amount that was due by the Court, plus the interest that has accrued in the escrow account on such amount. Such payment shall be made according to the following schedule:

a. If the dispute is resolved by agreement, or by a decision of Plaintiffs pursuant to Section XV (Dispute Resolution) of this Consent Decree that is not appealed to the Court, accrued stipulated penalties agreed or determined to be owed, together with accrued interest, shall be paid within thirty (30) days of the effective date of the agreement or of INVISTA's receipt of EPA's decision;

b. If the dispute is appealed to the Court and Plaintiffs prevail in whole or in part, INVISTA shall, within sixty (60) days of receipt of the Court's decision or order, pay all accrued stipulated penalties determined by the Court to be owed, together with accrued interest, except as provided in Subparagraph 94.c.;

c. If the Court's decision is appealed by either Party and the Plaintiffs prevail in whole or in part, INVISTA shall, within fifteen (15) days of receipt of the final appellate court decision, pay all accrued stipulated penalties determined to be owed, together with accrued interest.

d. For purposes of this Paragraph, the accrued stipulated penalties agreed by the Parties, or determined by the Plaintiffs through Dispute Resolution, to be owing may be less than the stipulated penalty amounts set forth in Paragraph 89.

95. Should INVISTA fail to pay stipulated penalties in compliance with the terms of this Consent Decree, the Plaintiffs shall be entitled to collect interest on such penalties, as provided for in 28 U.S.C. § 1961.

96. In cases where a violation of this Consent Decree is also a violation that provides a basis for potential recovery of civil penalties under the Clean Air Act and its implementing federal, state, or local regulations, the United States and Applicable Co-Plaintiff will elect between seeking stipulated penalties under this Consent Decree and commencing a new action for civil penalties under such laws. Notwithstanding the foregoing, the United States and the Applicable Co-Plaintiffs reserve the right to pursue any other non-monetary remedies to which they are legally entitled.

XI. INVISTA'S CERTIFICATIONS

97. INVISTA certifies as true to the best of its knowledge and belief, after a reasonable inquiry, each of the factual assertions set forth in the following Subparagraphs 97.a through 97.h regarding the subject violations set forth in Appendix A attached to both this Decree and the United States' Complaint:

a. INVISTA discovered the subject violations through an environmental audit or through a compliance management system reflecting its due diligence;

b. INVISTA either disclosed the subject violations to or entered into the audit agreement with EPA prior to discovering such violations through a monitoring or sampling requirement prescribed by statute, regulation, permit, judicial or administrative order, or consent agreement;

c. INVISTA disclosed the subject violations promptly and in writing;

d. INVISTA disclosed the subject violations to EPA prior to the commencement of a federal, state, or local inspection or investigation, notice of a citizen suit, filing of a complaint of a third party, reporting of the subject violations to EPA (or other government agency) by a "whistle blower" employee, or imminent discovery by a regulatory agency;

e. INVISTA has corrected the subject violations in Appendix A and is, to the best of its knowledge and belief, in full compliance with the Environmental Requirements with respect to the subject violations of such Environmental Requirements as set forth in Appendix A at the Acquired Facilities that INVISTA currently owns;

f. INVISTA has taken appropriate steps to prevent a recurrence of the subject violations;

g. INVISTA has owned and operated the Acquired Facilities since April 30, 2004. For the period beginning April 30, 2004, through August 2004, INVISTA did not receive notice from the government of any of the violations (or closely related violations) identified in Appendices A, B, and C. For the purposes of this Subparagraph g., a violation is:

i. any violation of federal, state, or local environmental law identified in a judicial or administrative order, consent agreement or order, complaint, or notice of violation, conviction or plea agreement; or

ii. any act or omission for which the regulated entity has previously received penalty mitigation from EPA or a state or local agency; and

h. INVISTA cooperated as requested by EPA and provided information necessary and requested by EPA to determine applicability of the Audit Policy.

XII. PERIODIC REPORTING

98. Within 180 days after each date established by Section IV of this Consent Decree for INVISTA to achieve and maintain a certain Emission Rate and/or Removal Efficiency at any Unit, except those Units that are not required to install pollution control equipment pursuant to this Consent Decree, INVISTA shall conduct a performance test that demonstrates compliance with the Emission Rate and/or Removal Efficiency required by this Consent Decree. Within forty-five (45) days of each such performance test, INVISTA shall submit the results of the performance test to EPA and the Permitting Authority at the addresses specified in Section XVIII (Notices) of this Consent Decree.

99. In addition to any other express reporting requirement in this Consent Decree, INVISTA shall submit to EPA and the applicable Permitting Authority a semi-annual progress report beginning July 31, 2009 for the period between Entry Date and June 30, 2009, and continuing semi-annually thereafter.

100. The progress report shall contain the following information:

a. a progress report on the implementation of the requirements of Sections IV-VII above;

b. all information relating to emission allowances and credits that INVISTA claims to have generated in accordance with Paragraph 40 by compliance beyond the requirements of this Consent Decree;

c. a summary of the emissions data, including a separate identification of any exceedance(s) of Consent Decree emission limitations or standards for the Acquired Facilities set forth or established pursuant to Sections IV, VI, and VII of this Consent Decree for that time period; and

d. a description of any problems anticipated with respect to meeting the requirements of Sections IV - VII of this Consent Decree.

101. In any periodic progress report submitted pursuant to this Section, INVISTA may incorporate by reference information previously submitted under its Title V permitting requirements, provided that INVISTA attaches the Title V permit report and provides a specific reference to the provisions of the Title V permit report that are responsive to the information required in the periodic progress report.

102. Each INVISTA progress report shall be signed by INVISTA's Environment Health and Safety Director, or, in his or her absence, a higher ranking official, and shall contain the following certification:

> This information was prepared either by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my evaluation, or the direction and my inquiry of the person(s) who manage the system or the person(s) directly responsible for gathering the information, I hereby certify under penalty of law that, to the best of my knowledge and belief, this information is true, accurate, and complete. I understand that there are significant penalties for submitting false, inaccurate, or incomplete information to the United States.

XIII. REVIEW AND APPROVAL OF SUBMITTALS

103. INVISTA shall submit each plan, report, or other submission to EPA and the Applicable Co-Plaintiff whenever such a document is required to be submitted for review or approval pursuant to this Consent Decree. EPA and the Applicable Co-Plaintiff may approve the submittal or decline to approve it and provide written comments explaining the basis for declining such approval as soon as reasonably practicable. Such Plaintiffs will endeavor to coordinate their comments into one document when explaining their basis for declining such approval. Within sixty (60) days of receiving written comments from EPA and the Applicable Co-Plaintiff, INVISTA shall either: (a) revise the submittal consistent with the written comments and provide the revised submittal for final approval to EPA and the Applicable Co-Plaintiff; or (b) submit the matter for dispute resolution, including the period of informal negotiations, under Section XVI (Dispute Resolution) of this Consent Decree.

104. Upon receipt of Plaintiff's (or Plaintiffs') final approval of the submittal, or upon completion of the submittal pursuant to dispute resolution, INVISTA shall implement the approved submittal in accordance with the schedule specified therein.

XIV. FORCE MAJEURE

105. For purposes of this Consent Decree, a "Force Majeure Event" shall mean an event that has been or will be caused by circumstances beyond the control of INVISTA, its contractors, or any entity controlled by INVISTA that delays compliance with any provision of this Consent Decree or causes a violation of any provision of this Consent Decree despite INVISTA's best efforts to fulfill the obligation. "Best efforts to fulfill the obligation" include

using best efforts to anticipate any potential Force Majeure Event and to address the effects of any such event (a) as it is occurring and (b) after it has occurred, such that the delay or violation is minimized. "Force Majeure" does not include INVISTA's financial inability to perform any obligation under this Consent Decree.

106. Notice of Force Majeure Events. If any event occurs or fails to occur that may delay compliance with or cause a violation of any obligation under this Consent Decree, as to which INVISTA intends to assert a claim of Force Majeure, INVISTA shall notify the United States and Permitting Authority in writing as soon as practicable, but in no event later than twenty (20) business days following the date INVISTA knew or should have known of the event. In this notice, INVISTA shall reference this Paragraph 106 of this Consent Decree and describe the anticipated length of time that the delay or violation may persist, the cause or causes of the delay or violation, all measures taken or to be taken by INVISTA to prevent or minimize the delay or violation, the schedule by which INVISTA proposes to implement those measures, and INVISTA's rationale for attributing a delay or violation to a Force Majeure Event. INVISTA shall adopt all reasonable measures to avoid or minimize such delays or violations. INVISTA shall be deemed to know of any circumstance which INVISTA, its contractors, or any entity controlled by INVISTA knew.

107. Failure to Give Notice. If INVISTA fails to materially comply with the notice requirements of this Section, the Plaintiffs may void INVISTA's claim for Force Majeure as to the specific event for which INVISTA has failed to comply with such notice requirement.

108. Plaintiffs' Response. The United States, after an opportunity for consultation with the Applicable Co-Plaintiff, shall notify INVISTA in writing regarding INVISTA's claim of Force Majeure within twenty (20) business days of receipt of the notice provided under Paragraph 105. If the Plaintiffs agree that a delay in or an impediment to performance has been or will be caused by a Force Majeure Event, the Parties shall stipulate to an extension of deadline(s) for performance of the affected compliance requirement(s) by a period not to exceed the delay actually caused by the event. In such circumstances, an appropriate modification shall be made pursuant to Section XXII (Modification) of this Consent Decree.

109. Disagreement. If the Plaintiffs do not accept INVISTA's claim of Force Majeure, or if the Parties cannot agree on the length of the delay actually caused by the Force Majeure Event, the matter shall be resolved in accordance with Section XV (Dispute Resolution) of this Consent Decree.

110. Burden of Proof. In any dispute regarding Force Majeure, INVISTA shall bear the burden of proving that any delay in performance or any other violation of any requirement of this Consent Decree was caused by or will be caused by a Force Majeure Event. INVISTA shall also bear the burden of proving that INVISTA materially complied with the notice requirements of this Section and the burden of proving the anticipated duration and extent of any delay(s) attributable to a Force Majeure Event. An extension of one compliance date based on a

particular event may, but does not necessarily, result in an extension of a subsequent compliance date.

111. Events Excluded. Unanticipated or increased costs or expenses associated with the performance of INVISTA's obligations under this Consent Decree shall not constitute a Force Majeure Event.

112. Potential Force Majeure Events. The Parties agree that, depending upon the circumstances related to an event and INVISTA's response to such circumstances, the kinds of events listed below are among those that could qualify as force majeure within the meaning of this Section: construction, labor, or equipment delays; Malfunction of a Unit or emission control device; unanticipated fuel supply or pollution control reagent/catalyst delivery interruptions; acts of God; and acts of war or terrorism. Depending upon the circumstances and Defendants' response to such circumstances, failure of a permitting authority to issue a necessary permit in a timely fashion may constitute force majeure where the failure of the permitting authority to act is beyond the control of INVISTA and INVISTA has taken all steps available to it to obtain the necessary permit, including, but not limited to: submitting a complete permit application; responding to requests for additional information by the permitting authority in a timely fashion; and accepting lawful permit terms and conditions. As part of the resolution of any matter submitted to this Court under Section XV (Dispute Resolution) of this Consent Decree regarding a claim of Force Majeure, the Parties by agreement, or this Court by order, may in appropriate circumstances extend or modify the schedule for completion of work under this Consent Decree to account for the delay in the work that occurred as a result of any delay or impediment to performance agreed to by the United States and the Applicable Co-Plaintiff and approved by the Court. INVISTA shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule.

XV. DISPUTE RESOLUTION

113. In the event that the United States and the applicable Permitting Authority make differing determinations or take differing actions that affect INVISTA's rights or obligations under this Consent Decree, the final decision of the United States shall be binding.

114. The dispute resolution procedure required herein shall be invoked by one Party giving written notice to the other Parties advising of a dispute pursuant to this Section. The notice shall describe the nature of the dispute and shall state the noticing Party's position with regard to such dispute. The Party receiving such a notice shall acknowledge receipt of the notice, and the Parties in dispute shall expeditiously schedule a meeting to discuss the dispute informally not later than fourteen (14) days following receipt of such notice.

115. Disputes submitted to dispute resolution under this Section shall, in the first instance, be the subject of informal negotiations among the disputing Parties. Such period of informal negotiations shall not extend beyond thirty (30) calendar days from the date of the first meeting among the disputing Parties' representatives unless they agree in writing to shorten or

extend this period. During the informal negotiations period, the disputing Parties may also submit their dispute to a mutually agreed-upon non-binding alternative dispute resolution (ADR) forum if the Parties agree that the ADR activities can be completed within the 30-day informal negotiations period (or such longer period as the Parties may agree to in writing).

116. If the disputing Parties are unable to reach agreement during the informal negotiation period, the Plaintiffs shall provide INVISTA with a written summary of their position regarding the dispute. The written position provided by the Plaintiffs shall be considered binding unless, within forty-five (45) calendar days thereafter, INVISTA seeks judicial resolution of the dispute by filing a petition with this Court. The Plaintiffs may respond to the petition within forty-five (45) calendar days of filing.

117. Where the nature of the dispute is such that a more timely resolution of the issue is required, the time periods set out in this Section may be shortened by the Court upon motion of one of the Parties to the dispute.

118. As part of the resolution of any dispute under this Section, in appropriate circumstances the disputing Parties may agree, or this Court may order, an extension or modification of the schedule for the completion of the activities required under this Consent Decree to account for the delay that occurred as a result of dispute resolution. INVISTA shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule, provided that INVISTA shall not be precluded from asserting that a Force Majeure Event has caused or may cause a delay in complying with the extended or modified schedule.

119. The Court shall decide all disputes pursuant to applicable principles of law for resolving such disputes. In their initial filings with the Court under Paragraph 116, the disputing Parties shall state their respective positions as to the applicable standard of law for resolving the particular dispute.

120. The Court shall not draw any inferences nor establish any presumptions adverse to any disputing Party as a result of invocation of this Section or the disputing Parties' inability to reach agreement.

XVI. PERMITS

121. Unless expressly stated otherwise in this Consent Decree, in any instance where otherwise applicable law or this Consent Decree requires INVISTA to secure a permit to authorize construction or operation of any device, including all preconstruction, construction, and operating permits required under state or local law, INVISTA shall make such application in a timely manner. The Plaintiffs will use their best efforts to expeditiously review all permit applications submitted by INVISTA in order to meet the requirements of this Consent Decree. Nothing in this Consent Decree shall prevent INVISTA from qualifying for South Carolina's

expedited permitting program provided that INVISTA meets all other requirements of that program.

122. When permits are required as described in Paragraph 121, INVISTA shall complete and submit applications for such permits to the appropriate authorities to allow sufficient time for all legally required processing and review of the permit request, including requests for additional information by the permitting authorities. Any failure by INVISTA to submit a timely permit application for any Unit shall bar any use by INVISTA of Section XIV (Force Majeure) of this Consent Decree, where a Force Majeure claim is based on permitting delays.

123. Notwithstanding the reference to Title V or other federally enforceable permits in this Consent Decree, the enforcement of such permits shall be in accordance with their own terms and the Clean Air Act. The Title V or other federally enforceable permits shall not be enforceable under this Consent Decree, although any term or limit established by or under this Consent Decree shall be enforceable under this Consent Decree regardless of whether such term has or will become part of a Title V or other federally enforceable permit subject to the terms of Section XXVII (Termination of Consent Decree) of this Consent Decree.

124. Obtaining Permit Limits for Consent Decree Emission Limits and Standards That Are Effective *Upon Date of Entry*. Within 180 days after the Entry Date for the Camden, Chattanooga, and Seaford Facilities, and, to the extent applicable, within 270 days after the Entry Date for the Victoria and Orange Facilities, INVISTA shall amend any applicable Title V permit application, or apply for amendments of its Title V permits, to include all Unit-specific performance, operational, maintenance, and control technology requirements established by this Consent Decree and effective upon the Date of Entry including, but not limited to, emission rates, removal efficiencies, fuel limitations, and tonnage limitations.

125. Obtaining Permit Limits for Consent Decree Emission Limits and Standards That Become Effective *After Date of Entry*. Within one year from the commencement of operation of each emission control technology to be installed, upgraded, or operated on a Unit under this Consent Decree, INVISTA shall apply to include the following requirements and limitations enumerated in this Consent Decree in either a federally enforceable operating permit issued under the applicable SIP or amendments to the applicable SIP: (a) any applicable 30-Day Rolling Average Emission Rate, 24-Hour Rolling Average Emission Rate, Removal Efficiency, or 30-Day or 12-Month Rolling Average Emissions Rate; (b) any applicable tonnage limitations; and (c) any applicable fuel limitations set forth in this Consent Decree.

126. For each Unit, INVISTA shall provide EPA and the Permitting Authority with a copy of each application for a permit to address or comply with any provision of this Consent Decree, as well as a copy of any permit proposed as a result of such application, to allow for timely participation in any public comment opportunity.

127. If INVISTA sells or transfers to an entity unrelated to INVISTA ("Third Party Purchaser") part or all of its Ownership Interest in an Unit or Facility covered under this Consent Decree, INVISTA shall comply with the requirements of Paragraphs 135-138 with regard to that Unit prior to any such sale or transfer unless, following any such sale or transfer, INVISTA remains the holder of the Title V or other federally enforceable permit for such Unit or Facility.

XVII. INFORMATION COLLECTION AND RETENTION

128. Any authorized representative of the United States or Permitting Agency, including their attorneys, contractors, and consultants, upon presentation of credentials, shall have a right of entry upon the premises of INVISTA's Acquired Facilities at any reasonable time for the purpose of:

a. monitoring the progress of activities required under this Consent Decree;

b. verifying any data or information submitted to the United States in accordance with the terms of this Consent Decree;

c. obtaining samples and, upon request, splits of any samples taken by INVISTA or its representatives, contractors, or consultants; and

d. assessing INVISTA's compliance with this Consent Decree.

129. INVISTA shall retain, and instruct its contractors and agents to preserve all non-identical copies of all records and documents (including records and documents in electronic form) now in its or its contractors' or agents' possession or control, and that directly relate to INVISTA's performance of its obligations under this Consent Decree until December 31, 2018. This record retention requirement shall apply regardless of any corporate document retention policy to the contrary.

130. All information and documents submitted by INVISTA pursuant to this Consent Decree shall be subject to any requests under applicable law providing public disclosure of documents unless (a) the information and documents are subject to legal privileges or protection or (b) INVISTA claims and substantiates in accordance with 40 C.F.R. Part 2 or corresponding applicable state or local laws that the information and documents contain confidential business information.

131. Nothing in this Consent Decree shall limit the authority of the EPA to conduct tests and inspections at INVISTA's Acquired Facilities under Section 114 of the Clean Air Act, 42 U.S.C. § 7414, or any other applicable federal, state or local laws, regulations or permits.

XVIII. NOTICES

132. Unless otherwise provided herein, whenever reports, notification, submissions, or communications are required by this Consent Decree, they shall be made in writing and addressed as follows:

As to the United States:
Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, D.C. 20044-7611
DJ# 90-5-2-1-08085

As to EPA:

Director, Special Litigation and Projects Division
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
Ariel Rios Building, Mail Code 2248-A
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

with a hard copy to

Director, Air Enforcement Division
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
Ariel Rios Building, Mail Code 2242-A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

and an electronic copy to

burke.shaun@epa.gov
milton.philip@epa.gov

EPA Region 3:

Chief, Enforcement and Compliance Branch
Office of Enforcement, Compliance & Environmental Justice
Mail Code: 3EC10
EPA Region 3
1650 Arch Street

Philadelphia, PA 19103-2029

EPA Region 4:

Multimedia Technical Authority
U.S. EPA Region 4
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960

EPA Region 6:

Associate Director, Air, Toxics, and Inspection Coordination Branch (6 EN-A)
U.S. EPA Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

As to the State of Delaware:
Valerie M. Satterfield
Deputy Attorney General
Delaware Department of Justice
102 W. Water Street, 3rd Floor
Dover, DE 19904

Ali Mirzakhalili, Administrator
Air Quality Management
Department of Natural Resources
& Environmental Control
156 S. State Street
Dover, DE 19901

Joanna French, Program Manager
Air Quality Management
Department of Natural Resources
& Environmental Control
156 S. State Street
Dover, DE 19901

As to the South Carolina Department of Health and Environmental Control:

Director, Air Compliance Management Division
Bureau of Air Quality
SC Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

As to the Chattanooga-Hamilton County Air Pollution Control Board:

Robert H. Colby
Director
Chattanooga-Hamilton County Air Pollution Control Bureau
6125 Preservation Drive
Chattanooga, Tennessee 37416-3638

As to INVISTA:

General Counsel
INVISTA, S.à r.l.
4123 East 37th Street North
Wichita KS 67220

Director, EH&S
INVISTA, S.à r.l.
4123 East 37th Street North
Wichita KS 67220

133. All notifications, communications or submissions made pursuant to this Section shall be sent either by: (a) overnight mail or delivery service; (b) certified or registered mail, return receipt requested; or (c) electronic transmission, unless the recipient is not able to review the transmission in electronic form. All notifications, communications and transmissions (a) sent by overnight, certified or registered mail shall be deemed submitted on the date they are postmarked, or (b) sent by overnight delivery service shall be deemed submitted on the date they are delivered to the delivery service. If the date for submission of a report, notification, submission, or other communication falls on a Saturday, Sunday, or legal holiday, the report, notification, submission, or other communication will be deemed timely if it is submitted by the next business day. All notifications, communications, and submissions made by electronic means shall be electronically signed and certified, and shall be deemed submitted on the date that INVISTA receives written acknowledgment of receipt of such transmission.

134. Any Party may change either the notice recipient or the address for providing notices to it by serving the other Parties with a notice setting forth such new notice recipient or address.

XIX. SALES OR TRANSFERS OF OWNERSHIP INTERESTS

135. If INVISTA proposes to sell or transfer an Ownership Interest to an entity not affiliated with INVISTA ("Third Party Purchaser"), it shall advise the Third Party Purchaser in writing of the existence of this Consent Decree prior to such sale or transfer, and shall send a copy of such written notification to the Plaintiffs pursuant to Section XVIII (Notices) of this Consent Decree at least thirty (30) days before such proposed sale or transfer.

136. INVISTA shall condition any transfer, in whole or in part, of ownership of, operation of, or other interest in any Ownership Interest to a Third Party Purchaser, upon the execution by the transferee of a modification to the Consent Decree, which modification shall make the terms and conditions of the Consent Decree that apply to the Ownership Interest applicable to the Third Party Purchaser. In the event of such transfer, INVISTA shall notify the Plaintiffs. By no earlier than thirty (30) days after such notice, INVISTA may file a motion to modify the Consent Decree to make the terms and conditions of the Consent Decree applicable to the transferee. INVISTA shall be released from the obligations and liabilities of this Consent Decree applicable to the transferred Ownership Interest unless one of the Plaintiffs opposes the motion and the Court finds that the Third Party Purchaser does not have either the technical or financial ability to assume the obligations and liabilities of the Consent Decree.

137. This Consent Decree shall not be construed to impede the transfer of any Ownership Interests between INVISTA and any Third Party Purchaser as long the requirements of this Consent Decree are met. This Consent Decree shall not be construed to prohibit a contractual allocation – as between INVISTA and any Third Party Purchaser of Ownership Interests – of the burdens of compliance with this Decree, provided that both INVISTA and such Third Party Purchaser meet the requirements of this Section.

138. Notwithstanding the foregoing, however, INVISTA may not assign, and may not be released from, any obligation under this Consent Decree that is not specific to the purchased or transferred Ownership Interests, including the obligations set forth in Section XI (INVISTA's Certifications) and Section IX (Payment of Civil Penalties). INVISTA may propose and the Plaintiffs may agree to restrict the scope of joint and several liability of any purchaser or transferee for any obligations of this Consent Decree that are not specific to the transferred or purchased Ownership Interests, to the extent such obligations may be adequately separated in an enforceable manner.

XX. EFFECTIVE DATE

139. The effective date of this Consent Decree shall be the Date of Entry.

XXI. RETENTION OF JURISDICTION

140. Continuing Jurisdiction. The Court shall retain jurisdiction of this case after entry of this Consent Decree to enforce compliance with the terms and conditions of this Consent Decree and to take any action necessary or appropriate for its interpretation, construction, execution, modification, or adjudication of disputes. During the term of this Consent Decree, any Party to this Consent Decree may apply to the Court for any relief necessary to construe or effectuate this Consent Decree.

XXII. MODIFICATION

141. Modifications. This Consent Decree contains the entire agreement of the Parties and will not be modified by any prior oral or written agreement, representation, or understanding. Prior drafts of the Consent Decree will not be used in any action involving the interpretation or enforcement of the Consent Decree. Non-material modifications to this Consent Decree will be effective when signed in writing by EPA and INVISTA. The United States will file non-material modifications with the Court on a periodic basis. For purposes of this Paragraph, non-material modifications include but are not limited to modifications to the frequency of reporting obligations and modifications to schedules that do not extend the date for compliance with emissions limitations following the installation of control equipment or the completion of a catalyst additive program, provided that such changes are agreed upon in writing between EPA and INVISTA. Material modifications to this Consent Decree will be in writing, signed by EPA, the Applicable Co-Plaintiff, and INVISTA, and will be effective upon approval by the Court.

XXIII. PUBLIC COMMENT

142. The Parties agree and acknowledge that final approval by the United States and entry of this Consent Decree is subject to the procedures of 28 C.F.R. § 50.7, which provides for notice of the lodging of this Consent Decree in the Federal Register, an opportunity for public comment, and the right of the United States to withdraw or withhold consent if the comments disclose facts or considerations which indicate that the Consent Decree is inappropriate, improper or inadequate. INVISTA shall not oppose entry of this Consent Decree by this Court or challenge any provision of this Consent Decree unless the United States has notified INVISTA, in writing, that the United States no longer supports entry of the Consent Decree. If the United States withdraws or withholds consent, any other Plaintiff may also withdraw or withhold consent.

XXIV. GENERAL PROVISIONS

143. This Consent Decree shall be considered an enforceable judgment for purposes of post-judgment collection in accordance with Rule 69 of the Federal Rules of Civil Procedure, and other applicable federal authority.

144. This Consent Decree constitutes the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Consent Decree, and supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein except for the Final Audit Report as referenced in Appendices A, B, and C to this Decree. No other document, nor any representation, inducement, agreement, understanding or promise, constitutes any part of this Decree or the settlement it represents, nor shall it be used in construing the terms of this Decree.

145. This Consent Decree does not pertain to any matters other than those expressly specified herein. Nothing in this Consent Decree is intended or shall be construed as a waiver by the United States of its right to institute a civil or criminal action against INVISTA for any past, present or future civil or criminal violations of any statutes, rules or regulations administered or enforceable by the United States, other than those civil violations alleged in the Complaint and any other claims arising from the audit findings listed in Appendices A-C.

146. This Consent Decree in no way affects or relieves INVISTA of its responsibility to comply with all applicable federal, state and local laws, regulations and permits. Defendant agrees that it will not assert in any federal, state or local criminal, civil or administrative proceeding, hearing or other permitting, licensing or procedural matter, that its compliance with this Consent Decree is a defense in law or equity to any civil or criminal action commenced by the Plaintiffs pursuant to any such federal, state or local law, regulation or permit, except as expressly provided in this Consent Decree.

147. The United States retains the right to seek to enforce the terms of this Consent Decree, and to take any action authorized by federal, state, or local law not inconsistent with the terms of this Consent Decree to achieve or maintain INVISTA's compliance with the terms and conditions of this Consent Decree.

148. Effect of Shutdown. The permanent Shutdown of a Unit and the surrender of all air permits or air permit conditions for that Unit will be deemed to satisfy all requirements of Sections IV, V, VI, and VII of this Consent Decree applicable only to that Unit on and after the later of: (i) the date of the Shutdown of the Unit; or (ii) the date of the surrender of all air permits/permit conditions. The permanent Shutdown of a Facility and the surrender of all air permits for that Facility will be deemed to satisfy all requirements of Sections IV, V, VI, and VII of this Consent Decree applicable to that Facility on and after the later of: (i) the date of the Shutdown of the Facility; or (ii) the date of the surrender of all air permits. This Paragraph does not affect INVISTA's requirements for the Facility where a Shutdown Unit is located (including INVISTA's obligation to meet the 12-month rolling averages) unless each applicable Unit at the Facility is permanently Shutdown.

XXV. COSTS OF SUIT

149. Each Party in this action shall bear its own costs, including attorney's fees.

XXVI. ENTRY OF CONSENT DECREE

150. INVISTA consents to the entry of this Consent Decree unless the United States notifies INVISTA, in writing, that the United States no longer supports the entry of the Consent Decree.

151. If for any reason this Court should decline to approve this Consent Decree in the form presented or the United States no longer supports entry of the Consent Decree, this Consent

Decree is voidable at the sole discretion of any Party and the terms of this Consent Decree may not be used as evidence in any litigation between the Parties.

XXVII. TERMINATION OF CONSENT DECREE

152. This Consent Decree shall be subject to termination upon motion by the United States or INVISTA under the conditions identified in Subparagraphs 152.a-d. INVISTA may seek termination of any provision of the Consent Decree at any one of the Acquired Facilities upon completion and satisfaction at the relevant Acquired Facility(ies) of all of the following requirements of this Paragraph 152.a-d as applicable to the Acquired Facility(ies):

a. compliance with all provisions contained in this Consent Decree, including installation of emission control technology;

b. payment of all penalties and other monetary obligations due under the terms of the Consent Decree; no penalties or other monetary obligations due hereunder can be outstanding or owed to the United States or Co-Plaintiffs;

c. application for and receipt of Title V permits incorporating the surviving emission limits and standards established under Sections IV, VI, and VII; and

d. operation for at least one year of each Unit in compliance with the emission limits and other requirements established herein, and certification of such compliance for each Unit within the first periodic report following the conclusion of the compliance period.

153. At such time as INVISTA believes that it has satisfied the requirements for termination set forth in Paragraph 152, INVISTA shall certify such compliance and completion to the United States and the Applicable Co-Plaintiff in writing. The report shall contain the following statement, signed by a responsible official of INVISTA: "To the best of my knowledge, after appropriate investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." Unless, within 120 days of receipt of INVISTA's certification under this Paragraph, either the United States or the Applicable Co-Plaintiff objects in writing with specific reasons, the Court may, upon motion by INVISTA, order that this Consent Decree be terminated. If either the United States or the Applicable Co-Plaintiff objects to the certification by INVISTA then the matter shall be submitted to the Court for resolution under Section XV (Dispute Resolution) of this Consent Decree.

154. The Resolution of Claims provisions set forth in Section VIII shall survive termination of the Consent Decree.

XXVIII. SIGNATORIES/SERVICE

155. Each of the undersigned representatives of the Parties certify that he or she is authorized to enter into terms and conditions of this Consent Decree and to execute and bind legally such Party to this document. This Consent Decree may be executed in one or more counterparts, but in such event, each counterpart shall constitute an original and all such counterparts shall together constitute one instrument.

XXIX. FINAL JUDGMENT

156. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment in the above-captioned matter between the Plaintiffs and INVISTA.

SO ORDERED, THIS 28th DAY OF July, 2009.

THE HONORABLE
UNITED STATES DISTRICT COURT JUDGE

FORTSON, BENTLEY AND GRIFFIN, P.A.

ELBERT N. WHITMIRE, III, C.P.A.
G. MARCUS HODGE (GA & SC)
DAVID K. LINDER
ROY E. MANOLL, III
WALTER W. HAYS, JR.
MICHAEL J. MCCLEARY
V. KEVIN LANG
TREVOR T. JONES (GA & AL)
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UPSHAW C. BENTLEY, JR.
(1924 – 2013)
EDWIN B. FORTSON
(1913-2007)
JOHN E. GRIFFIN
(1923-2002)
HERBERT T. HUTTO
(1933-1998)

OF COUNSEL
WILLIAM C. BERRYMAN, JR.

November 17, 2022

TO BE PICKED UP:
J. Michael Wharton
Manager's Office/Sustainability Office
Sustainability Officer
110 Bray Street
Athens, Georgia 30601

Re: Environmental Site Assessment – 110 Voyles Road, Athens-Clarke County, Georgia
Development Authority of the Unified Government of Athens-Clarke County, Georgia
Taxable Revenue Bonds (RWDC Industries LLC Project) Series 2019

Dear Mike:

Pursuant to our telephone conversation earlier today, I have enclosed herewith copies of the following:

1. Reliance letter dated November 13, 2019, from All Phase Environmental L.L.C. to the Development Authority of the Unified Government of Athens-Clarke County, Georgia

2. Phase I Environmental Site Assessment for the Property of: Invista (formerly DuPont) Plant 110 Voyles Rd Athens, GA, prepared for RWDC Industries dated August 21, 2019, by All Phase Environmental

3. All Phase Environmental, LLC Limited Phase II Subsurface Investigation Report dated February 15, 2019 for Alan Gray Rooker Company in reference to Invista-Dupont 110 Voyles Road, Athens, Georgia 30601

Please telephone me if you need anything further regarding this matter.

Very truly yours,

FORTSON, BENTLEY AND GRIFFIN, P.A.

David K. Linder

DKL/tmv
Enclosures

01285245.1/009682-000051

All Phase Environmental L.L.C.
1233 Wolfskin Rd.
Arnoldsville, GA 30619
Providing Environmental Services since 1988

Tom Tweedell
Office Ph. (706) 549-9456
FAX (706) 548-4000
Cell Ph. (706) 540-8243
allphase123@bellsouth.net

RELIANCE LETTER

Date: November 13, 2019

To: Development Authority of the Unified Government of Athens-Clarke County, Georgia
c/o Fortson, Bentley and Griffin, P.A., Athens, GA

Re: 110 Voyles Road
Athens, GA
(the "Property")

Thomas O. Tweedell, Environmental Professional, meets the definition of an Environmental Professional as defined by 40 C.F.R. & 312.10(b) and has performed or supervised the performance of the following Environmental Investigations (the "Environmental Report"):

- A Phase I Environmental Site Assessment of the Property dated August 21, 2019 conducted by All Phase Environmental, L.L.C. for RWDC Industries, L.L.C. in accordance with ASTM International's most recent standard (currently ASTEM E1527-13). In addition, the Environmental Professional has addressed the performance of the "additional inquiries" set forth at 40 C.F.R. & 312.22:
- A Phase II Environmental Site Assessment of the property dated February 15, 2019, and any addendums thereto, conducted in accordance with generally-accepted industry standards of practice and consisting of a scope of work that would be considered reasonable and sufficient to identify the presence, nature and extent of a Release as it impacts the Property.

At the request and authorization of RWDC Industries, L.L.C., we are providing this letter of authorization so that the Development Authority of the Unified Government of Athens-Clarke County, Georgia (the "Authority"), may rely upon the Environmental Report submitted for the Property referenced above as if the Environmental Report had been addressed directly to the Authority.

Insurance Coverage. Thomas O. Tweedell and All Phase Environmental, LLC certify that they were covered as of dates of the Environmental Investigations by errors and omission liability insurance with a minimum coverage of $1,000,000 per claim (or occurrence.)

Impartiality. Thomas O. Tweedell certifies that (1) to the best of his knowledge, Thomas O. Tweedell is independent of and not a representative, nor an employee or affiliate of seller, borrower, operating company, or any person in which seller has an ownership interest; and (2) Thomas O. Tweedell has not been unduly influenced by any person with regard to the preparation of the Environmental Report of the contents thereof.

Acknowledgement. The undersigned acknowledges and agrees that intentionally falsifying or concealing any material fact with regard to the subject matter of this letter or the Environmental Investigations may, in addition to other penalties, result in prosecution under applicable laws including 18 U.S.C & 1001.

Printed Name of Environmental Professional: Thomas O. Tweedell

Signature of representative of firm who is authorized to sign this letter

Printed Name and Title: Thomas O. Tweedell authorized agent

Name of Environmental Firm: All Phase Environmental, L.L.C.

Phase I Environmental Site Assessment

For The Property of:

Invista (former DuPont) Plant
110 Voyles Rd.
Athens, GA

Prepared for:

Ryan Adolphson
RWDC Industries
2500 Daniel's Bridge Rd.
Building 100
Athens, GA 30606

Prepared by:

All Phase Environmental
1233 Wolfskin Rd.
Arnoldsville, GA 30619
Phone (706) 549-9456
Fax (706) 548-4000

August 21, 2019

Table of Contents

1.0 SUMMARY 1

2.0 INTRODUCTION 3

2.1 PURPOSE 3

2.2 DETAILED SCOPE-OF-SERVICES 3

2.3 SIGNIFICANT ASSUMPTIONS 4

2.4 LIMITATIONS AND EXCEPTIONS 4

2.5 SPECIAL TERMS AND CONDITIONS 5

2.6 USER RELIANCE 5

3.0 SITE DESCRIPTION 5

3.1 LOCATION AND LEGAL DESCRIPTION 5

3.2 SITE AND VICINITY GENERAL CHARACTERISTICS 6

3.3 CURRENT USE OF THE PROPERTY 6

3.4 DESCRIPTIONS OF STRUCTURES, ROADS, OTHER IMPROVEMENTS 6

3.5 CURRENT USES OF THE ADJOINING PROPERTIES 7

4.0 USER PROVIDED INFORMATION 7

4.1 TITLE RECORDS 7

4.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS 8

4.3 SPECIALIZED KNOWLEDGE 8

4.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES 8

4.5 OWNER, PROPERTY MANAGER AND OCCUPANT INFORMATION 8

4.6 REASON FOR PERFORMING PHASE I 8

4.7 OTHER 8

5.0 RECORDS REVIEW 8

5.1.1 Federal NPL site list 11

5.1.1.a Federal Delisted NPL site list 11

5.1.1.b Proposed Federal NPL site list 11

5.1.2.a Federal CERCLIS list.....11
5.1.2.b Federal CERCLIS-NFRAP list 12
5.1.3.a Federal RCRA CORRACTS list.....12
5.1.3.b Federal RCRA TSD facilities list..... 12
5.1.3.c Federal RCRA Non-Generator list NLR.....12
5.1.3.d Federal RCRA CESQG 13
5.1.3.e Federal RCRA SQG 13
5.1.3.f Federal RCRA LQG.....13
5.1.4 Federal EARNS list..... 14
5.1.5 State list of hazardous waste sites.....14
5.1.6 State list of non-hazardous waste sites.....15
5.1.7 State landfill and/or solid waste disposal site list.....15
5.1.8 State leaking UST lists 15
5.1.9 State registered UST list..... 15
5.1.10 Dry Cleaners.....15
5.1.11 AST- LP Gas Tank Locations.....15
5.1.12 High Risk Historical Records List.....16
5.1.13 NPDES - National Pollutant Discharge Elimination System.....16
5.1.14 DEL SHWS - Delisted Hazardous Waste Sites.....16
5.1.15 AIRS - Permitted Facility and Emissions Listing.....16
5.1.16 Tier 2 16
5.1.17 Finds 17
5.1.18 Spills.....17
5.1.19 TRIS.....17

5.2 NON GEO-CODED FINDINGS.....17

5.3 NON SCOPE CONSIDERATIONS.....17

5.4 ADDITIONAL ENVIRONMENTAL RECORD SOURCES.....18

5.5 PHYSICAL SETTING SOURCE(s)..... 18

5.6 HISTORICAL USE INFORMATION ON THE PROPERTYAND SURROUNDING AREA

5.6.1 HISTORICAL FIRE INSURANCE REPORT 18

5.6.2 HISTORICAL AERIAL PHOTOGRAPHS 18

5.6.3 HISTORICAL CITY DIRECTORIES..... 19

5.6.3 HISTORICAL TOPOGRAPHICAL MAPS..... 19

6.0 SITE RECONNAISSANCE.....20

6.1 METHODOLOGY AND LIMITING CONDITIONS.....20

6.2 GENERAL SITE SETTING 20

6.3 LIMITATIONS 24

7.0 INTERVIEWS.....22

7.1. INTERVIEWS WITH OWNER.....22

7.1. INTERVIEWS WITH OTHERS.....22

7.1. INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS 23

8.0 FINDINGS 23

9.0 OPINION and CONCLUSIONS.....24

10.0 LIMITING CONDITIONS, DELETIONS, AND DEVIATIONS 24

11.0 ADDITIONAL SERVICES OR PERTINENT INFORMATION 24

12.0 REFERENCES.....25

13.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS.....25

14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS 26

15.0 APPENDICES 29

15.1 SITE VICINITY MAP & LOCAL PROPERTY INFORMATION..... 30

15.2 SITE PHOTOGRAPHS.....33

15.3 SITE PHOTOGRAPH DIRECTORY.....42

15.4 HISTORICAL AERIAL PHOTOGRAPHS.....46

15.5 SITE INSPECTION FORM.....63

15.6 HISTORICAL FIRE INSURANCE MAPS.....65

15.7 REGULATORY RECORDS DOCUMENTATION.....67

15.8 USER PROVIDED INFORMATION.....196

15.9 ATHENS-CLARKE COUNTY FIRE REPORT.....202

15.10 EXCERPTS FROM PREVIOUS ENVIRONMENTAL ASSESSMENTS.....206

15.11 CONTRACT BETWEEN USER AND ENVIRONMENTAL PROFESSIONAL ..257

1.0 SUMMARY

A Phase I Environmental Site Assessment (ESA) was performed by All Phase Environmental, LLC on the subject site, which is a tract of land located at 110 Voyles Rd. Athens, Clarke Co., GA.

The ESA was performed to identify, to the extent feasible, the recognized environmental conditions (RECs) of the property according to ASTM publication E 1527-13. This assessment consisted of a records review, a site reconnaissance, a review of tax data, two previous Phase I ESA Reports, and a previous Phase II Report with monitor well sampling near the old UST tank basin. In addition, city directories, and historical aerial photos were reviewed and several interviews were conducted. Historical Sanborn Fire Insurance maps were not available for this site.

The subject site located at 110 Voyles Road is a 132 acre portion of a 410.29 acre tract of land listed by Athens-Clarke County as parcel number # 214 019. The property is located in the northeastern portion of Clarke County. Athens-Clarke County Tax assessment office has the subject site listed as having an Industrial Class Code and being in the county – General taxing District.

The property was originally developed for Dupont as a beaming of yarn textile manufacturing plant, which was housed there until 2004. The property was sold to Invista, SARL, LLC in 2009.

There is one main building on the property which was built in 1972. Expansions to the building were added in 1979, 1991, and 2002. It is a one-story building with a mezzanine area. Some ceiling heights higher in some parts of the facility. This facility is approximately 400,000 sq. ft. and was an industrial complex with a work area utilizing most of the area, warehouse storage, conference rooms, loading areas, and offices. In addition, the facility maintained an on-site lunch area, break rooms, and a nursing station. There is a baseball field, a lake, and a pavilion East of the building. A security office and parking areas are located on the southwest corner of the property at the entrance. There is an old railroad spur, a detached storage shed, a fire pump building and a small fire pump pond. The rest of the property is undeveloped. The driveways, loading areas, and parking areas are paved.

We have studied the available environmental information for this property from several sources including an environmental data base. The EDR, data base search report lists eight Recognized Environmental Concerns (RECs) for this property. The EDR lists does not list any sites within a mile of the subject site which have RECs.

There are state and federal regulations requiring reporting of specific hazardous chemicals and compounds which could potentially pose environmental problems. If an industry is diligent with their reporting of these chemicals, the company's name appears on these lists.

SUMMARY Continued

All eight of the RECs reported by EDR (the environmental data base we use for our research) includes Invista SARL, LLC on these lists. In searching these lists, we have not found any violations on the part of the company. They appear to be in compliance with local, state, and federal regulations. Therefore, we do not believe that these RECs will cause detrimental environmental problems for the subject site. Hundreds of pages in the previous Phase II reports were devoted to reporting, testing, and lab analysis of the wastewater collected, stored and applied on the spray fields. We do not consider this water as being a REC for the subject site. The two Phase I reports we reviewed reached the same conclusion about the water but included volumes of descriptions and data that can be viewed in their reports. All Phase Environmental has included excerpts from these past reports in the appendix of this report.

2.0 INTRODUCTION

All Phase Environmental was contacted by Tom Clark on behalf of Ryan B. Adolphson with RWDC Industries, a potential buyer to conduct an updated Phase I Environmental Site Assessment for the subject site, 110 Voyles Road, Athens, GA

This assessment is intended to identify potential petroleum, chemical, or environmental problems resulting from practices and activities which have occurred either on-site or at surrounding locations. The assessment considers both past and present activities in order to identify potential environmental problems. This assessment is not intended to determine the actual presence or extent of contamination, if any, on the site.

2.1 PURPOSE

This investigation was performed with guidance from the standards set forth in ASTM Designation: E 1527-13 Standard practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The goal of this report is to identify recognized environmental conditions, RECs. This means the presence, likely presence, or release of any hazardous substances or petroleum products in, on, or at a property that pose a threat or future threat to the environment. De minimis conditions are not recognized environmental conditions.

2.2 DETAILED SCOPE-OF-SERVICES

This environmental site assessment has been prepared using the guidelines set out by ASTM's publication titled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", ASTM Standard E 1527-13. The E 1527-13 defines good commercial practice in the United States of America for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and petroleum products. As such, this ESA is intended to permit the user to satisfy one of the requirements to qualify for the innocent landowner defense to CERCLA liability, that is, the practice that constitute "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice."

DETAILED SCOPE-OF-SERVICES continued

The goal of the process is to identify Recognized Environmental Conditions (RECs). The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into the structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

2.3 SIGNIFICANT ASSUMPTIONS

Information, if obtained from the client, the client's representative, and prior environmental reports, is considered to be accurate unless reasonable inquires indicated otherwise.

Information obtained by local, state or federal government offices concerning the property at the location given to us by the client or the client's representative is considered to be accurate unless reasonable inquires indicated otherwise.

The primary direction of groundwater flow is assumed to follow topography unless otherwise indicated by measurement of groundwater wells or other quantitative data. Additionally, the groundwater flow direction is assumed to control the migration of contaminants.

2.4 LIMITATIONS AND EXCEPTIONS

This report is limited to the scope set out by ASTM standard E 1527-13. The findings of this report are for the current conditions of the subject site and surrounding area and may not represent future conditions. The review of public records was limited to information available from "reasonably ascertainable" and "practically reviewable" sources at the time this report was prepared. An EPD UST file review was not deemed necessary or practical at this time.

2.5 SPECIAL TERMS AND CONDITIONS

None

2.6 USER RELIANCE

This report has been prepared for the exclusive use of Ryan B. Adolphson and RWDC Industries for a specific application to the project described herein, in accordance with generally accepted engineering practices. No other warranty, expressed or implied, is made.

All Phase Environmental is responsible for the conclusions contained in this report based upon the collected data. These conclusions relate only to the specific project and location discussed herein. In the event that conclusions or recommendations based upon these data are made by others, such conclusions or recommendations are not the responsibility of All Phase Environmental unless we have been given an opportunity to review and concur with such conclusions and recommendations in writing.

3.0 SITE DESCRIPTION

There is one main building on the property which was built in 1972. Expansions to the building were added in 1979, 1991, and 2002. It is a one-story building with a mezzanine area. Some ceiling heights higher in some parts of the facility. This facility is approximately 400,000 sq. ft. and was an industrial complex with a work area utilizing most of the area, warehouse storage, conference rooms, loading areas, and offices. In addition, the facility maintained an on-site lunch area, break rooms, and a nursing station. There is a baseball field, a lake, and a pavilion East of the building. A security office and parking areas are located on the southwest corner of the property at the entrance. There is an old railroad spur, a detached storage shed, a fire pump building and a small fire pump pond. The rest of the property is undeveloped. The driveways, loading areas, and parking areas are paved.

3.1 LOCATION AND SITE DESCRIPTION

The subject site located at 110 Voyles Road is a 132 acre portion of a 410.29 acre tract of land listed by Athens-Clarke County as parcel number # 214 019. The property is located in the northeastern portion of Clarke County. Athens-Clarke County Tax assessment office has the subject site listed as having an Industrial Class Code and being in the county – General taxing District.

3.2 SITE AND VICINITY GENERAL CHARACTERISTICS

The subject site is in Clarke County, Athens, Georgia, which is in the Southern Piedmont Region of Northeast GA. The Southern Piedmont Area extends from south central Virginia southwestward through the Carolinas, Georgia, and into Alabama. It is a rolling upland plateau lying between the Blue Ridge Mountain Province and the Coastal Plain and covers about 35 million acres.

The subject site is 781 ft. above sea level.

Groundwater generally flows across the property from the Northwest to the Southeast toward the lake on the property.

There are no public water wells listed within a mile of the subject site. However, the Atlanta Testing and Engineering Groundwater Study prepared for Dupont dated March 3, 1988 tells us that four houses within a quarter mile to the south of the property that share a well from the bedrock aquifer which the plant uses.

The soil at the subject site is mostly well drained clay loam. Sandy loam is near the surface with clay at deeper levels.

3.3 CURRENT USE OF THE PROPERTY

This facility is currently vacant. It had been used for industrial purposes since the 1970s.

3.4 DESCRIPTIONS OF STRUCTURES, ROADS, OTHER IMPROVEMENTS ON SITE

There is one main building on the property which was built in 1972. Expansions to the building were added in 1979, 1991, and 2002. It is a one-story building with a mezzanine area. Some ceiling heights higher in some parts of the facility. It is approximately 400,000 sq. ft. in size. This facility is approximately 400,000 sq. ft. and was an industrial complex with a work area utilizing most of the area, warehouse storage, conference rooms, loading areas, and offices. In addition, the facility maintained an on-site lunch area, break rooms, and a nursing station. There is a baseball field, a lake, and a pavilion East of the building. A security office and parking areas are located on the southwest corner of the property at the entrance. Also, on the property are a detached storage shed, a fire pump building and a small fire pump pond. The rest of the property is undeveloped. The driveways, loading areas, and parking areas are paved.

3.5 CURRENT USES OF THE ADJOINING PROPERTIES

Adjoining property to the North and Northeast –

The adjoining property to the North and Northeast is undeveloped land owned by Invista SARL. Beyond this property is a railroad, residential housing, and Hull Rd.

Adjoining property to the West –

The adjoining property to the West is undeveloped land owned by KOCH RP Holdings II, LLC.

Adjoining properties to the Southast –

Adjoining properties to the Southeast are single dwelling residential houses owned by various people whose last name is Wood.

Adjacent property to the South –

Voyles Rd. forms the southern property line. Across Voyles Rd. near the southwestern corner of the subject site is a company called Evergreen Packaging Company. The property is owned by Rooker Athens. Other landowners across Voyles Rd. are Woods with residential housing. Ruth Wood owns 50 acres and Issac Wood owns 43.36 acres. These two properties are considered by the Athens Clarke County Tax Assessor's office to be for conservation of green space. The other Wood's properties vary between about 2 acres to almost 6 acres in size with residential houses.

4.0 USER PROVIDED INFORMATION

The user has returned a questionnaire concerning knowledge of environmental issues and a plat of the property. In addition, the user has provided two previous Phase I Environmental Site Assessments for our review: AEI Consultants concucted a Phase I ESA dated March 10, 2018 which was included in the Vertex Phase I ESA dated July 26, 2018. We have included the questionnaire, plat, and portions of the environmental studies are included in the appendix of this report.

4.1 TITLE RECORDS

No title records were included in the user provided documents.

4.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

It is the user's responsibility to determine whether any environmental liens or activity and use limitations have been recorded against the property. This is usually done when the attorneys' conduct a title search.

4.3 SPECIALIZED KNOWLEDGE

None

4.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

None

4.5 OWNER, PROPERTY MANAGER AND OCCUPANT INFORMATION

According to the Athens-Clarke County Tax Assessor's office, the owner of the property is Invista SARL.

The Phase I ESA has been requested by RWDC Industries representative for a potential purchase.

4.7 OTHER

None

5.0 RECORDS REVIEW

To determine the past uses and activities of the site and the surrounding location, the following sources of information were reviewed. All Phase Environmental uses the services of Environmental Data Resources, a national data base of environmental statistics and information, to search available "reasonably ascertainable" government records either on the subject property or within the ASTM E 1527-13 search radius on and around the subject property. The Environmental Professional can determine whether further file searches are needed. All Phase Environmental Professionals have searched the following Databases:

FEDERAL ASTM STANDARD

NPL	National Priority List
Delisted NPL	Delisted National Priority List
Proposed NPL	Proposed National Priority List Sites
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP	Comprehensive Environmental Response, Compensation and Liability Information System
RCRA CORRACTS	Corrective Action Report
RCRA-TSD	Resource Conservation and Recovery Act Information - Facilities that Treat, Store and Dispose of hazardous materials
RCRA-CESQG	Resource Conservation and Recovery Act Information – Conditionally Exempt Small Quantity Generator Site
RCRA-SQG	Resource Conservation and Recovery Act Information- Small Quantity Generator Site
RCRIS-LQG	Resource Conservation and Recovery Act Information - Large Quantity Generator Site
RCRA-NonGen	Resource Conservation and Recovery Act Information- Non Generator Site
EARNS	Emergency Response Notification System
NPDES	National Pollutant Discharge Elimination System

STATE ASTM STANDARD

SHWS	Hazardous Site Inventory, State equivalent to CERCLIS
SWF/LF	Solid Waste Disposal Facilities
LUST	List of Leaking Underground Storage Tanks
UST	List of Registered Underground Storage Tanks
HIST LF	Historical Landfills

FEDERAL ASTM SUPPLEMENTAL

CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Record of Decision documents mandate a permanent remedy at an NPL site containing technical and health information to aid in the cleanup
Delisted NPL	National Priority List Deletions
FINDS	Facility Index System/Facility Identification Initiative Program Summary Report
HMIRS	Hazardous Materials Information Reporting System
MLTS	Material Licensing Tracking System

MINES	Mines Master Index File
NPL Liens	Federal Superfund Liens
PADS	PCB Activity Database System
ODI	Open Dump Inventory
UMTRA	Uranium Mill Tailings Sites
FUDS	Formerly Used Defense Sites
INDIAN RESERV	Indian Reservation
DOD	Department of Defense Sites
RAATS	RCRA Administrative Action Tracking System
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substance Control Act
SSTS	Section 7 (pesticide-producing establishments) Tracking Systems
FTTS	Federal Insecticide, Fungicide & Rodenticide Substances Control Act
ICIS	Integrated Compliance Information System

STATE OR LOCAL ASTM SUPPLEMENTAL

GA Spills	Oil or Hazardous Material Spills or Releases
NON-HSI	Non Hazardous Site Inventory
INST CONTROL	Public Record List
DRYCLEANERS	Drycleaner Database
AIRS	Permitted Facility and Emissions Listing
TIER 2	Tier 2 Data Listing
GA VCP	Volunteer Clean Up Site

EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas Former Manufactured gas (Coal Gas) Sites

BROWNFIELDS DATABASES

US BROWNFIELDS	A listing of Brownfields Sites
US INST CONTROL	Sites with Institutional Controls
BROWNFIELDS	Brownfields Public Records List
US INST CONTROL	Sites with Institutional Controls
US ENG CONTROLS	Engineering Controls Sites List

TRIBAL RECORDS

INDIAN RESERV	Indian Reservations
INDIAN LUST	Leaking Underground Storage Tanks on IndianLand
INDIAN UST	Underground Storage Tank on Indian Land

5.1 STANDARD ENVIRONMENTAL RECORD SOURCES

5.1.1 Federal NPL Site List

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) established the National Priorities List (NPL). The NPL identifies contaminated sites that pose a potential threat to public health.

The subject property does not appear on the NPL list. There are no NPL facilities located within a one-mile radius of the site.

5.1.1a Federal Delisted NPL Site List

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

The subject property does not appear on the delisted NPL. There are no Delisted NPL sites within a 1 mile radius of the subject site.

5.1.1b Proposed Federal NPL Site list

The subject property does not appear on the Proposed NPL list. There are no properties within a mile of the site on the Proposed Federal NPL site list.

5.1.2. a. Federal CERCLIS List

Under the Comprehensive Environmental Response, Compensation and Liability Information Survey List (CERCLIS), the EPA identifies facilities with suspected contamination. Facilities on this list do not necessarily have environmental problems.

The subject site does not appear on the CERCLIS list. There are no facilities located within a ½ mile radius of the site reported on the CERCLIS database.

5.1.2. b. Federal CERCLIS-NFRAP List

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS.

The subject property does not appear on the CERCLIS-NFRAP list. There are no facilities on the CERCLIS-NFRAP list located within a mile radius of the site reported in the database.

5.1.3.a Federal RCRA CORRACTS Facilities List

Under the Resource Conservation and Recovery Act the EPA maintains a list of facilities which have Corrective Plans Treatment, Storage, and/or Disposal of hazardous wastes as defined and regulated by RCRA.

The subject property does not appear on the RCRA CORRACTS facilities list. There are no facilities which appear on this list within a mile of the subject site.

5.1.3.b. Federal RCRA TSD Facilities List.

Under the Resource Conservation and Recovery Act the EPA maintains a list of facilities on which Treatment, Storage, and/or Disposal of hazardous wastes takes place, as defined and regulated by RCRA.

The subject property does not appear on the RCRA TSD facilities list and there are no sites listed within ½ mile of the subject site.

5.1.3.c. Federal RCRA Non Gen- NLR

Under the Resource Conservation and Recovery Act the EPA maintains a list of facilities on which currently does not generate hazardous waste and is no longer regulated.

The subject site does not appear on the Federal RCRA Non Gen – NLR list and there are no sites listed within a ½ mile of the subject site.

5.1.3.dFederal RCRA CESQG List

Under the Resource Conservation and Recovery Act the EPA maintains a list of those persons or entities that generate hazardous wastes as defined and regulated by RCRA. Conditionally exempt small quantity generators generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

The subject property does not appear on the RCRA CESQG list. There are no facilities on the RCRA CESQG generators list within ½ mile of the subject property.

5.1.3.e Federal RCRA SQG List

This database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators generate between 100 kg and 1,000 kg of hazardous waste per month.

The subject property is not on this list, and there are no facilities within 1/4 mile of the subject site.

5.1.3.f Federal RCRA LQG List

Under the Resource Conservation and Recovery Act the EPA maintains a list of those persons or entities which are considered to be large quantity generators of hazardous wastes as defined and regulated by RCRA.

The subject site does not appear on the RCRA LQG list. There are no facilities on this list within ¼ mile.

5.1.4 Federal ERNS List

The EPA maintains an Emergency Response Notification System (ERNS) list of reported CERCLA hazardous substance releases or spills in quantities greater than the reportable quantity, as maintained at the National Response Center. Notification requirements for such releases or spills are codified in 40 CFR Parts 302 and 355.

The subject property does not appear on the ERNS list, nor are any properties within a mile of subject property.

5.1.5 State List of Hazardous Waste Sites (SHWS)

The SHWS list is the states' equivalent to CERCLIS. The subject property does not appear on the State list of hazardous waste sites.

There is one property listed as a Georgia Hazardous Site Inventory Site within 1 mile of the subject property.

5.1.6 State List of Non Hazardous Waste Sites (GA NON-HSI)

The subject site appears on the list of non hazardous waste sites.
There is one site which the EDR has listed as being within one mile from the subject site.

5.1.7 State Landfill and/or Solid Waste Disposal Site List

The subject site does not appear on the landfill or solid waste disposal site list. There are no sites reported within one mile of the subject site.

5.1.8 State Leaking UST Lists

The subject property does not appear on the State Leaking Underground Storage Tanks list.

There are no properties with Leaking Underground Storage Tank sites reported within ½ mile of the subject site.

5.1.9 State Registered UST List

The subject property does not appear on the state list of Registered Underground Storage Tanks. According to the research data there are no Registered UST sites listed within ½ mile of the subject site.

5.1.10 Dry Cleaners

The subject site does not appear on EDR's list of Dry Cleaners. There are no cleaners listed within ½ mile from this address.

5.1.11 AST- A Listing of Above Ground Tank Site Locations

The property is not listed as an Above Ground Storage Tank (AST) site by the EDR. There are no listings of an above ground tank site location within 1/2 mile of the subject site. However, All Phase Environmental identified several ASTs on the subject site. These were used for various industrial purposes which were not required to be reported. See details of these in the General Site Observation section 6.2 of this report and in the site photographs located in the appendix of this report.

5.1.12 Historical Records

The subject site does not appear on the list of high risk historical records. There are no Historic Auto Station or Dry Cleaning sites listed within ¼ mile of the subject site.

5.1.13 NPDES – National Pollutant Discharge Elimination System

The subject site is listed on the NPDES list of wastewater permits issued by the Watershed Protection Branch. There are no sites listed within a mile of the property.

Facility	Address	Distance	Status
Invista, S. R.L.	110 Voyles Rd. Athens, GA	Subject Site	No longer in business at this address

5.1.14 DEL SHWS – Delisted State Hazardous Waste Sites

The subject site is not listed on the Delisted State Hazardous Waste Sites Inventory. There are no other sites listed within a mile of the property.

5.1.15 AIRS –Permitted Facility and Emissions Listing

The subject site is listed on AIRS . There are no sites listed on AIRS within ½ mile of the property.

Facility	Address	Distance	Status
Invista SARL	110 Voyles Rd. Athens, GA	Subject Site	No longer in business at this address

5.1.16 TIER 2 –

This is a listing of facilities which store or manufacture hazardous materials and submit chemical inventory reports.

The subject site is listed twice* on the Tier 2 list. There are no sites listed within a mile of the property.

Facility	Address	Distance	Status
Invista, S. R.L.	110 Voyles Rd. Athens, GA	Subject Site	No longer in business at this address
Invista, S. A. R. L.	110 Voyles Rd. Athens, GA	Subject Site	No longer in business at this address

* The EDR has RECs at this address with three variations of the name of the business facility. We have listed these exactly as the EDR has them listed.

5.1.17 ICIS – Integrated Compliance Information System

The subject site is listed by the EDR as being on this list. There are no other sites listed within a mile of the property.

Facility	Address	Distance	Status
Invista SARL	110 Voyles Rd. Athens, GA	Subject Site	No longer in business at this address

5.1.18 FINDS- Facility Index System

This list is a compilation of several other environmental lists which lists names of facilities which appear on any of these.

The subject site is on this list. There are no other sites on this list within a mile of the subject site.

Facility	Address	Distance	Status
Invista SARL	110 Voyles Rd. Athens, GA	Subject Site	No longer in business at this address

5.1.19 US AIRS – Aerometric Information Retrieval System Facility Subsystem

This is a subsystem of AIRS which is used to track emissions and compliance data from industrial plants and other facilities.

The subject site is on this list. There are no other sites on this list within a mile of the subject site.

Facility	Address	Distance	Status
Invista SARL	110 Voyles Rd. Athens, GA	Subject Site	No longer in business at this address

5.1.20 ECHO – Enforcement and Compliance History Information

ECHO provides integrated compliance and enforcement information for facilities nationwide.

The subject site is on this list. There are no other sites on this list within a mile of the subject site.

Facility	Address	Distance	Status
Invista SARL	110 Voyles Rd. Athens, GA	Subject Site	No longer in business at this address

5.2 NON-GEOCODED FINDINGS

Non- geocoded findings refers to sites which are unmapped or "orphan" sites. These are listed in the data base search and in our report, but little information is readily available about them. There are no sites included in the orphan list generated by EDR for this report.

5.3 NON-SCOPE CONSIDERATIONS

Non-scope considerations include but are not limited to, the following: asbestos-containing building materials, biological agents, cultural and historical resources, ecological resources, endangered species, health and safety, indoor air quality unrelated to releases of hazardous substances or petroleum products into the environmental, industrial hygiene, lead-based paint, lead in drinking water, mold, radon, regulatory compliance, and wetlands.

Inclusion of these non-scope considerations is outside the Standard Practice and was not requested by the client.

5.4 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

- Athens-Clarke County Tax Assessor Records Online
- EDR Radius Report*

5.5 PHYSICAL SETTING SOURCE(s)

- EDR Geological Findings Report

5.6 HISTORICAL USE INFORMATION ON THE SUBJECT SITE AND ADJOINING PROPERTIES

Interviews, aerial photographs, historical topographical maps, historical city directories, historical topographical, and historical fire insurance maps of this portion of Clarke County were consulted to determine the historical presence/absence of improvements on this site and surrounding areas from the late 1930s.

5.6.1. Historical Fire Insurance Map Collections

Sanborn maps were generated in cities throughout the United States, originally for insurance purposes from the 1890s – 1950s. Now they document historical data. Since this area of Clarke County was not fully developed during this time, no Sanborn maps of the subject site are available.

5.6.2. Aerial Photographs

Aerial photographs were available from 1938, 1944, 1951, 1955, 1960, 1967, 1973, 1981, 1988, 1993, 2007, 2010, 2013, and 2017 for our inspection.

The aerial photographs from 1938 – 1960 show the subject site and surrounding areas being used for agricultural purposes. These show mostly wooded areas and fields or pastures. There are a few structures which appear to be residential houses in the central, northern, and southern portions of the site. An access road extends from the western side of the property. The surrounding areas also have some residential housing. A railroad is located beyond the northwestern portion of the property.

While the subject site remains undeveloped, the 1967 photograph shows more residential housing on all sides and a small pond can be seen Southwest of the subject site. The beginnings of commercial or industrial development appear on properties West of the property. However the entire area is primarily rural and the land appears to be used primarily for agricultural purposes.

Aerial Photographs continued

The photographs from 1973 – 1988 show the development of the subject site. A structure is clearly shown in the 1973 picture near the center of the western side of the property, several smaller structures are scattered south of the building and a small lake is located on the

southeastern portion of the property. The 1981 photograph shows an expansion of the original building and the development of the recreational facilities on the property with tennis courts and ball fields. A railroad spur appears on the northeastern portion of the subject site in the 1988 photograph. The surrounding properties in these photographs appear much the same as they did in the 1967 picture, however, some development is evident to the northwest beyond the railroad and there are a few additional houses in the 1981 photograph.

The photographs from 1993 – 2007 show further development in the property and some development on surrounding properties. The third addition to the main building on the subject site can be seen in the 1993 photograph. The railroad spur is not visible in the 2007 photo, and there appears to be an additional small building near the southeastern corner of the building. The surrounding areas show little change except for the large building across Voyles Rd. southwest of the subject site.

In the subsequent photographs from 2010 – 2017 the subject site and the surrounding areas show little change from the 2007 photo and appear much the same as they do today.

5.6.3. Historical City Directories

We reviewed Athens, GA historical city directories from 1959, 1963,1967, 1970, 1973,1977, 1981, 1985, 1989, 1993, 1997, 2001, 2004, 2008, and 2111. Dupont was listed at this address from 1973 – 2004. No other listings were shown in these directories for this address. Only residential numbers were listed in the immediate vicinity. Since this area was primarily rural during these years, we found nothing that could cause environmental concerns for the subject site.

5.6.4. Historical Topographical Maps

Historical topographical maps were available from 1964, 1972, 1981, 1986, 1988, 1999 and 2012 for our review. No consequential changes were made in these years topographically. Obviously, grading took place on the subject site in preparation for the construction of the building and sub sequential additions, as well as for the lake and construction of the recreational facilities. However, none of this caused changes in the overall topography of the area and nothing causing environmental concerns were found in the area.

6.0 SITE RECONNAISSANCE

An on-site reconnaissance was performed at the subject site. This site visit included a drive by and walking inspection of the property and the surrounding area. During the visit to the property, the area was investigated for RECs.

6.1 METHODOLOGY AND LIMITING CONDITIONS

Methodology consisted of an environmental professional walking and inspecting the buildings and the property, looking for areas or conditions which could potentially cause environmental concerns. All Phase Environmental representative, Tom Tweedell, met with Terry Blount and inspected the property with a walking tour of the site on August 16, 2019. In addition, we drove by adjoining properties checking for obvious RECs which might affect the environmental integrity of the subject site.

6.2 GENERAL SITE OBSERVATIONS

Description	Y/N	Comments
Water Supply	Y	Athens - Clarke County
Sewage	Y	Athens- Clarke County
USTs	N	None observed / Previous USTs removed
ASTs	Y	(1)Heating Oil (out of service,) (2) Diesel (out of service,) (3) Spray-field water tank (out of service,) (4) Non-potable water tank (in use,) (5) and (6) Chemicals for water treatment (in use)
Chemical Storage	Y	Large AST chemicals for water treatment and smaller containers of other chemicals used in processing and water treatment
Odors	N	None observed
Ponds or Pits	Y	(1) Lake Dupont – recreational purposes only, and (2) Fire-fighting water storage impoundment (out of service)
Pools of Liquid	N	None
Drums/Containers	Y	Chemical Storage AST and Small containers listed above

GENERAL SITE OBSERVATIONS continued

Description	Y/N	Comments
Hydraulic	Y	Hydraulic Work-table
Transformers / PCB	Y	Fluorescent light ballast – possibly PCB
Drains / Sumps	Y	Inside: floor drains to Athens Clarke County Sewer Outside: Storm water grates to under-ground pipes, open ditches
Leaks/Stains/Corrosion	Y	Very few – none appear to be environmentally concerning
Stressed Vegetation	N	None observed
Solid Waste	Y	One compacting dumpster on North end of property
Waste Water	Y	Athens Clarke County Sewer
Cooling Water	Y	Cooling water from well
Underground Enclosures	Y	Manhole in front of building – possibly access to sewer
Wells	Y	(1) 1 drilled well in use for cooling water (2) 1 bored shallow well (not in use)

6.3 Limitations

Some fields and roads were overgrown with thick vegetation which made mobility and observation difficult. Thick wooded areas also limited some areas of the undeveloped property with a thorough inspection.

7.0 INTERVIEWS

Owner Representative:

Doc Adams

Tom Tweedell conducted a phone interview with Doc Adams, the Representative in charge of the Athens Property belonging to Invista, SARL. Mr. Adams told us that while past industrial activities with Invista previously had chemical involvement, all activities had been in compliance with EPD regulations and guidelines and activities were well documented. He did not know of any RECs associated with the property. Mr. Adams told us that since they had vacated the premises, limited maintenance and security have been continued, that all other activities have been stopped, all notifications requirements have stopped, and that the EPD has deactivated this requirement of the company at this site.

Other:

Terry Blount

Terry Blount is the Invista Maintenance Manager and the limited security personnel at the subject site. He has been associated with the property since early in its development. Mr. Blount met Tom Tweedell at the subject site for the site reconnaissance of the property. Tom interviewed Mr. Blount as they walked the property. He had a wealth of information about the activities in past years under DuPont ownership of the property as well as more recent activities with Invista. During the three and a half hour walk and interview, Tom learned a great deal about both companies and the work that was done on the property, but saw only minimal signs of environmental concerns and Mr. Blount did not know of any RECs associated with the property.

Gerry Whitworth

Gerry Whitworth has been a realtor in the Athens area for many years. He has been familiar with the subject site before, during, and after the development of the property. He has known personnel in both DuPont and Invista and has been aware of the types of work conducted at this location. Mr. Whitworth did not know of any RECs associated with the property.

7.3 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS

The Athens-Clarke County fire marshal was contacted to provide records of any fires or other environmental concerns on the property that may have occurred on the subject site. There was one report: DuPont called the fire department because of a spill of "combustible/flammable gas/liquid" at this address in March of 2002. Within the three minutes arrival time of the fire department, DuPont personnel had turned off the tank with the spill and cleaned the area. The fire fighters inspected the problem.

8.0 FINDINGS

Within the scope of this investigation, All Phase found the following environmental concerns:

The EDR Radius Report listed eight environmental concerns for the subject site.

- 1 NPDES
- 1 AIRS
- 2 TIER 2s (110 Voyles Rd. with two slightly different variations of Invista's name)
- 1 ICIS
- 1 FINDS
- 1 US AIRS
- 1 ECHO

The EDR Radius Report listed no environmental concerns for the surrounding area:

Additional RECs found during All Phase investigation on the subject site:

- No Current RECs
- No Historical RECs

Additional RECs found during our investigation on the properties adjacent to the subject site:

- None – We did not physically walk on these properties, but observed what we could from public access.

FINDINGS continued

The AEI consultant for the Phase I Environmental Site Assessment dated March 10, 2018 noted that there was a lack of UST closure documentation for the former non-regulated heating oil USTs. We believe the inclusion of the Phase II Limited Sub-Surface Investigation Report dated February 15, 2019 satisfies AEI's concern. This report can be found in the appendix of this report.

All Phase Environmental's Phase I ESA by scope and contract does not include ACMs, lead, mold, radon or business risks. However, the two previous Phase I ESA reports that were provided to us for review by RWDC did address some of these issues. RWDC has these reports and we have included some excerpts from these reports in the appendix of this report only as a point of reference for those seeking further information.

9.0 OPINIONS and CONCLUSIONS

All Phase Environmental did not identify any RECs on the subject site. All Phase Environmental did not find any adjacent properties with RECs that would impact the 110 Voyles Rd. Athens, GA property.

No further environmental investigations covered under the scope of this Phase I Environmental Site Assessment are deemed necessary.

10.0 LIMITING CONDITIONS, DELETIONS, AND DEVIATIONS

Limiting conditions that would indicate a data gap(s). No data gaps were encountered within the scope of this assessment. Additionally, this assessment was not subjected to deletions or deviations from the ASTM Standard Practice, including client-imposed constraints.

11.0 ADDITIONAL SERVICES OR PERTINENT INFORMATION

The appendix of this report contains reference documentation and clarification of pertinent information included in this report.

12.0 REFERENCES

- User Supplied Information
- EDR Radius Map Report
- EDR Aerial Photo Package
- Sanborn Fire Insurance Map Abstract
- Clarke County Tax Assessor Online Records

13.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

This Phase I Environmental Site Assessment was performed by the following individuals in conformance with ASTM Practice E 1527-13.

Thomas O. Tweedell July 18, 2019

Thomas O. Tweedell Date

14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Thomas O. Tweedell (Tom) graduated from the University of Georgia with a BBA in 1975. He has been active in the petroleum business (Tweedell & Van Buren Oil Co.) all of his adult life. His responsibilities have included but not limited to maintenance and repair of petroleum equipment, installation of new petroleum equipment supervision of environmental compliance.

In 1988 Tom expanded Tweedell & Van Buren Oil Co's services by offering Underground Storage Tank (UST) upgrades and removal in compliance with Georgia EPD UST management program. These services were under the name of Tweedell & Van Buren Oil Co. d.b.a. Petroleum Systems. Over the years services have been expanded to include UST compliance reviews, remediation, Corrective Action Plans Parts A and B, UST tightness testing, UST corrosion and cathodic inspection, Monitor Well installation, Soil Sampling and Water Sampling.

To better serve our customers on January 1, 2004 Tom reorganized under the name of All Phase Environmental LLC offering the following services:

PHASE I - - Environmental Site Investigations
PHASE II - - Subsurface Site Investigations
CORRECTIVE ACTION PLANS - - Parts 'A' and 'B'
REMEDIATION
NATURAL ATTENUATION - MODEL & MONITOR
VAPOR EXTRACTION
EXCAVATION AND TRANSPORT TO LANDFILL OR RECYCLE
MONITOR WELL INSTALLATION AND MONITORING
STORAGE TANK INSTALLATION AND REMOVAL
TANK AND LINE TESTING

QUALIFICATIONS OF KEY PERSONNEL

THOMAS O. TWEEDELL
Environmental Professional
Licensed Contractor (GA #RLQA002244)
Certified in UST Installation/Retrofitting by 'International Fire Code Institute'
Certified in UST Decommissioning by 'International Fire Code Institute'
Registered Home Inspector by 'Housing Inspection Foundation'
Certified Asbestos Containing Material Inspector

We have completed the technical competency test for installers of underground liquid storage systems (PEI), we utilize our direct push probe and hollow stem drill rig for soil and water subsurface investigations, we are bonded for Monitor Well installation, certified for Asbestos Inspection, have current DOT drivers license for the transportation of hazardous and flammable

materials, certified by the Red Cross in first aid and CPR, have successfully completed the 40hrs. OSHA training course for the handling of hazardous materials. (HAZMAT & HAZWOMPER) We maintain licenses for residential and light commercial contracting, plumbing and electrical.

We use Analytical Environmental Services for our Laboratory Analysis. They are located at:

Analytical Environmental Services
3785 Presidential Parkway
Atlanta, GA30340
phone number (770) 457-8177.

For geological services we use C. Bradley Rickard, Georgia Registered Professional Geologist No. 1241, as a subcontractor.

C. Bradley Rickard & Associates, Inc.
Manager of the Athens Clarke County Landfill
Phone (706) 613-3508

PARTIAL CLIENT LIST

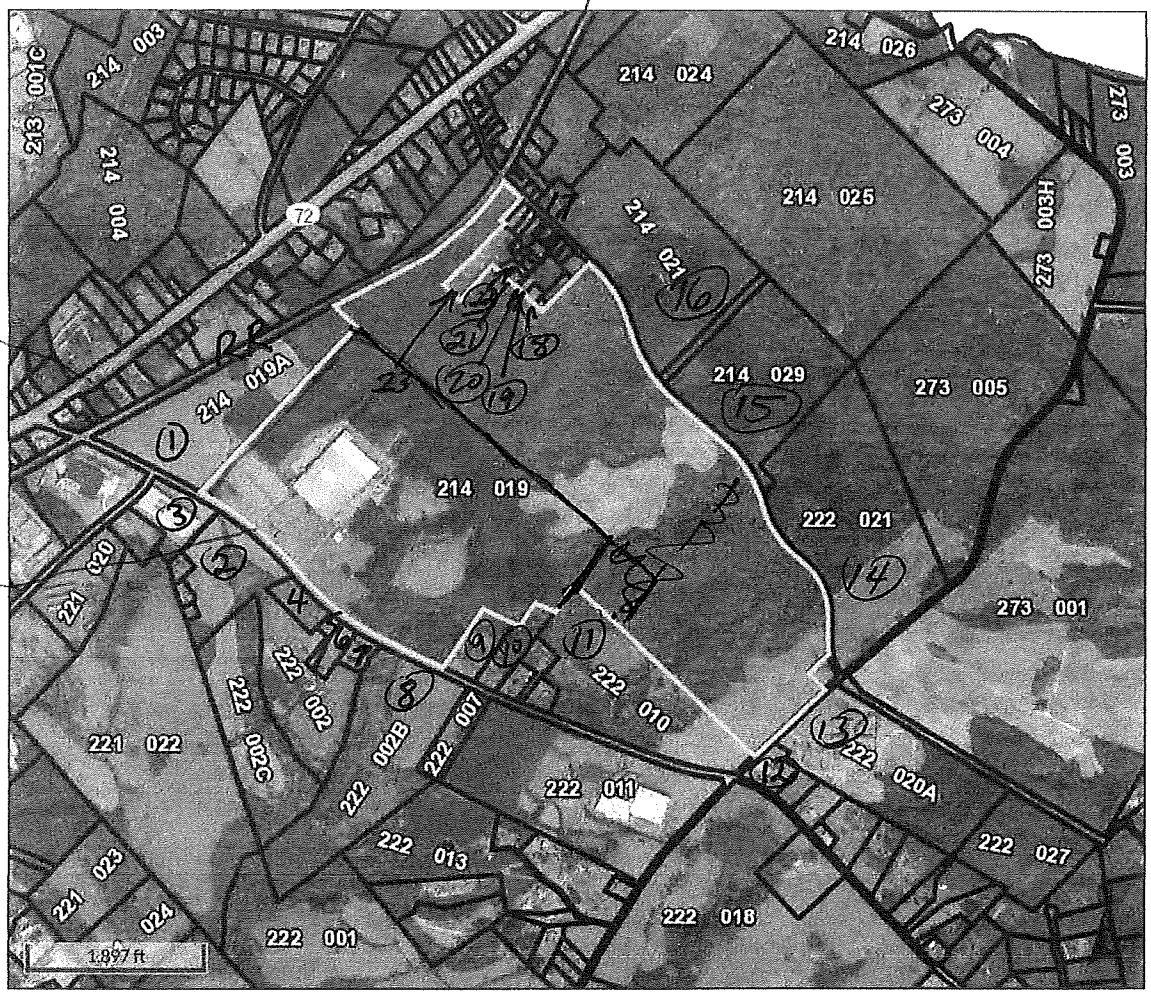
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Athens Federal Savings Bank
AthensToyota
Athens/Clarke CountyGovernment
Athens Country Club
Athens Housing Authority
Barrett Motors
Barrett Properties - AlpsShopping Center
BB&T
Beaver Dam Farm's
Benson's Inc.
Brack Rowe Chevrolet
Brewer & Dudley Surveying & Eng.
Bullock Ford Tractor
Century Petroleum
Chasman& Assoc.
Church Oil Co.
Clarke Co. Board of Education
Dan-Way Oil Co.
Del Mar Window Covering
Descon / Fina Job
Don Mann Engineering
Jefferson Mills
Jennings Mill C. C.
John E. Griffin
John Barrett
Johnson Ford Sales
Kaiser-Estech-Vigiro
Kim Kimbrough P.C.
Lay Brothers Oil Co.
Lawrence Oil Co - Golden Pantry
Martin Mechanical
McDonalds Corp. Real Estate
Mulky Properties
N. E. Sales - Frank Sinkwich
Nathan Baxter
National Bank of Georgia
North Georgia Bank
Oconee State Bank
Oglesby Oil Co. (Amoco)
Oglethorpe Co. B of Education
The People's Bank
Seaboard Farms - Con Agra
Seigler Oil Co.
Southeastern Growers
Southern Oil Co.

Don Sumner - Sumner Properties
Druid Hills Golf Club
First Commerce Bank
Fletcher Granite Co
Gerry Whitworth Land Development
Grayson Realty
Greene Co. B of Education
Hank Joiner Realty
Harmony Grove Mills
Harris Trucking Co.
Heyward Allen Motor Co.
Ivey Realty & Associates, Inc.
St. Mary's Health Care
Sun Trust Bank and Trust
The Salvation Army (Athens)
Thomas St. Holding Co.
Troy Porterfield Jr.
United Technologies
Upchurch Realty
USDA - Poultry Research
USDA - Russell Research
USDA, ARS - State Wide
Wachovia Bank
Walton Co Board of Education
War Eagle LLC - Athens Business Cent.
Westinghouse/ABB
Williams and Assoc. Land Planers

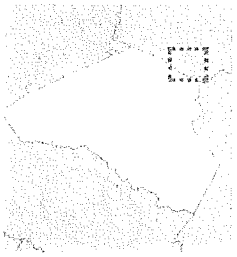
Appendices

Site Vicinity Maps and Property Cards

qPublic.net™ Athens-Clarke County, GA



Overview



Legend

- Parcels
- Parcel Numbers
- Roads

Parcel ID	214 019	Owner	INVISTA SARL LLC	Last 2 Sales			
Class Code	Industrial		4111 E 37TH ST N	Date	Price	Reason	Qual
Taxing District	County - General		WICHITA KS 67220	2/9/2009	0	B	U
	County - General	Physical Address	110 VOYLES RD	4/30/2004	$11000000	FM	Q
Acres	410.29	Assessed Value	Value $9400690				

(Note: Not to be used on legal documents)

Date created: 7/24/2019
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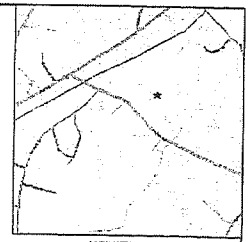
Agri/wooded Industrial

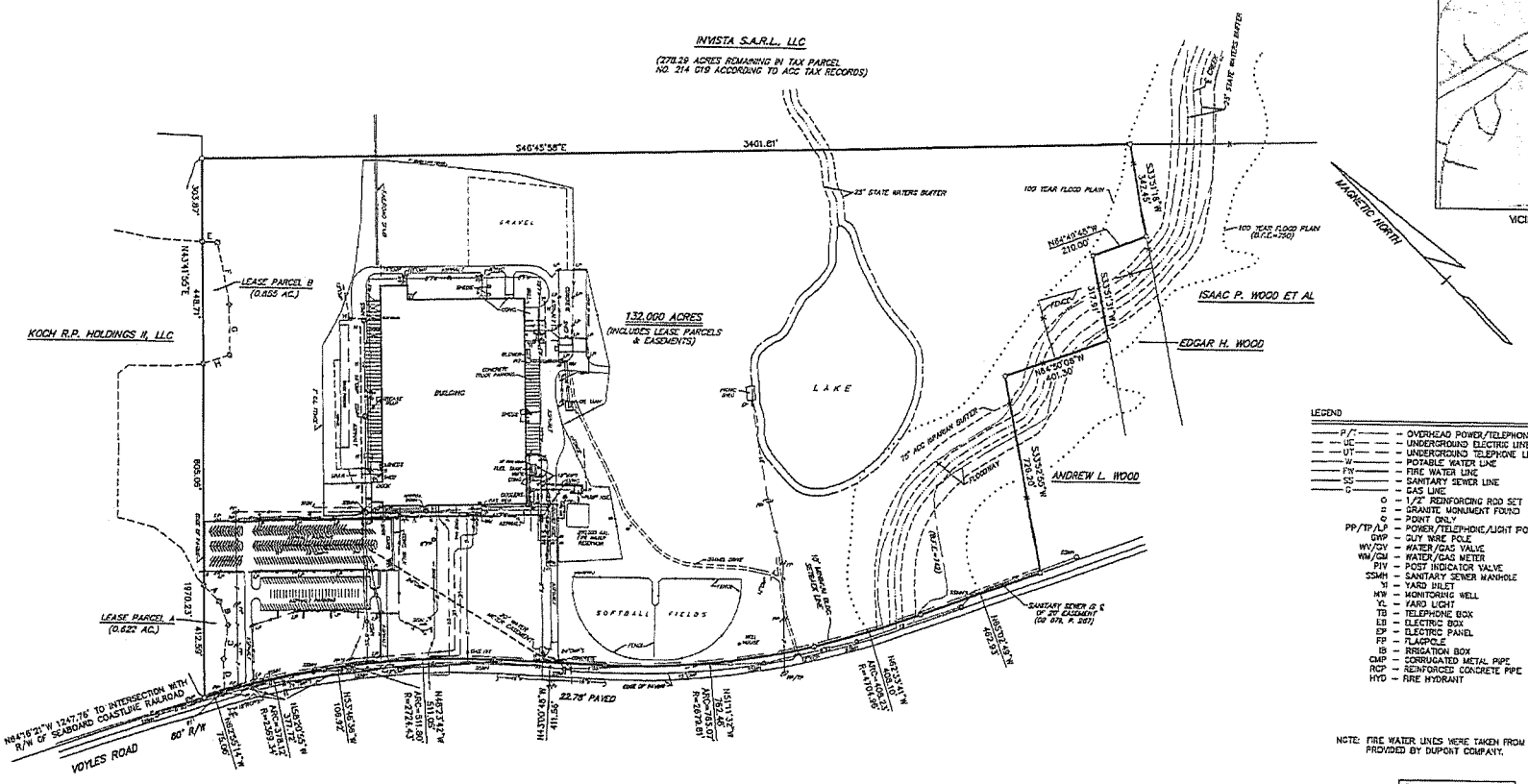
(1) KOCH RP Holdings II LLC 41.77 ac
(2) Edwin H. Wood conservation 37.76 ac vacant
(3) Rooker Athens 1 bldg 120,000 ft² E-1 8.92 ac
(4) Edwin D. Wood 4 ac. Res. House
(5) Issac Wood 1 ac. Res. House
(6) Martha Wood 3.04 ac. Res. House
(7) Edwin Wood 2.10 Res. House
(8) Ruth Wood 50 ac conservation - Agri - wooded
(9) Fannie Wood 5.86 ac Res house
(10) Ruby Wood 5.82 ac Res.
(11) Issac Wood 43.36 ac conservation

Plat Doc: PLAT
Recorded 03/14/2019 03:57PM

Beverly Logan, Clerk Superior Court
Athens-Clarke County, Ga.
Bk 0000 Pg 0000
Penalty: $0.00
Interest: $0.00
Participants: 87-32451943

THIS BLOCK IS RESERVED FOR THE CLERK OF THE SUPERIOR COURT




INVISTA S.A.R.L. LLC
(278.29 ACRES REMAINING IN TAX PARCEL NO. 214 019 ACCORDING TO ACC TAX RECORDS)
S40°45'58"E
3401.81'
23' STATE WATERS BUFFER
100 YEAR FLOOD PLAIN
100 YEAR FLOOD PLAIN (B.F.E.=750')
MAGNETIC NORTH
S33°15'15"W
342.45'
N64°41'45"W
210.00'
S33°15'15"W
317.91'
ISAAC P. WOOD ET AL
EDGAR H. WOOD
N64°50'08"W
401.30'
S33°25'50"W
778.26'
ANDREW L. WOOD
KOCH R.P. HOLDINGS II, LLC
LEASE PARCEL B
(0.855 AC.)
132.000 ACRES
(INCLUDES LEASE PARCELS & EASEMENTS)
LAKE
GRAVEL
BUILDING
SOFTBALL FIELDS
LEASE PARCEL A
(0.622 AC.)
N64°16'21"W 1217.76' TO INTERSECTION WITH R/W OF SEABOARD COASTLINE RAILROAD
VOYLES ROAD
60' R/W
22.76' PAVED
SANITARY SEWER (C.L. OF 20' EASEMENT (DB 878, PG 207))
N64°34'38"W
402.15'
N64°33'43"W
402.10'
Arc=406.55'
R=11016.16'
N64°35'06"W
411.56'

Site Photographs



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4



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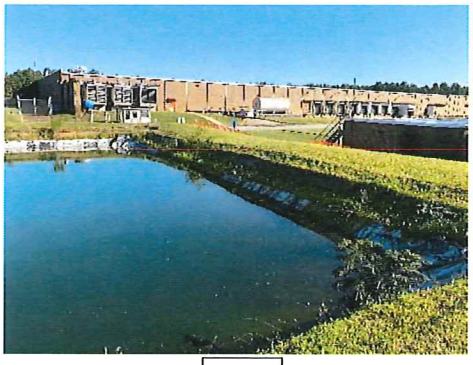
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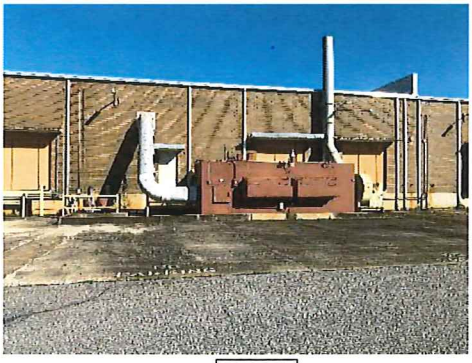
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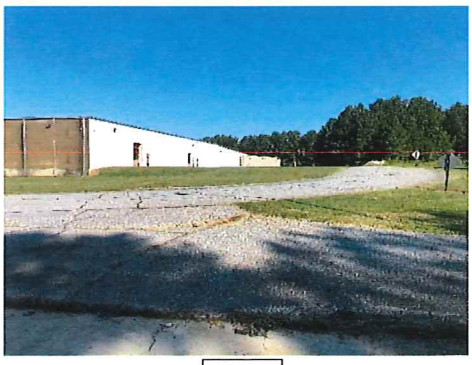
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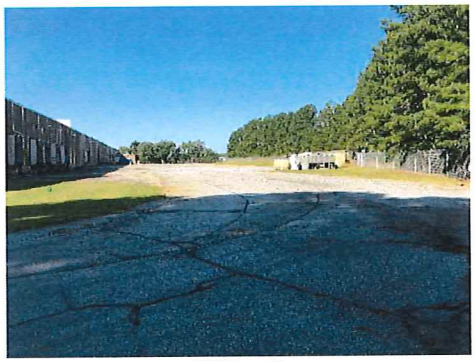
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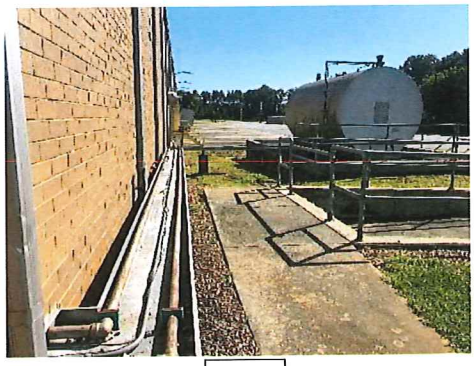
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Pictures Pg. 7



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86



87



88



89



90



91



92



93



94



95

Site Photograph Directory

Site Photo Directory

	Page 4
37	"Graywater" holding tank for spray-fields system (out of service)
38	Water tank dike with entrance to old spray-fields in the background
39	View S to N from water tank dike
40	Old spray-field
41	Entrance to spray-fields
42	Spray-field
43	Spray-field
44	PVC riser in overgrown spray-field
45	Plant air filtration system (possible ACM on closed door opening)
46	Storage building in NE corner of driveway
47	Office in the storage building
48	View E to W along N end of building

	Page 5
49	N.E. corner of old "beam" storage area
50	N (back) fence view E to W
51	Small debris piles
52	Small debris pile
53	N end of building (back)
54	Driveway to N end view E to W
55	W side of building and parking view N to S
56	Old railroad spur in the NW portion of property
57	Gravel drive parallel to railroad spur -view S to N
58	Railroad spur NW corner through back gate
59	Compactor near SW corner of building
60	Piping for #2 fuel oil from AST to boiler (disconnected)

	Page 6
61	Maintenance office in SE corner of building
62	Chilled water pipes and chemical injection AST
63	Chilled water maintenance chemicals
64	Air compressor / air tank area
65	View NE from compressor area
66	Boiler (heating water) room
67	ACM Tags on boiler pipe insulation
68	Boiler
69	Water/Nitrogen AST
70	General interior
71	General interior
72	Air handler for chilled water cooling system

Site Photo Directory

	Page 1
1	View E along Voyles Rd.
2	View N from Voyles Rd.
3	View NE from Voyles Rd.
4	View E from Voyles Rd.
5	Out of service well near E corner of Voyles Rd.
6	Residence across Voyles Rd. to the East
7	Lake DuPont
8	Powerline right of way and driveway from Voyles Rd. to Lake DuPont
9	Pavilion at Lake DuPont
10	Monitor well at the old spray-field N of the ball field
11	Water Retention Impoundment for fire protection system (out of service)
12	East side of building

	Page 2
13	Truck gate entry
14	Truck gate exit back to Voyles Rd.
15	SE Front of building and utilities – Electric Power, Natural Gas, Water
16	View E to W across front of building
17	View from front of building back to Voyles Rd.
18	View from parking lot N to west side of building
19	View from SW corner of building to the W across parking lot
20	View of adjacent property to West across Voyles Rd. (owned by Rooker)
21	View N to S along western property line
22	View S to N along western property line
23	Western driveway entrance view W along Voyles Rd.
24	Western driveway view E along Voyles Rd.

	Page 3
25	Manhole – possibly to sewer
26	Natural gas pipeline cut off near Voyles Rd.
27	Ground water monitor well manhole at the old heating oil UST location
28	Cooling towers with non-potable water tank at the drilled well (possible ACMs on chiller units)
29	Manhole at old UST location in front of diesel AST (out of service)
30	Dike at diesel AST
31	Drainage from dike
32	Storm water grates and natural gas piping from loading dock area
33	Fire protection pumps and AST diesel tanks
34	Fire protection pumps and AST diesel tanks
35	Fire protection pumps and AST diesel tanks
36	Water reservoir for fire protection (closed)

Site Photo Directory

	Page 7
73	Hydraulic lift in old fork-lift maintenance area
74	General view of warehouse
75	General view of warehouse
76	Exhaust system and electricity for charging fork-lift batteries
77	General interior
78	General interior
79	Possible PCB ballast in old florescent light under mezzanine level
80	Mezzanine
81	General interior
82	Maintenance parts storage locker
83	Maintenance storage area
84	2' x 4' ceiling tiles on wall for sound proofing. Vegetable oil residue on floor from yarn finishing process

	Page 8
85	Air handler in office area
86	General view of office area
87	General view of office area
88	General view of office area
89	Entrance to office area
90	Dining area (possible ACMs)
91	Kitchen (possible ACMs)
92	Floor drain at air handler for condensation
93	Silver tags noting ACM
94	Boiler room water treatment injector
95	Railroad spur next to main line at Pittard Rd. NNW of the property

Historical Research Documentation

Aerial Photographs

Invista

110 Voyles Rd.

ATHENS, GA 30601

Inquiry Number: 5727046.5

July 24, 2019

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

07/24/19

Site Name:

Invista
110 Voyles Rd.
ATHENS, GA 30601
EDR Inquiry # 5727046.5

Client Name:

All Phase Environmental, LLC
1233 Wolfskin Road
Arnoldsville, GA 30619
Contact: Tom Tweedell

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2017	1"=500'	Flight Year: 2017	USDA/NAIP
2013	1"=500'	Flight Year: 2013	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2007	1"=500'	Flight Year: 2007	USDA/NAIP
1993	1"=500'	Acquisition Date: January 30, 1993	USGS/DOQQ
1988	1"=500'	Flight Date: February 25, 1988	USGS
1981	1"=500'	Flight Date: February 05, 1981	USDA
1973	1"=500'	Flight Date: February 22, 1973	USDA
1967	1"=500'	Flight Date: February 13, 1967	USDA
1960	1"=500'	Flight Date: October 20, 1960	USDA
1955	1"=500'	Flight Date: November 20, 1955	USDA
1951	1"=500'	Flight Date: January 08, 1951	USDA
1944	1"=500'	Flight Date: April 18, 1944	USDA
1938	1"=500'	Flight Date: October 08, 1938	USDA

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YEAR: 2013
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INQUIRY #: 5727046.5
YEAR: 2010
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INQUIRY #: 5727046.5

YEAR: 2007

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YEAR: 1993

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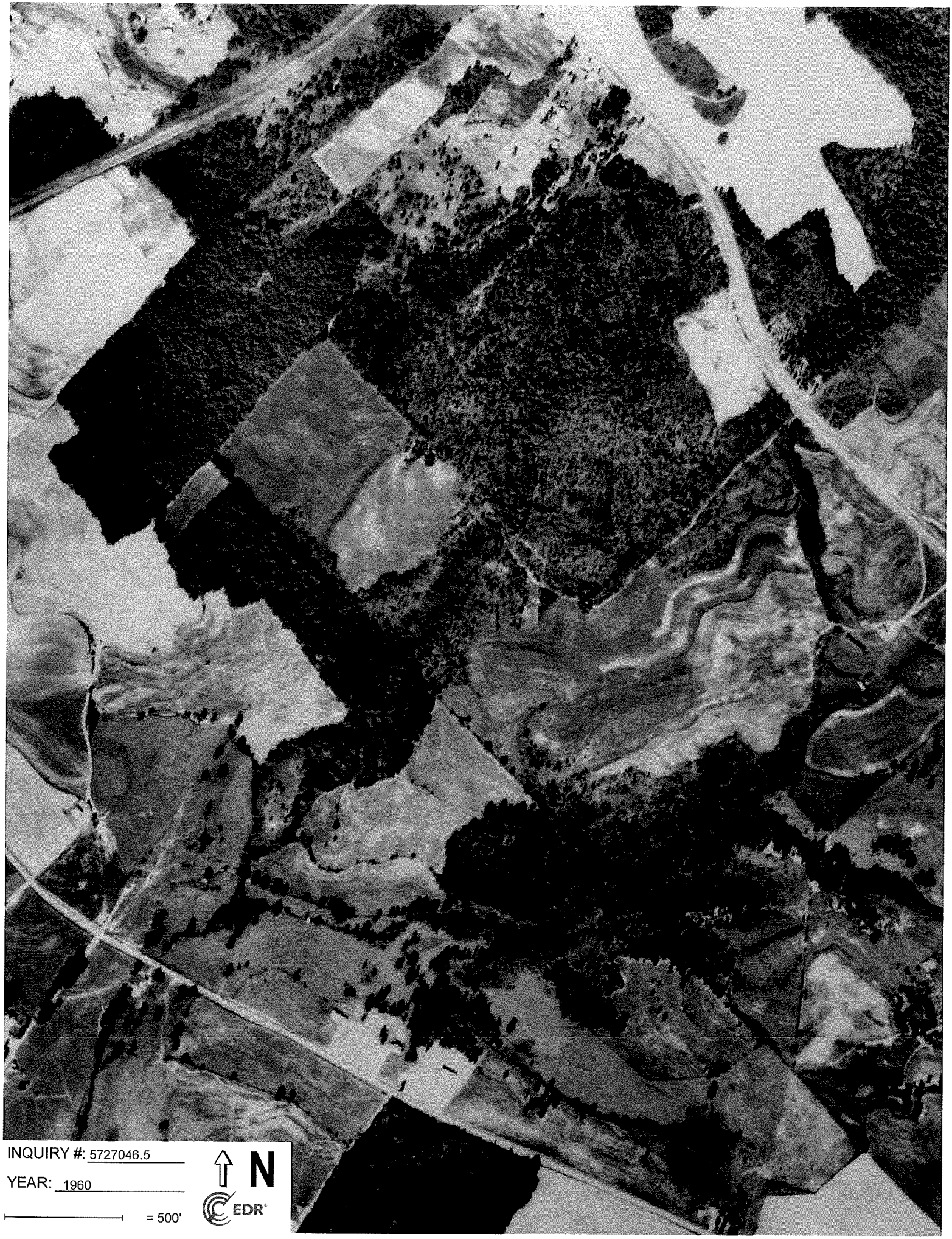
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YEAR: 1960

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INQUIRY #: 5727046.5

YEAR: 1955

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INQUIRY #: 5727046.5

YEAR: 1951

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INQUIRY #: 5727046.5

YEAR: 1944

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INQUIRY #: 5727046.5

YEAR: 1944

= 500'

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EDR



INQUIRY #: 5727046.5

YEAR: 1938

= 500'

N

EDR

Site Inspection Form

8-16-2019 Site Visit Field Notes Transcribed

Property identification: 110 Voyles Rd. Athens Ga.

1. Methodology for walk over: Walk/Ride Meeting Terry Blount
2. Limitations: Thick Woods, overgrown fields and roads
3. General setting/neighboring properties:

North:	
East:	
South:	
West:	

4. Current uses subject property: Vacant, RWDC Storage
5. Current uses neighboring property: Residential, Agricultural, Industrial
6. Current uses surrounding area: " " "
7. Past uses subject property: Residential, Agricultural
8. Past uses neighboring property: " "
9. Past uses surrounding area: " "
10. Geologic, hydrogeologic, hydrologic and topographic conditions:
11. Structures and improvements on subject property: Paved driveways, parking, Buildings, Lake, 150 ft to
12. Roads: Voyles Rd Paved
13. Water supply: A/C Co., Private well
14. Sewage disposal system: A/C Co.
15. Storage tanks: AST's: heating Oil, Diesel (out of service) Spray field water tank (out of service) Non-Pot well wa Tank(
16. Chemical storage: ~~N/A~~ chemicals for water Treatment | UST's removed
17. Drums/containers: " " " "
18. Solid waste disposal: N/A | compactly Dumpster North end
19. Pools of liquid: None
20. Ponds, pits, lagoons: Lake DuPont, Fire fighting water storage impoundment (out of service)
21. Odors: None
22. PCB electrical/hydraulic: Flourecent light Ballast possible PCB | hydraulic
23. Heating/ cooling: N. Gas fired boiler, well water Cooling Tower
24. Drains/sumps: Floor drains to A/C Co. sewer, outside storm water grates to U.G pipes, open ditch
25. Leaks, stains, corrosion: deminimus
26. Stressed vegetation: None
27. Waste water/cooling water: A/C Co. Sewage - Cooling water from well
28. Wells: 1 drilled well in use for Cooling Water, One bored shallow well not in use

Historical Research Documentation

Sanborn Map Report

Invista
110 Voyles Rd.
ATHENS, GA 30601

Inquiry Number: 5727046.3

July 24, 2019

Certified Sanborn® Map Report

6 Armstrong Road, 4th
Shelton, CT 06484
Toll Free: 800.352.005
www.edrnet.com

Certified Sanborn® Map Report

07/24/19

Site Name:

Invista
110 Voyles Rd.
ATHENS, GA 30601
EDR Inquiry # 5727046.3

Client Name:

All Phase Environmental, LLC
1233 Wolfskin Road
Arnoldsville, GA 30619
Contact: Tom Tweedell

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by All Phase Environmental, LLC were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 08EA-4DEC-8489

PO # Tom

Project RWDC Industries

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 08EA-4DEC-8489

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Regulatory Records Documentation

Invista
110 Voyles Rd.
ATHENS, GA 30601

Inquiry Number: 5727046.2s
July 24, 2019

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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FORM I

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	83
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting Source Map	A-7
Physical Setting Source Map Findings	A-8
Physical Setting Source Records Searched	PSGR-1

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with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

110 VOYLES RD.
ATHENS, GA 30601

COORDINATES

Latitude (North):	33.9960090 - 33° 59' 45.63"
Longitude (West):	83.3091410 - 83° 18' 32.90"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	286719.2
UTM Y (Meters):	3763922.8
Elevation:	781 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	6046418 ATHENS EAST, GA
Version Date:	2014
North Map:	6046546 HULL, GA
Version Date:	2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20150804
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
110 VOYLES RD.
ATHENS, GA 30601

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & m DIRECTION
A1	INVISTA, S.A.R.L.	110 VOYLES ROAD	TIER 2		TP
A2	INVISTA SARL	110 VOYLES ROAD	AIRS		TP
A3	INVISTA, S. R.L.	110 VOYLES RD.	NPDES, TIER 2		TP
A4	INVISTA SARL	110 VOYLES ROAD	ICIS, US AIRS, FINDS, ECHO		TP

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
INVISTA, S.A.R.L. 110 VOYLES ROAD ATHENS, GA 30601	TIER 2 Facility Id: 6072023 Facility Id: 4498289 Facility Id: 5849468	N/A
INVISTA SARL 110 VOYLES ROAD ATHENS, GA 30601	AIRS State Facility Id: 5900038 State Facility Id: 305900038 Operational Status: O	N/A
INVISTA, S. R.L. 110 VOYLES RD. ATHENS, GA 30601	NPDES TIER 2 Facility Id: 2911180 Facility Id: 5391450 Facility Id: FATR2009HQL6L41897J1 Facility Id: FATR20084TT9ZZ002EZY Facility Id: 4987284 **Additional key fields are available in the Map Findings section*	N/A
INVISTA SARL 110 VOYLES ROAD ATHENS, GA 30601	ICIS FRS ID:: 110007046605 US AIRS Database: US AIRS MINOR, Date of Government Version: 10/12/2016 EPA plant ID:: 110007046605 FINDS Registry ID:: 110007046605 ECHO Registry ID: 110007046605	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL---------- National Priority List

EXECUTIVE SUMMARY

Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS ---------- Hazardous Site Inventory
GA NON-HSI ---------- Non-Hazardous Site Inventory

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Disposal Facilities

State and tribal leaking storage tank lists

LUST ---------- List of Leaking Underground Storage Tanks
INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing

EXECUTIVE SUMMARY

UST	Underground Storage Tank Database
AST	Above Ground Storage Tanks
INDIAN UST	Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

INST CONTROL	Public Record List
AUL	Uniform Environmental Covenants

State and tribal voluntary cleanup sites

INDIAN VCP	Voluntary Cleanup Priority Listing
VCP	Voluntary Cleanup Program site

State and tribal Brownfields sites

BROWNFIELDS	Brownfields Public Record List

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS	A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF	Historical Landfills
SWRCY	Recycling Center Listing
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory
IHS OPEN DUMPS	Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
CDL	Clandestine Drug Labs
DEL SHWS	Delisted Hazardous Site Inventory Listing
US CDL	National Clandestine Laboratory Register

Local Land Records

LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	Spills Information
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites

EXECUTIVE SUMMARY

DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
UXO	Unexploded Ordnance Sites
DOCKET HWC	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM	EPA Fuels Program Registered Listing
COAL ASH	Coal Ash Disposal Site Listing
DRYCLEANERS	Drycleaner Database
Financial Assurance	Financial Assurance Information Listing
UIC	Underground Injection Control

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS	Recovered Government Archive State Hazardous Waste Facilities List
RGA LF	Recovered Government Archive Solid Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

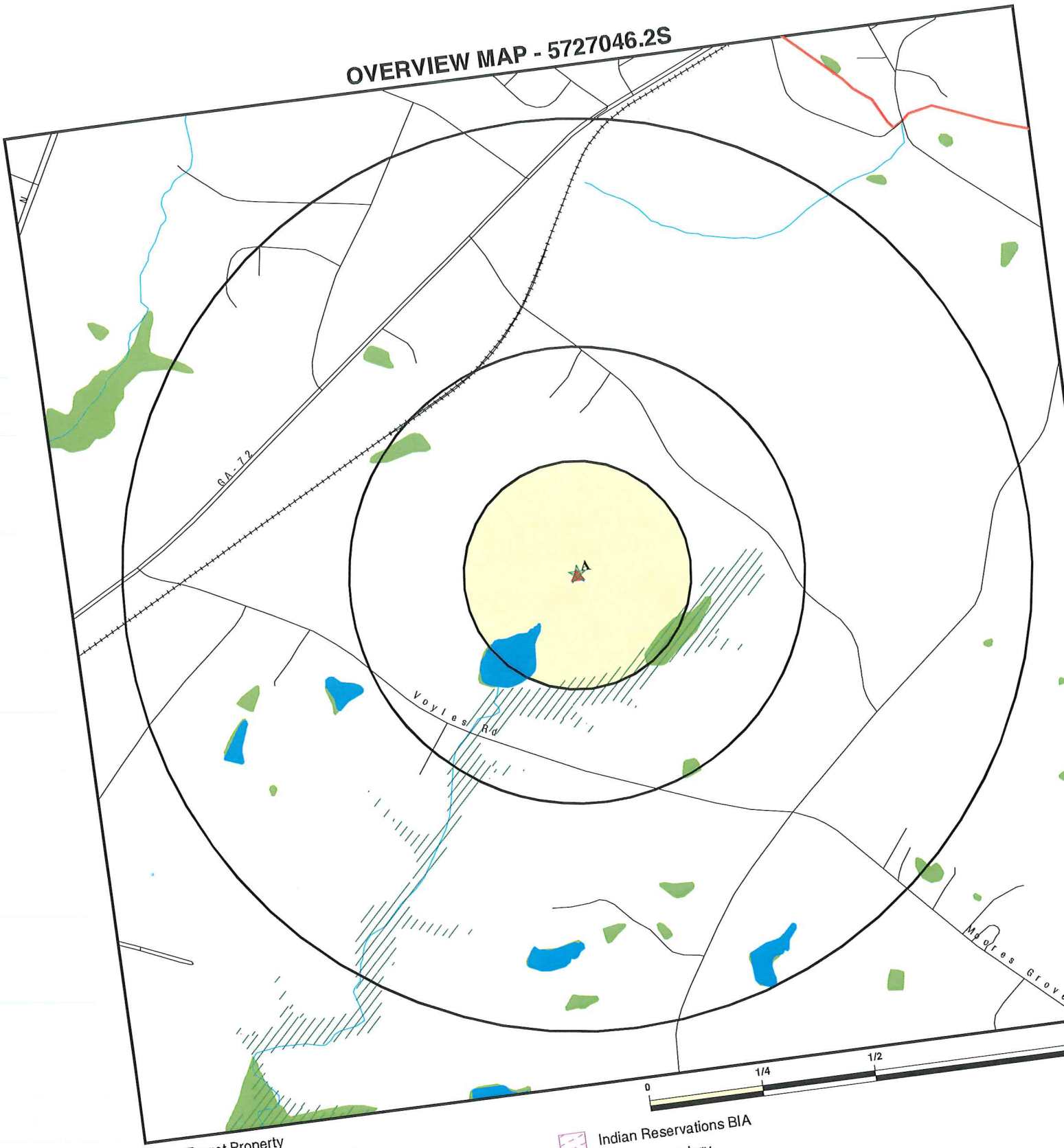
Surrounding sites were not identified.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 5727046.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

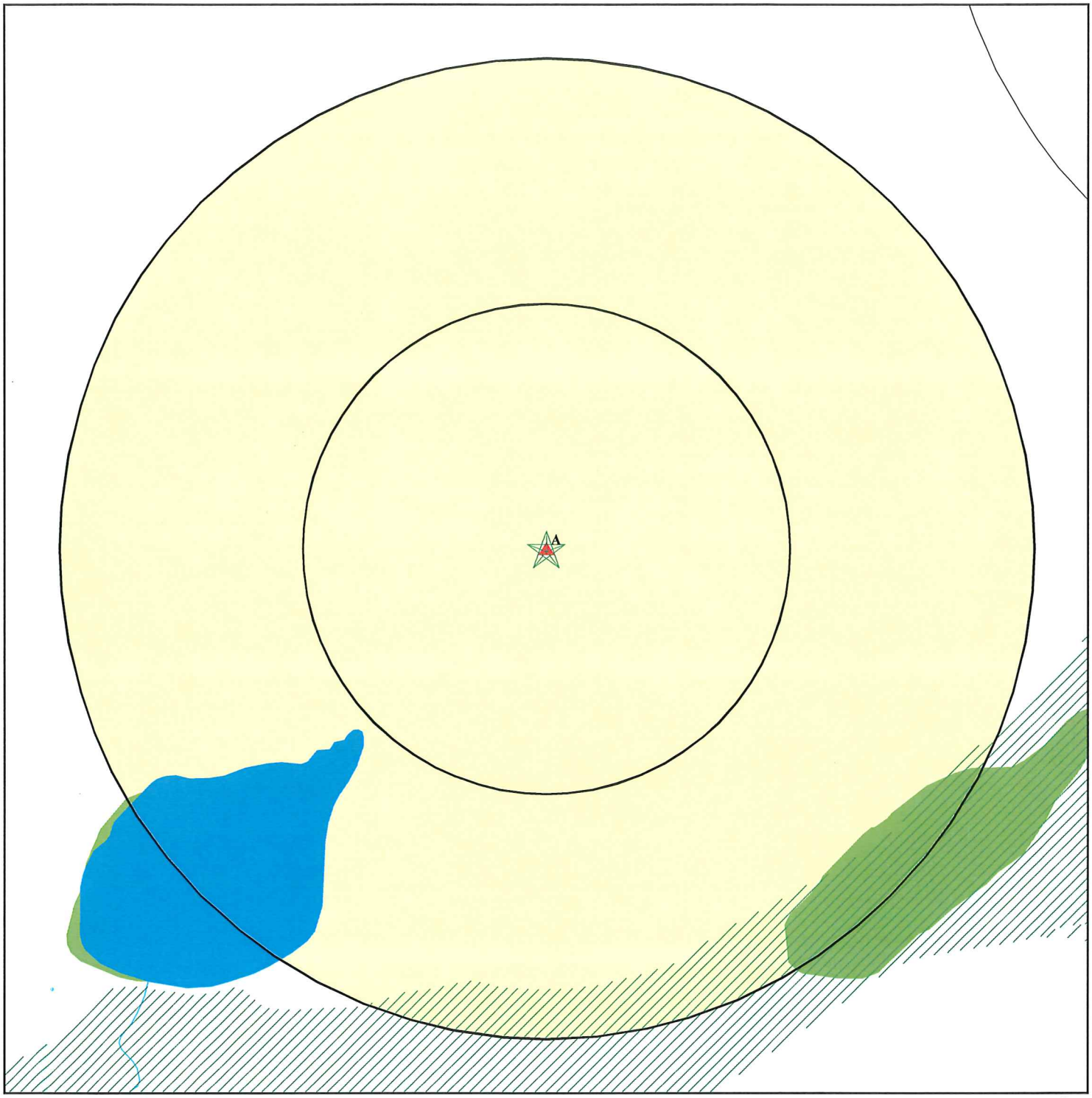
This report includes Inte
display and/or hide map
legend includes only the
default map view.

SITE NAME: Invista
ADDRESS: 110 Voyles Rd.
ATHENS GA 30601
LAT/LONG: 33.996009 / 83.309141

CLIENT: All Phase Environmental, LLC
CONTACT: Tom Tweedell
INQUIRY #: 5727046.2s
DATE: July 24, 2019 9:14 am

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DETAIL MAP - 5727046.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Invista	CLIENT: All Phase Environmental, LLC
ADDRESS: 110 Voyles Rd. ATHENS GA 30601	CONTACT: Tom Tweedell
LAT/LONG: 33.996009 / 83.309141	INQUIRY #: 5727046.2s
	DATE: July 24, 2019 9:18 am

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS	1.000		0	0	0	0	NR	0
GA NON-HSI	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
INST CONTROL	0.500		0	0	0	NR	NR	0
AUL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
HIST LF	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
DEL SHWS	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP	1	NR	NR	NR	NR	NR	1
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP	1	NR	NR	NR	NR	NR	1
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP	1	NR	NR	NR	NR	NR	1
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
ECHO	TP	1	NR	NR	NR	NR	NR	1
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP	1	NR	NR	NR	NR	NR	1
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
NPDES	TP	1	NR	NR	NR	NR	NR	1
TIER 2	TP	2	NR	NR	NR	NR	NR	2
UIC	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA HWS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		8	0	0	0	0	0	8

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1
Target
Property

INVISTA, S.A.R.L.
110 VOYLES ROAD
ATHENS, GA 30601

TIER 2 **S117050247**
N/A

Site 1 of 4 in cluster A

Actual:
781 ft.

GA TIER 2:

Reporting Year:	2017
Facility ID:	6072023
Facility Country:	Not reported
Company Name:	INVISTA, S.a.r.l
Date Submitted:	01/11/2018
Filing Type:	302 312
SIC Code:	Not reported
NAICS Code:	313110
Dun&Bradstreet Code:	04-842-1247
Chemicals Same as Last Year:	Not reported
Data Tier 2 Signed:	Not reported
Dikes/Saveguard Measures:	Not reported
Facility Department:	Not reported
Facility Date Modified:	01/11/2018
State Fees Total:	Not reported
Mailing Address:	Not reported
Mailing City,St,Zip:	Not reported
Mailing Country:	Not reported
Latitude:	33.991507
Longitude:	-83.314106
Lat/Long Location Desc:	Not reported
Lat/Long Method:	Not reported
Number Employees on Site:	Not reported
Site Coordinate Abbrvtns Sbmttd:	Not reported
Fire District:	Not reported
Notes:	Not reported
Validity:	Not reported

Inventory:

Facility Id:	6072023
Year:	2017
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	True
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	Not reported
Gas:	True
Liquid:	True
Max Daily Amount:	4437
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	Not reported
Pure Form:	False
Reactive Hazard:	False

INVISTA, S.A.R.L. (Continued) **S117050247**

Solid:	True
Facility Name:	INVISTA, S.a.r.l.
Contact Info:	Name: Maria Melendez Contact Type: Fac. Emergency Coordinator Email: Maria.D.MelendezAnadon@invista.com 24-hour Phone :2
Contact Type:	Fac. Emergency Coordinator
Email:	Maria.D.MelendezAnadon@invista.com
Phone1:	276-224-0894
Phone2:	276-656-0506
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	6072023
Year:	2017
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	True
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	Not reported
Gas:	True
Liquid:	True
Max Daily Amount:	4437
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	Not reported
Pure Form:	False
Reactive Hazard:	False
Solid:	True
Facility Name:	INVISTA, S.a.r.l.
Contact Info:	Name: Maria Melendez Contact Type: Fac. Emergency Coordinator Email: Maria.D.MelendezAnadon@invista.com 24-hour Phone :2
Contact Type:	Fac. Emergency Coordinator
Email:	Maria.D.MelendezAnadon@invista.com
Phone1:	276-224-0894
Phone2:	276-656-0506
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

INVISTA, S.A.R.L. (Continued) **S117050247**

Inventory:

Facility Id:	6072023
Year:	2017
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	True
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	Not reported
Gas:	True
Liquid:	True
Max Daily Amount:	4437
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	Not reported
Pure Form:	False
Reactive Hazard:	False
Solid:	True
Facility Name:	INVISTA, S.a.r.l.
Contact Info:	Name: Maria Melendez Contact Type: Fac. Emergency Coordinator Email: Maria.D.MelendezAnadon@invista.com 24-hour Phone :2
Contact Type:	Fac. Emergency Coordinator
Email:	Maria.D.MelendezAnadon@invista.com
Phone1:	276-224-0894
Phone2:	276-656-0506
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Reporting Year:	2016
Facility ID:	5849468
Facility Country:	Not reported
Company Name:	INVISTA, S.a.r.l
Date Submitted:	02/20/2017
Filing Type:	302 312
SIC Code:	Not reported
NAICS Code:	313110
Dun&Bradstreet Code:	04-842-1247
Chemicals Same as Last Year:	Not reported
Data Tier 2 Signed:	Not reported
Dikes/Saveguard Measures:	Not reported
Facility Department:	Not reported
Facility Date Modified:	02/20/2017
State Fees Total:	Not reported

INVISTA, S.A.R.L. (Continued) **S117050247**

Mailing Address:	Not reported
Mailing City,St,Zip:	Not reported
Mailing Country:	Not reported
Latitude:	33.991507
Longitude:	-83.314106
Lat/Long Location Desc:	Not reported
Lat/Long Method:	Not reported
Number Employees on Site:	Not reported
Site Coordinate Abbrvtns Sbmttd:	Not reported
Fire District:	Not reported
Notes:	Not reported
Validity:	Not reported

Inventory:

Facility Id:	5849468
Year:	2016
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	True
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	True
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	True
Solid:	True
Facility Name:	INVISTA, S.a.r.l.
Contact Info:	Maryon Samuel
Contact Type:	Fac. Emergency Coordinator
Email:	Maryon.E.Samuel@invista.com
Phone1:	706-552-4725
Phone2:	706-247-3860
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	5849468
Year:	2016
Chemical Inventory ID:	Not reported

INVISTA, S.A.R.L. (Continued) **S117050247**

Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	True
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	True
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	True
Solid:	True
Facility Name:	INVISTA, S.a.r.l.
Contact Info:	Maryon Samuel
Contact Type:	Fac. Emergency Coordinator
Email:	Maryon.E.Samuel@invista.com
Phone1:	706-552-4725
Phone2:	706-247-3860
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	5849468
Year:	2016
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	True
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	True
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported

INVISTA, S.A.R.L. (Continued) **S117050247**

Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	True
Solid:	True
Facility Name:	INVISTA, S.a.r.l.
Contact Info:	Maryon Samuel
Contact Type:	Fac. Emergency Coordinator
Email:	Maryon.E.Samuel@invista.com
Phone1:	706-552-4725
Phone2:	706-247-3860
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Reporting Year:	2013
Facility ID:	4498289
Facility Country:	Not reported
Company Name:	INVISTA
Date Submitted:	Not reported
Filing Type:	Not reported
SIC Code:	Not reported
NAICS Code:	Not reported
Dun&Bradstreet Code:	Not reported
Chemicals Same as Last Year:	Not reported
Data Tier 2 Signed:	Not reported
Dikes/Saveguard Measures:	Not reported
Facility Department:	Not reported
Facility Date Modified:	01/20/2014
State Fees Total:	Not reported
Mailing Address:	Not reported
Mailing City,St,Zip:	Not reported
Mailing Country:	Not reported
Latitude:	33.991507
Longitude:	-83.314106
Lat/Long Location Desc:	Not reported
Lat/Long Method:	Not reported
Number Employees on Site:	Not reported
Site Coordinate Abbrvtns Sbmttd:	Not reported
Fire District:	Not reported
Notes:	Not reported
Validity:	Not reported
Contact 1:	Shauna Devereux
Contact Type 1:	Emergency Contact
Contact Email 1:	Shauna.M.Devereux@invista.com
Contact 1 Telephone1:	706-552-4725
Contact 1 Telephone2:	706-207-9064
Contact 1 Phone3:	Not reported
Contact Name 2:	William Jones
Contact Type 2:	Emergency Contact
Contact Email 2:	William.T.Jones@invista.com
Contact 2 Telephone1:	540-569-7119

INVISTA, S.A.R.L. (Continued) **S117050247**

Contact 2 Telephone2:	706-552-4601
Contact Name 3:	William Jones
Contact Type 3:	Emergency Contact
Contact Email 3:	William.T.Jones@invista.com
Contact 3 Telephone1:	540-569-7119
Contact 3 Telephone2:	706-552-4601
Contact 3 Telephone3:	Not reported
Contact Name 4:	Shauna Devereux
Contact Type 4:	Emergency Contact
Contact Email 4:	Shauna.M.Devereux@invista.com
Contact 4 Telephone1:	706-552-4725
Contact 4 Telephone2:	706-207-9064
Contact Name 5:	INVISTA, S. r.l INVISTA, S. r.l.
Contact Type 5:	Owner / Operator
Contact Email 5:	William.T.Jones@invista.com
Contact 5 Telephone1:	316-828-2400
Contact 5 Telephone2:	Not reported
Contact 5 Telephone3:	Not reported

Inventory:

Facility Id:	4498289
Year:	2013
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	True
Solid:	True
Facility Name:	INVISTA, S. r.l.
Contact Info:	Shauna Devereux
Contact Type:	Emergency Contact
Email:	Shauna.M.Devereux@invista.com
Phone1:	706-552-4725
Phone2:	706-207-9064
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in

INVISTA, S.A.R.L. (Continued) **S117050247**

contact with water

Inventory:

Facility Id:	4498289
Year:	2013
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	True
Solid:	True
Facility Name:	INVISTA, S. r.l.
Contact Info:	Shauna Devereux
Contact Type:	Emergency Contact
Email:	Shauna.M.Devereux@invista.com
Phone1:	706-552-4725
Phone2:	706-207-9064
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	4498289
Year:	2013
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid

INVISTA, S.A.R.L. (Continued) **S117050247**

Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	True
Solid:	True
Facility Name:	INVISTA, S. r.l.
Contact Info:	Shauna Devereux
Contact Type:	Emergency Contact
Email:	Shauna.M.Devereux@invista.com
Phone1:	706-552-4725
Phone2:	706-207-9064
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

---

A2 **INVISTA SARL** **AIRS S107750978**
Target **110 VOYLES ROAD** **N/A**
Property **ATHENS, GA 30601**

Site 2 of 4 in cluster A

Actual: **781 ft.**

AIRS:

Record Type:	Not reported
State County FIPS:	Not reported
State Facility Id:	5900038
Facility Registry Id:	Not reported
Facility Category:	Not reported
Oris Facility code:	Not reported
SIC Primary:	2282
NAICS Primary:	Not reported
Dun&Bradstreet Number:	Not reported
Tri Id number:	Not reported
NTI Site id:	Not reported
Facility County:	Not reported
Site Description:	Synthetic Yarns Facility
Submittal Flag:	Not reported
Tribal Code:	Not reported
AIRS Number:	5900038
Operational Status:	O
SIC Code:	Not reported
Contact Name:	Shauna Devereux
Contact Company:	Not reported
Contact Telephone:	7065524601
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Address:	110 Voyles Road
Contact Address 2:	Not reported

INVISTA SARL (Continued) **S107750978**

Contact City,St,Zip:	Athens, GA 306013907
Year:	2016
Classification:	B
Contact Type:	Permit Contact
Permit Number:	2282-059-0038-B-01-1
Issued Date:	11/9/2004 0:00
Latitude:	33.99769
Longitude:	-83.325502

Control Device Information:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Process ID:	Not reported
Pollutant Code:	Not reported
Primary Pct control Effiniency:	Not reported
Pct Capture Efficiency:	Not reported
Total Capture Control Efficiency:	Not reported
Primary Device Type Code:	Not reported
Secondary Device Type Code:	Not reported
Control System Description:	Not reported
Third Control Device Type Code:	Not reported
Fourth Control Device Type Code:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Airs Emissions:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Process Id:	Not reported
Pollutant Code:	Not reported
Emission Release Point ID:	Not reported
Start Date:	Not reported
End Date:	Not reported
Start Time:	Not reported
End Time:	Not reported
Emission Numeric Value:	Not reported
Emission Unti Numerator:	Not reported
Emission Type:	Not reported
Em Reliability Indicator:	Not reported
Factor Numeric Value:	Not reported
Factor Unit Numerator:	Not reported
Factor Unit Denominator:	Not reported
Material:	Not reported
Material Io:	Not reported
Emission Calculation Method Code:	Not reported
Ef Reliability Indicator:	Not reported
Rule Effectiveness:	Not reported
Rule Effectiveness Method:	Not reported
Hap Emissions Performance Level:	Not reported
Control Status:	Not reported
Emission Data Level:	Not reported

INVISTA SARL (Continued) **S107750978**

Submittal Flag:	Not reported
Tribal Code:	Not reported

Airs EP:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Emission Release Point ID:	Not reported
Process ID:	Not reported
Scc Number:	Not reported
Process Mact Code:	Not reported
Emission Process Description:	Not reported
Winter Throughtput Pct:	Not reported
Spring Throughtput Pct:	Not reported
Summer Throughtput Pct:	Not reported
Fall Throughtput Pct:	Not reported
Annual Average Days Per Week:	Not reported
Annual Average Weeks Per Year:	Not reported
Annual Average Hours Per Day:	Not reported
Annual Average Hours Per Year:	Not reported
Heat Content:	Not reported
Sulfur Content:	Not reported
Ash Content:	Not reported
Process Mact compliance Status:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Emission Release Points:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Release Point ID:	Not reported
Emission Release Point Type:	Not reported
Stack Height:	Not reported
Stack Diameter:	Not reported
Stack Fenceline Distance:	Not reported
Exit Gas Temperature:	Not reported
Exit Gas Velocity:	Not reported
Exit Gas Flowrate:	Not reported
X Coordinate:	Not reported
Y Coordinate:	Not reported
Utm Zone:	Not reported
X Y coordinate Type:	Not reported
Horizontal Area Fugitive:	Not reported
Release Height Fugitive:	Not reported
Fugitive Dimensions Unit:	Not reported
Emission Release Point Description:	Not reported
Submittal Flag:	Not reported
Horizontal Collection method Code:	Not reported
Horizontal Accuracy Measure:	Not reported
Horizontal Reference datum Code:	Not reported
Reference Point Code:	Not reported
Source Map scale Number:	Not reported

INVISTA SARL (Continued) **S107750978**

Coordinate Data source Code:	Not reported
Tribal Code:	Not reported

Airs EU:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Oris Boiler ID:	Not reported
Sic Unit Level:	Not reported
Naics Unit Level:	Not reported
Design Capacity:	Not reported
Design Capacity Unit Numerator:	Not reported
Design Capacity Unit Denominator:	Not reported
Max Nameplate Capacity:	Not reported
Emission Unit Description:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Process Annual Throughput:

Year:	Not reported
Record Type:	Not reported
State County fips:	Not reported
State Facility identifier:	Not reported
Emission Unit id:	Not reported
Process ID:	Not reported
Start Date:	Not reported
End Date:	Not reported
Start Time:	Not reported
End Time:	Not reported
Actual Throughput:	Not reported
Throughput Unit numerator:	Not reported
Material:	Not reported
Material Io:	Not reported
Period Days per week:	Not reported
Period Weeks per period:	Not reported
Period Hours per day:	Not reported
Period Hours per period:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Transaction Table:

Year:	Not reported
Record Type:	Not reported
State County fips:	Not reported
Organization Name:	Not reported
Transaction Type:	Not reported
Inventory Year:	Not reported
Inventory Type code:	Not reported
Transaction Create date:	Not reported
Incremental Submission number:	Not reported
Reliability Indicator:	Not reported
Transaction Comments:	Not reported
Contact Person name:	Not reported
Contact Phone number:	Not reported

INVISTA SARL (Continued) **S107750978**

Telephone Number type name:	Not reported
Electronic Address text:	Not reported
Electronic Address type name:	Not reported
Source Type:	Not reported
Affiliation Type:	Not reported
Format Version:	Not reported
Tribal Code:	Not reported
Record Type:	Not reported
State County FIPS:	Not reported
State Facility Id:	305900038
Facility Registry Id:	Not reported
Facility Category:	Not reported
Oris Facility code:	Not reported
SIC Primary:	Not reported
NAICS Primary:	Not reported
Dun&Bradstreet Number:	Not reported
Tri Id number:	Not reported
NTI Site id:	Not reported
Facility County:	Not reported
Site Description:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported
AIRS Number:	041305900038
Operational Status:	Not reported
SIC Code:	2282
Contact Name:	N/A N/A
Contact Company:	N/A
Contact Telephone:	N/A
Contact Telephone 2:	N/A
Contact Fax:	N/A
Contact Email:	N/A
Contact Address:	N/A
Contact Address 2:	N/A
Contact City,St,Zip:	N/A, GA 00000
Year:	Not reported
Classification:	Not reported
Contact Type:	Not reported
Permit Number:	Not reported
Issued Date:	Not reported
Latitude:	000000
Longitude:	000000

Control Device Information:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Process ID:	Not reported
Pollutant Code:	Not reported
Primary Pct control Effiniency:	Not reported
Pct Capture Efficiency:	Not reported
Total Capture Control Efficiency:	Not reported
Primary Device Type Code:	Not reported
Secondary Device Type Code:	Not reported
Control System Description:	Not reported

INVISTA SARL (Continued) **S107750978**

Third Control Device Type Code:	Not reported
Fourth Control Device Type Code:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Airs Emissions:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Process Id:	Not reported
Pollutant Code:	Not reported
Emission Release Point ID:	Not reported
Start Date:	Not reported
End Date:	Not reported
Start Time:	Not reported
End Time:	Not reported
Emission Numeric Value:	Not reported
Emission Unti Numerator:	Not reported
Emission Type:	Not reported
Em Reliability Indicator:	Not reported
Factor Numeric Value:	Not reported
Factor Unit Numerator:	Not reported
Factor Unit Denominator:	Not reported
Material:	Not reported
Material Io:	Not reported
Emission Calculation Method Code:	Not reported
Ef Reliability Indicator:	Not reported
Rule Effectiveness:	Not reported
Rule Effectiveness Method:	Not reported
Hap Emissions Performance Level:	Not reported
Control Status:	Not reported
Emission Data Level:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Airs EP:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Emission Release Point ID:	Not reported
Process ID:	Not reported
Scc Number:	Not reported
Process Mact Code:	Not reported
Emission Process Description:	Not reported
Winter Throughtput Pct:	Not reported
Spring Throughtput Pct:	Not reported
Summer Throughtput Pct:	Not reported
Fall Throughtput Pct:	Not reported
Annual Average Days Per Week:	Not reported
Annual Average Weeks Per Year:	Not reported
Annual Average Hours Per Day:	Not reported
Annual Average Hours Per Year:	Not reported

INVISTA SARL (Continued) **S107750978**

Heat Content:	Not reported
Sulfur Content:	Not reported
Ash Content:	Not reported
Process Mact compliance Status:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Emission Release Points:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Release Point ID:	Not reported
Emission Release Point Type:	Not reported
Stack Height:	Not reported
Stack Diameter:	Not reported
Stack Fenceline Distance:	Not reported
Exit Gas Temperature:	Not reported
Exit Gas Velocity:	Not reported
Exit Gas Flowrate:	Not reported
X Coordinate:	Not reported
Y Coordinate:	Not reported
Utm Zone:	Not reported
X Y coordinate Type:	Not reported
Horizontal Area Fugitive:	Not reported
Release Height Fugitive:	Not reported
Fugitive Dimensions Unit:	Not reported
Emission Release Point Description:	Not reported
Submittal Flag:	Not reported
Horizontal Collection method Code:	Not reported
Horizontal Accuracy Measure:	Not reported
Horizontal Reference datum Code:	Not reported
Reference Point Code:	Not reported
Source Map scale Number:	Not reported
Coordinate Data source Code:	Not reported
Tribal Code:	Not reported

Airs EU:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Oris Boiler ID:	Not reported
Sic Unit Level:	Not reported
Naics Unit Level:	Not reported
Design Capacity:	Not reported
Design Capacity Unit Numerator:	Not reported
Design Capacity Unit Denominator:	Not reported
Max Nameplate Capacity:	Not reported
Emission Unit Description:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Process Annual Throughput:

Year:	Not reported

INVISTA SARL (Continued) **S107750978**

Record Type:	Not reported
State County fips:	Not reported
State Facility identifier:	Not reported
Emission Unit id:	Not reported
Process ID:	Not reported
Start Date:	Not reported
End Date:	Not reported
Start Time:	Not reported
End Time:	Not reported
Actual Throughput:	Not reported
Throughput Unit numerator:	Not reported
Material:	Not reported
Material Io:	Not reported
Period Days per week:	Not reported
Period Weeks per period:	Not reported
Period Hours per day:	Not reported
Period Hours per period:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Transaction Table:

Year:	Not reported
Record Type:	Not reported
State County fips:	Not reported
Organization Name:	Not reported
Transaction Type:	Not reported
Inventory Year:	Not reported
Inventory Type code:	Not reported
Transaction Create date:	Not reported
Incremental Submission number:	Not reported
Reliability Indicator:	Not reported
Transaction Comments:	Not reported
Contact Person name:	Not reported
Contact Phone number:	Not reported
Telephone Number type name:	Not reported
Electronic Address text:	Not reported
Electronic Address type name:	Not reported
Source Type:	Not reported
Affiliation Type:	Not reported
Format Version:	Not reported
Tribal Code:	Not reported

Record Type:	Not reported
State County FIPS:	Not reported
State Facility Id:	305900038
Facility Registry Id:	Not reported
Facility Category:	Not reported
Oris Facility code:	Not reported
SIC Primary:	Not reported
NAICS Primary:	Not reported
Dun&Bradstreet Number:	Not reported
Tri Id number:	Not reported
NTI Site id:	Not reported
Facility County:	Not reported
Site Description:	Not reported
Submittal Flag:	Not reported

INVISTA SARL (Continued) **S107750978**

Tribal Code:	Not reported
AIRS Number:	041305900038
Operational Status:	O
SIC Code:	2282
Contact Name:	N/A N/A
Contact Company:	N/A
Contact Telephone:	N/A
Contact Telephone 2:	N/A
Contact Fax:	N/A
Contact Email:	N/A
Contact Address:	N/A
Contact Address 2:	N/A
Contact City,St,Zip:	N/A, GA 00000
Year:	06
Classification:	Not reported
Contact Type:	Not reported
Permit Number:	Not reported
Issued Date:	Not reported
Latitude:	000000
Longitude:	000000

Control Device Information:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Process ID:	Not reported
Pollutant Code:	Not reported
Primary Pct control Effiniency:	Not reported
Pct Capture Efficiency:	Not reported
Total Capture Control Efficiency:	Not reported
Primary Device Type Code:	Not reported
Secondary Device Type Code:	Not reported
Control System Description:	Not reported
Third Control Device Type Code:	Not reported
Fourth Control Device Type Code:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Airs Emissions:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Process Id:	Not reported
Pollutant Code:	Not reported
Emission Release Point ID:	Not reported
Start Date:	Not reported
End Date:	Not reported
Start Time:	Not reported
End Time:	Not reported
Emission Numeric Value:	Not reported
Emission Unti Numerator:	Not reported
Emission Type:	Not reported
Em Reliability Indicator:	Not reported

INVISTA SARL (Continued) **S107750978**

Factor Numeric Value:	Not reported
Factor Unit Numerator:	Not reported
Factor Unit Denominator:	Not reported
Material:	Not reported
Material Io:	Not reported
Emission Calculation Method Code:	Not reported
Ef Reliability Indicator:	Not reported
Rule Effectiveness:	Not reported
Rule Effectiveness Method:	Not reported
Hap Emissions Performance Level:	Not reported
Control Status:	Not reported
Emission Data Level:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Airs EP:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Emission Release Point ID:	Not reported
Process ID:	Not reported
Scc Number:	Not reported
Process Mact Code:	Not reported
Emission Process Description:	Not reported
Winter Throughtput Pct:	Not reported
Spring Throughtput Pct:	Not reported
Summer Throughtput Pct:	Not reported
Fall Throughtput Pct:	Not reported
Annual Average Days Per Week:	Not reported
Annual Average Weeks Per Year:	Not reported
Annual Average Hours Per Day:	Not reported
Annual Average Hours Per Year:	Not reported
Heat Content:	Not reported
Sulfur Content:	Not reported
Ash Content:	Not reported
Process Mact compliance Status:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Emission Release Points:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Release Point ID:	Not reported
Emission Release Point Type:	Not reported
Stack Height:	Not reported
Stack Diameter:	Not reported
Stack Fenceline Distance:	Not reported
Exit Gas Temperature:	Not reported
Exit Gas Velocity:	Not reported
Exit Gas Flowrate:	Not reported
X Coordinate:	Not reported
Y Coordinate:	Not reported

INVISTA SARL (Continued) **S107750978**

Utm Zone:	Not reported
X Y coordinate Type:	Not reported
Horizontal Area Fugitive:	Not reported
Release Height Fugitive:	Not reported
Fugitive Dimensions Unit:	Not reported
Emission Release Point Description:	Not reported
Submittal Flag:	Not reported
Horizontal Collection method Code:	Not reported
Horizontal Accuracy Measure:	Not reported
Horizontal Reference datum Code:	Not reported
Reference Point Code:	Not reported
Source Map scale Number:	Not reported
Coordinate Data source Code:	Not reported
Tribal Code:	Not reported

Airs EU:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Oris Boiler ID:	Not reported
Sic Unit Level:	Not reported
Naics Unit Level:	Not reported
Design Capacity:	Not reported
Design Capacity Unit Numerator:	Not reported
Design Capacity Unit Denominator:	Not reported
Max Nameplate Capacity:	Not reported
Emission Unit Description:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Process Annual Throughput:

Year:	Not reported
Record Type:	Not reported
State County fips:	Not reported
State Facility identifier:	Not reported
Emission Unit id:	Not reported
Process ID:	Not reported
Start Date:	Not reported
End Date:	Not reported
Start Time:	Not reported
End Time:	Not reported
Actual Throughput:	Not reported
Throughput Unit numerator:	Not reported
Material:	Not reported
Material Io:	Not reported
Period Days per week:	Not reported
Period Weeks per period:	Not reported
Period Hours per day:	Not reported
Period Hours per period:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Transaction Table:

Year:	Not reported

INVISTA SARL (Continued) **S107750978**

Record Type:	Not reported
State County fips:	Not reported
Organization Name:	Not reported
Transaction Type:	Not reported
Inventory Year:	Not reported
Inventory Type code:	Not reported
Transaction Create date:	Not reported
Incremental Submission number:	Not reported
Reliability Indicator:	Not reported
Transaction Comments:	Not reported
Contact Person name:	Not reported
Contact Phone number:	Not reported
Telephone Number type name:	Not reported
Electronic Address text:	Not reported
Electronic Address type name:	Not reported
Source Type:	Not reported
Affiliation Type:	Not reported
Format Version:	Not reported
Tribal Code:	Not reported

Record Type:	Not reported
State County FIPS:	Not reported
State Facility Id:	305900038
Facility Registry Id:	Not reported
Facility Category:	Not reported
Oris Facility code:	Not reported
SIC Primary:	Not reported
NAICS Primary:	Not reported
Dun&Bradstreet Number:	Not reported
Tri Id number:	Not reported
NTI Site id:	Not reported
Facility County:	Not reported
Site Description:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported
AIRS Number:	041305900038
Operational Status:	O
SIC Code:	2282
Contact Name:	N/A N/A
Contact Company:	N/A
Contact Telephone:	N/A
Contact Telephone 2:	N/A
Contact Fax:	N/A
Contact Email:	N/A
Contact Address:	N/A
Contact Address 2:	N/A
Contact City,St,Zip:	N/A, GA 00000
Year:	Not reported
Classification:	Not reported
Contact Type:	Not reported
Permit Number:	Not reported
Issued Date:	Not reported
Latitude:	000000
Longitude:	000000

Control Device Information:

Year:	Not reported

INVISTA SARL (Continued) **S107750978**

Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Process ID:	Not reported
Pollutant Code:	Not reported
Primary Pct control Effiniency:	Not reported
Pct Capture Efficiency:	Not reported
Total Capture Control Efficiency:	Not reported
Primary Device Type Code:	Not reported
Secondary Device Type Code:	Not reported
Control System Description:	Not reported
Third Control Device Type Code:	Not reported
Fourth Control Device Type Code:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Airs Emissions:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Process Id:	Not reported
Pollutant Code:	Not reported
Emission Release Point ID:	Not reported
Start Date:	Not reported
End Date:	Not reported
Start Time:	Not reported
End Time:	Not reported
Emission Numeric Value:	Not reported
Emission Unti Numerator:	Not reported
Emission Type:	Not reported
Em Reliability Indicator:	Not reported
Factor Numeric Value:	Not reported
Factor Unit Numerator:	Not reported
Factor Unit Denominator:	Not reported
Material:	Not reported
Material Io:	Not reported
Emission Calculation Method Code:	Not reported
Ef Reliability Indicator:	Not reported
Rule Effectiveness:	Not reported
Rule Effectiveness Method:	Not reported
Hap Emissions Performance Level:	Not reported
Control Status:	Not reported
Emission Data Level:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Airs EP:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Emission Release Point ID:	Not reported

INVISTA SARL (Continued) **S107750978**

Process ID:	Not reported
Scc Number:	Not reported
Process Mact Code:	Not reported
Emission Process Description:	Not reported
Winter Throughtput Pct:	Not reported
Spring Throughtput Pct:	Not reported
Summer Throughtput Pct:	Not reported
Fall Throughtput Pct:	Not reported
Annual Average Days Per Week:	Not reported
Annual Average Weeks Per Year:	Not reported
Annual Average Hours Per Day:	Not reported
Annual Average Hours Per Year:	Not reported
Heat Content:	Not reported
Sulfur Content:	Not reported
Ash Content:	Not reported
Process Mact compliance Status:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Emission Release Points:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Release Point ID:	Not reported
Emission Release Point Type:	Not reported
Stack Height:	Not reported
Stack Diameter:	Not reported
Stack Fenceline Distance:	Not reported
Exit Gas Temperature:	Not reported
Exit Gas Velocity:	Not reported
Exit Gas Flowrate:	Not reported
X Coordinate:	Not reported
Y Coordinate:	Not reported
Utm Zone:	Not reported
X Y coordinate Type:	Not reported
Horizontal Area Fugitive:	Not reported
Release Height Fugitive:	Not reported
Fugitive Dimensions Unit:	Not reported
Emission Release Point Description:	Not reported
Submittal Flag:	Not reported
Horizontal Collection method Code:	Not reported
Horizontal Accuracy Measure:	Not reported
Horizontal Reference datum Code:	Not reported
Reference Point Code:	Not reported
Source Map scale Number:	Not reported
Coordinate Data source Code:	Not reported
Tribal Code:	Not reported

Airs EU:

Year:	Not reported
Record Type:	Not reported
State County Fips:	Not reported
State Facility Identifier:	Not reported
Emission Unit ID:	Not reported
Oris Boiler ID:	Not reported

INVISTA SARL (Continued) **S107750978**

Sic Unit Level:	Not reported
Naics Unit Level:	Not reported
Design Capacity:	Not reported
Design Capacity Unit Numerator:	Not reported
Design Capacity Unit Denominator:	Not reported
Max Nameplate Capacity:	Not reported
Emission Unit Description:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Process Annual Throughput:

Year:	Not reported
Record Type:	Not reported
State County fips:	Not reported
State Facility identifier:	Not reported
Emission Unit id:	Not reported
Process ID:	Not reported
Start Date:	Not reported
End Date:	Not reported
Start Time:	Not reported
End Time:	Not reported
Actual Throughput:	Not reported
Throughput Unit numerator:	Not reported
Material:	Not reported
Material Io:	Not reported
Period Days per week:	Not reported
Period Weeks per period:	Not reported
Period Hours per day:	Not reported
Period Hours per period:	Not reported
Submittal Flag:	Not reported
Tribal Code:	Not reported

Transaction Table:

Year:	Not reported
Record Type:	Not reported
State County fips:	Not reported
Organization Name:	Not reported
Transaction Type:	Not reported
Inventory Year:	Not reported
Inventory Type code:	Not reported
Transaction Create date:	Not reported
Incremental Submission number:	Not reported
Reliability Indicator:	Not reported
Transaction Comments:	Not reported
Contact Person name:	Not reported
Contact Phone number:	Not reported
Telephone Number type name:	Not reported
Electronic Address text:	Not reported
Electronic Address type name:	Not reported
Source Type:	Not reported
Affiliation Type:	Not reported
Format Version:	Not reported
Tribal Code:	Not reported

A3 Target Property **INVISTA, S. R.L.**
110 VOYLES RD.
ATHENS, GA 30601

NPDES S107771826
TIER 2 N/A

Site 3 of 4 in cluster A

Actual: 781 ft.

NPDES:

NPDES Id:	Not reported
Notice of Intent Num:	967
Facility Type Desc:	Not reported
NOI Type:	Notice of Intent
River Basin:	Not reported
Permit Sub Type:	Not reported

GA TIER 2:

Reporting Year:	2015
Facility ID:	5391450
Facility Country:	Not reported
Company Name:	INVISTA
Date Submitted:	02/17/2016
Filing Type:	302; 312
SIC Code:	Not reported
NAICS Code:	313110
Dun&Bradstreet Code:	04-842-1247
Chemicals Same as Last Year:	Not reported
Data Tier 2 Signed:	Not reported
Dikes/Saveguard Measures:	Not reported
Facility Department:	Not reported
Facility Date Modified:	02/17/2016
State Fees Total:	Not reported
Mailing Address:	Not reported
Mailing City,St,Zip:	Not reported
Mailing Country:	Not reported
Latitude:	33.991507
Longitude:	-83.314106
Lat/Long Location Desc:	Not reported
Lat/Long Method:	Not reported
Number Employees on Site:	Not reported
Site Coordinate Abbrvtns Sbmttd:	Not reported
Fire District:	Not reported
Notes:	Not reported
Validity:	Not reported

Inventory:

Facility Id:	5391450
Year:	2015
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	True
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False

INVISTA, S. R.L. (Continued) **S107771826**

Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	True
Solid:	True
Facility Name:	INVISTA, S. r.l.
Contact Info:	Merry Norman
Contact Type:	Fac. Emergency Coordinator
Email:	merry.c.norman-1@invista.com
Phone1:	706-552-4733
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	5391450
Year:	2015
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	True
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	True
Solid:	True
Facility Name:	INVISTA, S. r.l.
Contact Info:	Merry Norman
Contact Type:	Fac. Emergency Coordinator
Email:	merry.c.norman-1@invista.com
Phone1:	706-552-4733
Phone2:	Not reported
Phone3:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	5391450
Year:	2015
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	True
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	True
Solid:	True
Facility Name:	INVISTA, S. r.l.
Contact Info:	Merry Norman
Contact Type:	Fac. Emergency Coordinator
Email:	merry.c.norman-1@invista.com
Phone1:	706-552-4733
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	5391450
Year:	2015
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	True
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	True
Solid:	True
Facility Name:	INVISTA, S. r.l.
Contact Info:	Merry Norman
Contact Type:	Fac. Emergency Coordinator
Email:	merry.c.norman-1@invista.com
Phone1:	706-552-4733
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	5391450
Year:	2015
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	True
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	True
Solid:	True

INVISTA, S. R.L. (Continued) **S107771826**

Facility Name:	INVISTA, S. r.l.
Contact Info:	Merry Norman
Contact Type:	Fac. Emergency Coordinator
Email:	merry.c.norman-1@invista.com
Phone1:	706-552-4733
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	5391450
Year:	2015
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	True
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	True
Solid:	True
Facility Name:	INVISTA, S. r.l.
Contact Info:	Merry Norman
Contact Type:	Fac. Emergency Coordinator
Email:	merry.c.norman-1@invista.com
Phone1:	706-552-4733
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Reporting Year:	2014
Facility ID:	4987284

INVISTA, S. R.L. (Continued) **S107771826**

Facility Country:	Not reported
Company Name:	INVISTA
Date Submitted:	01/23/2015
Filing Type:	Tier2
SIC Code:	Not reported
NAICS Code:	313110
Dun&Bradstreet Code:	04-842-1247
Chemicals Same as Last Year:	Not reported
Data Tier 2 Signed:	Not reported
Dikes/Saveguard Measures:	Not reported
Facility Department:	Not reported
Facility Date Modified:	01/23/2015
State Fees Total:	Not reported
Mailing Address:	Not reported
Mailing City,St,Zip:	Not reported
Mailing Country:	Not reported
Latitude:	33.991507
Longitude:	-83.314106
Lat/Long Location Desc:	Not reported
Lat/Long Method:	Not reported
Number Employees on Site:	Not reported
Site Coordinate Abbrvtns Sbmttd:	Not reported
Fire District:	Not reported
Notes:	Not reported
Validity:	Not reported

Reporting Year:	2012
Facility ID:	4044323
Facility Country:	Not reported
Company Name:	INVISTA, S. r.l.
Date Submitted:	Not reported
Filing Type:	Not reported
SIC Code:	Not reported
NAICS Code:	Not reported
Dun&Bradstreet Code:	Not reported
Chemicals Same as Last Year:	Not reported
Data Tier 2 Signed:	02/04/2013
Dikes/Saveguard Measures:	Not reported
Facility Department:	Not reported
Facility Date Modified:	02/04/2013
State Fees Total:	Not reported
Mailing Address:	Not reported
Mailing City,St,Zip:	Not reported
Mailing Country:	Not reported
Latitude:	33.99150
Longitude:	-83.31410
Lat/Long Location Desc:	Not reported
Lat/Long Method:	Not reported
Number Employees on Site:	Not reported
Site Coordinate Abbrvtns Sbmttd:	Not reported
Fire District:	Not reported
Notes:	Not reported
Validity:	Not reported
Contact 1:	William Jones
Contact Type 1:	Emergency Contact
Contact Email 1:	William.T.Jones@invista.com
Contact 1 Telephone1:	540-569-7119

INVISTA, S. R.L. (Continued) **S107771826**

Contact 1 Telephone2:	706-552-4601
Contact 1 Phone3:	Not reported
Contact Name 2:	William Jones
Contact Type 2:	Emergency Contact
Contact Email 2:	William.T.Jones@invista.com
Contact 2 Telephone1:	540-569-7119
Contact 2 Telephone2:	706-552-4601
Contact Name 3:	Shauna Devereux
Contact Type 3:	Emergency Contact
Contact Email 3:	Shauna.M.Devereux@invista.com
Contact 3 Telephone1:	706-552-4725
Contact 3 Telephone2:	706-207-9064
Contact 3 Telephone3:	Not reported
Contact Name 4:	Shauna Devereux
Contact Type 4:	Emergency Contact
Contact Email 4:	Shauna.M.Devereux@invista.com
Contact 4 Telephone1:	706-552-4725
Contact 4 Telephone2:	706-207-9064
Contact Name 5:	INVISTA, S.? r.l INVISTA, S.? r.l.
Contact Type 5:	Owner / Operator
Contact Email 5:	Not reported
Contact 5 Telephone1:	316-828-2400
Contact 5 Telephone2:	Not reported
Contact 5 Telephone3:	Not reported

Inventory:

Facility Id:	4044323
Year:	2012
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	False
Solid:	True
Facility Name:	INVISTA, S. r.l.
Contact Info:	Shauna Devereux
Contact Type:	Emergency Contact
Email:	Shauna.M.Devereux@invista.com
Phone1:	706-552-4725
Phone2:	706-207-9064
Phone3:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	4044323
Year:	2012
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	False
Solid:	True
Facility Name:	INVISTA, S. r.l.
Contact Info:	Shauna Devereux
Contact Type:	Emergency Contact
Email:	Shauna.M.Devereux@invista.com
Phone1:	706-552-4725
Phone2:	706-207-9064
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	4044323
Year:	2012
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	False
Solid:	True
Facility Name:	INVISTA, S. r.l.
Contact Info:	Shauna Devereux
Contact Type:	Emergency Contact
Email:	Shauna.M.Devereux@invista.com
Phone1:	706-552-4725
Phone2:	706-207-9064
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	4044323
Year:	2012
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	False
Solid:	True

INVISTA, S. R.L. (Continued) **S107771826**

Facility Name:	INVISTA, S. r.l.
Contact Info:	Shauna Devereux
Contact Type:	Emergency Contact
Email:	Shauna.M.Devereux@invista.com
Phone1:	706-552-4725
Phone2:	706-207-9064
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	4044323
Year:	2012
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	False
Solid:	True
Facility Name:	INVISTA, S. r.l.
Contact Info:	Shauna Devereux
Contact Type:	Emergency Contact
Email:	Shauna.M.Devereux@invista.com
Phone1:	706-552-4725
Phone2:	706-207-9064
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Inventory:

Facility Id:	4044323

INVISTA, S. R.L. (Continued) **S107771826**

Year:	2012
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	False
Solid:	True
Facility Name:	INVISTA, S. r.l.
Contact Info:	Shauna Devereux
Contact Type:	Emergency Contact
Email:	Shauna.M.Devereux@invista.com
Phone1:	706-552-4725
Phone2:	706-207-9064
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	3
Flammable 1 least flammable/4 most flammable:	0
Reactive 1 least reactive/4 very reactive:	2
Any characteristic over/above H F and R category:	Water reactive material, will release heat and pressure when in contact with water

Reporting Year:	2011
Facility ID:	2911180
Facility Country:	Not reported
Company Name:	Not reported
Date Submitted:	Not reported
Filing Type:	Not reported
SIC Code:	Not reported
NAICS Code:	Not reported
Dun&Bradstreet Code:	Not reported
Chemicals Same as Last Year:	Not reported
Data Tier 2 Signed:	02/01/2012
Dikes/Saveguard Measures:	Not reported
Facility Department:	Not reported
Facility Date Modified:	02/02/2012
State Fees Total:	Not reported
Mailing Address:	Not reported
Mailing City,St,Zip:	Not reported
Mailing Country:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Latitude:	33.99150
Longitude:	-83.31410
Lat/Long Location Desc:	Not reported
Lat/Long Method:	Not reported
Number Employees on Site:	Not reported
Site Coordinate Abbrvtns Sbmttd:	Not reported
Fire District:	Not reported
Notes:	Not reported
Validity:	Not reported
Contact 1:	Not reported
Contact Type 1:	Not reported
Contact Email 1:	Not reported
Contact 1 Telephone1:	Not reported
Contact 1 Telephone2:	Not reported
Contact 1 Phone3:	Not reported
Contact Name 2:	Not reported
Contact Type 2:	Not reported
Contact Email 2:	Not reported
Contact 2 Telephone1:	Not reported
Contact 2 Telephone2:	Not reported
Contact Name 3:	Not reported
Contact Type 3:	Not reported
Contact Email 3:	Not reported
Contact 3 Telephone1:	Not reported
Contact 3 Telephone2:	Not reported
Contact 3 Telephone3:	Not reported
Contact Name 4:	Not reported
Contact Type 4:	Not reported
Contact Email 4:	Not reported
Contact 4 Telephone1:	Not reported
Contact 4 Telephone2:	Not reported
Contact Name 5:	Not reported
Contact Type 5:	Not reported
Contact Email 5:	Not reported
Contact 5 Telephone1:	Not reported
Contact 5 Telephone2:	Not reported
Contact 5 Telephone3:	Not reported

Inventory:

Facility Id:	2911180
Year:	2011
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	False
Solid:	True
Facility Name:	Not reported
Contact Info:	Not reported
Contact Type:	Not reported
Email:	Not reported
Phone1:	Not reported
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	Not reported
Flammable 1 least flammable/4 most flammable:	Not reported
Reactive 1 least reactive/4 very reactive:	Not reported
Any characteristic over/above H F and R category:	Not reported

Inventory:

Facility Id:	2911180
Year:	2011
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	False
Solid:	True
Facility Name:	Not reported
Contact Info:	Not reported
Contact Type:	Not reported
Email:	Not reported
Phone1:	Not reported
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	Not reported
Flammable 1 least flammable/4 most flammable:	Not reported
Reactive 1 least reactive/4 very reactive:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Any characteristic over/above H F and R category: Not reported

Inventory:

Facility Id:	2911180
Year:	2011
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	False
Solid:	True
Facility Name:	Not reported
Contact Info:	Not reported
Contact Type:	Not reported
Email:	Not reported
Phone1:	Not reported
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	Not reported
Flammable 1 least flammable/4 most flammable:	Not reported
Reactive 1 least reactive/4 very reactive:	Not reported
Any characteristic over/above H F and R category:	Not reported

Inventory:

Facility Id:	2911180
Year:	2011
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False

INVISTA, S. R.L. (Continued) **S107771826**

Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	False
Solid:	True
Facility Name:	Not reported
Contact Info:	Not reported
Contact Type:	Not reported
Email:	Not reported
Phone1:	Not reported
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	Not reported
Flammable 1 least flammable/4 most flammable:	Not reported
Reactive 1 least reactive/4 very reactive:	Not reported
Any characteristic over/above H F and R category:	Not reported

Inventory:

Facility Id:	2911180
Year:	2011
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	False
Solid:	True
Facility Name:	Not reported
Contact Info:	Not reported
Contact Type:	Not reported
Email:	Not reported
Phone1:	Not reported
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	Not reported
Flammable 1 least flammable/4 most flammable:	Not reported
Reactive 1 least reactive/4 very reactive:	Not reported
Any characteristic over/above H F and R category:	Not reported

Inventory:

Facility Id:	2911180
Year:	2011
Chemical Inventory ID:	Not reported
Acute Health Risks:	True
Average Daily Amount:	4437.0
Average Daily Amount Code:	Not reported
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	False
CAS Number:	7664939
EHS Substance:	Not reported
Last Modified:	Not reported
Days on Site:	Not reported
Chemical Name:	Lead Acid Batteries - Sulfuric Acid
Fire Hazard:	False
Gas:	False
Liquid:	True
Max Daily Amount:	4437.0
Max Daily Amount Code:	Not reported
Max Amount in Largest Container:	Not reported
Mixture Form:	True
Sudden Release of Pressure Hazard:	False
Pure Form:	False
Reactive Hazard:	False
Solid:	True
Facility Name:	Not reported
Contact Info:	Not reported
Contact Type:	Not reported
Email:	Not reported
Phone1:	Not reported
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	Not reported
Flammable 1 least flammable/4 most flammable:	Not reported
Reactive 1 least reactive/4 very reactive:	Not reported
Any characteristic over/above H F and R category:	Not reported

Reporting Year:	2009
Facility ID:	FATR2009HQL6L41897J1
Facility Country:	USA
Company Name:	Not reported
Date Submitted:	Not reported
Filing Type:	Not reported
SIC Code:	Not reported
NAICS Code:	Not reported
Dun&Bradstreet Code:	Not reported
Chemicals Same as Last Year:	Not reported
Data Tier 2 Signed:	02/04/2010
Dikes/Saveguard Measures:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Facility Department:	Not reported
Facility Date Modified:	Not reported
State Fees Total:	Not reported
Mailing Address:	110 Voyles Rd.
Mailing City,St,Zip:	Athens, GA 30601
Mailing Country:	USA
Latitude:	33.5946
Longitude:	83.2603
Lat/Long Location Desc:	OT - Other
Lat/Long Method:	OT - Other
Number Employees on Site:	125
Site Coordinate Abbrvtns Sbmttd:	Not reported
Fire District:	Not reported
Notes:	Not reported
Validity:	Not reported

Facility Info:

Year:	2009
Facility ID Description:	Not reported
Facility ID Type:	Dun & Bradstreet
Facility ID Last Modified:	Not reported
ID:	04-842-1247

Year:	2009
Facility ID Description:	Beaming yarn; Nylon yarn twisting or winding of purchased yarn
Facility ID Type:	NAICS
Facility ID Last Modified:	Not reported
ID:	313112

Inventory:

Facility Id:	FATR2009HQL6L41897J1
Year:	2009
Chemical Inventory ID:	CVTR2009HQL6L4002MC
Acute Health Risks:	True
Average Daily Amount:	53000.0
Average Daily Amount Code:	04
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	Not reported
CAS Number:	68476346
EHS Substance:	Not reported
Last Modified:	9/7/2010
Days on Site:	365
Chemical Name:	No. 2 Fuel Oil
Fire Hazard:	True
Gas:	Not reported
Liquid:	True
Max Daily Amount:	53000.0
Max Daily Amount Code:	04
Max Amount in Largest Container:	48000.0
Mixture Form:	True
Sudden Release of Pressure Hazard:	Not reported
Pure Form:	Not reported
Reactive Hazard:	Not reported
Solid:	Not reported
Facility Name:	Not reported
Contact Info:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Contact Type:	Not reported
Email:	Not reported
Phone1:	Not reported
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	Not reported
Flammable 1 least flammable/4 most flammable:	Not reported
Reactive 1 least reactive/4 very reactive:	Not reported
Any characteristic over/above H F and R category:	Not reported
Year:	2009
Substance Amount:	49000.0
Units:	pounds
Storage Type:	A
Storage Pressure Code:	1
Storage Temprature Code:	4
Substance Location:	Outside
Substance Last Modified:	9/7/2010
Year:	2009
Substance Amount:	4000.0
Units:	pounds
Storage Type:	A
Storage Pressure Code:	1
Storage Temprature Code:	4
Substance Location:	Pump House
Substance Last Modified:	9/7/2010

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45821L7
Contact Title:	Plant Manager
Contact First Name:	William
Contact Last Name:	Jones
Contact Email:	William.T.Jones@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Modification Date:	Not reported

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45822L8
Contact Title:	Owner
Contact First Name:	INVISTA, S.? r.l
Contact Last Name:	INVISTA, S.? r.l.
Contact Email:	Not reported
Contact Mail Address:	INVISTA Building, 4123 East 37th Street North
Contact Mail City,St,Zip:	Wichita, KS 67220
Contact Mail Country:	USA
Contact Type:	Owner / Operator
Contact Modification Date:	Not reported

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45820L6
Contact Title:	HR Manager
Contact First Name:	Shauna

INVISTA, S. R.L. (Continued) **S107771826**

Contact Last Name:	Devereux
Contact Email:	Shauna.M.Devereux@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Modification Date:	Not reported

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45823L9
Contact Title:	EHS Technician
Contact First Name:	Merry
Contact Last Name:	Norman
Contact Email:	Merry.C.Norman-1@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Submitter
Contact Modification Date:	Not reported

Facility Info:

Year:	2009
Facility ID Description:	Not reported
Facility ID Type:	Dun & Bradstreet
Facility ID Last Modified:	Not reported
ID:	04-842-1247

Year:	2009
Facility ID Description:	Beaming yarn; Nylon yarn twisting or winding of purchased yarn
Facility ID Type:	NAICS
Facility ID Last Modified:	Not reported
ID:	313112

Inventory:

Facility Id:	FATR2009HQL6L41897J1
Year:	2009
Chemical Inventory ID:	CVTR2009HQL6L4002MC
Acute Health Risks:	True
Average Daily Amount:	53000.0
Average Daily Amount Code:	04
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	Not reported
CAS Number:	68476346
EHS Substance:	Not reported
Last Modified:	9/7/2010
Days on Site:	365
Chemical Name:	No. 2 Fuel Oil
Fire Hazard:	True
Gas:	Not reported
Liquid:	True
Max Daily Amount:	53000.0
Max Daily Amount Code:	04
Max Amount in Largest Container:	48000.0
Mixture Form:	True
Sudden Release of Pressure Hazard:	Not reported
Pure Form:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Reactive Hazard:	Not reported
Solid:	Not reported
Facility Name:	Not reported
Contact Info:	Not reported
Contact Type:	Not reported
Email:	Not reported
Phone1:	Not reported
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	Not reported
Flammable 1 least flammable/4 most flammable:	Not reported
Reactive 1 least reactive/4 very reactive:	Not reported
Any characteristic over/above H F and R category:	Not reported
Year:	2009
Substance Amount:	49000.0
Units:	pounds
Storage Type:	A
Storage Pressure Code:	1
Storage Temprature Code:	4
Substance Location:	Outside
Substance Last Modified:	9/7/2010
Year:	2009
Substance Amount:	4000.0
Units:	pounds
Storage Type:	A
Storage Pressure Code:	1
Storage Temprature Code:	4
Substance Location:	Pump House
Substance Last Modified:	9/7/2010

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45821L7
Contact Title:	Plant Manager
Contact First Name:	William
Contact Last Name:	Jones
Contact Email:	William.T.Jones@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Modification Date:	Not reported

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45822L8
Contact Title:	Owner
Contact First Name:	INVISTA, S.? r.l
Contact Last Name:	INVISTA, S.? r.l.
Contact Email:	Not reported
Contact Mail Address:	INVISTA Building, 4123 East 37th Street North
Contact Mail City,St,Zip:	Wichita, KS 67220
Contact Mail Country:	USA
Contact Type:	Owner / Operator
Contact Modification Date:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Contact:
Year: 2009
Contact ID: CTTR2009HQL6L45820L6
Contact Title: HR Manager
Contact First Name: Shauna
Contact Last Name: Devereux
Contact Email: Shauna.M.Devereux@invista.com
Contact Mail Address: 110 Voyles Rd.
Contact Mail City,St,Zip: Athens, GA 30601
Contact Mail Country: USA
Contact Type: Emergency Contact
Contact Modification Date: Not reported

Contact:
Year: 2009
Contact ID: CTTR2009HQL6L45823L9
Contact Title: EHS Technician
Contact First Name: Merry
Contact Last Name: Norman
Contact Email: Merry.C.Norman-1@invista.com
Contact Mail Address: 110 Voyles Rd.
Contact Mail City,St,Zip: Athens, GA 30601
Contact Mail Country: USA
Contact Type: Submitter
Contact Modification Date: Not reported

Facility Info:
Year: 2009
Facility ID Description: Not reported
Facility ID Type: Dun & Bradstreet
Facility ID Last Modified: Not reported
ID: 04-842-1247

Year: 2009
Facility ID Description: Beaming yarn; Nylon yarn twisting or winding of purchased yarn
Facility ID Type: NAICS
Facility ID Last Modified: Not reported
ID: 313112

Inventory:
Facility Id: FATR2009HQL6L41897J1
Year: 2009
Chemical Inventory ID: CVTR2009HQL6L4002MC
Acute Health Risks: True
Average Daily Amount: 53000.0
Average Daily Amount Code: 04
CB Record ID: Not reported
Chemical Same as Last Year: Not reported
Chronic Health Risk: Not reported
CAS Number: 68476346
EHS Substance: Not reported
Last Modified: 9/7/2010
Days on Site: 365
Chemical Name: No. 2 Fuel Oil
Fire Hazard: True
Gas: Not reported
Liquid: True

INVISTA, S. R.L. (Continued) **S107771826**

Max Daily Amount:	53000.0
Max Daily Amount Code:	04
Max Amount in Largest Container:	48000.0
Mixture Form:	True
Sudden Release of Pressure Hazard:	Not reported
Pure Form:	Not reported
Reactive Hazard:	Not reported
Solid:	Not reported
Facility Name:	Not reported
Contact Info:	Not reported
Contact Type:	Not reported
Email:	Not reported
Phone1:	Not reported
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	Not reported
Flammable 1 least flammable/4 most flammable:	Not reported
Reactive 1 least reactive/4 very reactive:	Not reported
Any characteristic over/above H F and R category:	Not reported
Year:	2009
Substance Amount:	49000.0
Units:	pounds
Storage Type:	A
Storage Pressure Code:	1
Storage Temprature Code:	4
Substance Location:	Outside
Substance Last Modified:	9/7/2010
Year:	2009
Substance Amount:	4000.0
Units:	pounds
Storage Type:	A
Storage Pressure Code:	1
Storage Temprature Code:	4
Substance Location:	Pump House
Substance Last Modified:	9/7/2010

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45821L7
Contact Title:	Plant Manager
Contact First Name:	William
Contact Last Name:	Jones
Contact Email:	William.T.Jones@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Modification Date:	Not reported

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45822L8
Contact Title:	Owner
Contact First Name:	INVISTA, S.? r.l
Contact Last Name:	INVISTA, S.? r.l.
Contact Email:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Contact Mail Address:	INVISTA Building, 4123 East 37th Street North
Contact Mail City,St,Zip:	Wichita, KS 67220
Contact Mail Country:	USA
Contact Type:	Owner / Operator
Contact Modification Date:	Not reported

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45820L6
Contact Title:	HR Manager
Contact First Name:	Shauna
Contact Last Name:	Devereux
Contact Email:	Shauna.M.Devereux@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Modification Date:	Not reported

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45823L9
Contact Title:	EHS Technician
Contact First Name:	Merry
Contact Last Name:	Norman
Contact Email:	Merry.C.Norman-1@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Submitter
Contact Modification Date:	Not reported

Facility Info:

Year:	2009
Facility ID Description:	Not reported
Facility ID Type:	Dun & Bradstreet
Facility ID Last Modified:	Not reported
ID:	04-842-1247

Year:	2009
Facility ID Description:	Beaming yarn; Nylon yarn twisting or winding of purchased yarn
Facility ID Type:	NAICS
Facility ID Last Modified:	Not reported
ID:	313112

Inventory:

Facility Id:	FATR2009HQL6L41897J1
Year:	2009
Chemical Inventory ID:	CVTR2009HQL6L4002MC
Acute Health Risks:	True
Average Daily Amount:	53000.0
Average Daily Amount Code:	04
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	Not reported
CAS Number:	68476346
EHS Substance:	Not reported
Last Modified:	9/7/2010

INVISTA, S. R.L. (Continued) **S107771826**

Days on Site:	365
Chemical Name:	No. 2 Fuel Oil
Fire Hazard:	True
Gas:	Not reported
Liquid:	True
Max Daily Amount:	53000.0
Max Daily Amount Code:	04
Max Amount in Largest Container:	48000.0
Mixture Form:	True
Sudden Release of Pressure Hazard:	Not reported
Pure Form:	Not reported
Reactive Hazard:	Not reported
Solid:	Not reported
Facility Name:	Not reported
Contact Info:	Not reported
Contact Type:	Not reported
Email:	Not reported
Phone1:	Not reported
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	Not reported
Flammable 1 least flammable/4 most flammable:	Not reported
Reactive 1 least reactive/4 very reactive:	Not reported
Any characteristic over/above H F and R category:	Not reported
Year:	2009
Substance Amount:	49000.0
Units:	pounds
Storage Type:	A
Storage Pressure Code:	1
Storage Temprature Code:	4
Substance Location:	Outside
Substance Last Modified:	9/7/2010
Year:	2009
Substance Amount:	4000.0
Units:	pounds
Storage Type:	A
Storage Pressure Code:	1
Storage Temprature Code:	4
Substance Location:	Pump House
Substance Last Modified:	9/7/2010

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45821L7
Contact Title:	Plant Manager
Contact First Name:	William
Contact Last Name:	Jones
Contact Email:	William.T.Jones@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Modification Date:	Not reported

Contact:

Year:	2009

INVISTA, S. R.L. (Continued) **S107771826**

Contact ID:	CTTR2009HQL6L45822L8
Contact Title:	Owner
Contact First Name:	INVISTA, S.? r.l
Contact Last Name:	INVISTA, S.? r.l.
Contact Email:	Not reported
Contact Mail Address:	INVISTA Building, 4123 East 37th Street North
Contact Mail City,St,Zip:	Wichita, KS 67220
Contact Mail Country:	USA
Contact Type:	Owner / Operator
Contact Modification Date:	Not reported

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45820L6
Contact Title:	HR Manager
Contact First Name:	Shauna
Contact Last Name:	Devereux
Contact Email:	Shauna.M.Devereux@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Modification Date:	Not reported

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45823L9
Contact Title:	EHS Technician
Contact First Name:	Merry
Contact Last Name:	Norman
Contact Email:	Merry.C.Norman-1@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Submitter
Contact Modification Date:	Not reported

Facility Info:

Year:	2009
Facility ID Description:	Not reported
Facility ID Type:	Dun & Bradstreet
Facility ID Last Modified:	Not reported
ID:	04-842-1247

Year:	2009
Facility ID Description:	Beaming yarn; Nylon yarn twisting or winding of purchased yarn
Facility ID Type:	NAICS
Facility ID Last Modified:	Not reported
ID:	313112

Inventory:

Facility Id:	FATR2009HQL6L41897J1
Year:	2009
Chemical Inventory ID:	CVTR2009HQL6L4002MC
Acute Health Risks:	True
Average Daily Amount:	53000.0
Average Daily Amount Code:	04
CB Record ID:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Chemical Same as Last Year:	Not reported
Chronic Health Risk:	Not reported
CAS Number:	68476346
EHS Substance:	Not reported
Last Modified:	9/7/2010
Days on Site:	365
Chemical Name:	No. 2 Fuel Oil
Fire Hazard:	True
Gas:	Not reported
Liquid:	True
Max Daily Amount:	53000.0
Max Daily Amount Code:	04
Max Amount in Largest Container:	48000.0
Mixture Form:	True
Sudden Release of Pressure Hazard:	Not reported
Pure Form:	Not reported
Reactive Hazard:	Not reported
Solid:	Not reported
Facility Name:	Not reported
Contact Info:	Not reported
Contact Type:	Not reported
Email:	Not reported
Phone1:	Not reported
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	Not reported
Flammable 1 least flammable/4 most flammable:	Not reported
Reactive 1 least reactive/4 very reactive:	Not reported
Any characteristic over/above H F and R category:	Not reported
Year:	2009
Substance Amount:	49000.0
Units:	pounds
Storage Type:	A
Storage Pressure Code:	1
Storage Temprature Code:	4
Substance Location:	Outside
Substance Last Modified:	9/7/2010
Year:	2009
Substance Amount:	4000.0
Units:	pounds
Storage Type:	A
Storage Pressure Code:	1
Storage Temprature Code:	4
Substance Location:	Pump House
Substance Last Modified:	9/7/2010

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45821L7
Contact Title:	Plant Manager
Contact First Name:	William
Contact Last Name:	Jones
Contact Email:	William.T.Jones@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA

INVISTA, S. R.L. (Continued) **S107771826**

Contact Type: Emergency Contact
Contact Modification Date: Not reported

Contact:
Year: 2009
Contact ID: CTTR2009HQL6L45822L8
Contact Title: Owner
Contact First Name: INVISTA, S.? r.l
Contact Last Name: INVISTA, S.? r.l.
Contact Email: Not reported
Contact Mail Address: INVISTA Building, 4123 East 37th Street North
Contact Mail City,St,Zip: Wichita, KS 67220
Contact Mail Country: USA
Contact Type: Owner / Operator
Contact Modification Date: Not reported

Contact:
Year: 2009
Contact ID: CTTR2009HQL6L45820L6
Contact Title: HR Manager
Contact First Name: Shauna
Contact Last Name: Devereux
Contact Email: Shauna.M.Devereux@invista.com
Contact Mail Address: 110 Voyles Rd.
Contact Mail City,St,Zip: Athens, GA 30601
Contact Mail Country: USA
Contact Type: Emergency Contact
Contact Modification Date: Not reported

Contact:
Year: 2009
Contact ID: CTTR2009HQL6L45823L9
Contact Title: EHS Technician
Contact First Name: Merry
Contact Last Name: Norman
Contact Email: Merry.C.Norman-1@invista.com
Contact Mail Address: 110 Voyles Rd.
Contact Mail City,St,Zip: Athens, GA 30601
Contact Mail Country: USA
Contact Type: Submitter
Contact Modification Date: Not reported

Facility Info:
Year: 2009
Facility ID Description: Not reported
Facility ID Type: Dun & Bradstreet
Facility ID Last Modified: Not reported
ID: 04-842-1247

Year: 2009
Facility ID Description: Beaming yarn; Nylon yarn twisting or winding of purchased yarn
Facility ID Type: NAICS
Facility ID Last Modified: Not reported
ID: 313112

Inventory:
Facility Id: FATR2009HQL6L41897J1
Year: 2009
Chemical Inventory ID: CVTR2009HQL6L4002MC

INVISTA, S. R.L. (Continued) **S107771826**

Acute Health Risks:	True
Average Daily Amount:	53000.0
Average Daily Amount Code:	04
CB Record ID:	Not reported
Chemical Same as Last Year:	Not reported
Chronic Health Risk:	Not reported
CAS Number:	68476346
EHS Substance:	Not reported
Last Modified:	9/7/2010
Days on Site:	365
Chemical Name:	No. 2 Fuel Oil
Fire Hazard:	True
Gas:	Not reported
Liquid:	True
Max Daily Amount:	53000.0
Max Daily Amount Code:	04
Max Amount in Largest Container:	48000.0
Mixture Form:	True
Sudden Release of Pressure Hazard:	Not reported
Pure Form:	Not reported
Reactive Hazard:	Not reported
Solid:	Not reported
Facility Name:	Not reported
Contact Info:	Not reported
Contact Type:	Not reported
Email:	Not reported
Phone1:	Not reported
Phone2:	Not reported
Phone3:	Not reported
Phone4:	Not reported
Phone5:	Not reported
Hazardous 1 least hazardous/4 most hazardous:	Not reported
Flammable 1 least flammable/4 most flammable:	Not reported
Reactive 1 least reactive/4 very reactive:	Not reported
Any characteristic over/above H F and R category:	Not reported
Year:	2009
Substance Amount:	49000.0
Units:	pounds
Storage Type:	A
Storage Pressure Code:	1
Storage Temprature Code:	4
Substance Location:	Outside
Substance Last Modified:	9/7/2010
Year:	2009
Substance Amount:	4000.0
Units:	pounds
Storage Type:	A
Storage Pressure Code:	1
Storage Temprature Code:	4
Substance Location:	Pump House
Substance Last Modified:	9/7/2010

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45821L7
Contact Title:	Plant Manager
Contact First Name:	William
Contact Last Name:	Jones

INVISTA, S. R.L. (Continued) **S107771826**

Contact Email:	William.T.Jones@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Modification Date:	Not reported

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45822L8
Contact Title:	Owner
Contact First Name:	INVISTA, S.? r.l
Contact Last Name:	INVISTA, S.? r.l.
Contact Email:	Not reported
Contact Mail Address:	INVISTA Building, 4123 East 37th Street North
Contact Mail City,St,Zip:	Wichita, KS 67220
Contact Mail Country:	USA
Contact Type:	Owner / Operator
Contact Modification Date:	Not reported

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45820L6
Contact Title:	HR Manager
Contact First Name:	Shauna
Contact Last Name:	Devereux
Contact Email:	Shauna.M.Devereux@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Modification Date:	Not reported

Contact:

Year:	2009
Contact ID:	CTTR2009HQL6L45823L9
Contact Title:	EHS Technician
Contact First Name:	Merry
Contact Last Name:	Norman
Contact Email:	Merry.C.Norman-1@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Submitter
Contact Modification Date:	Not reported

Reporting Year:	2008
Facility ID:	FATR20084TT9ZZ002EZY
Facility Country:	USA
Company Name:	Not reported
Date Submitted:	Not reported
Filing Type:	Not reported
SIC Code:	Not reported
NAICS Code:	Not reported
Dun&Bradstreet Code:	Not reported
Chemicals Same as Last Year:	Not reported
Data Tier 2 Signed:	02/05/2009
Dikes/Saveguard Measures:	Not reported
Facility Department:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Facility Date Modified:	05/13/2009
State Fees Total:	Not reported
Mailing Address:	110 Voyles Rd.
Mailing City,St,Zip:	Athens, GA 30601
Mailing Country:	USA
Latitude:	33.5946
Longitude:	83.2603
Lat/Long Location Desc:	OT - Other
Lat/Long Method:	OT - Other
Number Employees on Site:	193
Site Coordinate Abbrvtns Sbmttd:	Not reported
Fire District:	Not reported
Notes:	Not reported
Validity:	This facility passed all validation checks.

Facility Info:

Year:	Not reported
Facility ID Description:	Not reported
Facility ID Type:	04-842-1247
Facility ID Last Modified:	1/25/2007
ID:	Dun & Bradstreet

Year:	Not reported
Facility ID Description:	Beaming yarn; Nylon yarn twisting or winding of purchased yarn
Facility ID Type:	313112
Facility ID Last Modified:	1/26/2009
ID:	NAICS

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGLS007CKG
Contact Title:	HR Manager
Contact First Name:	Shauna
Contact Last Name:	Devereux
Contact Email:	Shauna.M.Devereux@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Type:	Emergency Contact
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGGN002T5H
Contact Title:	Plant Manager
Contact First Name:	William
Contact Last Name:	Jones
Contact Email:	William.T.Jones@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Type:	Emergency Contact
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported

INVISTA, S. R.L. (Continued) **S107771826**

Contact ID:	CTTR20084XT9AM002M9W
Contact Title:	Owner
Contact First Name:	INVISTA, S.+ r.l
Contact Last Name:	INVISTA, S.+ r.l.
Contact Email:	Not reported
Contact Mail Address:	INVISTA Building, 4123 East 37th Street North
Contact Mail City,St,Zip:	Wichita, KS 67220
Contact Mail Country:	USA
Contact Type:	Owner / Operator
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGSM00CF0B
Contact Title:	EHS Technician
Contact First Name:	Merry
Contact Last Name:	Norman
Contact Email:	Merry.C.Norman-1@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Submitter
Contact Modification Date:	1/25/2007

Facility Info:

Year:	Not reported
Facility ID Description:	Not reported
Facility ID Type:	04-842-1247
Facility ID Last Modified:	1/25/2007
ID:	Dun & Bradstreet

Year:	Not reported
Facility ID Description:	Beaming yarn; Nylon yarn twisting or winding of purchased yarn
Facility ID Type:	313112
Facility ID Last Modified:	1/26/2009
ID:	NAICS

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGLS007CKG
Contact Title:	HR Manager
Contact First Name:	Shauna
Contact Last Name:	Devereux
Contact Email:	Shauna.M.Devereux@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Type:	Emergency Contact
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGGN002T5H
Contact Title:	Plant Manager
Contact First Name:	William
Contact Last Name:	Jones
Contact Email:	William.T.Jones@invista.com

INVISTA, S. R.L. (Continued) **S107771826**

Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Type:	Emergency Contact
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084XT9AM002M9W
Contact Title:	Owner
Contact First Name:	INVISTA, S.+ r.l
Contact Last Name:	INVISTA, S.+ r.l.
Contact Email:	Not reported
Contact Mail Address:	INVISTA Building, 4123 East 37th Street North
Contact Mail City,St,Zip:	Wichita, KS 67220
Contact Mail Country:	USA
Contact Type:	Owner / Operator
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGSM00CF0B
Contact Title:	EHS Technician
Contact First Name:	Merry
Contact Last Name:	Norman
Contact Email:	Merry.C.Norman-1@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Submitter
Contact Modification Date:	1/25/2007

Facility Info:

Year:	Not reported
Facility ID Description:	Not reported
Facility ID Type:	04-842-1247
Facility ID Last Modified:	1/25/2007
ID:	Dun & Bradstreet

Year:	Not reported
Facility ID Description:	Beaming yarn; Nylon yarn twisting or winding of purchased yarn
Facility ID Type:	313112
Facility ID Last Modified:	1/26/2009
ID:	NAICS

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGLS007CKG
Contact Title:	HR Manager
Contact First Name:	Shauna
Contact Last Name:	Devereux
Contact Email:	Shauna.M.Devereux@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Type:	Emergency Contact

INVISTA, S. R.L. (Continued) **S107771826**

Contact Modification Date: 2/5/2009

Contact:
Year: Not reported
Contact ID: CTTR20084WWGGN002T5H
Contact Title: Plant Manager
Contact First Name: William
Contact Last Name: Jones
Contact Email: William.T.Jones@invista.com
Contact Mail Address: 110 Voyles Rd.
Contact Mail City,St,Zip: Athens, GA 30601
Contact Mail Country: USA
Contact Type: Emergency Contact
Contact Type: Emergency Contact
Contact Modification Date: 2/5/2009

Contact:
Year: Not reported
Contact ID: CTTR20084XT9AM002M9W
Contact Title: Owner
Contact First Name: INVISTA, S.+ r.l
Contact Last Name: INVISTA, S.+ r.l.
Contact Email: Not reported
Contact Mail Address: INVISTA Building, 4123 East 37th Street North
Contact Mail City,St,Zip: Wichita, KS 67220
Contact Mail Country: USA
Contact Type: Owner / Operator
Contact Modification Date: 2/5/2009

Contact:
Year: Not reported
Contact ID: CTTR20084WWGSM00CF0B
Contact Title: EHS Technician
Contact First Name: Merry
Contact Last Name: Norman
Contact Email: Merry.C.Norman-1@invista.com
Contact Mail Address: 110 Voyles Rd.
Contact Mail City,St,Zip: Athens, GA 30601
Contact Mail Country: USA
Contact Type: Submitter
Contact Modification Date: 1/25/2007

Facility Info:
Year: Not reported
Facility ID Description: Not reported
Facility ID Type: 04-842-1247
Facility ID Last Modified: 1/25/2007
ID: Dun & Bradstreet

Year: Not reported
Facility ID Description: Beaming yarn; Nylon yarn twisting or winding of purchased yarn
Facility ID Type: 313112
Facility ID Last Modified: 1/26/2009
ID: NAICS

Contact:
Year: Not reported
Contact ID: CTTR20084WWGLS007CKG
Contact Title: HR Manager

INVISTA, S. R.L. (Continued) **S107771826**

Contact First Name:	Shauna
Contact Last Name:	Devereux
Contact Email:	Shauna.M.Devereux@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Type:	Emergency Contact
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGGN002T5H
Contact Title:	Plant Manager
Contact First Name:	William
Contact Last Name:	Jones
Contact Email:	William.T.Jones@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Type:	Emergency Contact
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084XT9AM002M9W
Contact Title:	Owner
Contact First Name:	INVISTA, S.+ r.l
Contact Last Name:	INVISTA, S.+ r.l.
Contact Email:	Not reported
Contact Mail Address:	INVISTA Building, 4123 East 37th Street North
Contact Mail City,St,Zip:	Wichita, KS 67220
Contact Mail Country:	USA
Contact Type:	Owner / Operator
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGSM00CF0B
Contact Title:	EHS Technician
Contact First Name:	Merry
Contact Last Name:	Norman
Contact Email:	Merry.C.Norman-1@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Submitter
Contact Modification Date:	1/25/2007

Facility Info:

Year:	Not reported
Facility ID Description:	Not reported
Facility ID Type:	04-842-1247
Facility ID Last Modified:	1/25/2007
ID:	Dun & Bradstreet

Year:	Not reported
Facility ID Description:	Beaming yarn; Nylon yarn twisting or winding of purchased yarn

INVISTA, S. R.L. (Continued) **S107771826**

Facility ID Type:	313112
Facility ID Last Modified:	1/26/2009
ID:	NAICS

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGLS007CKG
Contact Title:	HR Manager
Contact First Name:	Shauna
Contact Last Name:	Devereux
Contact Email:	Shauna.M.Devereux@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Type:	Emergency Contact
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGGN002T5H
Contact Title:	Plant Manager
Contact First Name:	William
Contact Last Name:	Jones
Contact Email:	William.T.Jones@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Type:	Emergency Contact
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084XT9AM002M9W
Contact Title:	Owner
Contact First Name:	INVISTA, S.+ r.l
Contact Last Name:	INVISTA, S.+ r.l.
Contact Email:	Not reported
Contact Mail Address:	INVISTA Building, 4123 East 37th Street North
Contact Mail City,St,Zip:	Wichita, KS 67220
Contact Mail Country:	USA
Contact Type:	Owner / Operator
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGSM00CF0B
Contact Title:	EHS Technician
Contact First Name:	Merry
Contact Last Name:	Norman
Contact Email:	Merry.C.Norman-1@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Submitter
Contact Modification Date:	1/25/2007

INVISTA, S. R.L. (Continued) **S107771826**

Facility Info:

Year:	Not reported
Facility ID Description:	Not reported
Facility ID Type:	04-842-1247
Facility ID Last Modified:	1/25/2007
ID:	Dun & Bradstreet
Year:	Not reported
Facility ID Description:	Beaming yarn; Nylon yarn twisting or winding of purchased yarn
Facility ID Type:	313112
Facility ID Last Modified:	1/26/2009
ID:	NAICS

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGLS007CKG
Contact Title:	HR Manager
Contact First Name:	Shauna
Contact Last Name:	Devereux
Contact Email:	Shauna.M.Devereux@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Type:	Emergency Contact
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGGN002T5H
Contact Title:	Plant Manager
Contact First Name:	William
Contact Last Name:	Jones
Contact Email:	William.T.Jones@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Emergency Contact
Contact Type:	Emergency Contact
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084XT9AM002M9W
Contact Title:	Owner
Contact First Name:	INVISTA, S.+ r.l
Contact Last Name:	INVISTA, S.+ r.l.
Contact Email:	Not reported
Contact Mail Address:	INVISTA Building, 4123 East 37th Street North
Contact Mail City,St,Zip:	Wichita, KS 67220
Contact Mail Country:	USA
Contact Type:	Owner / Operator
Contact Modification Date:	2/5/2009

Contact:

Year:	Not reported
Contact ID:	CTTR20084WWGSM00CF0B
Contact Title:	EHS Technician

INVISTA, S. R.L. (Continued) **S107771826**

Contact First Name:	Merry
Contact Last Name:	Norman
Contact Email:	Merry.C.Norman-1@invista.com
Contact Mail Address:	110 Voyles Rd.
Contact Mail City,St,Zip:	Athens, GA 30601
Contact Mail Country:	USA
Contact Type:	Submitter
Contact Modification Date:	1/25/2007

A4 **INVISTA SARL** **ICIS 1000348670**
Target **110 VOYLES ROAD** **US AIRS N/A**
Property **ATHENS, GA 30601** **FINDS**
ECHO

Site 4 of 4 in cluster A

Actual: **781 ft.**

ICIS:

Enforcement Action ID:	HQ-2012-8001
FRS ID:	110007046605
Action Name:	INVISTA
Facility Name:	INVISTA SARL
Facility Address:	110 VOYLES ROAD ATHENS, GA 30601-3907
Enforcement Action Type:	TSCA 16 Action For Penalty
Facility County:	CLARKE
Program System Acronym:	RCRAINFO
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	16
Facility SIC Code:	Not reported
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	33.997764
Longitude in Decimal Degrees:	-83.325389
Permit Type Desc:	Not reported
Program System Acronym:	GAD065340838
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

Enforcement Action ID:	HQ-2006-6007
FRS ID:	110007046605
Action Name:	INVISTA S.a.r.l. (National Case)
Facility Name:	INVISTA SARL
Facility Address:	110 VOYLES ROAD ATHENS, GA 306013907
Enforcement Action Type:	Civil Judicial Action
Facility County:	CLARKE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Judicial
EA Type Code:	CIV
Facility SIC Code:	2282
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	33.99769
Longitude in Decimal Degrees:	-83.325502
Permit Type Desc:	Not reported
Program System Acronym:	GA0000001305900038
Facility NAICS Code:	999999
Tribal Land Code:	Not reported

Enforcement Action ID:	04-2006-9031
FRS ID:	110007046605

INVISTA SARL (Continued) **1000348670**

Action Name:	INVISTA S.A.R.L. (NATIONAL CASE)
Facility Name:	INVISTA SARL
Facility Address:	110 VOYLES ROAD
	ATHENS, GA 306013907
Enforcement Action Type:	Civil Judicial Action
Facility County:	CLARKE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Judicial
EA Type Code:	CIV
Facility SIC Code:	2282
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	33.99769
Longitude in Decimal Degrees:	-83.325502
Permit Type Desc:	Not reported
Program System Acronym:	GA0000001305900038
Facility NAICS Code:	999999
Tribal Land Code:	Not reported

Facility Name:	INVISTA SARL
Address:	110 VOYLES ROAD
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2282

Facility Name:	INVISTA SARL
Address:	110 VOYLES ROAD
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2282

Facility Name:	INVISTA SARL
Address:	110 VOYLES ROAD
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2282

Facility Name:	INVISTA SARL
Address:	110 VOYLES ROAD
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2282

US AIRS MINOR:

Envid:	1000348670
Region Code:	04
Programmatic ID:	AIR GA0000001305900038
Facility Registry ID:	110007046605
D and B Number:	Not reported
Primary SIC Code:	2282
NAICS Code:	999999
Default Air Classification Code:	MIN
Facility Type of Ownership Code:	Not reported

INVISTA SARL (Continued) **1000348670**

Air CMS Category Code: Not reported
HPV Status: Not reported

US AIRS MINOR:
Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Existing Chemicals
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Exports
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: FRP
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Gen Hazardous Waste Management - Subtitle C - LQG
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Hazardous Waste Management - Subtitle C - T

INVISTA SARL (Continued) **1000348670**

Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Inventory of Chemicals
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Inventory of Chemicals
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Material Safety Data Sheets (MSDS)
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Misuse
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605

INVISTA SARL (Continued) **1000348670**

Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Chemicals
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

INVISTA SARL (Continued) **1000348670**

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: *** No Data ***
Activity Date: Not reported
Activity Status Date: 2006-09-29 12:46:09
Activity Group: Case File
Activity Type: Case File
Activity Status: Active

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: NPDES - Stormwater - Non-Construction
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: NPDES - Stormwater - Non-Construction
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Permit Requirements
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Poly Chlorinated Biphenyls (PCBs)
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action

INVISTA SARL (Continued) **1000348670**

Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Poly Chlorinated Biphenyls (PCBs)
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: PSD Preconstruction Requirements
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: PSD Preconstruction Requirements
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Recycling & Emission Reduction Programs
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Recycling & Emission Reduction Programs

INVISTA SARL (Continued) **1000348670**

Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: SDWA, Public Water System
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: SPCC
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Permit Programs
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605

INVISTA SARL (Continued) **1000348670**

Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Toxics Chemical Release Inventory (TRI)
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

US AIRS MINOR:
Envid: 1000348670
Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
D and B Number: Not reported
Primary SIC Code: 2282
NAICS Code: 999999
Default Air Classification Code: MIN
Facility Type of Ownership Code: Not reported
Air CMS Category Code: Not reported
HPV Status: Not reported

US AIRS MINOR:
Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Existing Chemicals
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Exports
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: FRP
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action

INVISTA SARL (Continued) **1000348670**

Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Gen Hazardous Waste Management - Subtitle C - LQG
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Hazardous Waste Management - Subtitle C - T
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Inventory of Chemicals
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Inventory of Chemicals
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Material Safety Data Sheets (MSDS)

INVISTA SARL (Continued) **1000348670**

Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Misuse
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Chemicals
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605

INVISTA SARL (Continued) **1000348670**

Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: *** No Data ***
Activity Date: Not reported
Activity Status Date: 2006-09-29 12:46:09
Activity Group: Case File
Activity Type: Case File
Activity Status: Active

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: NPDES - Stormwater - Non-Construction
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: NPDES - Stormwater - Non-Construction
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

INVISTA SARL (Continued) **1000348670**

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Permit Requirements
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Poly Chlorinated Biphenyls (PCBs)
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Poly Chlorinated Biphenyls (PCBs)
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: PSD Preconstruction Requirements
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: PSD Preconstruction Requirements
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action

INVISTA SARL (Continued) **1000348670**

Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Recycling & Emission Reduction Programs
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Recycling & Emission Reduction Programs
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: SDWA, Public Water System
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: SPCC
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

INVISTA SARL (Continued) **1000348670**

Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Permit Programs
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Final Order Entered

Region Code: 04
Programmatic ID: AIR GA0000001305900038
Facility Registry ID: 110007046605
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: Toxics Chemical Release Inventory (TRI)
Activity Date: 2009-07-29 00:00:00
Activity Status Date: 2009-07-29 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Concluded

FINDS:

Registry ID: 110007046605

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

INVISTA SARL (Continued) **1000348670**

AIR MINOR

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000348670
Registry ID:	110007046605
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110007046605

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/03/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/22/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 41

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/04/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/29/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/04/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/29/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 36

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: Hazardous Site Inventory

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 07/01/2018
Date Data Arrived at EDR: 07/06/2018
Date Made Active in Reports: 08/13/2018
Number of Days to Update: 38

Source: Department of Environmental Protection
Telephone: 404-657-8600
Last EDR Contact: 06/28/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Annually

NON HSI: Non-Hazardous Site Inventory

This list was obtained by EDR in 1998 and contains property listings that have reported contamination of soil or groundwater under the Georgia Hazardous Site Response Act (HSRA). These sites were not placed on the Georgia Priority list (Hazardous Site Inventory or HSI) because their hazard evaluation scores did not exceed the threshold levels established for sites posing an imminent threat to health or the environment. Disclaimer provided by Rindt-McDuff Associates - the database information has been obtained from publicly available sources produced by other entities. While reasonable steps have been taken to insure the accuracy of the data, RMA does not guarantee the accuracy of the data. No claim is made for the actual existence of pollution at any site. This data does not constitute a legal opinion.

Date of Government Version: 04/01/2019
Date Data Arrived at EDR: 04/16/2019
Date Made Active in Reports: 05/21/2019
Number of Days to Update: 35

Source: Rindt-McDuff Associates, Inc.
Telephone: N/A
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Disposal Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 10/11/2018
Date Data Arrived at EDR: 01/10/2019
Date Made Active in Reports: 04/10/2019
Number of Days to Update: 90

Source: Department of Natural Resources
Telephone: 404-362-2696
Source: Center for GIS, Georgia Institute of Technology
Telephone: 404-385-0900
Last EDR Contact: 05/03/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST: List of Leaking Underground Storage Tanks
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 01/14/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/04/2019
Number of Days to Update: 35

Source: Environmental Protection Division
Telephone: 404-362-2687
Last EDR Contact: 06/12/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/23/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/13/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/10/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Varies

UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 04/01/2019
Date Data Arrived at EDR: 04/16/2019
Date Made Active in Reports: 04/25/2019
Number of Days to Update: 9

Source: Environmental Protection Division
Telephone: 404-362-2687
Last EDR Contact: 06/12/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Annually

AST: Above Ground Storage Tanks
A listing of LP gas tank site locations.

Date of Government Version: 06/04/2012
Date Data Arrived at EDR: 06/05/2012
Date Made Active in Reports: 06/14/2012
Number of Days to Update: 9

Source: Office of Insurance & Safety Fire Commissioner
Telephone: 404-656-5875
Last EDR Contact: 05/16/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/23/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/03/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

INST CONTROL: Public Record List
Sites on the Public Record Listing that have institutional controls or limitations on use are sites with Risk Reduction Standards of 3, 4, and 5.

Date of Government Version: 05/06/2019
Date Data Arrived at EDR: 05/07/2019
Date Made Active in Reports: 05/21/2019
Number of Days to Update: 14

Source: Department of Natural Resources
Telephone: 404-657-8600
Last EDR Contact: 05/07/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

AUL: Uniform Environmental Covenants
A list of environmental covenants

Date of Government Version: 09/11/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 12/03/2018
Number of Days to Update: 27

Source: Department of Natural Resources
Telephone: 404-657-8600
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program site
Georgia's Voluntary Remediation Program Act was created to encourage voluntary investigation and remediation of contaminated properties.

Date of Government Version: 02/02/2019
Date Data Arrived at EDR: 02/27/2019
Date Made Active in Reports: 04/04/2019
Number of Days to Update: 36

Source: DNR
Telephone: 404-657-8600
Last EDR Contact: 05/31/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/20/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Public Record List
The Brownfields Public Record lists properties where response actions under the Georgia Hazardous Site Reuse and Redevelopment Act are planned, ongoing or completed.

Date of Government Version: 05/06/2019
Date Data Arrived at EDR: 05/07/2019
Date Made Active in Reports: 05/21/2019
Number of Days to Update: 14

Source: Department of Natural Resources
Telephone: 404-657-8600
Last EDR Contact: 05/07/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/17/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/04/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF: Historical Landfills
Landfills that were closed many years ago.

Date of Government Version: 01/15/2003
Date Data Arrived at EDR: 01/20/2004
Date Made Active in Reports: 02/06/2004
Number of Days to Update: 17

Source: Department of Natural Resources
Telephone: 404-362-2696
Last EDR Contact: 01/20/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

SWRCY: Recycling Center Listing
A listing of recycling facility locations.

Date of Government Version: 02/01/2019
Date Data Arrived at EDR: 03/28/2019
Date Made Active in Reports: 04/04/2019
Number of Days to Update: 7

Source: Department of Community Affairs
Telephone: 404-679-1598
Last EDR Contact: 06/20/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/23/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs
A listing of clandestine drug lab site locations in the state.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 08/15/2016
Number of Days to Update: 63

Source: Georgia Bureau of Investigation
Telephone: 404-244-2639
Last EDR Contact: 05/09/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

DEL SHWS: Delisted Hazardous Site Inventory Listing
A listing of sites delisted from the Hazardous Site Inventory.

Date of Government Version: 07/01/2018
Date Data Arrived at EDR: 07/06/2018
Date Made Active in Reports: 08/13/2018
Number of Days to Update: 38

Source: Department of Natural Resources
Telephone: 404-657-8636
Last EDR Contact: 06/28/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Annually

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 49

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

SPILLS: Spills Information

Oil or Hazardous Material Spills or Releases.

Date of Government Version: 04/10/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 05/22/2019
Number of Days to Update: 41

Source: Department of Natural Resources
Telephone: 770-387-4900
Last EDR Contact: 06/20/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/04/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/11/2013
Number of Days to Update: 39

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 03/07/2019
Date Data Arrived at EDR: 04/03/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 50

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/21/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/09/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/10/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/07/2019
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/18/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/24/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/22/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2019
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 34

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/12/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 07/03/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/22/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/07/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/07/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/02/2019
Date Data Arrived at EDR: 04/02/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 51

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 30

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/10/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/27/2018
Date Data Arrived at EDR: 02/27/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 33

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/29/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/31/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/31/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/27/2019
Date Data Arrived at EDR: 03/28/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 34

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/19/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/15/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 03/15/2019
Number of Days to Update: 10

Source: EPA
Telephone: (404) 562-9900
Last EDR Contact: 06/05/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/15/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/07/2019
Date Data Arrived at EDR: 04/09/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 07/09/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/21/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 39

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/21/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Quarterly

AIRS: Permitted Facility & Emissions Listing
A listing of permitted Air facilities and emissions data.

Date of Government Version: 02/14/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 43

Source: Department of Natural Resources
Telephone: 404-363-7000
Last EDR Contact: 06/03/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Site Listing
A listing of coal ash landfills.

Date of Government Version: 08/01/2014
Date Data Arrived at EDR: 08/05/2014
Date Made Active in Reports: 09/02/2014
Number of Days to Update: 28

Source: Department of Natural Resources
Telephone: 404-362-2537
Last EDR Contact: 06/20/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

DRYCLEANERS: Drycleaner Database
A list of drycleaners in the state. The listing includes drycleaner facilities, that use perchloroethylene, that responded to the Notification of Compliance Status forms. It also includes those businesses that are pick-up stores only and do not conduct dry cleaning on site.

Date of Government Version: 12/22/2014
Date Data Arrived at EDR: 12/23/2014
Date Made Active in Reports: 01/27/2015
Number of Days to Update: 35

Source: Department of Natural Resources
Telephone: 404-363-7000
Last EDR Contact: 05/03/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
A listing of financial assurance information for underground storage tank facilities.

Date of Government Version: 01/14/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 6

Source: Department of Natural Resources
Telephone: 404-362-4892
Last EDR Contact: 06/12/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
Financial assurance information listing for solid waste facilities.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 8

Source: Department of Natural Resources
Telephone: 404-362-2537
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

NPDES: NPDES Wastewater Permit List
A listing of NPDES wastewater permits issued by the Watershed Protection Branch.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/05/2019
Date Made Active in Reports: 04/04/2019
Number of Days to Update: 58

Source: Department of Natural Resoruces
Telephone: 404-362-2680
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

TIER 2: Tier 2 Data Listing
A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 11/21/2018
Date Made Active in Reports: 12/03/2018
Number of Days to Update: 12

Source: Department of Natural Resources
Telephone: 404-656-4852
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Annually

UIC: Underground Injection Control
Underground injection control

Date of Government Version: 04/05/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/22/2019
Number of Days to Update: 47

Source: Department of Natural Resources
Telephone: 404-463-2382
Last EDR Contact: 06/10/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List
The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Georgia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List
The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Natural Resources in Georgia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank
The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Environmental Protection Division in Georgia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Environmental Protection Division
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/04/2019
Number of Days to Update: 20

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/14/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/09/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 06/21/2019
Number of Days to Update: 51

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/01/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/27/2018
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/15/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/17/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/10/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Centers
Source: Department of Human Resources
Telephone: 404-651-5562

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Georgia GIS Clearinghouse
Telephone: 706-542-1581

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

INVISTA
110 VOYLES RD.
ATHENS, GA 30601

TARGET PROPERTY COORDINATES

Latitude (North):	33.996009 - 33° 59' 45.63"
Longitude (West):	83.309141 - 83° 18' 32.91"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	286719.2
UTM Y (Meters):	3763922.8
Elevation:	781 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	6046418 ATHENS EAST, GA
Version Date:	2014
North Map:	6046546 HULL, GA
Version Date:	2014

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

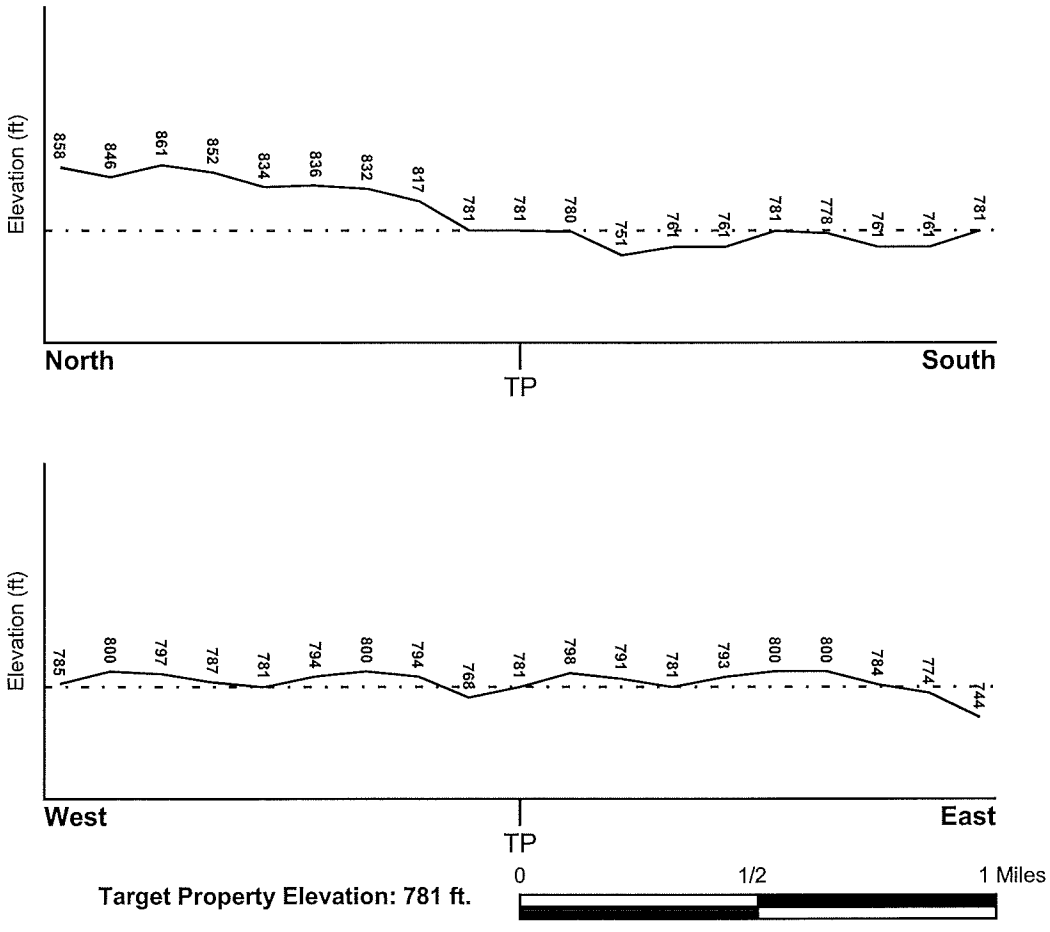
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
13221C0125B	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
13157C0325C	FEMA FIRM Flood data
13059C0017D	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
ATHENS EAST	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Paleozoic
System:	Mississippian
Series:	migmatite
Code:	mm3 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Metamorphic Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	DAVIDSON
Soil Surface Texture:	clay loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	7 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 6.50 Min: 4.50
2	7 inches	12 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 6.50 Min: 4.50
3	12 inches	53 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 6.50 Min: 4.50
4	53 inches	72 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 6.50 Min: 4.50

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: sandy loam
sandy clay loam
gravelly - clay loam

Surficial Soil Types: sandy loam
sandy clay loam
gravelly - clay loam

Shallow Soil Types: clay
sandy clay
sandy clay loam
gravelly - clay loam

Deeper Soil Types: fine sandy loam
sandy loam
loamy sand
weathered bedrock

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

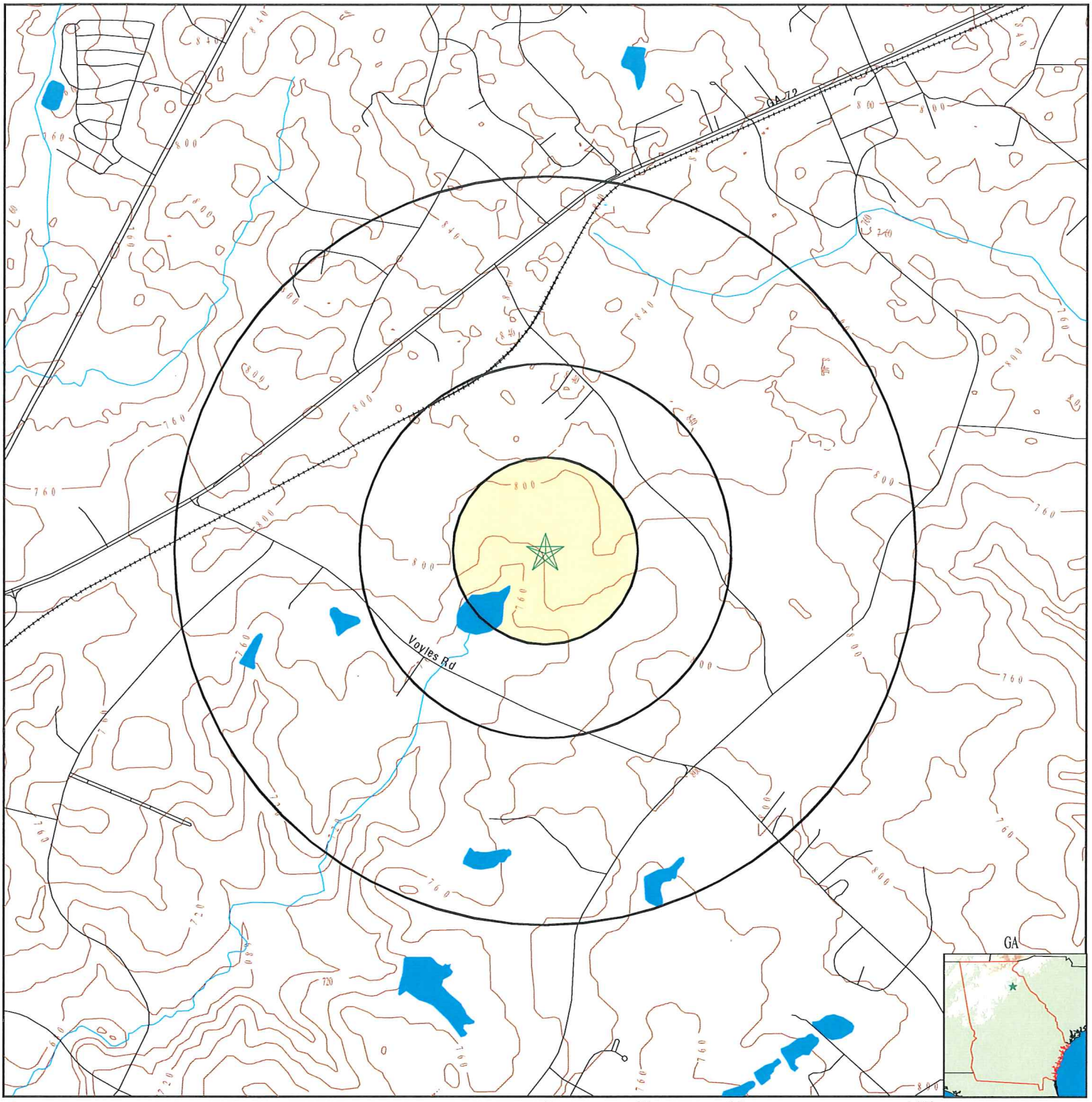
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 5727046.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

0 1/4 1/2 1 Miles

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- Wildlife Areas

N

SITE NAME: Invista	CLIENT: All Phase Environmental, LLC
ADDRESS: 110 Voyles Rd. ATHENS GA 30601	CONTACT: Tom Tweedell
LAT/LONG: 33.996009 / 83.309141	INQUIRY #: 5727046.2s
	DATE: July 24, 2019 9:19 am

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for CLARKE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for CLARKE COUNTY, GA

Number of sites tested: 5

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	2.820 pCi/L	60%	40%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	3.460 pCi/L	80%	20%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Georgia GIS Clearinghouse
Telephone: 706-542-1581

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Georgia Public Supply Wells
Source: Georgia Department of Community Affairs
Telephone: 404-894-0127

USGS Georgia Water Wells
Source: USGS, Georgia District Office
Telephone: 770-903-9100

OTHER STATE DATABASE INFORMATION

DNR Managed Lands
Source: Department of Natural Resources
Telephone: 706-557-3032
This dataset provides 1:24,000-scale data depicting boundaries of land parcels making up the public lands managed by the Georgia Department of Natural Resources (GDNR). It includes polygon representations of State Parks, State Historic Parks, State Conservation Parks, State Historic Sites, Wildlife Management Areas, Public Fishing Areas, Fish Hatcheries, Natural Areas and other specially-designated areas. The data were collected and located by the Georgia Department of Natural Resources. Boundaries were digitized from survey plats or other information.

RADON

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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User Provided Information

Phase I Environmental Site Assessment
User-Furnished Information

The following is a list of documents and information which could be useful to All Phase Environmental LLC in preparing your Phase I Environmental Assessment. Check the appropriate boxes below, sign, and return this along with copies of any reasonably available documents ro information. This will be attached to and made part of your completed Phase I Report.

Yes	No	
✓		1. Environmental site assessment reports (also Lead, ACM...)
	✓	2. Environmental audit reports
	✓	3. Environmental permits (i.e. solid waste disposal permits, hazardous disposal permits, wastewater permits, NPDES permits)
	✓	4. Registrations for underground and above-ground storage tanks
	✓	5. Material safety data sheets (MSDS)
	✓	6. Community right to know plan
	✓	7. Safety plans: preparedness and prevention plans; spill prevention, countermeasure, and control plans; etc.
	✓	8. Reports regarding hydro geologic conditions on the property or surrounding area
	✓	9. Notices or other correspondence from any government agency relating to past or existing environmental liens encumbering the property
	✓	10. Hazardous waste generator notices or reports
	✓	11. Geotechnical studies
	✓	12. Information concerning and pending threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products
	✓	13. Notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products
	✓	14. Disclosure of sumps, pits, drainage system-existence and location
✓		15. Building plans (architectural, utility, structural)
	✓	16. Description of current site operations, including layout drawings or sketches
	✓	17. Title report/chain of title
	✓	18. Tax assessor records (previous owner and occupants)
	✓	19. Purchase price analysis (if lower than comparable)
	✓	20. Current and historical photographs of site

I have reviewed the above list and have provided copies of documents and information that exist that could be obtained within reasonable time and cost constraints.

R. Tom Clark — 7/25/19

Signature — Date

~~For~~ Previous Phase I ESA Report - we have asked for this and will forward as soon as we can.

OMB# 2050-0024; Expires 05/31/2020

United States Environmental Protection Agency
RCRA SUBTITLE C SITE IDENTIFICATION FORM

1. Reason for Submittal (Select only one.)

☐	Obtaining or updating an EPA ID number for an on-going regulated activity that will continue for a period of time. (Includes HSM activity)
☐	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
	☐ Site was a TSD facility and/or generator of > 1,000 kg of hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in one or more months of the reporting year (or State equivalent LQG regulations)
☑	Notifying that regulated activity is no longer occurring at this Site
☐	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
☐	Submitting a new or revised Part A Form

2. Site EPA ID Number

G	A	D	0	6	5	3	4	0	8	3	8

3. Site Name

INVISTA S.`a r.l

4. Site Location Address

Street Address: 110 Voyles Rd.		
City, Town, or Village: Athens		County: Clarke
State: Georgia	Country: USA	Zip Code: 30601

5. Site Mailing Address ☑ Same as Location Address

Street Address		
City, Town, or Village		
State	Country	Zip Code

6. Site Land Type

☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)

A. (Primary)	C.
B.	D.

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Land Protection Branch
2 Martin Luther King, Jr. Drive
Suite 1054, East Tower
Atlanta, Georgia 30334
404-656-7802

May 3, 2018

MARIA MELENDEZ
INVISTA SARL
110 VOYLES RD
ATHENS GA 30061

RE: EPA ID # GAD065340838
INVISTA SARL
110 VOYLES RD
ATHENS, CLARKE COUNTY, GA 30061

Dear MARIA MELENDEZ:

We have recently received information concerning deactivation of your hazardous Waste EPA ID Number. The above listed number has now been deactivated in our database and the hazardous waste management data files have been updated based on your request or field observation.

If you have any questions, please contact our office. Please remember that you will need to apply for another hazardous waste EPA ID number if you resume generation or treat, store or dispose of hazardous waste in the future at this or any location. Your interest in protecting Georgia's environment is appreciated.

Sincerely,

Annise Jones

Annise Jones
Hazardous Waste Management Program
404-657-8844

General Permit
No. GAR050000

State of Georgia
Department of Natural Resources
Environmental Protection Division

Authorization to Discharge Under the National Pollutant Discharge Elimination System Storm Water Discharges Associated with Industrial Activity

In compliance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the "State Act," the Federal Clean Water Act, as amended (33 U.S.C.1251 et seq.), hereinafter called the "Clean Water Act," and the Rules and Regulations promulgated pursuant to each of these Acts, all new and existing storm water point sources within the State of Georgia that are required to have a permit, upon submittal of a Notice of Intent, are authorized to discharge storm water associated with industrial activity to the waters of the State of Georgia in accordance with the limitations, monitoring requirements and other conditions set forth in Parts 1 through 8 and Appendices hereof.

This permit shall become effective on June 1, 2012.

This permit and the authorization to discharge shall expire at midnight, May 31, 2017.

Signed this 16th day of April, 2012.

Director,
Environmental Protection Division

Bin 10221
241 Ralph McGill Boulevard NE
Atlanta, Georgia 30308-3374

GEORGIA POWER
A SOUTHERN COMPANY

November 23, 1998

Mr. Ronnie Faulkner
E.I. Dupont De Nemours & Co., Inc.
110 Voyles Rd.
Athens, Ga. 30601-3907

Dear Mr. Faulkner:

This letter is in response to your inquiry regarding the Georgia Power Company transformers located at the following address:

E.I. Dupont De Nemours & Co., Inc.
110 Voyles Rd.
Athens, Ga.

Three of the transformers serving this location are non-PCB, mineral oil filled units, and the fourth is untested mineral oil. The untested transformer is likely to be nonPCB, but we have no nameplate information on it.

Should a dielectric fluid spill occur, it would be handled as per 40 CFR 761.125 and the State of Georgia Oil and Hazardous Substance Release Act of 1991.

Should you have any questions or need additional information, please call me at (770) 995 - 4809.

Sincerely,

J. P. Johnson
Northeast Quadrant
Environmental Representative

Athens-Clarke County Fire Report

All Phase Environmental L.L.C.
1233 Wolfskin Rd.
Arnoldsville, GA 30619
Providing Environmental Services since 1988

Tom Tweedell
Office 706 549-9456
Fax 706 548-4000
Phone 706 540-8243

Attn: Kathy Wood
Athens Clarke County Fire Department
kathy.wood@athensclarkecounty.com

Site: 110 Voyles Rd.
Athens, GA

Dear Ms. Wood,
All Phase Environmental has been contracted to perform a Phase I report for the above site. In our investigation for recognized environmental concerns, there is a questionnaire that requires us to talk to local fire or emergency officials about the subject site. Please respond to the following questions, and return to us by fax, (706) 548-4000 Or e-mail, allphase123@bellsouth.net .

1) Are any buildings or other improvements on the property or adjoining properties identified as having been used for an industrial use or uses likely to lead to contamination of the property?
This property is currently classified as industrial use.

2) Does the Fire and Emergency Services have any record of fires, chemical spills, or emergency responses to the subject site?
Yes report # 12-0525 is attached to this response.

3) Do you have any other information about the property that might be relevant to our environmental investigation?
None on record.

Kathy D. Wood — 7/26/2019
Signature — Date

Thank you for your help, and if you have any questions about this, please contact me.

Sincerely,

Tom Tweedell — 7/25/19

A

FDID *	State *	Incident Date * (MM / DD / YYYY)	Station	Incident Number *	Exposure *
02901	GA	03 / 18 / 2002	6	02-0000525	000

☐ Delete ☒ Change ☐ No Activity

NFIRS -1 Basic

B Location *

☐ Check this box to Indicate that the address for this incident is provided on the Wildland Fire Module In Section B "Alternative Location Specification". Use only for Wildland fires.

Census Tract 1405 - 00

☒ Street address
☐ Intersection
☐ In front of
☐ Rear of
☐ Adjacent to
☐ Directions

Number/Milepost	Prefix	Street or Highway	Street Type	Suffix
110		VOYLES	RD	

Apt./Suite/Room	City	State	Zip Code
	ATHENS	GA	30601 -

Cross street or directions, as applicable:

C Incident Type *

410 Combustible/flammable gas/liquid condition, other

Incident Type

D Aid Given or Received *

1 ☐ Mutual aid received
2 ☐ Automatic aid recv.
3 ☐ Mutual aid given
4 ☐ Automatic aid given
5 ☐ Other aid given
N ☒ None

Their FDID | Their State

Their Incident Number

E1 Date & Times

Midnight is 0000

Check boxes if dates are the same as Alarm Date.

	Month	Day	Year	Hr Min Sec
Alarm * (ALARM always required)	03	18	2002	09:08:00
☐ Arrival * (ARRIVAL required, unless canceled or did not arrive)	03	18	2002	09:11:00
☐ Controlled (CONTROLLED Optional, Except for wildland fires)				
☐ Last Unit Cleared (LAST UNIT CLEARED, required except for wildland fires)	03	18	2002	09:28:00

E2 Shift & Alarms

Local Option

Shift or Platoon	Alarms	District
C	01	F09H

E3 Special Studies

Local Option

Special Study ID# | Special Study Value

F Actions Taken *

86 Investigate — Primary Action Taken (1)

Additional Action Taken (2)

Additional Action Taken (3)

G1 Resources *

☐ Check this box and skip this section if an Apparatus or Personnel form is used.

	Apparatus	Personnel
Suppression	0003	0015
EMS		
Other	0002	

☐ Check box if resource counts include aid received resources.

G2 Estimated Dollar Losses & Values

LOSSES: Required for all fires if known. Optional for non fires.

		None
Property $	000,000	☐
Contents $	000,000	☐

PRE-INCIDENT VALUE: Optional

Property $	000,000
Contents $	000,000

Completed Modules

☐ Fire-2
☐ Structure-3
☐ Civil Fire Cas.-4
☐ Fire Serv. Cas.-5
☐ EMS-6
☐ HazMat-7
☐ Wildland Fire-8
☒ Apparatus-9
☒ Personnel-10
☐ Arson-11

H1 * Casualties ☐ None

	Deaths	Injuries
Fire Service		
Civilian		

H2 Detector

Required for Confined Fires.

1 ☐ Detector alerted occupants
2 ☐ Detector did not alert them
U ☐ Unknown

H3 Hazardous Materials Release

N ☐ None
1 ☐ Natural Gas: slow leak, no evauation or HazMat actions
2 ☐ Propane gas: <21 lb. tank (as in home BBQ grill)
3 ☐ Gasoline: vehicle fuel tank or portable container
4 ☐ Kerosene: fuel burning equipment or portable storage
5 ☐ Diesel fuel/fuel oil: vehicle fuel tank or portable
6 ☐ Household solvents: home/office spill, cleanup only
7 ☐ Motor oil: from engine or portable container
8 ☐ Paint: from paint cans totaling < 55 gallons
0 ☐ Other: Special HazMat actions required or spill > 55gal., Please complete the HazMat form

I Mixed Use Property

NN ☐ Not Mixed
10 ☐ Assembly use
20 ☐ Education use
33 ☐ Medical use
40 ☐ Residential use
51 ☐ Row of stores
53 ☐ Enclosed mall
58 ☐ Bus. & Residential
59 ☐ Office use
60 ☐ Industrial use
63 ☐ Military use
65 ☐ Farm use
00 ☐ Other mixed use

J Property Use * Structures

131 ☐ Church, place of worship
161 ☐ Restaurant or cafeteria
162 ☐ Bar/Tavern or nightclub
213 ☐ Elementary school or kindergarten
215 ☐ High school or junior high
241 ☐ College, adult education
311 ☐ Care facility for the aged
331 ☐ Hospital
341 ☐ Clinic,clinic type infirmary
342 ☐ Doctor/dentist office
361 ☐ Prison or jail, not juvenile
419 ☐ 1-or 2-family dwelling
429 ☐ Multi-family dwelling
439 ☐ Rooming/boarding house
449 ☐ Commercial hotel or motel
459 ☐ Residential, board and care
464 ☐ Dormitory/barracks
519 ☐ Food and beverage sales
539 ☐ Household goods,sales,repairs
579 ☐ Motor vehicle/boat sales/repair
571 ☐ Gas or service station
599 ☐ Business office
615 ☐ Electric generating plant
629 ☐ Laboratory/science lab
700 ☐ Manufacturing plant
819 ☐ Livestock/poultry storage (barn)
882 ☐ Non-residential parking garage
891 ☐ Warehouse

Outside

124 ☐ Playground or park
655 ☐ Crops or orchard
669 ☐ Forest (timberland)
807 ☐ Outdoor storage area
919 ☐ Dump or sanitary landfill
931 ☐ Open land or field
936 ☐ Vacant lot
938 ☐ Graded/care for plot of land
946 ☐ Lake, river, stream
951 ☐ Railroad right of way
960 ☐ Other street
961 ☐ Highway/divided highway
962 ☐ Residential street/driveway
981 ☐ Construction site
984 ☐ Industrial plant yard

Lookup and enter a Property Use code only if you have NOT checked a Property Use box:

Property Use 600

Ind., utility, defense, agricult

NFIRS-1 Revision 03/11/99

K1 Person/Entity Involved
Local Option

DUPONT CORPORATION (Business name (if applicable))

706 - 552 - 4733 (Area Code - Phone Number)

☐ Check This Box if same address as incident location. Then skip the three duplicate address lines.

Mr.,Ms., Mrs. | First Name | MI | Last Name | Suffix

Number | Prefix | Street or Highway | Street Type | Suffix

Post Office Box | Apt./Suite/Room | City

State | Zip Code

☐ **More people involved? Check this box and attach Supplemental Forms (NFIRS-1S) as necessary**

K2 Owner
Local Option

☐ Same as person involved? Then check this box and skip The rest of this section.

DUPONT CORPORATION (Business name (if Applicable))

706 - 552 - 4733 (Area Code - Phone Number)

☐ Check this box if same address as incident location. Then skip the three duplicate address lines.

Mr.,Ms., Mrs. | First Name | MI | Last Name | Suffix

110 | Number | Prefix | VOYLES | Street or Highway | RD | Street Type | Suffix

Post Office Box | Apt./Suite/Room | ATHENS | City

GA | State | 30601 | Zip Code

L Remarks
Local Option

L.P. GAS TANK WAS LEAKING, THEY HAD STOPED LEAK BEFORE WE ARRIVED. WE USED EXHAUST FAN TO CLEAR OUT THE STORAGE BUILDING.

L Authorization

Officer in charge ID	Signature	Position or rank	Assignment	Month	Day	Year
2001-132	SEXTON, THOMAS C			03	18	2002

Check Box if same as Officer in charge. ☒

Member making report ID	Signature	Position or rank	Assignment	Month	Day	Year
2001-132	SEXTON, THOMAS C			03	18	2002

Excerpts from

Previous Environmental Assessments

atlanta testing
& engineering
11420 johns creek parkway / duluth, georgia 30136 / (404) 476-3555

March 3, 1988

E.I. DuPont De Nemours & Company
Athens Plant
P.O. Box 1808
Athens, Georgia 30613-4099

Attention: Mr. Fred A. Denson

Re: Groundwater Study
E.I. DuPont De Nemours & Company
Athens Plant
Athens, Georgia
Job No. 7613, Report No. 1068
(Revised)

Gentlemen:

Atlanta Testing & Engineering has completed the authorized groundwater study of the subject site and is submitting its findings in this report. The purpose of this study was to determine if impact to the groundwater regime had occurred as a result of the spray fields, the fuel tanks and inadvertent spills, and what impact, if any, may be occurring to off-site groundwater users.

We appreciate the opportunity to be of service to you. Please feel free to contact us at your convenience if you have questions about this report or need further information.

Sincerely,

ATLANTA TESTING & ENGINEERING

Mark A. Sherrill, G.I.T.
Staff Hydrogeologist

Gregory R. Fischer, P.G.
Senior Hydrogeologist
Reg. Ga. 633

MS/GRF/lw

Found in AEI report

atlanta testing
& engineering
11420 johns creek parkway / duluth, georgia 30136 / (404) 476-3555

March 3, 1988

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Athens Plant
P.O. Box 1808
Athens, Georgia 30613-4099

Attention: Mr. Fred A. Denson

well info.

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Mark A. Sherrill, G.I.T.
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Reg. Ga. 633

MS/GRF/lw

1.0 INTRODUCTION

Atlanta Testing & Engineering has completed the authorized groundwater study of the subject site. This report presents a brief summary of our scope of work, the results of the field and laboratory testing, and our findings with regard to the extent of contamination present.

For convenience, provided below is a summary of findings and recommendations. The reader should refer to the text for a more complete description regarding the rationale used to present this information.

2.0 FINDINGS

1. Elevated levels of certain parameters associated with the fertilization and liming of the spray fields were measured in the shallow water table aquifer. All concentrations were generally below the Environmental Protection Agency's (EPA) limits established for drinking water.

2. Based on the parameters analyzed, off-site migration of contaminated groundwater from the spray fields is not occurring.

3. Elevated concentrations of organic vapors were detected near the fuel tank area in soil samples that were collected during drilling of Wells FT-1, FT-2, and FT-3. Concentrations ranges form 0.10 parts per million (ppm) to 613 ppm. The average concentrations for Wells FT-1, FT-2, and FT-3 were approximately 3 ppm, 1.0 ppm, and 84 ppm, respectively.

4. The monitor wells installed near the fuel tank area and were sampled for benzene, toluene, ethyl benzene and xylene (BTEX). No BTEX was detected in wells FT-2 and FT-3. Two samples taken from well FT-1 indicated a xylene concentration of 23 parts per billion (ppb) and 34 ppb. The data indicates that xylene appears to be confined to within the tank pit and has not migrated into the deeper aquifer(s).

3.0 RECOMMENDATIONS

Need PALs for current standards

1. A groundwater monitoring program should be undertaken. Samples should be collected from the spray field wells and deep wells on a semi-annual basis. The following parameters should be analyzed for: pH, specific conductivity, total dissolved solids, chemical oxygen demand, total phosphorus, calcium, magnesium, sodium, potassium, bicarbonate, sulfate, chloride, oil and grease, and nitrate-N.

2. With regard to the xylene contamination consideration should be given to implementing one of the following three recommendations:

   a) Remove the contaminated soils from the tank pit area.

   b) Install recovery well(s) in the tank pit and extract/treat contaminated groundwater.

1.0 INTRODUCTION

Atlanta Testing & Engineering has completed the authorized groundwater study of the subject site. This report presents a brief summary of our scope of work, the results of the field and laboratory testing, and our findings with regard to the extent of contamination present.

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5.3 Surrounding Land Use

The land immediately adjacent to the site is undeveloped and consists of cultivated areas, pasture, and woodland. Four residences are located south of Voyles Road, directly across from the DuPont Plant.

6.0 SURFACE SITE CONDITIONS

As shown on Plate 2, the topography of the site is generally gently sloping to moderately sloping to the south and southeast. Elevations range from a high of approximately 800 feet above mean sea level (MSL) to the west of the spray fields to a low of approximately 730 feet above MSL southeast of the spray fields.

As previously mentioned, five spray fields are used to dispose of effluent generated during yarn processing operations. The fields range in site from 1.3 acres to 2.5 acres and are located east of the plant. The spray fields are surrounded by a buffer of trees on the north, west, and east.

A small lake, approximately nine acres in size, is located immediately east of the spray fields. The lake is fed by a stream which originates off-site to the north. Overflow from the lake is piped through the dam located at the south end of the lake, where it merges with another stream which enters the site from the east. From this point, the stream flows in a southerly direction where it merges with other small streams, until eventually it joins the Oconee River.

Two wet weather drainage features traverse the spray fields and carry run-off to the lake.

In addition to the two 90-foot wells, two other wells are also on-site. One well is located east of and adjacent to the plant and provides make-up cooling water. The other well is located 450 ~~feet~~ south of the southern most spray field and 100 feet north of Voyles Road. In the past, this well, according to Dupont officials, supplied potable water to the four residents living south of and adjacent to Voyles Road. This well is no longer in service. The residents now obtain potable water from a single well located on their property.

Potable water for the facility is supplied by the City.

7.0 REGIONAL HYDROGEOLOGY

The site is located in the Piedmont Physiographic Province where bedrock is covered by unconsolidated material. The unconsolidated material consists of saprolite, alluvium, and soil.

Most of the area is overlain by saprolite, which is a clayey residual deposit formed by in-place mechanical and chemical weathering of the underlying bedrock, and by soils derived from saprolite. In the site area the saprolite retains the distinctive layering of the parent rock. Depending on the properties of the parent rock and the topographic setting, saprolite can range in thickness from zero to approximately 200 feet. Soil is nearly present everywhere as a thin cover on top of the saprolite and alluvium.

The area is underlain by a variety of metamorphosed plutonic, volcanic, and sedimentary rocks which include gneiss, schist, amphibolite, and diabase and by unmetamorphosed granite plutons, and diabase dikes. Individual rock units range in thickness from less than 10 feet to more than 10,000 feet.

In the site area, the subsurface hydrogeologic conditions are dependent on the geologic units described above. Two aquifers have been mapped by the USGS. These aquifers are the shallow water table aquifer and the bedrock aquifer.

The shallow water table aquifer consists of soil, saprolite, and alluvium which overlies the bedrock aquifer. The shallow aquifer constitutes a medium of recharge for the bedrock aquifer.

The bedrock aquifer is the principal water-bearing aquifer in the area. The aquifer which underlies the site area has been designated as Unit I. Unit I consists of thinly laminated muscovite gneiss. Groundwater in the bedrock aquifer occupies joints, fractures, and other secondary openings. Well yields in the bedrock aquifer are dependent on the number and occurrence of these secondary openings and the thickness of saprolite and overburden which overlies the bedrock aquifer.

Water well data for Unit I in the site vicinity reveals the following general characteristics:

- Well Yield; 20 to 120 gallons per minute (gpm); average 48 gpm
- Well Depth; 125 to 568 feet; average 256 feet
- Casing Depth; 21 to 119 feet; average 78 feet

The groundwater in the site area is of good chemical quality and is suitable for drinking and many other uses. Concentrations of dissolved constituents are generally consistent throughout the area. Selected water quality parameters for the bedrock aquifer designated as Unit I are presented as Table 1.

8.0 SITE EXPLORATION AND TESTING

The site study consisted of performing the following:

- Groundwater sampling and analyses - Spray Fields
- Groundwater and soil sampling and analyses - Fuel Tank Area

Presented on Table 2 is a tabulation of the monitoring wells installed and the areas that they monitor. Also, presented on Plates 2 (in pocket) and 3 are the site plans showing the approximate locations of the monitoring wells. Provided below is a detailed discussion of well installation and sampling rationale for the spray fields and the fuel tank area.

8.1 Spray Fields

Eight shallow monitoring wells were installed in the vicinity of the spray fields. The monitoring wells were located to provide water quality data representative of the site in the up-gradient and down-gradient flow directions from the spray fields.

Prior to well installation, a soil boring was drilled. This consisted of drilling the hole with hollow stem augers and obtaining split spoon samples in selected borings at various depths. The borings were terminated below the water table. The screened intervals in all the wells extended to above the water table. Coarse sand was placed around the screened interval of the wells, followed by a seal of bentonite. The annulus was then grouted to the surface. Equipment used during the installation of the monitoring wells was steam cleaned prior to drilling each hole. The well completion logs in the Appendix provide a more complete description of the monitoring well construction and of the soil types encountered.

After well installation, each well was purged of stagnant casing water by bailing and sampled. Samples were obtained using a clean Teflon bailer and then packed on ice and delivered to an analytical laboratory. Groundwater samples were analyzed for pH, total dissolved solids, specific conductivity, nitrate as nitrogen, total phosphorous, ammonia-N, total Kjeldahl N, total organic carbon (TOC), chemical oxygen demand (COD), biological oxygen demand (BOD), calcium, magnesium, sodium, potassium, bicarbonate, hydroxide, sulfate, chloride, and fluoride.

Also, the well which provides make-up cooling water (CW-1) and the pumphouse well (PH-1), which as previously mentioned is no longer in service, were sampled and analyzed for the parameters listed above.

8.2 Fuel Tank Area

In 1986, two 20,000-gallon capacity underground diesel fuel storage tanks were removed. It is our understanding that during tank removal, no evidence was observed to indicate that the tanks had leaked. Three shallow monitoring wells were installed to assess the groundwater quality in the fuel tank area.

The wells in this area were installed and sampled in the same procedure as described for the spray field monitoring wells, except that the soil samples collected from the borings were analyzed for the presence of total organic vapors.

Each of the wells were sampled for benzene, toluene, ethyl benzene, and xylene (BTEX). The well which provides make-up cooling water, which is located adjacent to the fuel tank area, was also sampled for BTEX.

9.0 SITE HYDROGEOLOGY

9.1 Hydrogeologic Units

At the site the hydrogeology consists of a metamorphic bedrock aquifer (predominantly gneiss) which is overlain by a shallow water table aquifer consisting of saprolite and overburden soils.

The overburden soils consist of generally a reddish-brown sandy silt with varying amounts of clay and mica. The saprolite consists of a multi-colored silty fine to coarse sand with mica and partially weathered rock lenses at varying depths.

The overburden and saprolite unit forms a shallow water table aquifer which overlies the metamorphic bedrock aquifer.

The above description of hydrogeologic units is general, there are exceptions. The boring for Well FT-1 was drilled into one of the previously existing tank pits and encountered a perched water table overlying the shallow water table aquifer. The tank pit area is covered in coarse gravel; as a result rainfall has a tendency to percolate into the soil rather than runoff into the adjacent road. This perched condition occurs because of the loose coarse backfill, which due to its having a higher hydraulic conductivity than the native soils captures and retains infiltrating precipitation in the vicinity of Well FT-1. For this reason, Well FT-1 was terminated at a depth of 25.0 feet.

9.2 Groundwater Flow Direction

Water level measurements taken on September 24, 1987 indicate the depth to groundwater to range from approximately 9.00 feet below ground surface to 41.00 feet below ground surface. Groundwater elevations are presented on Table 3. The direction of groundwater flow is generally to the south and southeast toward the lake.

A groundwater contour map of the shallow water table aquifer is presented on Plate 4 (in pocket).

9.3 Off-Site Groundwater Use

As previously mentioned, within the immediate site vicinity, there are four residences which are obtaining potable water from the bedrock aquifer. The farmhouses are served by one well. The well is located approximately 0.25 miles south of the site, along Voyles Road. The well does not appear to be directly down-gradient of the spray fields.

10.0 IMPACT ON WATER QUALITY

10.1 Historical Monitoring Data

Water quality at the site is being monitored from samples collected and analyzed from the unsaturated zone via suction lysimeters and from two deep wells located down-gradient of the spray fields.

Pairs of suction lysimeters were installed in March 1986. One lysimeter was set one foot below ground surface and designated as a shallow lysimeter; the other lysimeter was set three feet below ground surface and designated as a deep lysimeter. Lysimeters 5 and 6 are located in Spray Field 5. Lysimeters 8 and 9 are in Spray Field 1. Lysimeter 7 is the control lysimeter located 50 feet east of Deep Well P-1. Water collected from the lysimeters is routinely analyzed for oil and grease, specific conductance, nitrate nitrogen, COD, phosphorus, and ammonia nitrogen. When compared with the control lysimeter, the water quality data for the shallow and deep lysimeters shows elevated levels of oil and grease, specific conductance, and COD. A tabulation of the

analyses for the shallow and deep lysimeters is presented as Table 4; presented is the minimum, maximum and average value for each parameter analyzed.

The two deep wells are located down gradient of the spray fields. Well P-1 is located 140 feet south of Spray Field 2, and Well P-2 is located 80 feet south of Spray Field 5. Each well is approximately 90 feet deep. No completion log was available for those wells; it is assumed that they are completed into the bedrock aquifer.

City water has also been sampled and analyzed along with the deep wells. The deep wells are analyzed for the following parameters: COD, BOD, oil and grease, total dissolved solids, nitrate nitrogen, ammonia nitrogen, total phosphorus, TOC, pH, and specific conductance. A tabulation of the minimum, maximum, and average values for the deep well parameters are presented as Table 5. City water has also been analyzed for some of the deep well parameters. These results are shown on Table 6. The water quality data of the deep wells show the groundwater quality to be comparable to the Athens drinking water.

Characterization of the waste water applied to the spray fields has also been done. A tabulation of this data from 1979 through 1987 is presented in Table 7. Some of the more predominant constituents present are total dissolved solids, TOC, COD, and BOD.

10.2 Spray Fields

When compared with the results from the background well SF-1, the labaratory analysis for the monitoring wells surrounding the spray fields show elevated levels of total dissolved solids, COD, total phosphorous, calcium, magnesium, sodium, potassium, bicarbonate, sulfate and chloride. The wells showing elevated levels of these parameters are SF-3, SF-4, SF-5, SF-8 and to some extent, Wells SF-2, SF-6, and SF-7.

Discussions with Dr. Wade L. Nutter, Ph.D. of Earth Systems Associates, LTD; Dupont's consultant responsible for managing the land application program, indicate that the above parameters are not present in the waste stream, but are, with the exception of chloride, compounds associated with the fertilizer and lime that are applied to assure high levels of crep production.

With regard to chloride the concentration in all of the wells, except for Well SF-4, range from less than 1.0 ppm to 3.1 ppm. In Well SF-4 chloride was detected at a concentration of 21 ppm. Future monitoring for this parameter well confirm if this concentration is representative.

While elevated levels of the these parameters do occur none of the concentions, except for pH, for which there is a limit exceed the EPA drinking water standards. The pH is slightly lower than the EPA standard.

The two deep wells, CW-1 and PH-1, also showed elevated levels of certain parameters when compared with the results of the analysis for the background well. These parameters are total dissolved solids, nitrate-N, calcium, sodium,

and bicarbonate. However, groundwater quality in the bedrock aquifer may naturally differ somewhat from that in the shallow aquifer. The results measured for the deep wells are comparable with the regional water quality for the bedrock aquifer.

A tabulation of water quality data for spray field wells, the deep wells, and applicable EPA limits are presented in Table 8.

10.3 Fuel Tank Area

As previously mentioned, soil samples collected during the installation of the three monitoring wells were analyzed for the presence of total organic vapors. Wells FT-1 and FT-2 are located within the tank pit area. Well FT-3 is located approximately 35 feet southeast of Well FT-1 in an area judged to be outside of the tank pit. The concentrations measured from the samples collected from Well FT-1 ranged from 1.3 parts per million (ppm) to 7.9 ppm. The concentrations measured from the samples collected from Well FT-2 ranged from 0.1 ppm to 2.0 ppm. These concentrations are considered relatively low. However, the vapor concentration for samples collected from Well FT-3 are high at various depths. Values ranged from 613 ppm, which was measured at ground surface, to 3.2 ppm; the average concentration was 84 ppm. It is our understanding that no signs of tank leakage were evident when the tanks were removed. Most likely, the organic vapors are present as a result of spillage during tank filling. The OVA measurements are presented on Table 9.

On September 28, 1987, Wells FT-1, FT-2, and CW-1 were sampled and analyzed for the presence of BTEX.

No BTEX was detected in Wells FT-2 and CW-1; however 34 parts per billion (ppb) of xylene was measured in Well FT-1. To confirm the presence of xylene the well was resampled on December 2, 1987, again, xylene was detected; this time at a concentration of 23 ppb. To determine if migration of xylene had occurred outside of the tank pit into the underlying groundwater table; well FT-3 was installed and sampled on December 22, 1987; no BTEX was detected. As inferred the occurrence of xylene appears to be confined at the present time to within the tank pit.

The results of the groundwater analysis are presented in Table 10.

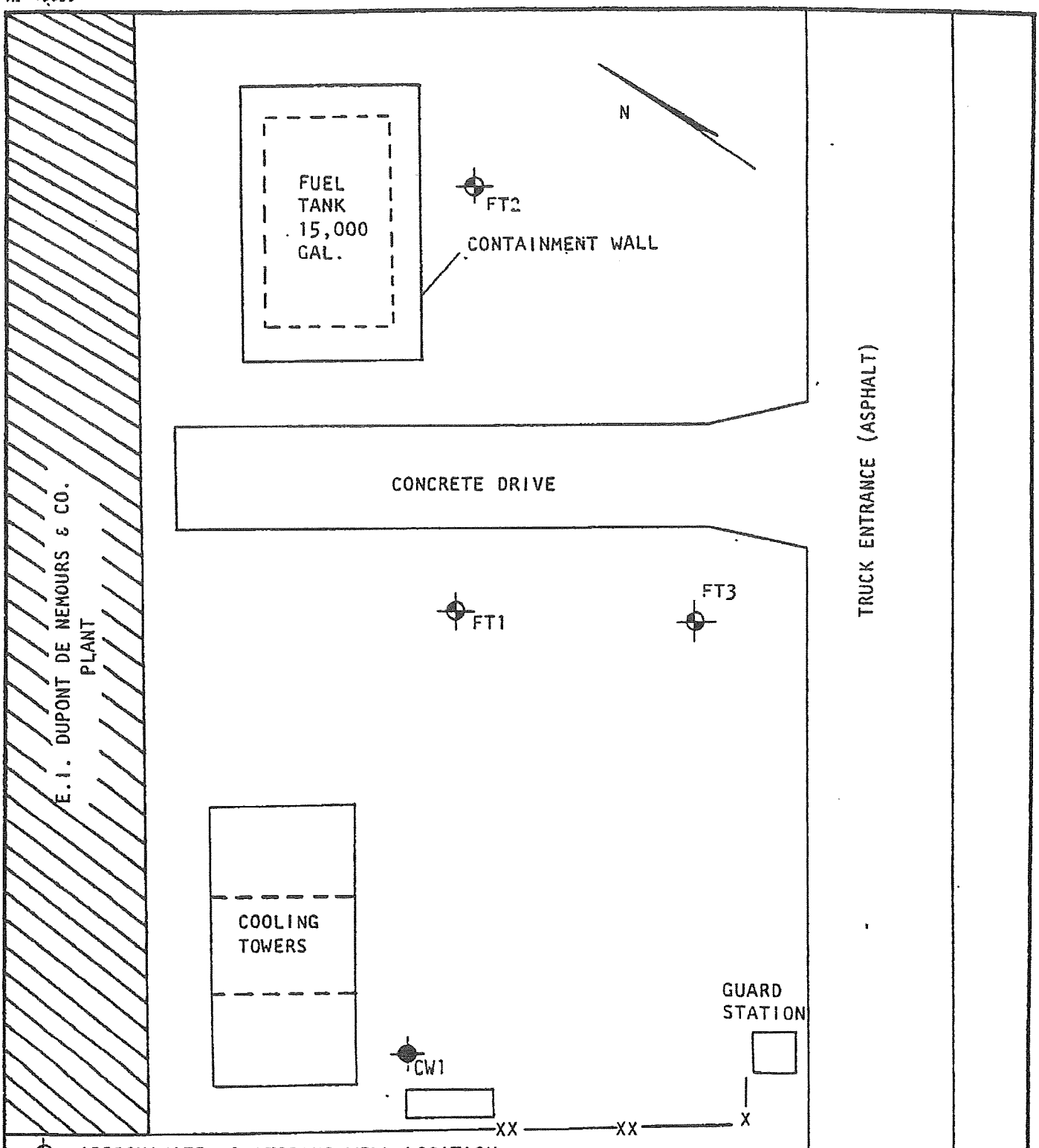
11.0 CONCLUSIONS

11.1 Spray Fields

For parameters tested, the groundwater quality analysis of the spray field wells and deep wells indicate that no off-site migration is occurring. Even though some of the parameters showed elevated levels when compared to the background well, the results are comparable to the regional water quality and are generally in line with the EPA drinking water standards.

In order to continue to evaluate impact to the groundwater, it is recommended that the spray field wells and deep wells be sampled on a semi-annual basis and

AF 43055



DATE	DRAWN BY	CHECKED BY	SCALE	JOB NO	PLATE NO
10-1-87	S.H.		1"=20'	7613	3

a.t. & e. consultants inc.
geotechnical and testing engineers
atlanta, greenville, charlotte,
tampa, jacksonville, lakeland, marco island

MONITORING WELL LOCATION PLAN
FUEL TANK AREA
DUPONT PLANT
ATHENS, GA.

ATE-108

TABLE 10
GROUNDWATER QUALITY DATA
FUEL TANK AREA
E. I. DuPONT de NEMOURS & COMPANY
ATHENS, GEORGIA
JOB NO. 7613, REPORT NO. 1068

	WELLS				
	FT-1		FT-2	FT-3	CW-1
Parameter	9/28/87	12/2/87	9/28/87	12/22/87	9/28/87
Benzene	<5	<5	<5	<5	<5
Toluene	<5	<5	<5	<5	<5
Ethyl Benzene	<5	<5	<5	<5	<5
Xylenes	34	23	<5	<5	<5

Note: All results reported in parts per billion (ppb).

CERTIFICATE OF RECYCLING / DISPOSAL

LEI, Inc. certifies that all waste materials accepted are recycled or disposed of in accordance with all applicable Federal, State, and Local Regulations and within all regulated time periods.

EPA ID: LAR000055467
LA0000365668

Date: 3/1/2016 Document No: 002950155GBF Invoice No: 57345

Qty	Description	U/M
341	PCB Ballasts	per lb

CERTIFICATE ISSUED TO:

JOHNSON CONTROLS LIGHTING SERVICES
ATTN: AMY HUCKABY
1350 NORTHMEADOW PARKWAY, STE 100
ROSWELL, GA 30076

ITEMS OWNED BY:

INVISTA
110 VOYLES RD
ATHENS, GA 30601

On Behalf of LEI

Larry Fannaly
Vice-President, Sales & Operations

VERTEX



INVISTA Property
110 Voyles Road
Athens, Georgia 30601

PHASE I ENVIRONMENTAL SITE ASSESSMENT

JULY 26, 2018

PREPARED FOR:
INVISTA S.à r.l.
c/o Blank Rome LLP
One Logan Square
Philadelphia, PA 19103
Attn: Ms. Margaret Anne Hill

PREPARED BY:
The Vertex Companies, Inc.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000

VERTEX PROJECT NO: 51521

PHASE I ENVIRONMENTAL SITE ASSESSMENT

INVISTA Property
110 Voyles Road
Athens, Georgia 30601
VERTEX Project No. 51521

1.0 SUMMARY

On July 6, 2018, The Vertex Companies, Inc. (VERTEX) was contracted by Blank Rome LLP to conduct a Phase I Environmental Site Assessment (ESA) of the INVISTA Property, located at 110 Voyles Road, Athens, Georgia. According to the Clarke County Tax Assessor, the site is part of a larger 401-acre parcel identified as Parcel Number 214019. According to a survey provided by the Client, the site, for the purposes of this report, includes 132 acres of land within the 410-acre parcel recorded by the Clarke County Tax Assessor. The site includes an approximately 400,000-sqaure foot warehouse building constructed in 1972 and expanded through the early 2000s, which is located on the western portion of the parcel, as well as a security guardhouse, a small lake (Lake Dupont) with an associated recreational pavilion, a storage shed, baseball fields, a fire pump house building, and undeveloped land, which is located on the southern, northern and eastern portions of the site parcel. The site currently consists of vacant warehouse space, which includes various areas such as offices, breakrooms/lunch areas, conference rooms, a mail room, a former medical office area, a boiler room, electrical areas, warehouse space, compressor areas, maintenance support areas for the various equipment formerly located throughout the warehouse, and utility areas. The site was vacated in 2017.

The purpose of this assessment was to identify Recognized Environmental Conditions (RECs), Controlled RECs (CRECs), Historical RECs (HRECs), and *de minimis* conditions in connection with the site.

ASTM Findings

- Based on review of readily available historical information, it appears that the site was undeveloped land and/or agricultural land with several residential structures developed on the southern, central, and northern portions of the site from at least 1938 through 1972, when the site was developed with a large warehouse structure and associated driveways and parking lots. Smaller associated structures including a security guardhouse, a fire pump house building, and recreational structures were also developed to the south of the warehouse building. A small lake (Lake Dupont) was developed on the southern portion of the site and has remained since that time. By the early 1980s, the site building was expanded to the east/northeast and recreational fields (baseball fields) and tennis courts were developed on the southern portion of the site. Remaining portions of the site remained as undeveloped land. By 1988, a railroad spur was developed on a small area on the northern portion of the site, and by the early 1990s, the site building was expanded again, further to the east/northeast. By 2007, an addition to the site building was developed on the northeastern corner of the site. Additionally, fewer recreational areas were located on the southern portion of the site, and the railroad spur was no longer located on the northern portion of the site. By 2010, the site consisted of the current improvements. According to city directories reviewed and information obtained from the site contact, the site has operated as a textile processing facility since development in 1972, operating under entities E I Dupont Denemours and Company and INVISTA S.à r.l. ("INVISTA").The site was utilized for the beaming (winding) of yarn for distribution to textile manufacturers. The beaming process utilized a series of automated spinning machines, which bound different strands together and wound the finished product on large spools. No RECs were identified in connection with the historical use of the site.

- The site address was listed as INVISTA on the Resource Conservation and Recovery Act-Conditionally Exempt Small Quantity Generator (RCRA-CESQG), Integrated Compliance

Information System (ICIS), US Aerometric Information Retrieval System (US AIRS), AIRS, Facility Index System (FINDS), Enforcement and Compliance History Online (ECHO), National Pollutant Discharge Elimination System (NPDES), and Tier 2 databases. Between 1972 and 2017, the site was occupied by E.L. Dupont De Nemours & Co. and later INVISTA. Site operations, particularly the transportation of raw materials and finished spools, required the use of forklifts, which were battery powered. Based on the quantity of recharging batteries and the contents of the batteries (lead and sulfuric acid), Tier 2 reporting was required. Small quantities of waste oils were generated in the beaming process, which were stored in 55-gallon drums for off-site disposal on an as-need basis by Heritage Crystal Clean. Waste oils, as well as several additional hazardous wastes generated, classified the facility as a RCRA-CESQG. According to the database, no associated violations were identified with respect to hazardous waste generation. According to the site contact, no solvents were utilized in connection with former site operations. In May 2018, the Georgia Hazardous Waste Management Program deactivated the site from the hazardous waste database due to the decommissioning of the site operations, which reported that all hazardous wastes had been removed from the site. Specific hazardous wastes removed from the site in January 2018 by Heritage Crystal-Clean included fuels for thermal treatment, aerosols/paints, acids, flammable liquids, oxidizers, organic poisons, and lead acid batteries.

- Beaming operations also produced stray fibers and dust from the high-speed spinning process. In order to maintain good air quality, the facility utilized an air filtration and exhaust system (referred to as a scrubber). The system collected ambient air from the production floor and passed it through an industrial filter, which collected particulate matter. Process water was used in a closed loop system within the scrubber to maintain system pressure. Following the filtration process, the filtered air was discharged through an exhaust pipe. The associated air emissions were permitted through AIRS permit #2282-059-0038-B-01-0. The site maintained an additional AIRS permit (#2282-059-0038-B-01-

1) for the presence of oil-fired boilers (currently natural gas-fired), which provided heat to the building. No violations associated with the AIRS permits were identified other than various administrative violations, which were not identified as a concern as noted in Section 6.1.

- On a regular basis, approximately 20% of the process water from the scrubber was drained from the system to maintain soft water quality. Discharged water was originally stored in a 5,000-gallon finish water aboveground storage tank (AST), which was present south of the site building. This AST was reportedly empty and out of use at the time of VERTEX's site visit. Upon filling of the AST, the finish water was sprayed onto five fields on the site and an adjacent property to north (formerly associated with the site). The spraying process was referred to as a Land Application System (LAS), and was permitted by the Georgia Environmental Protection Division (GEPD) via Permit # GA01-405. Due to the proximity of residential water wells in the vicinity of the site, and the eventual discharge of the on-site lake to the Oconee River, groundwater quality was monitored within the spray fields for drinking water parameters. In 1988, eight temporary groundwater monitoring wells were advanced and sampled for pH, total dissolved solids, specific conductivity, nitrate-nitrogen, total phosphorus, ammonia-nitrogen, total potassium nitrate, total organic carbon (TOC), chemical oxygen demand (COD), biological oxygen demand (BOD), calcium, magnesium, sodium, potassium, bicarbonate, hydroxide, sulfate, chloride, and fluoride. Due to elevated levels of pH (not exceeding EPA standards), quarterly sampling was conducted for BOD, COD, specific conductivity, ammonia-nitrogen, nitrate-nitrogen, pH, total phosphorus, total dissolved solids, suspended solids, oil and grease, and total organic carbon, which was required by the GEPD between 1988 and 1994. Further concerns were not identified by the GEPD with respect to the groundwater monitoring. In September 1994, LAS operations ceased when the site facility obtained a NPDES Industrial General Permit (IGP) (#GAIS00967) to discharge the finish water directly to the municipal stormwater system. Beginning in 1995, the LAS

system was utilized once a year for maintenance of the system (held as backup option), and corresponding sampling. The annual maintenance and sampling continued until 2012, when INVISTA decided to let the associated permit expire. It should be noted that during the sampling events, groundwater was encountered at depths ranging from 2 feet below ground surface (bgs) to 40 feet bgs. As part of the NPDES permit (GAR050000) filed for the site in June 2012 for stormwater discharges associated with industrial activity, annual monitoring of the two on-site stormwater outfalls was required. No associated concerns were identified by the GEPD in the most recent report (2017). It should also be noted that the 2012 NPDES permit expired in 2017, and due to discontinued site operations, was not renewed. Various administrative violations were identified on the ICIS database pertaining to the facilities AIRS and NPDES permits; however, no formal action or violation descriptions were provided. The facility was not identified on any large quantity petroleum storage, spills, or release databases; no information has been identified indicating a material threat of subsurface contamination; and the site building is currently vacant. As such, these database listings, as well as former LAS operations, are not considered to represent a REC in connection with the site.

- According to the site contact, as well as documentation provided, two 20,000-gallon underground USTs containing fuel oil were removed from the site in May 1986. The USTs were formerly located to the south of the site building and were utilized to store fuel oil for the boilers used to heat the building. According to UST closure documentation reviewed, the USTs were reported to be in excellent condition upon removal and no evidence of a release was observed around the excavation area. It should be noted that USTs were not required to be permitted with the GEPD until December 1988. As such, permitting documentation as well as closure documentation was not required to be obtained at the time of the on-site UST installation and removal. Three shallow monitoring wells were installed in 1988 as part of a groundwater study for E.I. DuPont De Nemours & Company to assess the groundwater quality in the former fuel tank area as

Should use same standards as regulated UST's Per EPD UST closure Guidelines

Sampled for Rooker 2/2019

well as the spray fields. Soil samples were also collected for each boring and field screened for total organic vapors (TOVs) using a photoionization detector (PID). Elevated PID readings (up to 613 parts per million [ppm]) were detected in soil collected from one of the monitoring wells; however, the higher PID readings were at or near the ground surface. Groundwater samples were collected from each of the wells and an on-site non-potable well that provided make-up cooling water and analyzed for benzene, toluene, ethyl benzene, and xylene (BTEX). A low concentration of xylene (34 parts per billion (ppb) and 23 ppb) was detected in one of the monitoring wells. BTEX was not detected in the other three groundwater samples above the laboratory method detections limits. The xylene concentration is well below the Georgia Maximum Contaminant Level (MCL) for xylene (10,000 ppb), and as such, is considered de minimis. As such, the former USTs are not considered a REC.

No PAH analysis which is/was required for diesel / #2 Fuel Oil. Phase II did PAHs to address this

- The site currently maintains one solid waste compactor serviced by Republic Services. The dumpster is located to the north of the site building and was observed to be staged on concrete pavement in good condition. *De minimis* staining was observed on the concrete around the compactor; however, no evidence of a release of hazardous substances or petroleum products was observed.

- The site is located in an industrial and residential area. According to readily available historical information, the surrounding properties were mainly undeveloped and/or agricultural land from at least 1938 through the 1960s, with various associated residential and/or agricultural structures developed to the south, north and west of the site. Railroad tracks were also developed further to the north. By 1967, additional residential structures were developed to the south and west of the site. Additionally, a small pond was present to the south and west and multiple large commercial structures were depicted further west. The surrounding properties remained relatively unchanged through the 1970s and by 1981, additional residential structures were developed further northeast beyond

undeveloped land, as well as further to the north beyond the railroad tracks. Undeveloped and/or agricultural land was located on the adjacent property north of the site. By 1988, a railroad spur was located on the adjacent property east/northeast of the site, and additional commercial structures were developed to the west/northwest. In 1993, a larger warehouse type structure was developed further to the southwest and by 2007, the railroad spur was no longer located to the east/northeast of the site. By 2010, the surrounding properties were developed with the current improvements. No RECs were identified with respect to the current or past use of adjoining properties.

- VERTEX conducted a regulatory review that included a search of state and federal regulatory databases to identify environmental concerns for the site and surrounding properties. Five facilities were identified within the ASTM search distances of the site. Based on distance, apparent gradient relationship, regulatory status, and/or other facility-specific characteristics, no RECs to the site were identified with respect to these facilities.

Non-ASTM Additional Services

In accordance with the scope of work, VERTEX conducted additional services as discussed in Section 9.0 of this report, including the assessment of asbestos-containing materials (ACMs) and lead-based paint (LBP). Assessment of the additional services revealed the following:

- Suspect ACMs observed included tile flooring and associated mastics, drywall, roofing materials, and piping insulation. During the site visit, VERTEX observed a warning sign within an office area hallway identifying roofing, boiler fuel lines, office drywall, and cooling tower side walls as ACMs. VERTEX reviewed the site's asbestos Operations and Maintenance (O&M) plan. No concerns were identified regarding review of the O&M Plan. The materials assessed as well as the materials previously confirmed as ACM were observed to be in generally undamaged physical condition. Based on the fact the site

maintains an ACM O&M plan and the fact that ACM has been sampled and identified within the site building, ACM is not considered a Business Environmental Risk.

- Based on the date of construction (1972), it is possible that LBP is present at the site. No peeling or chipped paint was observed within the site building during the site visit conducted by VERTEX. Based on the industrial use of the site and the fact that no peeling or chipped paint was observed within the site building, the potential presence of LBP within the site building is not considered a Business Environmental Risk to this investigation.

Conclusions

VERTEX has performed a Phase I ESA in conformance with the scope and limitations of ASTM E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, of the INVISTA Property, located at 110 Voyles Road, Athens, Georgia. Any exceptions to, or deletions from, this practice are described in Section 8.0 of this report. This assessment has revealed no evidence of RECs, CRECs, or HRECs in connection with the site. However, the following *de minimis* conditions were identified:

- *De minimis* staining was observed on the concrete around the compactor; however, no evidence of a release of hazardous substances or petroleum products was observed.

- Low concentrations of xylene were detected in groundwater in the area of former fuel oil USTs during a 1988 investigation. The concentration detected was well below the MCL and is considered de minimis.

No additional investigation is recommended at this time.

FINDINGS

Recognized Environmental Condition (REC) is defined by the ASTM Standard Practice E1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

- According to site personnel, two heating oil underground storage tanks (USTs) were previously located on the southeastern exterior of the subject property building. These USTs were reportedly removed in 1986; however, no closure documentation or other information was provided for AEI's review. No records of the USTs were identified by the municipal or regulatory agencies contacted during this assessment. Based on the lack of closure documentation, these former tanks represent a REC for the subject property.

Controlled Recognized Environmental Condition (CREC) is defined by the ASTM Standard Practice E1527-13 as a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

- AEI did not identify evidence of CRECs during the course of this assessment.

Historical Recognized Environmental Condition (HREC) is defined by the ASTM Standard Practice E1527-13 as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

- AEI did not identify evidence of HRECs during the course of this assessment.

Other Environmental Considerations warrant discussion, but do not qualify as RECs as defined by the ASTM Standard Practice E1527-13. These include, but are not limited to, de minimis conditions and/or environmental considerations such as the presence of ACMs, LBP, radon, mold, and lead in drinking water, which can affect the liabilities and financial obligations of the client, the health and safety of site occupants, and the value and marketability of the subject property.

- Due to the age of the subject property building, there is a potential that ACMs are present. The observed suspect ACMs at the subject property were in good condition at the time of the site reconnaissance and are not expected to pose a health and safety concern to the occupants of the subject property at this time. In the event that building renovation or demolition activities are planned, a thorough asbestos survey to identify asbestos-containing building materials is required in accordance with the EPA NESHAP 40 CFR Part 61 prior to demolition or renovation activities that may disturb suspect ACMs.

- Due to the age of the subject property building, there is a potential that LBP is present. All observed painted surfaces were in good condition and are not expected to pose a health and safety concern to the occupants of the subject property at this time. Local regulations may apply to LBP in association with building demolition/renovations and worker/occupant protection. Actual material samples would need to be collected or an X-ray fluorescence (XRF) survey performed in order to determine if LBP is present. It should be noted that construction activities that disturb materials or paints containing any amount of lead may be subject to certain requirements of the OSHA lead standard contained in 29 CFR 1910.1025 and 1926.62.

Conclusions, Opinions, and Recommendations

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Standard Practice E1527-13, the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), and the January 15, 2014 Wells Fargo Bank *Phase I ESA Scope of Work* of 110 Voyles Road, Athens, Clarke County, Georgia, the *subject property*. Any exceptions to, or deletions from, this practice are described in Sections 1.4, 1.5, and 1.6 of this report.

AEI did not identify evidence of RECs or CRECs in connection with the property except for those previously identified in the Findings section. AEI recommends the following:

- Pending the receipt of additional information, AEI recommends that a subsurface assessment of the former USTs be conducted to evaluate the presence/absence of the tanks and any associated impacts.

Phase II
2/15/19
Satisfies this

February 15, 2019

For: Alan Gray
Rooker Company

Subject Site: Invista-Dupont
110 Voyles Road
Athens, Georgia 30601

Limited Phase II Subsurface Investigation Report

All Phase Environmental, LLC completed a Limited Phase II Subsurface Investigation for the Invista-Dupont facility in Athens, Georgia on February 4, 2019. The purpose of the investigation was to test for petroleum hydrocarbons in areas near the former heating oil underground storage tanks (USTs). These non-regulated UST systems were removed prior to 1988 UST regulations. Heating oil USTs would not require any sampling by today's standards, however, any contamination from the former USTs would be regulated. We used present-day UST regulations to assess the current subsurface groundwater conditions near the former UST locations.

Three monitoring wells exist on the subject property in the area of the former USTs. All Phase Environmental collected groundwater samples from two of the monitoring wells (MW-1 and MW-2). (See the enclosed Site Map 1). The third monitoring well was dry. Before each sample was collected with a disposable bailer, the depth to groundwater was measured and the monitoring wells were purged of three well volumes of water. The average depth to groundwater was approximately 36 feet. The groundwater samples were manifested, placed in lab supplied containers, and were shipped overnight to AES Laboratories. The samples were analyzed for BTEX and PAHs.

A hand auger was used to collect one soil sample (HA-1) from a drainpipe discharge area that leads from the parking lot and the former AST dike location. (See the enclosed Site Map 2). The soil sample was collected from 6-12 inches below the ground surface (bgs). The soil sample was manifested, placed in lab supplied containers, and was shipped overnight to AES Laboratories. The sample was analyzed for BTEX, PAHs, TPH-DRO, and TPH-GRO. This sample was needed to assess existing soil conditions down-gradient from the dike drain and parking lot storm water drainage.

Results of Lab Analysis

Table 1 – Soil Sample

	B mg/kg	T mg/kg	E mg/kg	X mg/kg	GRO mg/kg	DRO mg/kg	PAHs mg/kg
HA-1 6"-12"	BRL	BRL	BRL	BRL	BRL	**68**	BRL
Regulatory Standards	0.005	0.400	0.500	27.00	10	10	N/A

BRL = Below Reporting Limits
Concentrations in bold exceed regulatory standards.
Please see the lab report for complete names of chemicals analyzed in the samples.

Table 2 – Groundwater Samples

	B ug/L	T ug/L	E ug/L	X ug/L	PAHs ug/L
MW-1, 35.70'	BRL	BRL	BRL	BRL	BRL
MW-2, 37.55'	BRL	BRL	BRL	BRL	BRL
In-Stream Water Quality Standards	51	5,980	2,100	N/A	N/A

BRL = Below Reporting Limits
Please see the lab report for complete names of chemicals analyzed in the samples.

Although the former heating oil tanks are not regulated by the GA EPD UST Management Program, any potential contamination would be subject to the rules and regulations set forth by the EPD. The above tables include the most stringent regulatory standards for sites located in a lower groundwater pollution susceptibility area as listed in the GA EPD's *UST Guidance Documents*. We also used these guidelines for the basis for our conclusions and recommendations.

Conclusions:

1. BTEX and PAH compounds were below laboratory reporting limits in soil and groundwater.

2. TPH-GRO compounds were below laboratory reporting limits in soil.

3. TPH-DRO (total petroleum hydrocarbon-diesel range organics) contamination levels detected in the soil sample were above the recommended 10 mg/kg. However, the PAH analysis consists of several specific diesel range organics. Therefore, since BTEX and

PAH compounds were delineated to BRL, no further actions or investigations are recommended regarding the detected amount of TPH-DRO.

If you have any questions or comments, please contact us and we will discuss the report with you.

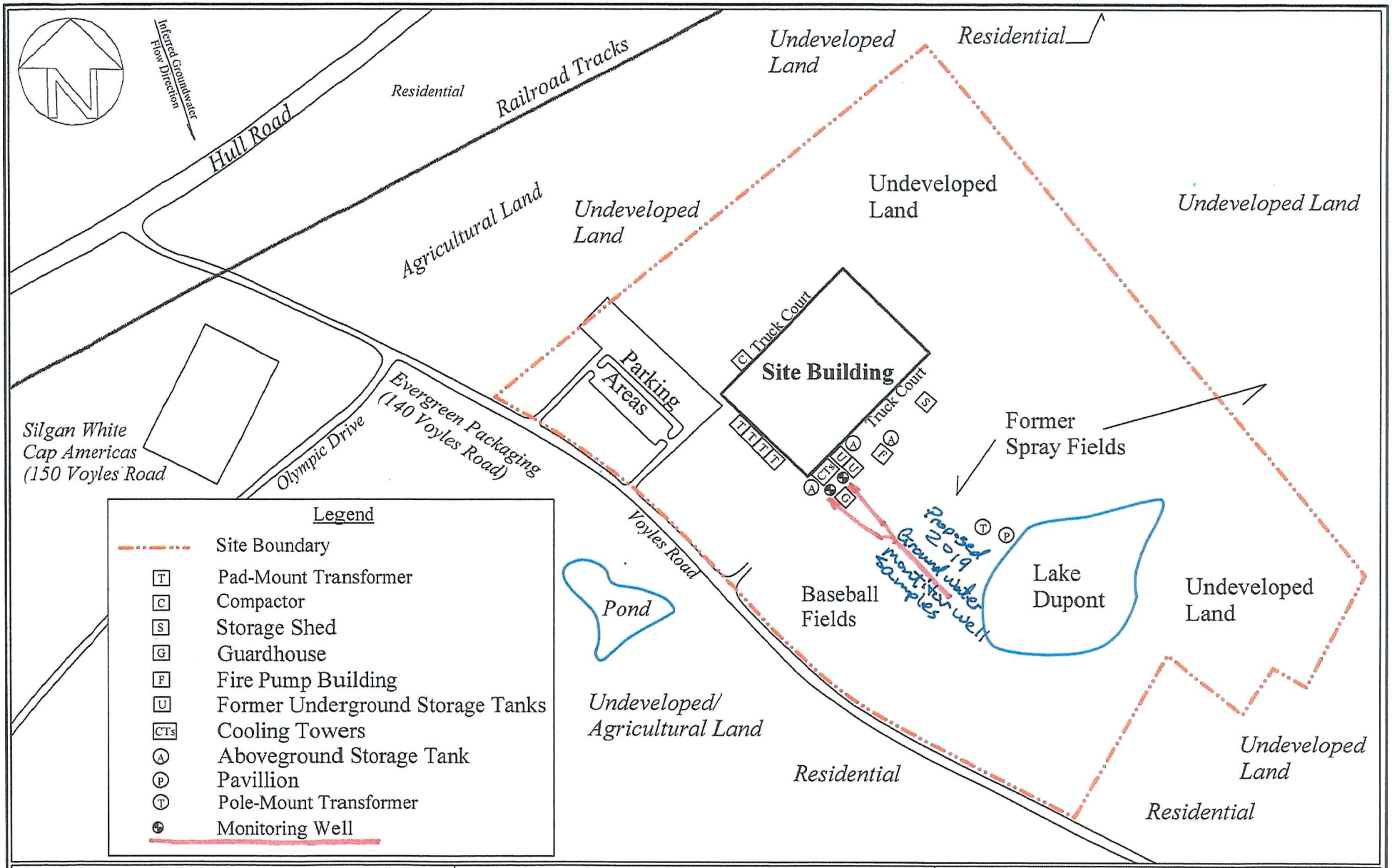
Thomas O. Tweedell — February 18, 2019 Date

Signature of Registered Professional Geologist

I certify that I have directed and supervised the field work and preparation of this plan, in accordance with State Rules and Regulations. As a registered geologist, I certify that I am a qualified groundwater professional, as defined by the Georgia State Board of Professional Geologists. All of the information and laboratory data in this plan and in all of the attachments are true, accurate, complete, and in accordance with applicable State Rules and Regulations.

Amanda T. Robertson — February 18, 2019 Date





SITE SCHEMATIC

Invista Property
110 Voyles Road
Athens, Georgia 30601

SCALE: NOT TO SCALE

July 2018

VERTEX Proj. No. 51521

VERTEX®

Figure No. 2

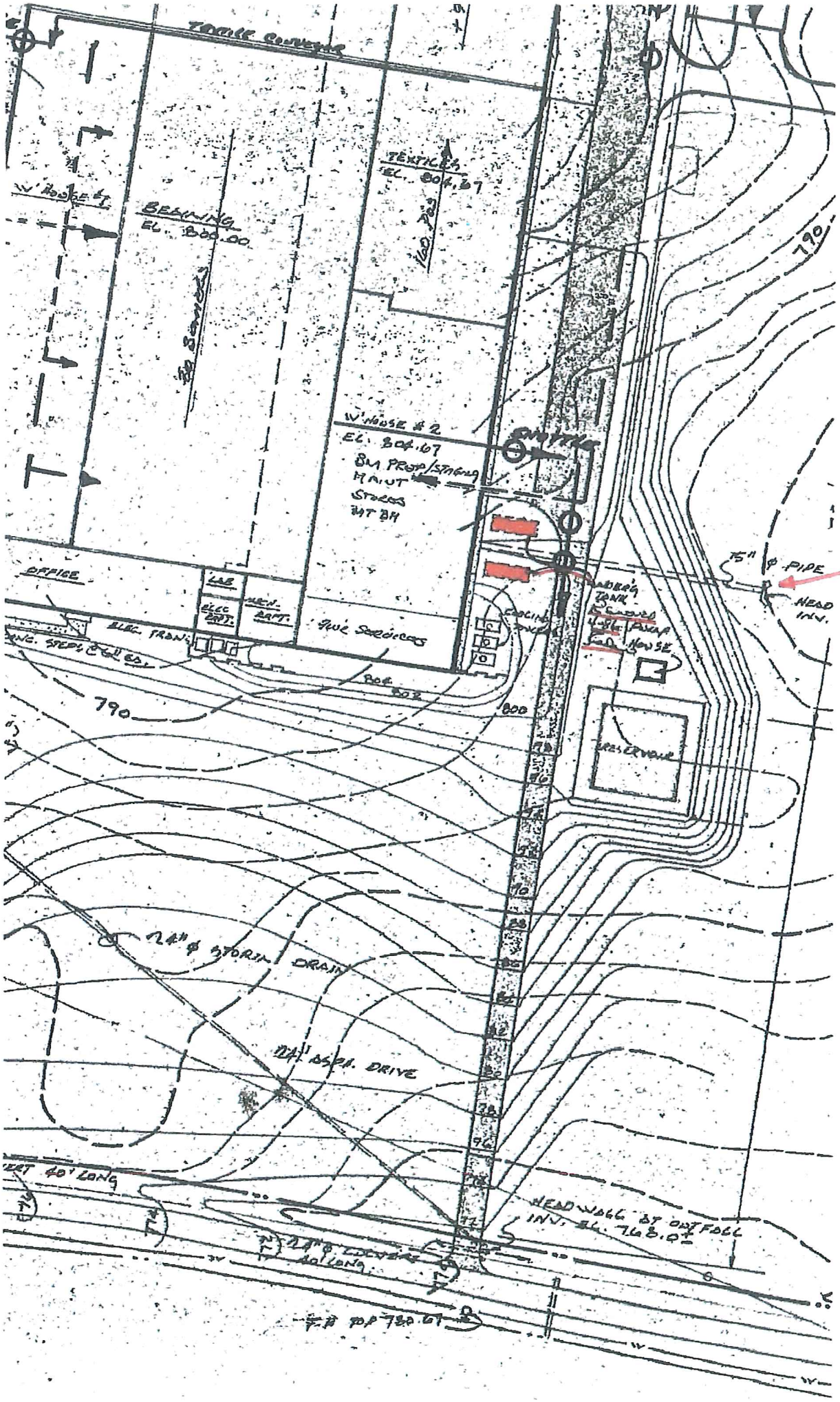

TOOLE COUNTY
W. HOUSE #1
BEGINNING
EL. 800.00
TENTICLES
EL. 804.67
160 FEET
20 SERVICES
W. HOUSE #2
EL. 804.67
8M PROP/STRING
MAIN
STAGES
MT BM
790
OFFICE
LAB
ELEC. PANEL
MEN.
RAMP.
ELEC. FRONT
STEPS & LANDING
PROP. SOIL
QUIC SERVICES
ABERDEEN TANK
SCRUBBER
PUMP
HOUSE
RESERVOIR
800
75" CMP PIPE
HEAD INV.
Proposed
A.P.E.
2019
Hand Auger
Sample
0-12"
24" Ø STORM DRAIN
24" ASPH. DRIVE
HEADWALL AT OUTFALL
INV. EL. 768.0±
FLARE ENDING
ADJOINING
FF TOP 780.67

TABLE 4: TABLE B SOIL THRESHOLD LEVELS

CONSTITUENT	AVERAGE OR HIGHER GROUNDWATER POLLUTION SUSCEPTIBILITY AREA[b] (Where public water supplies do not exist within 2.0 miles or non-public supplies exist within 0.5 miles)		LOWER GROUNDWATER POLLUTION SUSCEPTIBILITY AREA[c] (Where public water supplies do not exist within 1.0 mile or non-public supplies exist within 0.25 miles)	
VOLATILE ORGANIC COMPOUNDS	≤500 feet to surface water body	>500 feet to surface water body	≤ 500 feet to surface water body	>500 feet to surface water body
Benzene	0.017 mg/kg	0.120 mg/kg	0.020 mg/kg	11.30 mg/kg
Toluene	115.00 mg/kg	500.00 mg/kg	135.00 mg/kg	500.00 mg/kg
Ethylbenzene	18.00 mg/kg	140.00 mg/kg	28.00 mg/kg	140.00 mg/kg
Xylenes	700.00 mg/kg	700.00 mg/kg	700.00 mg/kg	700.00 mg/kg
POLYNUCLEAR AROMATIC HYDROCARBONS				
Acenaphthene	N/A[e]	N/A[e]	N/A[e]	N/A[e]
Anthracene	N/A[e]	N/A[e]	N/A[e]	N/A[e]
Benz(a)anthracene	0.660 mg/kg[d]	N/A[e]	N/A[e]	N/A[e]
Benzo(a)pyrene	0.660 mg/kg[d]	N/A[e]	N/A[e]	N/A[e]
Benzo(b)fluoranthene	0.660 mg/kg[d]	N/A[e]	N/A[e]	N/A[e]
Benzo(g.h.i)perylene	N/A[e]	N/A[e]	N/A[e]	N/A[e]
Benzo(k)fluoranthene	0.660 mg/kg[d]	N/A[e]	N/A[e]	N/A[e]
Chrysene	0.660 mg/kg[d]	N/A[e]	N/A[e]	N/A[e]
Dibenz(a,h)anthracene	0.660 mg/kg[d]	N/A[e]	N/A[e]	N/A[e]
Fluoranthene	N/A[e]	N/A[e]	N/A[e]	N/A[e]
Fluorene	N/A[e]	N/A[e]	N/A[e]	N/A[e]
Indeno(1,2,3-c,d)pyrene	0.660 mg/kg[d]	N/A[e]	0.660 mg/kg[d]	N/A[e]
Naphthalene	N/A[e]	N/A[e]	N/A[e]	N/A[e]
Phenanthrene	N/A[e]	N/A[e]	N/A[e]	N/A[e]
Pyrene	N/A[e]	N/A[e]	N/A[e]	N/A[e]

a - Based on worst-case assumptions for one-dimensional vadose zone and groundwater contaminant fate and transport models.
b - Based on an assumed distance of 0.5 feet between contaminated soils and the water table
c - Based on an assumed distance of 5.0 feet between contaminated soils and the water table.
d - Estimated Quantitation Limit. The health-based threshold level is less than the laboratory method limit of detection.
e - Not applicable. The health-based threshold level exceeds the expected soil concentration under free product conditions

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 12, 2019

Tom Tweedell
All Phase Environmental

1233 Wolfskin Road
Arnoldsville GA 30619

RE: Rooter

Dear Tom Tweedell: Order No: 1902401

Analytical Environmental Services, Inc. received 4 samples on 2/6/2019 10:16:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/18-06/30/19.
State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective 07/01/18-06/30/19 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/19.
These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Jessica Shilling

Jessica Shilling

Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1902401

Date: 2-4-2019 Page 1 of 1

COMPANY: ~~All Phase Environmental~~ Tom Tweedell 3233 Wolfskin Rd Annsleyville GA 30818 (APE)

ADDRESS:

PHONE: 706 549 9456

EMAIL: allphase1230@att.net

SAMPLED BY: Tom Tweedell (TOT)

SIGNATURE: Tom Tweedell

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes)	REMARKS	Number of Containers
							BTEX / PAHs / TPH-GRO / TPH-DRO		
1	HA-1 6"-12" creek/drainage bed	2-4-19	1125	✓		SO	✓ / ✓ / ✓ / ✓		5
2	MW-1, 35.7' btoc	2-4-19	1150	✓		GW	H+I ✓ / I ✓		6
3	MW-2, 37.55' btoc	2-4-19	1210	✓		GW	H+I ✓ / I ✓		4
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

RELINQUISHED BY: DATE/TIME:
1. Tom Tweedell (TOT) 2/5/19 4pm
2.
3.

RECEIVED BY: DATE/TIME:
1. Amber Peters 2-6-19 10:16
2.
3.

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier
other:

PROJECT INFORMATION
PROJECT NAME: Rooter
PROJECT #: 110
SITE ADDRESS: Voyles Rd
SEND REPORT TO: All Phase Env
INVOICE TO (IF DIFFERENT FROM ABOVE):
QUOTE #: PO#:

RECEIPT
Total # of Containers

Turnaround Time (TAT) Request
- [x] Standard
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other

STATE PROGRAM (if any):
E-mail? ✓ Fax? ☐
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST=Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

7.11.18_CO

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 12-Feb-19

Client: All Phase Environmental
Project: Rooter
Lab ID: 1902401

Case Narrative

Sample Receiving Nonconformance:

A Trip Blank was provided but not listed on the Chain of Custody. Trip blank analyzed at no cost to the client.

Analytical Environmental Services, Inc **Date:** 12-Feb-19

Client:	All Phase Environmental	**Client Sample ID:**	HA-1 6"-12" CREEK/ DRAINAC
Project Name:	Rooter	**Collection Date:**	2/4/2019 11:25:00 AM
Lab ID:	1902401-001	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
VOLATILE ORGANICS SW8260B				(SW5035)				
Benzene	BRL	0.0008		mg/Kg-dry	274172	1	02/08/2019 19:59	JF
Toluene	BRL	0.0008		mg/Kg-dry	274172	1	02/08/2019 19:59	JF
Ethylbenzene	BRL	0.0008		mg/Kg-dry	274172	1	02/08/2019 19:59	JF
m,p-Xylene	BRL	0.0008		mg/Kg-dry	274172	1	02/08/2019 19:59	JF
o-Xylene	BRL	0.0008		mg/Kg-dry	274172	1	02/08/2019 19:59	JF
Surr: 4-Bromofluorobenzene	91.6	65.1-125		%REC	274172	1	02/08/2019 19:59	JF
POLYAROMATIC HYDROCARBONS SW8270D				(SW3546)				
Naphthalene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Acenaphthylene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
1-Methylnaphthalene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
2-Methylnaphthalene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Acenaphthene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Fluorene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Phenanthrene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Anthracene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Fluoranthene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Pyrene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Benz(a)anthracene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Chrysene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Benzo(b)fluoranthene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Benzo(k)fluoranthene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Benzo(a)pyrene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Dibenz(a,h)anthracene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Benzo(g,h,i)perylene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Indeno(1,2,3-cd)pyrene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Surr: 2-Fluorobiphenyl	63.6	54.4-120		%REC	274079	1	02/08/2019 19:02	RF
Surr: 4-Terphenyl-d14	57.2	60.4-120	S	%REC	274079	1	02/08/2019 19:02	RF
Surr: Nitrobenzene-d5	70	51-120		%REC	274079	1	02/08/2019 19:02	RF
GASOLINE RANGE ORGANICS SW8015C				(SW5035)				
TPH (Gasoline Range Organics)	BRL	0.38		mg/Kg-dry	274172	1	02/08/2019 19:59	JF
Surr: a,a,a-trifluorotoluene	112	71.5-133		%REC	274172	1	02/08/2019 19:59	JF
DIESEL RANGE ORGANICS SW8015C				(SW3550C)				
TPH (Diesel Range Organics)	68	9.2		mg/Kg-dry	274090	1	02/08/2019 22:06	RF
Surr: Dioctylphthalate	110	51.1-122		%REC	274090	1	02/08/2019 22:06	RF
PERCENT MOISTURE D2216								
Percent Moisture	27.1	0		wt%	R390633	1	02/08/2019 14:00	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 12-Feb-19

Client:	All Phase Environmental	**Client Sample ID:**	MW-1, 35.7' B TO C
Project Name:	Rooter	**Collection Date:**	2/4/2019 11:50:00 AM
Lab ID:	1902401-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Benzene	BRL	1.0		ug/L	274270	1	02/08/2019 13:57	OM
Toluene	BRL	1.0		ug/L	274270	1	02/08/2019 13:57	OM
Ethylbenzene	BRL	1.0		ug/L	274270	1	02/08/2019 13:57	OM
m,p-Xylene	BRL	1.0		ug/L	274270	1	02/08/2019 13:57	OM
o-Xylene	BRL	1.0		ug/L	274270	1	02/08/2019 13:57	OM
Surr: 4-Bromofluorobenzene	104	64-125		%REC	274270	1	02/08/2019 13:57	OM
PAHs by Microextraction SW8270D				**(SW3511)**				
1-Methylnaphthalene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
2-Methylnaphthalene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Acenaphthene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Acenaphthylene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Anthracene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Benz(a)anthracene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Benzo(a)pyrene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Benzo(b)fluoranthene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Benzo(g,h,i)perylene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Benzo(k)fluoranthene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Chrysene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Dibenz(a,h)anthracene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Fluoranthene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Fluorene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Indeno(1,2,3-cd)pyrene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Naphthalene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Phenanthrene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Pyrene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Surr: 2-Fluorobiphenyl	87.7	52.2-120		%REC	274123	1	02/07/2019 17:06	RF
Surr: 4-Terphenyl-d14	123	42.7-120	S	%REC	274123	1	02/07/2019 17:06	RF
Surr: Nitrobenzene-d5	107	50.7-122		%REC	274123	1	02/07/2019 17:06	RF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 12-Feb-19

Client:	All Phase Environmental	**Client Sample ID:**	MW-2, 37.55' B TO C
Project Name:	Rooter	**Collection Date:**	2/4/2019 12:12:00 PM
Lab ID:	1902401-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
VOLATILE ORGANICS SW8260B				(SW5030B)				
Benzene	BRL	1.0		ug/L	274270	1	02/08/2019 14:21	OM
Toluene	BRL	1.0		ug/L	274270	1	02/08/2019 14:21	OM
Ethylbenzene	BRL	1.0		ug/L	274270	1	02/08/2019 14:21	OM
m,p-Xylene	BRL	1.0		ug/L	274270	1	02/08/2019 14:21	OM
o-Xylene	BRL	1.0		ug/L	274270	1	02/08/2019 14:21	OM
Surr: 4-Bromofluorobenzene	103	64-125		%REC	274270	1	02/08/2019 14:21	OM
PAHs by Microextraction SW8270D				(SW3511)				
1-Methylnaphthalene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
2-Methylnaphthalene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Acenaphthene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Acenaphthylene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Anthracene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Benz(a)anthracene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Benzo(a)pyrene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Benzo(b)fluoranthene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Benzo(g,h,i)perylene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Benzo(k)fluoranthene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Chrysene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Dibenz(a,h)anthracene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Fluoranthene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Fluorene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Indeno(1,2,3-cd)pyrene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Naphthalene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Phenanthrene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Pyrene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Surr: 2-Fluorobiphenyl	89.4	52.2-120		%REC	274123	1	02/07/2019 18:16	RF
Surr: 4-Terphenyl-d14	140	42.7-120	S	%REC	274123	1	02/07/2019 18:16	RF
Surr: Nitrobenzene-d5	118	50.7-122		%REC	274123	1	02/07/2019 18:16	RF

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 12-Feb-19

Client:	All Phase Environmental	**Client Sample ID:**	TRIP BLANK
Project Name:	Rooter	**Collection Date:**	2/4/2019
Lab ID:	1902401-004	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Benzene	BRL	1.0		ug/L	274270	1	02/08/2019 12:20	OM
Toluene	BRL	1.0		ug/L	274270	1	02/08/2019 12:20	OM
Ethylbenzene	BRL	1.0		ug/L	274270	1	02/08/2019 12:20	OM
m,p-Xylene	BRL	1.0		ug/L	274270	1	02/08/2019 12:20	OM
o-Xylene	BRL	1.0		ug/L	274270	1	02/08/2019 12:20	OM
Surr: 4-Bromofluorobenzene	104	64-125		%REC	274270	1	02/08/2019 12:20	OM

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Clear Save as

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: ALL PHASE ENVIRONMENTAL AES Work Order Number: 1902401

2. Carrier: FedEx ☐ UPS ☒ USPS ☐ Client ☐ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	◉	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	◉	○	○		
5.	Custody seals intact on shipping container?	◉	○	○		
6.	Temperature blanks present?	◉	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	◉	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	◉	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	◉	○	○		
10.	Sampler name and/or signature on COC?	◉	○	○		
11.	Were all samples received within holding time?	◉	○	○		
12.	TAT marked on the COC?	◉	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 1.8 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). EW 2/6/19

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	◉	○	○		
17.	Custody seals present on sample containers?	○	◉	○		
18.	Custody seals intact on sample containers?	○	○	◉		
19.	Do sample container labels match the COC?	◉	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	◉	○	○		
21.	Were all of the samples listed on the COC received?	◉	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	◉	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	◉	○	○		
24.	Were samples received in appropriate containers?	◉	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	◉	○	○		
26.	Were trip blanks submitted?	◉	○	○	listed on COC ☐ not listed on COC ■	

27. Comments: _____

This section only applies to samples where pH can be checked at Sample Receipt.

I certify that I have completed sections 16-27 (dated initials). EW 2/6/19

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	○	○	◉		
29.	Containers meet preservation guidelines?	○	○	◉		
30.	Was pH adjusted at Sample Receipt?	○	○	◉		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). EW 2/6/19

Locked

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274079

Sample ID: MB-274079	Client ID:	Units: ug/Kg	Prep Date: 02/07/2019	Run No: 390545
SampleType: MBLK	TestCode: POLYAROMATIC HYDROCARBONS SW8270D	BatchID: 274079	Analysis Date: 02/07/2019	Seq No: 8738400

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	BRL	330									
2-Methylnaphthalene	BRL	330									
Acenaphthene	BRL	330									
Acenaphthylene	BRL	330									
Anthracene	BRL	330									
Benz(a)anthracene	BRL	330									
Benzo(a)pyrene	BRL	330									
Benzo(b)fluoranthene	BRL	330									
Benzo(g,h,i)perylene	BRL	330									
Benzo(k)fluoranthene	BRL	330									
Chrysene	BRL	330									
Dibenz(a,h)anthracene	BRL	330									
Fluoranthene	BRL	330									
Fluorene	BRL	330									
Indeno(1,2,3-cd)pyrene	BRL	330									
Naphthalene	BRL	330									
Phenanthrene	BRL	330									
Pyrene	BRL	330									
Surr: 2-Fluorobiphenyl	1731	0	1667		104	54.4	120				
Surr: 4-Terphenyl-d14	1748	0	1667		105	60.4	120				
Surr: Nitrobenzene-d5	1779	0	1667		107	51	120				

Sample ID: LCS-274079	Client ID:	Units: ug/Kg	Prep Date: 02/07/2019	Run No: 390545
SampleType: LCS	TestCode: POLYAROMATIC HYDROCARBONS SW8270D	BatchID: 274079	Analysis Date: 02/07/2019	Seq No: 8738403

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1752	330	1667		105	67.6	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274079

Sample ID: **LCS-274079** Client ID:
SampleType: **LCS** TestCode: **POLYAROMATIC HYDROCARBONS SW8270D**
Units: **ug/Kg** Prep Date: **02/07/2019** Run No: **390545**
BatchID: **274079** Analysis Date: **02/07/2019** Seq No: **8738403**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2-Methylnaphthalene	1741	330	1667		104	66.9	120				
Acenaphthene	1682	330	1667		101	67.5	120				
Acenaphthylene	1720	330	1667		103	66.5	120				
Anthracene	1743	330	1667		105	70	120				
Benz(a)anthracene	1783	330	1667		107	70	120				
Benzo(a)pyrene	1762	330	1667		106	70	120				
Benzo(b)fluoranthene	1733	330	1667		104	64.9	120				
Benzo(g,h,i)perylene	1749	330	1667		105	70	120				
Benzo(k)fluoranthene	1735	330	1667		104	70	120				
Chrysene	1732	330	1667		104	68.3	120				
Dibenz(a,h)anthracene	1713	330	1667		103	70	120				
Fluoranthene	1714	330	1667		103	70	120				
Fluorene	1701	330	1667		102	69.5	120				
Indeno(1,2,3-cd)pyrene	1748	330	1667		105	70	120				
Naphthalene	1722	330	1667		103	62.8	120				
Phenanthrene	1662	330	1667		99.7	70	120				
Pyrene	1770	330	1667		106	70	120				
Surr: 2-Fluorobiphenyl	1764	0	1667		106	54.4	120				
Surr: 4-Terphenyl-d14	1842	0	1667		110	60.4	120				
Surr: Nitrobenzene-d5	1903	0	1667		114	51	120				

Sample ID: **1902483-002BMS** Client ID:
SampleType: **MS** TestCode: **POLYAROMATIC HYDROCARBONS SW8270D**
Units: **mg/Kg-dry** Prep Date: **02/07/2019** Run No: **390545**
BatchID: **274079** Analysis Date: **02/07/2019** Seq No: **8739351**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1.660	0.35	1.765		94.1	57.1	120				
2-Methylnaphthalene	1.631	0.35	1.765		92.4	54.9	120				
Acenaphthene	1.609	0.35	1.765		91.2	51.4	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274079

Sample ID: **1902483-002BMS** Client ID:
SampleType: **MS** TestCode: **POLYAROMATIC HYDROCARBONS SW8270D**
Units: **mg/Kg-dry** Prep Date: **02/07/2019** Run No: **390545**
BatchID: **274079** Analysis Date: **02/07/2019** Seq No: **8739351**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Acenaphthylene	1.667	0.35	1.765		94.5	56.5	120				
Anthracene	1.701	0.35	1.765		96.4	61.5	120				
Benz(a)anthracene	1.767	0.35	1.765		100	59.6	120				
Benzo(a)pyrene	1.748	0.35	1.765		99.0	63.2	120				
Benzo(b)fluoranthene	1.703	0.35	1.765		96.5	52.3	124				
Benzo(g,h,i)perylene	1.724	0.35	1.765		97.7	50.7	120				
Benzo(k)fluoranthene	1.666	0.35	1.765		94.4	59.2	120				
Chrysene	1.734	0.35	1.765		98.2	56.5	120				
Dibenz(a,h)anthracene	1.687	0.35	1.765		95.6	51.2	119				
Fluoranthene	1.713	0.35	1.765		97.1	58.1	120				
Fluorene	1.663	0.35	1.765		94.2	52.6	120				
Indeno(1,2,3-cd)pyrene	1.684	0.35	1.765		95.4	51.7	119				
Naphthalene	1.537	0.35	1.765		87.1	49.9	120				
Phenanthrene	1.652	0.35	1.765		93.6	57.4	120				
Pyrene	1.767	0.35	1.765		100	56.8	120				
Surr: 2-Fluorobiphenyl	1.544	0	1.765		87.5	54.4	120				
Surr: 4-Terphenyl-d14	1.712	0	1.765		97.0	60.4	120				
Surr: Nitrobenzene-d5	1.511	0	1.765		85.6	51	120				

Sample ID: **1902483-002BMSD** Client ID:
SampleType: **MSD** TestCode: **POLYAROMATIC HYDROCARBONS SW8270D**
Units: **mg/Kg-dry** Prep Date: **02/07/2019** Run No: **390545**
BatchID: **274079** Analysis Date: **02/07/2019** Seq No: **8739352**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1.700	0.35	1.765		96.3	57.1	120	1.660	2.35	49.8	
2-Methylnaphthalene	1.636	0.35	1.765		92.7	54.9	120	1.631	0.302	54.2	
Acenaphthene	1.630	0.35	1.765		92.4	51.4	120	1.609	1.31	35.6	
Acenaphthylene	1.678	0.35	1.765		95.1	56.5	120	1.667	0.633	26.4	
Anthracene	1.706	0.35	1.765		96.6	61.5	120	1.701	0.290	24.3	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274079

Sample ID: **1902483-002BMSD** Client ID:
SampleType: **MSD** TestCode: **POLYAROMATIC HYDROCARBONS SW8270D**
Units: **mg/Kg-dry** Prep Date: **02/07/2019** Run No: **390545**
BatchID: **274079** Analysis Date: **02/07/2019** Seq No: **8739352**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benz(a)anthracene	1.790	0.35	1.765		101	59.6	120	1.767	1.31	24.8	
Benzo(a)pyrene	1.780	0.35	1.765		101	63.2	120	1.748	1.80	21.8	
Benzo(b)fluoranthene	1.754	0.35	1.765		99.4	52.3	124	1.703	2.94	35.2	
Benzo(g,h,i)perylene	1.730	0.35	1.765		98.0	50.7	120	1.724	0.327	27.7	
Benzo(k)fluoranthene	1.706	0.35	1.765		96.6	59.2	120	1.666	2.35	31.8	
Chrysene	1.752	0.35	1.765		99.2	56.5	120	1.734	1.01	32.7	
Dibenz(a,h)anthracene	1.714	0.35	1.765		97.1	51.2	119	1.687	1.62	34.8	
Fluoranthene	1.706	0.35	1.765		96.7	58.1	120	1.713	0.413	34.2	
Fluorene	1.705	0.35	1.765		96.6	52.6	120	1.663	2.52	52.9	
Indeno(1,2,3-cd)pyrene	1.761	0.35	1.765		99.8	51.7	119	1.684	4.47	35.2	
Naphthalene	1.533	0.35	1.765		86.8	49.9	120	1.537	0.276	54.6	
Phenanthrene	1.620	0.35	1.765		91.8	57.4	120	1.652	1.94	51.4	
Pyrene	1.811	0.35	1.765		103	56.8	120	1.767	2.45	33.8	
Surr: 2-Fluorobiphenyl	1.568	0	1.765		88.8	54.4	120	1.544	0	0	
Surr: 4-Terphenyl-d14	1.725	0	1.765		97.8	60.4	120	1.712	0	0	
Surr: Nitrobenzene-d5	1.571	0	1.765		89.0	51	120	1.511	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274090

Sample ID: **MB-274090**	Client ID:				Units: **mg/Kg**		Prep Date: **02/07/2019**		Run No: **390716**	
SampleType: **MBLK**	TestCode: **DIESEL RANGE ORGANICS SW8015C**				BatchID: **274090**		Analysis Date: **02/08/2019**		Seq No: **8742618**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
TPH (Diesel Range Organics)	BRL	6.7								
Surr: Dioctylphthalate	3.004	0	3.300		91.0	51.1	122			

Sample ID: **LCS-274090**	Client ID:				Units: **mg/Kg**		Prep Date: **02/07/2019**		Run No: **390716**	
SampleType: **LCS**	TestCode: **DIESEL RANGE ORGANICS SW8015C**				BatchID: **274090**		Analysis Date: **02/08/2019**		Seq No: **8742616**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
TPH (Diesel Range Organics)	26.62	6.7	33.30		79.9	47.3	120			
Surr: Dioctylphthalate	3.023	0	3.330		90.8	51.1	122			

Sample ID: **1902483-002BMS**	Client ID:				Units: **mg/Kg-dry**		Prep Date: **02/07/2019**		Run No: **390716**	
SampleType: **MS**	TestCode: **DIESEL RANGE ORGANICS SW8015C**				BatchID: **274090**		Analysis Date: **02/08/2019**		Seq No: **8742623**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
TPH (Diesel Range Organics)	18.87	7.1	35.26		53.5	40.5	120			
Surr: Dioctylphthalate	2.195	0	3.526		62.3	51.1	122			

Sample ID: **1902483-002BMSD**	Client ID:				Units: **mg/Kg-dry**		Prep Date: **02/07/2019**		Run No: **390716**	
SampleType: **MSD**	TestCode: **DIESEL RANGE ORGANICS SW8015C**				BatchID: **274090**		Analysis Date: **02/08/2019**		Seq No: **8742624**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
TPH (Diesel Range Organics)	21.13	7.1	35.26		59.9	40.5	120	18.87	11.3	27.5
Surr: Dioctylphthalate	2.345	0	3.526		66.5	51.1	122	2.195	0	0

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274123

Sample ID: **MB-274123** Client ID: Units: **ug/L** Prep Date: **02/07/2019** Run No: **390756**
SampleType: **MBLK** TestCode: **PAHs by Microextraction SW8270D** BatchID: **274123** Analysis Date: **02/07/2019** Seq No: **8743672**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	BRL	8.6									
2-Methylnaphthalene	BRL	8.6									
Acenaphthene	BRL	8.6									
Acenaphthylene	BRL	8.6									
Anthracene	BRL	8.6									
Benz(a)anthracene	BRL	8.6									
Benzo(a)pyrene	BRL	8.6									
Benzo(b)fluoranthene	BRL	8.6									
Benzo(g,h,i)perylene	BRL	8.6									
Benzo(k)fluoranthene	BRL	8.6									
Chrysene	BRL	8.6									
Dibenz(a,h)anthracene	BRL	8.6									
Fluoranthene	BRL	8.6									
Fluorene	BRL	8.6									
Indeno(1.2,3-cd)pyrene	BRL	8.6									
Naphthalene	BRL	8.6									
Phenanthrene	BRL	8.6									
Pyrene	BRL	8.6									
Surr: 2-Fluorobiphenyl	27.03	0	28.57		94.6	70	130				
Surr: 4-Terphenyl-d14	31.73	0	28.57		111	70	130				
Surr: Nitrobenzene-d5	31.74	0	28.57		111	70	130				

Sample ID: **LCS-274123** Client ID: Units: **ug/L** Prep Date: **02/07/2019** Run No: **390756**
SampleType: **LCS** TestCode: **PAHs by Microextraction SW8270D** BatchID: **274123** Analysis Date: **02/07/2019** Seq No: **8743673**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	30.24	8.6	28.57		106	70	130				
2-Methylnaphthalene	28.27	8.6	28.57		98.9	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274123

Sample ID: **LCS-274123** Client ID: Units: **ug/L** Prep Date: **02/07/2019** Run No: **390756**
SampleType: **LCS** TestCode: **PAHs by Microextraction SW8270D** BatchID: **274123** Analysis Date: **02/07/2019** Seq No: **8743673**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Acenaphthene	29.75	8.6	28.57		104	70	130				
Acenaphthylene	31.02	8.6	28.57		109	70	130				
Anthracene	32.35	8.6	28.57		113	70	130				
Benz(a)anthracene	34.30	8.6	28.57		120	70	130				
Benzo(a)pyrene	33.36	8.6	28.57		117	70	130				
Benzo(b)fluoranthene	32.30	8.6	28.57		113	70	130				
Benzo(g,h,i)perylene	34.64	8.6	28.57		121	70	130				
Benzo(k)fluoranthene	32.41	8.6	28.57		113	70	130				
Chrysene	31.87	8.6	28.57		112	70	130				
Dibenz(a,h)anthracene	35.42	8.6	28.57		124	70	130				
Fluoranthene	34.07	8.6	28.57		119	70	130				
Fluorene	29.38	8.6	28.57		103	70	130				
Indeno(1,2,3-cd)pyrene	35.71	8.6	28.57		125	70	130				
Naphthalene	27.92	8.6	28.57		97.7	70	130				
Phenanthrene	30.79	8.6	28.57		108	70	130				
Pyrene	31.48	8.6	28.57		110	70	130				
Surr: 2-Fluorobiphenyl	28.39	0	28.57		99.4	70	130				
Surr: 4-Terphenyl-d14	32.59	0	28.57		114	70	130				
Surr: Nitrobenzene-d5	33.72	0	28.57		118	70	130				

Sample ID: **1902401-002BMS** Client ID: **MW-1, 35.7' B TO C** Units: **ug/L** Prep Date: **02/07/2019** Run No: **390756**
SampleType: **MS** TestCode: **PAHs by Microextraction SW8270D** BatchID: **274123** Analysis Date: **02/07/2019** Seq No: **8743675**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	31.71	9.1	30.22		105	53.4	120				
2-Methylnaphthalene	30.92	9.1	30.22		102	49.3	120				
Acenaphthene	32.42	9.1	30.22		107	59.8	120				
Acenaphthylene	34.58	9.1	30.22		114	56.3	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274123

Sample ID: **1902401-002BMS**	Client ID: **MW-1, 35.7' B TO C**		Units: **ug/L**	Prep Date: **02/07/2019**	Run No: **390756**
SampleType: **MS**	TestCode: **PAHs by Microextraction**	**SW8270D**	BatchID: **274123**	Analysis Date: **02/07/2019**	Seq No: **8743675**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	32.78	9.1	30.22		108	64.2	118				
Benz(a)anthracene	18.84	9.1	30.22		62.3	63	124				S
Benzo(a)pyrene	37.31	9.1	30.22		123	57.6	126				
Benzo(b)fluoranthene	29.58	9.1	30.22		97.9	62.1	133				
Benzo(g,h,i)perylene	31.40	9.1	30.22		104	54.8	127				
Benzo(k)fluoranthene	41.79	9.1	30.22		138	52.4	123				S
Chrysene	32.33	9.1	30.22		107	62.6	118				
Dibenz(a,h)anthracene	33.10	9.1	30.22		110	52.8	125				
Fluoranthene	37.36	9.1	30.22		124	69.7	121				S
Fluorene	35.97	9.1	30.22		119	57.8	117				S
Indeno(1,2,3-cd)pyrene	32.56	9.1	30.22		108	51.1	129				
Naphthalene	30.87	9.1	30.22		102	43.5	120				
Phenanthrene	32.61	9.1	30.22		108	61.7	121				
Pyrene	39.19	9.1	30.22		130	67.3	118				S
Surr: 2-Fluorobiphenyl	28.64	0	30.22		94.8	52.2	120				
Surr: 4-Terphenyl-d14	38.54	0	30.22		128	42.7	120				S
Surr: Nitrobenzene-d5	36.61	0	30.22		121	50.7	122				

Sample ID: **1902401-002BMSD**	Client ID: **MW-1, 35.7' B TO C**		Units: **ug/L**	Prep Date: **02/07/2019**	Run No: **390756**
SampleType: **MSD**	TestCode: **PAHs by Microextraction**	**SW8270D**	BatchID: **274123**	Analysis Date: **02/07/2019**	Seq No: **8743676**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	29.78	9.2	30.58		97.4	53.4	120	31.71	6.27	19.6	
2-Methylnaphthalene	28.67	9.2	30.58		93.8	49.3	120	30.92	7.54	21.2	
Acenaphthene	30.41	9.2	30.58		99.4	59.8	120	32.42	6.40	19.2	
Acenaphthylene	32.49	9.2	30.58		106	56.3	120	34.58	6.23	18.9	
Anthracene	31.84	9.2	30.58		104	64.2	118	32.78	2.90	18.9	
Benz(a)anthracene	20.15	9.2	30.58		65.9	63	124	18.84	6.74	18.4	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274123

Sample ID: **1902401-002BMSD** Client ID: **MW-1, 35.7' B TO C** Units: **ug/L** Prep Date: **02/07/2019** Run No: **390756**
SampleType: **MSD** TestCode: **PAHs by Microextraction** **SW8270D** BatchID: **274123** Analysis Date: **02/07/2019** Seq No: **8743676**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzo(a)pyrene	36.65	9.2	30.58		120	57.6	126	37.31	1.77	21.9	
Benzo(b)fluoranthene	34.02	9.2	30.58		111	62.1	133	29.58	14.0	22.2	
Benzo(g,h,i)perylene	30.81	9.2	30.58		101	54.8	127	31.40	1.92	25.8	
Benzo(k)fluoranthene	36.65	9.2	30.58		120	52.4	123	41.79	13.1	21.2	
Chrysene	36.75	9.2	30.58		120	62.6	118	32.33	12.8	17.5	S
Dibenz(a,h)anthracene	32.65	9.2	30.58		107	52.8	125	33.10	1.35	26	
Fluoranthene	36.46	9.2	30.58		119	69.7	121	37.36	2.45	17.8	
Fluorene	34.84	9.2	30.58		114	57.8	117	35.97	3.18	21.6	
Indeno(1,2,3-cd)pyrene	32.57	9.2	30.58		107	51.1	129	32.56	0.026	26	
Naphthalene	27.09	9.2	30.58		88.6	43.5	120	30.87	13.0	21.9	
Phenanthrene	31.24	9.2	30.58		102	61.7	121	32.61	4.31	21.8	
Pyrene	42.43	9.2	30.58		139	67.3	118	39.19	7.95	18	S
Surr: 2-Fluorobiphenyl	29.90	0	30.58		97.8	52.2	120	28.64	0	0	
Surr: 4-Terphenyl-d14	45.94	0	30.58		150	42.7	120	38.54	0	0	S
Surr: Nitrobenzene-d5	38.39	0	30.58		126	50.7	122	36.61	0	0	S

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274172

Sample ID: MB-274172	Client ID:				Units: ug/Kg		Prep Date: 02/07/2019		Run No: 390522	
SampleType: MBLK	TestCode: VOLATILE ORGANICS SW8260B				BatchID: 274172		Analysis Date: 02/07/2019		Seq No: 8737811	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Benzene	BRL	1.0								
Ethylbenzene	BRL	1.0								
m,p-Xylene	BRL	1.0								
o-Xylene	BRL	1.0								
Toluene	BRL	1.0								
Surr: 4-Bromofluorobenzene	44.22	0	50.00		88.4	65.1	125			

Sample ID: MB-274172	Client ID:				Units: mg/Kg		Prep Date: 02/07/2019		Run No: 390692	
SampleType: MBLK	TestCode: GASOLINE RANGE ORGANICS SW8015C				BatchID: 274172		Analysis Date: 02/08/2019		Seq No: 8742439	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
TPH (Gasoline Range Organics)	BRL	0.50								
Surr: a,a,a-trifluorotoluene	0.05510	0	0.0500		110	71.5	133			

Sample ID: LCS-274172	Client ID:				Units: ug/Kg		Prep Date: 02/07/2019		Run No: 390522	
SampleType: LCS	TestCode: VOLATILE ORGANICS SW8260B				BatchID: 274172		Analysis Date: 02/07/2019		Seq No: 8739421	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Benzene	49.52	1.0	50.00		99.0	71.3	130			
Ethylbenzene	52.37	1.0	50.00		105	74.7	126			
m,p-Xylene	102.9	1.0	100.0		103	72.5	127			
o-Xylene	51.49	1.0	50.00		103	73.1	127			
Toluene	50.35	1.0	50.00		101	70.4	127			
Surr: 4-Bromofluorobenzene	48.89	0	50.00		97.8	65.1	125			

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274172

Sample ID: LCS-274172	Client ID:	Units: mg/Kg	Prep Date: 02/07/2019	Run No: 390692
SampleType: LCS	TestCode: GASOLINE RANGE ORGANICS SW8015C	BatchID: 274172	Analysis Date: 02/08/2019	Seq No: 8742443

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
TPH (Gasoline Range Organics)	1.057	0.50	1.000		106	68.8	123				
Surr: a,a,a-trifluorotoluene	0.05856	0	0.0500		117	71.5	133				

Sample ID: 1902401-001AMS	Client ID: HA-1 6"-12" CREEK/ DRAINAGE BED	Units: mg/Kg-dry	Prep Date: 02/07/2019	Run No: 390795
SampleType: MS	TestCode: GASOLINE RANGE ORGANICS SW8015C	BatchID: 274172	Analysis Date: 02/11/2019	Seq No: 8744569

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
TPH (Gasoline Range Organics)	0.6699	0.39	0.7727		86.7	54.2	134				
Surr: a,a,a-trifluorotoluene	0.04919	0	0.0386		127	71.5	133				

Sample ID: 1902263-001ADUP	Client ID:	Units: mg/Kg-dry	Prep Date: 02/07/2019	Run No: 390795
SampleType: DUP	TestCode: GASOLINE RANGE ORGANICS SW8015C	BatchID: 274172	Analysis Date: 02/11/2019	Seq No: 8744564

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
TPH (Gasoline Range Organics)	BRL	0.70						0.1420	0	20	
Surr: a,a,a-trifluorotoluene	0.08625	0						0.09491	0	0	

Sample ID: 1902374-001ADUP	Client ID:	Units: mg/Kg-dry	Prep Date: 02/07/2019	Run No: 390621
SampleType: DUP	TestCode: VOLATILE ORGANICS SW8260B	BatchID: 274172	Analysis Date: 02/08/2019	Seq No: 8742137

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	BRL	0.0011						0	0	20	
Ethylbenzene	BRL	0.0011						0	0	20	
m,p-Xylene	BRL	0.0011						0	0	20	
o-Xylene	BRL	0.0011						0	0	20	
Toluene	BRL	0.0011						0	0	20	
Surr: 4-Bromofluorobenzene	0.05549	0						0.05230	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274270

Sample ID: **MB-274270**	Client ID:	Units: **ug/L**	Prep Date: **02/08/2019**	Run No: **390620**
SampleType: **MBLK**	TestCode: **VOLATILE ORGANICS SW8260B**	BatchID: **274270**	Analysis Date: **02/08/2019**	Seq No: **8740128**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	BRL	1.0									
Ethylbenzene	BRL	1.0									
m,p-Xylene	BRL	1.0									
o-Xylene	BRL	1.0									
Toluene	BRL	1.0									
Surr: 4-Bromofluorobenzene	51.18	0	50.00		102	64	125				

Sample ID: **LCS-274270**	Client ID:	Units: **ug/L**	Prep Date: **02/08/2019**	Run No: **390620**
SampleType: **LCS**	TestCode: **VOLATILE ORGANICS SW8260B**	BatchID: **274270**	Analysis Date: **02/08/2019**	Seq No: **8741805**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	48.28	1.0	50.00		96.6	72.3	126				
Ethylbenzene	48.17	1.0	50.00		96.3	72.8	126				
m,p-Xylene	94.56	1.0	100.0		94.6	70	129				
o-Xylene	46.78	1.0	50.00		93.6	70.3	126				
Toluene	48.11	1.0	50.00		96.2	70.5	128				
Surr: 4-Bromofluorobenzene	52.17	0	50.00		104	64	125				

Sample ID: **1902404-009AMS**	Client ID:	Units: **ug/L**	Prep Date: **02/08/2019**	Run No: **390620**
SampleType: **MS**	TestCode: **VOLATILE ORGANICS SW8260B**	BatchID: **274270**	Analysis Date: **02/08/2019**	Seq No: **8741803**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	48.10	1.0	50.00		96.2	66.1	137				
Ethylbenzene	48.68	1.0	50.00		97.4	74	134				
m,p-Xylene	96.44	1.0	100.0		96.4	73.8	136				
o-Xylene	47.98	1.0	50.00		96.0	71.6	135				
Toluene	48.28	1.0	50.00		96.6	63.8	141				
Surr: 4-Bromofluorobenzene	54.11	0	50.00		108	64	125				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274270

Sample ID: **1902401-002ADUP** Client ID: **MW-1, 35.7' B TO C** Units: **ug/L** Prep Date: **02/08/2019** Run No: **390620**
SampleType: **DUP** TestCode: **VOLATILE ORGANICS SW8260B** BatchID: **274270** Analysis Date: **02/08/2019** Seq No: **8741804**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	BRL	1.0						0	0	20	
Ethylbenzene	BRL	1.0						0	0	20	
m,p-Xylene	BRL	1.0						0	0	20	
o-Xylene	BRL	1.0						0	0	20	
Toluene	BRL	1.0						0	0	20	
Surr: 4-Bromofluorobenzene	52.21	0				64	125	52.18	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Contract Between User and Environmental Professional

All Phase Environmental L.L.C.
1233 Wolfskin Rd.
Arnoldsville, GA 30619
Providing Environmental Services since 1985

Tom Tweedell
Office 706 549 9456
Fax 706 548 4000
Cell 706 540 8243

July 23, 2019

To: Tom Clark
tclark@rwdcindustries.com

Re: Phase I Environmental Site Assessment

Subject Site: Invista (Dupont) Property
110 Voyles Rd.
Athens, GA 30601
Parcel ID # 214 019

This contract is to authorize All Phase Environmental LLC to conduct a Phase I Environmental Assessment performed to ASTM Standard E 1527-13, for the above referenced subject site. The cost for this project is **$2,900.00**. This price is with you providing plats of the property and conducting your own title and environmental lien search. We will also need copies of previous environmental reports, if any are available. Names and contact information and any other pertinent information will expedite the completion of the report. A Phase I report by scope **does not** include a mold, asbestos or lead inspection.

SCOPE OF WORK
Phase I Environmental Site Assessment

- Search of Federal and State records per current ASTM Standards.
- Site Reconnaissance and Interviews
- Review of information submitted to us
- A written Phase I Environmental Assessment Report performed to ASTM Standard E 1527-13 for the site.

Your signing of this contract authorizes us as your agent to enter the property for our investigation.
Please return of one signed copy of this document via e-mail allphase123@bellsouth.net ; Fax (706) 548-4000; or US mail to 1233 Wolfskin Rd, Arnoldsville, GA 30619. This will serve as the official authorization for this work.

A copy of our Contract Conditions is attached which is an integral part of this document.

TERMS: Payment due upon delivery of report, Net 10, 1½% per month thereafter.
If you have any questions regarding the above, please contact us.

Sincerely,

Tom Tweedell Date 7-23-2019
Tom Tweedell

ACCEPTED BY: Ryan B Adolphson Date 7/24/2019

atlanta testing
& engineering
11420 johns creek parkway / duluth, georgia 30136 / (404) 476-3555

March 3, 1988

E.I. DuPont De Nemours & Company
Athens Plant
P.O. Box 1808
Athens, Georgia 30613-4099

Attention: Mr. Fred A. Denson

Re: Groundwater Study
E.I. DuPont De Nemours & Company
Athens Plant
Athens, Georgia
Job No. 7613, Report No. 1068
(Revised)

Gentlemen:

Atlanta Testing & Engineering has completed the authorized groundwater study of the subject site and is submitting its findings in this report. The purpose of this study was to determine if impact to the groundwater regime had occurred as a result of the spray fields, the fuel tanks and inadvertent spills, and what impact, if any, may be occurring to off-site groundwater users.

We appreciate the opportunity to be of service to you. Please feel free to contact us at your convenience if you have questions about this report or need further information.

Sincerely,

ATLANTA TESTING & ENGINEERING

Mark A. Sherrill, G.I.T.
Staff Hydrogeologist

Gregory R. Fischer, P.G.
Senior Hydrogeologist
Reg. Ga. 633

MS/GRF/lw

and bicarbonate. However, groundwater quality in the bedrock aquifer may naturally differ somewhat from that in the shallow aquifer. The results measured for the deep wells are comparable with the regional water quality for the bedrock aquifer.

A tabulation of water quality data for spray field wells, the deep wells, and applicable EPA limits are presented in Table 8.

10.3 Fuel Tank Area

As previously mentioned, soil samples collected during the installation of the three monitoring wells were analyzed for the presence of total organic vapors. Wells FT-1 and FT-2 are located within the tank pit area. Well FT-3 is located approximately 35 feet southeast of Well FT-1 in an area judged to be outside of the tank pit. The concentrations measured from the samples collected from Well FT-1 ranged from 1.3 parts per million (ppm) to 7.9 ppm. The concentrations measured from the samples collected from Well FT-2 ranged from 0.1 ppm to 2.0 ppm. These concentrations are considered relatively low. However, the vapor concentration for samples collected from Well FT-3 are high at various depths. Values ranged from 613 ppm, which was measured at ground surface, to 3.2 ppm; the average concentration was 84 ppm. It is our understanding that no signs of tank leakage were evident when the tanks were removed. Most likely, the organic vapors are present as a result of spillage during tank filling. The OVA measurements are presented on Table 9.

On September 28, 1987, Wells FT-1, FT-2, and CW-1 were sampled and analyzed for the presence of BTEX.

No BTEX was detected in Wells FT-2 and CW-1; however 34 parts per billion (ppb) of xylene was measured in Well FT-1. To confirm the presence of xylene the well was resampled on December 2, 1987, again, xylene was detected; this time at a concentration of 23 ppb. To determine if migration of xylene had occurred outside of the tank pit into the underlying groundwater table; well FT-3 was installed and sampled on December 22, 1987; no BTEX was detected. As inferred the occurrence of xylene appears to be confined at the present time to within the tank pit.

The results of the groundwater analysis are presented in Table 10.

11.0 CONCLUSIONS

11.1 Spray Fields

For parameters tested, the groundwater quality analysis of the spray field wells and deep wells indicate that no off-site migration is occurring. Even though some of the parameters showed elevated levels when compared to the background well, the results are comparable to the regional water quality and are generally in line with the EPA drinking water standards.

In order to continue to evaluate impact to the groundwater, it is recommended that the spray field wells and deep wells be sampled on a semi-annual basis and

analyses for the shallow and deep lysimeters is presented as Table 4; presented is the minimum, maximum and average value for each parameter analyzed.

The two deep wells are located down gradient of the spray fields. Well P-1 is located 140 feet south of Spray Field 2, and Well P-2 is located 80 feet south of Spray Field 5. Each well is approximately 90 feet deep. No completion log was available for those wells; it is assumed that they are completed into the bedrock aquifer.

City water has also been sampled and analyzed along with the deep wells. The deep wells are analyzed for the following parameters: COD, BOD, oil and grease, total dissolved solids, nitrate nitrogen, ammonia nitrogen, total phosphorus, TOC, pH, and specific conductance. A tabulation of the minimum, maximum, and average values for the deep well parameters are presented as Table 5. City water has also been analyzed for some of the deep well parameters. These results are shown on Table 6. The water quality data of the deep wells show the groundwater quality to be comparable to the Athens drinking water.

Characterization of the waste water applied to the spray fields has also been done. A tabulation of this data from 1979 through 1987 is presented in Table 7. Some of the more predominant constituents present are total dissolved solids, TOC, COD, and BOD.

10.2 Spray Fields

When compared with the results from the background well SF-1, the labaratory analysis for the monitoring wells surrounding the spray fields show elevated levels of total dissolved solids, COD, total phosphorous, calcium, magnesium, sodium, potassium, bicarbonate, sulfate and chloride. The wells showing elevated levels of these parameters are SF-3, SF-4, SF-5, SF-8 and to some extent, Wells SF-2, SF-6, and SF-7.

Discussions with Dr. Wade L. Nutter, Ph.D. of Earth Systems Associates, LTD; Dupont's consultant responsible for managing the land application program, indicate that the above parameters are not present in the waste stream, but are, with the exception of chloride, compounds associated with the fertilizer and lime that are applied to assure high levels of crep production.

With regard to chloride the concentration in all of the wells, except for Well SF-4, range from less than 1.0 ppm to 3.1 ppm. In Well SF-4 chloride was detected at a concentration of 21 ppm. Future monitoring for this parameter well confirm if this concentration is representative.

While elevated levels of the these parameters do occur none of the concentions, except for pH, for which there is a limit exceed the EPA drinking water standards. The pH is slightly lower than the EPA standard.

The two deep wells, CW-1 and PH-1, also showed elevated levels of certain parameters when compared with the results of the analysis for the background well. These parameters are total dissolved solids, nitrate-N, calcium, sodium,

Prior to well installation, a soil boring was drilled. This consisted of drilling the hole with hollow stem augers and obtaining split spoon samples in selected borings at various depths. The borings were terminated below the water table. The screened intervals in all the wells extended to above the water table. Coarse sand was placed around the screened interval of the wells, followed by a seal of bentonite. The annulus was then grouted to the surface. Equipment used during the installation of the monitoring wells was steam cleaned prior to drilling each hole. The well completion logs in the Appendix provide a more complete description of the monitoring well construction and of the soil types encountered.

After well installation, each well was purged of stagnant casing water by bailing and sampled. Samples were obtained using a clean Teflon bailer and then packed on ice and delivered to an analytical laboratory. Groundwater samples were analyzed for pH, total dissolved solids, specific conductivity, nitrate as nitrogen, total phosphorous, ammonia-N, total Kjeldahl N, total organic carbon (TOC), chemical oxygen demand (COD), biological oxygen demand (BOD), calcium, magnesium, sodium, potassium, bicarbonate, hydroxide, sulfate, chloride, and fluoride.

Also, the well which provides make-up cooling water (CW-1) and the pumphouse well (PH-1), which as previously mentioned is no longer in service, were sampled and analyzed for the parameters listed above.

8.2 Fuel Tank Area

In 1986, two 20,000-gallon capacity underground diesel fuel storage tanks were removed. It is our understanding that during tank removal, no evidence was observed to indicate that the tanks had leaked. Three shallow monitoring wells were installed to assess the groundwater quality in the fuel tank area.

The wells in this area were installed and sampled in the same procedure as described for the spray field monitoring wells, except that the soil samples collected from the borings were analyzed for the presence of total organic vapors.

Each of the wells were sampled for benzene, toluene, ethyl benzene, and xylene (BTEX). The well which provides make-up cooling water, which is located adjacent to the fuel tank area, was also sampled for BTEX.

9.0 SITE HYDROGEOLOGY

9.1 Hydrogeologic Units

At the site the hydrogeology consists of a metamorphic bedrock aquifer (predominantly gneiss) which is overlain by a shallow water table aquifer consisting of saprolite and overburden soils.

The overburden soils consist of generally a reddish-brown sandy silt with varying amounts of clay and mica. The saprolite consists of a multi-colored silty fine to coarse sand with mica and partially weathered rock lenses at varying depths.

1.0 INTRODUCTION

Atlanta Testing & Engineering has completed the authorized groundwater study of the subject site. This report presents a brief summary of our scope of work, the results of the field and laboratory testing, and our findings with regard to the extent of contamination present.

For convenience, provided below is a summary of findings and recommendations. The reader should refer to the text for a more complete description regarding the rationale used to present this information.

2.0 FINDINGS

1. Elevated levels of certain parameters associated with the fertilization and liming of the spray fields were measured in the shallow water table aquifer. All concentrations were generally below the Environmental Protection Agency's (EPA) limits established for drinking water.

2. Based on the parameters analyzed, off-site migration of contaminated groundwater from the spray fields is not occurring.

3. Elevated concentrations of organic vapors were detected near the fuel tank area in soil samples that were collected during drilling of Wells FT-1, FT-2, and FT-3. Concentrations ranges form 0.10 parts per million (ppm) to 613 ppm. The average concentrations for Wells FT-1, FT-2, and FT-3 were approximately 3 ppm, 1.0 ppm, and 84 ppm, respectively.

4. The monitor wells installed near the fuel tank area and were sampled for benzene, toluene, ethyl benzene and xylene (BTEX). No BTEX was detected in wells FT-2 and FT-3. Two samples taken from well FT-1 indicated a xylene concentration of 23 parts per billion (ppb) and 34 ppb. The data indicates that xylene appears to be confined to within the tank pit and has not migrated into the deeper aquifer(s).

3.0 RECOMMENDATIONS

Need PALs for current standards

1. A groundwater monitoring program should be undertaken. Samples should be collected from the spray field wells and deep wells on a semi-annual basis. The following parameters should be analyzed for: pH, specific conductivity, total dissolved solids, chemical oxygen demand, total phosphorus, calcium, magnesium, sodium, potassium, bicarbonate, sulfate, chloride, oil and grease, and nitrate-N.

2. With regard to the xylene contamination consideration should be given to implementing one of the following three recommendations:

   a) Remove the contaminated soils from the tank pit area.

   b) Install recovery well(s) in the tank pit and extract/treat contaminated groundwater.

Found in AEI report

atlanta testing
& engineering
11420 johns creek parkway / duluth, georgia 30136 / (404) 476-3555

March 3, 1988

E.I. DuPont De Nemours & Company
Athens Plant
P.O. Box 1808
Athens, Georgia 30613-4099

Attention: Mr. Fred A. Denson

well info.

Re: Groundwater Study
E.I. DuPont De Nemours & Company
Athens Plant
Athens, Georgia
Job No. 7613, Report No. 1068
(Revised)

Gentlemen:

Atlanta Testing & Engineering has completed the authorized groundwater study of the subject site and is submitting its findings in this report. The purpose of this study was to determine if impact to the groundwater regime had occurred as a result of the spray fields, the fuel tanks and inadvertent spills, and what impact, if any, may be occurring to off-site groundwater users.

We appreciate the opportunity to be of service to you. Please feel free to contact us at your convenience if you have questions about this report or need further information.

Sincerely,

ATLANTA TESTING & ENGINEERING

Mark A. Sherrill, G.I.T.
Staff Hydrogeologist

Gregory R. Fischer, P.G.
Senior Hydrogeologist
Reg. Ga. 633

MS/GRF/lw

1.0 INTRODUCTION

Atlanta Testing & Engineering has completed the authorized groundwater study of the subject site. This report presents a brief summary of our scope of work, the results of the field and laboratory testing, and our findings with regard to the extent of contamination present.

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   a) Remove the contaminated soils from the tank pit area.

   b) Install recovery well(s) in the tank pit and extract/treat contaminated groundwater.

5.3 Surrounding Land Use

The land immediately adjacent to the site is undeveloped and consists of cultivated areas, pasture, and woodland. Four residences are located south of Voyles Road, directly across from the DuPont Plant.

6.0 SURFACE SITE CONDITIONS

As shown on Plate 2, the topography of the site is generally gently sloping to moderately sloping to the south and southeast. Elevations range from a high of approximately 800 feet above mean sea level (MSL) to the west of the spray fields to a low of approximately 730 feet above MSL southeast of the spray fields.

As previously mentioned, five spray fields are used to dispose of effluent generated during yarn processing operations. The fields range in site from 1.3 acres to 2.5 acres and are located east of the plant. The spray fields are surrounded by a buffer of trees on the north, west, and east.

A small lake, approximately nine acres in size, is located immediately east of the spray fields. The lake is fed by a stream which originates off-site to the north. Overflow from the lake is piped through the dam located at the south end of the lake, where it merges with another stream which enters the site from the east. From this point, the stream flows in a southerly direction where it merges with other small streams, until eventually it joins the Oconee River.

Two wet weather drainage features traverse the spray fields and carry run-off to the lake.

In addition to the two 90-foot wells, two other wells are also on-site. One well is located east of and adjacent to the plant and provides make-up cooling water. The other well is located 450 feet south of the southern most spray field and 100 feet north of Voyles Road. In the past, this well, according to Dupont officials, supplied potable water to the four residents living south of and adjacent to Voyles Road. This well is no longer in service. The residents now obtain potable water from a single well located on their property.

Potable water for the facility is supplied by the City.

7.0 REGIONAL HYDROGEOLOGY

The site is located in the Piedmont Physiographic Province where bedrock is covered by unconsolidated material. The unconsolidated material consists of saprolite, alluvium, and soil.

Most of the area is overlain by saprolite, which is a clayey residual deposit formed by in-place mechanical and chemical weathering of the underlying bedrock, and by soils derived from saprolite. In the site area the saprolite retains the distinctive layering of the parent rock. Depending on the properties of the parent rock and the topographic setting, saprolite can range in thickness from zero to approximately 200 feet. Soil is nearly present everywhere as a thin cover on top of the saprolite and alluvium.

The area is underlain by a variety of metamorphosed plutonic, volcanic, and sedimentary rocks which include gneiss, schist, amphibolite, and diabase and by unmetamorphosed granite plutons, and diabase dikes. Individual rock units range in thickness from less than 10 feet to more than 10,000 feet.

In the site area, the subsurface hydrogeologic conditions are dependent on the geologic units described above. Two aquifers have been mapped by the USGS. These aquifers are the shallow water table aquifer and the bedrock aquifer.

The shallow water table aquifer consists of soil, saprolite, and alluvium which overlies the bedrock aquifer. The shallow aquifer constitutes a medium of recharge for the bedrock aquifer.

The bedrock aquifer is the principal water-bearing aquifer in the area. The aquifer which underlies the site area has been designated as Unit I. Unit I consists of thinly laminated muscovite gneiss. Groundwater in the bedrock aquifer occupies joints, fractures, and other secondary openings. Well yields in the bedrock aquifer are dependent on the number and occurrence of these secondary openings and the thickness of saprolite and overburden which overlies the bedrock aquifer.

Water well data for Unit I in the site vicinity reveals the following general characteristics:

- Well Yield; 20 to 120 gallons per minute (gpm); average 48 gpm
- Well Depth; 125 to 568 feet; average 256 feet
- Casing Depth; 21 to 119 feet; average 78 feet

The groundwater in the site area is of good chemical quality and is suitable for drinking and many other uses. Concentrations of dissolved constituents are generally consistent throughout the area. Selected water quality parameters for the bedrock aquifer designated as Unit I are presented as Table 1.

8.0 SITE EXPLORATION AND TESTING

The site study consisted of performing the following:

- Groundwater sampling and analyses - Spray Fields
- Groundwater and soil sampling and analyses - Fuel Tank Area

Presented on Table 2 is a tabulation of the monitoring wells installed and the areas that they monitor. Also, presented on Plates 2 (in pocket) and 3 are the site plans showing the approximate locations of the monitoring wells. Provided below is a detailed discussion of well installation and sampling rationale for the spray fields and the fuel tank area.

8.1 Spray Fields

Eight shallow monitoring wells were installed in the vicinity of the spray fields. The monitoring wells were located to provide water quality data representative of the site in the up-gradient and down-gradient flow directions from the spray fields.

The overburden and saprolite unit forms a shallow water table aquifer which overlies the metamorphic bedrock aquifer.

The above description of hydrogeologic units is general, there are exceptions. The boring for Well FT-1 was drilled into one of the previously existing tank pits and encountered a perched water table overlying the shallow water table aquifer. The tank pit area is covered in coarse gravel; as a result rainfall has a tendency to percolate into the soil rather than runoff into the adjacent road. This perched condition occurs because of the loose coarse backfill, which due to its having a higher hydraulic conductivity than the native soils captures and retains infiltrating precipitation in the vicinity of Well FT-1. For this reason, Well FT-1 was terminated at a depth of 25.0 feet.

9.2 Groundwater Flow Direction

Water level measurements taken on September 24, 1987 indicate the depth to groundwater to range from approximately 9.00 feet below ground surface to 41.00 feet below ground surface. Groundwater elevations are presented on Table 3. The direction of groundwater flow is generally to the south and southeast toward the lake.

A groundwater contour map of the shallow water table aquifer is presented on Plate 4 (in pocket).

9.3 Off-Site Groundwater Use

As previously mentioned, within the immediate site vicinity, there are four residences which are obtaining potable water from the bedrock aquifer. The farmhouses are served by one well. The well is located approximately 0.25 miles south of the site, along Voyles Road. The well does not appear to be directly down-gradient of the spray fields.

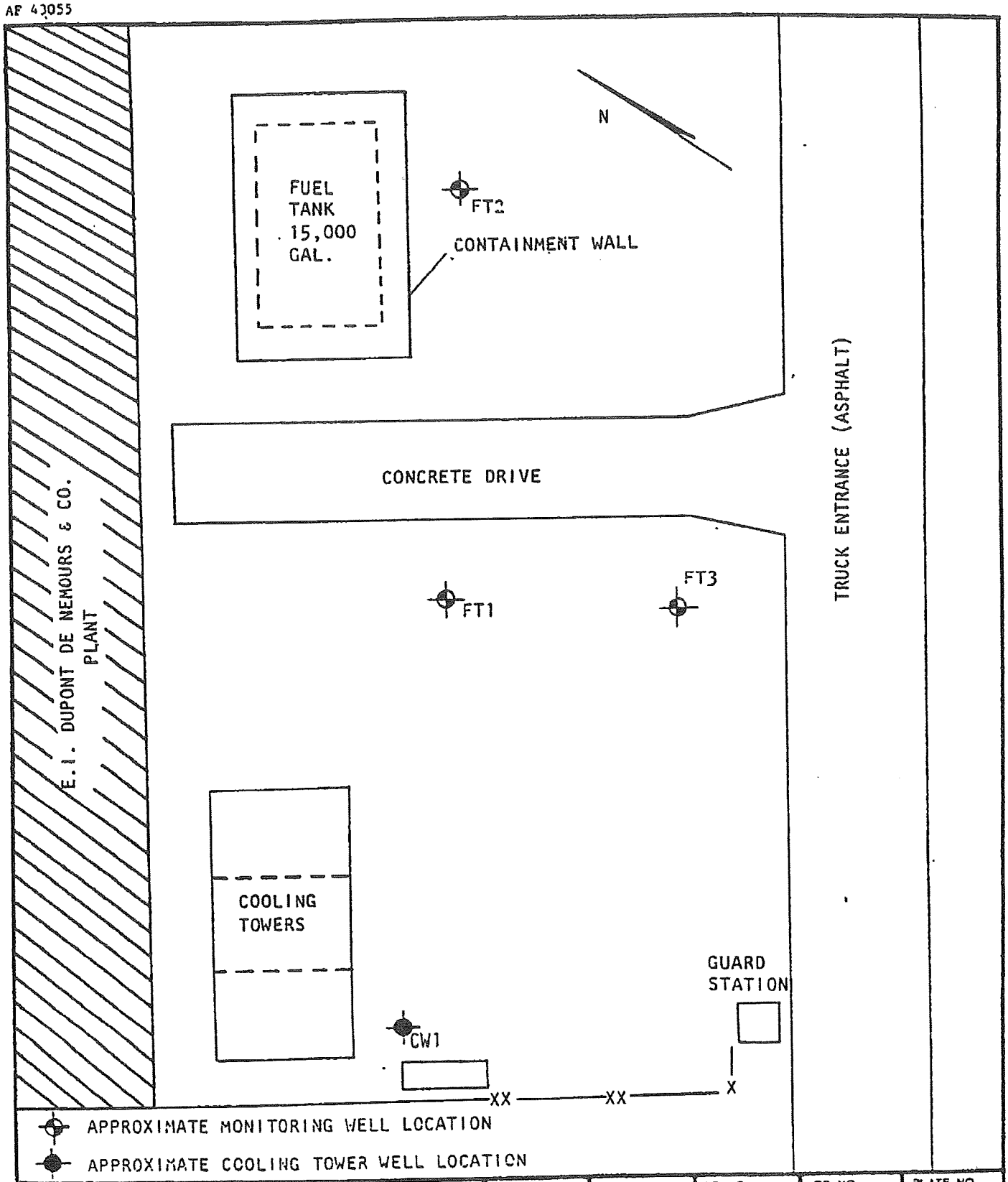
10.0 IMPACT ON WATER QUALITY

10.1 Historical Monitoring Data

Water quality at the site is being monitored from samples collected and analyzed from the unsaturated zone via suction lysimeters and from two deep wells located down-gradient of the spray fields.

Pairs of suction lysimeters were installed in March 1986. One lysimeter was set one foot below ground surface and designated as a shallow lysimeter; the other lysimeter was set three feet below ground surface and designated as a deep lysimeter. Lysimeters 5 and 6 are located in Spray Field 5. Lysimeters 8 and 9 are in Spray Field 1. Lysimeter 7 is the control lysimeter located 50 feet east of Deep Well P-1. Water collected from the lysimeters is routinely analyzed for oil and grease, specific conductance, nitrate nitrogen, COD, phosphorus, and ammonia nitrogen. When compared with the control lysimeter, the water quality data for the shallow and deep lysimeters shows elevated levels of oil and grease, specific conductance, and COD. A tabulation of the

AF 43055



DATE	DRAWN BY	CHECKED BY	SCALE	JOB NO	PLATE NO
10-1-87	S.H.		1"=20'	7613	3

a.t. & e. consultants inc.
geotechnical and testing engineers
atlanta, greenville, charlotte,
tampa, jacksonville, lakeland, marco island

MONITORING WELL LOCATION PLAN
FUEL TANK AREA
DUPONT PLANT
ATHENS, GA.

ATE-108

TABLE 10
GROUNDWATER QUALITY DATA
FUEL TANK AREA
E. I. DuPONT de NEMOURS & COMPANY
ATHENS, GEORGIA
JOB NO. 7613, REPORT NO. 1068

	WELLS				
	FT-1		FT-2	FT-3	CW-1
Parameter	9/28/87	12/2/87	9/28/87	12/22/87	9/28/87
Benzene	<5	<5	<5	<5	<5
Toluene	<5	<5	<5	<5	<5
Ethyl Benzene	<5	<5	<5	<5	<5
Xylenes	34	23	<5	<5	<5

Note: All results reported in parts per billion (ppb).

CERTIFICATE OF RECYCLING / DISPOSAL

LEI, Inc. certifies that all waste materials accepted are recycled or disposed of in accordance with all applicable Federal, State, and Local Regulations and within all regulated time periods.

EPA ID: LAR000055467
LA0000365668

Date: 3/1/2016 Document No: 002950155GBF Invoice No: 57345

Qty	Description	U/M
341	PCB Ballasts	per lb

CERTIFICATE ISSUED TO:

JOHNSON CONTROLS LIGHTING SERVICES
ATTN: AMY HUCKABY
1350 NORTHMEADOW PARKWAY, STE 100
ROSWELL, GA 30076

ITEMS OWNED BY:

INVISTA
110 VOYLES RD
ATHENS, GA 30601

On Behalf of LEI

Larry Fannaly
Vice-President, Sales & Operations

VERTEX



INVISTA Property
110 Voyles Road
Athens, Georgia 30601

PHASE I ENVIRONMENTAL SITE ASSESSMENT

JULY 26, 2018

PREPARED FOR:
INVISTA S.à r.l.
c/o Blank Rome LLP
One Logan Square
Philadelphia, PA 19103
Attn: Ms. Margaret Anne Hill

PREPARED BY:
The Vertex Companies, Inc.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000

VERTEX PROJECT NO: 51521

PHASE I ENVIRONMENTAL SITE ASSESSMENT

INVISTA Property
110 Voyles Road
Athens, Georgia 30601
VERTEX Project No. 51521

1.0 SUMMARY

On July 6, 2018, The Vertex Companies, Inc. (VERTEX) was contracted by Blank Rome LLP to conduct a Phase I Environmental Site Assessment (ESA) of the INVISTA Property, located at 110 Voyles Road, Athens, Georgia. According to the Clarke County Tax Assessor, the site is part of a larger 401-acre parcel identified as Parcel Number 214019. According to a survey provided by the Client, the site, for the purposes of this report, includes 132 acres of land within the 410-acre parcel recorded by the Clarke County Tax Assessor. The site includes an approximately 400,000-sqaure foot warehouse building constructed in 1972 and expanded through the early 2000s, which is located on the western portion of the parcel, as well as a security guardhouse, a small lake (Lake Dupont) with an associated recreational pavilion, a storage shed, baseball fields, a fire pump house building, and undeveloped land, which is located on the southern, northern and eastern portions of the site parcel. The site currently consists of vacant warehouse space, which includes various areas such as offices, breakrooms/lunch areas, conference rooms, a mail room, a former medical office area, a boiler room, electrical areas, warehouse space, compressor areas, maintenance support areas for the various equipment formerly located throughout the warehouse, and utility areas. The site was vacated in 2017.

The purpose of this assessment was to identify Recognized Environmental Conditions (RECs), Controlled RECs (CRECs), Historical RECs (HRECs), and *de minimis* conditions in connection with the site.

ASTM Findings

- Based on review of readily available historical information, it appears that the site was undeveloped land and/or agricultural land with several residential structures developed on the southern, central, and northern portions of the site from at least 1938 through 1972, when the site was developed with a large warehouse structure and associated driveways and parking lots. Smaller associated structures including a security guardhouse, a fire pump house building, and recreational structures were also developed to the south of the warehouse building. A small lake (Lake Dupont) was developed on the southern portion of the site and has remained since that time. By the early 1980s, the site building was expanded to the east/northeast and recreational fields (baseball fields) and tennis courts were developed on the southern portion of the site. Remaining portions of the site remained as undeveloped land. By 1988, a railroad spur was developed on a small area on the northern portion of the site, and by the early 1990s, the site building was expanded again, further to the east/northeast. By 2007, an addition to the site building was developed on the northeastern corner of the site. Additionally, fewer recreational areas were located on the southern portion of the site, and the railroad spur was no longer located on the northern portion of the site. By 2010, the site consisted of the current improvements. According to city directories reviewed and information obtained from the site contact, the site has operated as a textile processing facility since development in 1972, operating under entities E I Dupont Denemours and Company and INVISTA S.à r.l. ("INVISTA").The site was utilized for the beaming (winding) of yarn for distribution to textile manufacturers. The beaming process utilized a series of automated spinning machines, which bound different strands together and wound the finished product on large spools. No RECs were identified in connection with the historical use of the site.

- The site address was listed as INVISTA on the Resource Conservation and Recovery Act-Conditionally Exempt Small Quantity Generator (RCRA-CESQG), Integrated Compliance

Information System (ICIS), US Aerometric Information Retrieval System (US AIRS), AIRS, Facility Index System (FINDS), Enforcement and Compliance History Online (ECHO), National Pollutant Discharge Elimination System (NPDES), and Tier 2 databases. Between 1972 and 2017, the site was occupied by E.L. Dupont De Nemours & Co. and later INVISTA. Site operations, particularly the transportation of raw materials and finished spools, required the use of forklifts, which were battery powered. Based on the quantity of recharging batteries and the contents of the batteries (lead and sulfuric acid), Tier 2 reporting was required. Small quantities of waste oils were generated in the beaming process, which were stored in 55-gallon drums for off-site disposal on an as-need basis by Heritage Crystal Clean. Waste oils, as well as several additional hazardous wastes generated, classified the facility as a RCRA-CESQG. According to the database, no associated violations were identified with respect to hazardous waste generation. According to the site contact, no solvents were utilized in connection with former site operations. In May 2018, the Georgia Hazardous Waste Management Program deactivated the site from the hazardous waste database due to the decommissioning of the site operations, which reported that all hazardous wastes had been removed from the site. Specific hazardous wastes removed from the site in January 2018 by Heritage Crystal-Clean included fuels for thermal treatment, aerosols/paints, acids, flammable liquids, oxidizers, organic poisons, and lead acid batteries.

- Beaming operations also produced stray fibers and dust from the high-speed spinning process. In order to maintain good air quality, the facility utilized an air filtration and exhaust system (referred to as a scrubber). The system collected ambient air from the production floor and passed it through an industrial filter, which collected particulate matter. Process water was used in a closed loop system within the scrubber to maintain system pressure. Following the filtration process, the filtered air was discharged through an exhaust pipe. The associated air emissions were permitted through AIRS permit #2282-059-0038-B-01-0. The site maintained an additional AIRS permit (#2282-059-0038-B-01-

1) for the presence of oil-fired boilers (currently natural gas-fired), which provided heat to the building. No violations associated with the AIRS permits were identified other than various administrative violations, which were not identified as a concern as noted in Section 6.1.

- On a regular basis, approximately 20% of the process water from the scrubber was drained from the system to maintain soft water quality. Discharged water was originally stored in a 5,000-gallon finish water aboveground storage tank (AST), which was present south of the site building. This AST was reportedly empty and out of use at the time of VERTEX's site visit. Upon filling of the AST, the finish water was sprayed onto five fields on the site and an adjacent property to north (formerly associated with the site). The spraying process was referred to as a Land Application System (LAS), and was permitted by the Georgia Environmental Protection Division (GEPD) via Permit # GA01-405. Due to the proximity of residential water wells in the vicinity of the site, and the eventual discharge of the on-site lake to the Oconee River, groundwater quality was monitored within the spray fields for drinking water parameters. In 1988, eight temporary groundwater monitoring wells were advanced and sampled for pH, total dissolved solids, specific conductivity, nitrate-nitrogen, total phosphorus, ammonia-nitrogen, total potassium nitrate, total organic carbon (TOC), chemical oxygen demand (COD), biological oxygen demand (BOD), calcium, magnesium, sodium, potassium, bicarbonate, hydroxide, sulfate, chloride, and fluoride. Due to elevated levels of pH (not exceeding EPA standards), quarterly sampling was conducted for BOD, COD, specific conductivity, ammonia-nitrogen, nitrate-nitrogen, pH, total phosphorus, total dissolved solids, suspended solids, oil and grease, and total organic carbon, which was required by the GEPD between 1988 and 1994. Further concerns were not identified by the GEPD with respect to the groundwater monitoring. In September 1994, LAS operations ceased when the site facility obtained a NPDES Industrial General Permit (IGP) (#GAIS00967) to discharge the finish water directly to the municipal stormwater system. Beginning in 1995, the LAS

system was utilized once a year for maintenance of the system (held as backup option), and corresponding sampling. The annual maintenance and sampling continued until 2012, when INVISTA decided to let the associated permit expire. It should be noted that during the sampling events, groundwater was encountered at depths ranging from 2 feet below ground surface (bgs) to 40 feet bgs. As part of the NPDES permit (GAR050000) filed for the site in June 2012 for stormwater discharges associated with industrial activity, annual monitoring of the two on-site stormwater outfalls was required. No associated concerns were identified by the GEPD in the most recent report (2017). It should also be noted that the 2012 NPDES permit expired in 2017, and due to discontinued site operations, was not renewed. Various administrative violations were identified on the ICIS database pertaining to the facilities AIRS and NPDES permits; however, no formal action or violation descriptions were provided. The facility was not identified on any large quantity petroleum storage, spills, or release databases; no information has been identified indicating a material threat of subsurface contamination; and the site building is currently vacant. As such, these database listings, as well as former LAS operations, are not considered to represent a REC in connection with the site.

- According to the site contact, as well as documentation provided, two 20,000-gallon underground USTs containing fuel oil were removed from the site in May 1986. The USTs were formerly located to the south of the site building and were utilized to store fuel oil for the boilers used to heat the building. According to UST closure documentation reviewed, the USTs were reported to be in excellent condition upon removal and no evidence of a release was observed around the excavation area. It should be noted that USTs were not required to be permitted with the GEPD until December 1988. As such, permitting documentation as well as closure documentation was not required to be obtained at the time of the on-site UST installation and removal. Three shallow monitoring wells were installed in 1988 as part of a groundwater study for E.I. DuPont De Nemours & Company to assess the groundwater quality in the former fuel tank area as

Should use same standards as regulated USTs per EPD UST closure Guidelines

Sampled for Rooker 2/2019

well as the spray fields. Soil samples were also collected for each boring and field screened for total organic vapors (TOVs) using a photoionization detector (PID). Elevated PID readings (up to 613 parts per million [ppm]) were detected in soil collected from one of the monitoring wells; however, the higher PID readings were at or near the ground surface. Groundwater samples were collected from each of the wells and an on-site non-potable well that provided make-up cooling water and analyzed for benzene, toluene, ethyl benzene, and xylene (BTEX). A low concentration of xylene (34 parts per billion (ppb) and 23 ppb) was detected in one of the monitoring wells. BTEX was not detected in the other three groundwater samples above the laboratory method detections limits. The xylene concentration is well below the Georgia Maximum Contaminant Level (MCL) for xylene (10,000 ppb), and as such, is considered de minimis. As such, the former USTs are not considered a REC.

No PAH analysis which is/was required for diesel/#2 Fuel Oil. Phase II did PAHs to address this

- The site currently maintains one solid waste compactor serviced by Republic Services. The dumpster is located to the north of the site building and was observed to be staged on concrete pavement in good condition. *De minimis* staining was observed on the concrete around the compactor; however, no evidence of a release of hazardous substances or petroleum products was observed.

- The site is located in an industrial and residential area. According to readily available historical information, the surrounding properties were mainly undeveloped and/or agricultural land from at least 1938 through the 1960s, with various associated residential and/or agricultural structures developed to the south, north and west of the site. Railroad tracks were also developed further to the north. By 1967, additional residential structures were developed to the south and west of the site. Additionally, a small pond was present to the south and west and multiple large commercial structures were depicted further west. The surrounding properties remained relatively unchanged through the 1970s and by 1981, additional residential structures were developed further northeast beyond

undeveloped land, as well as further to the north beyond the railroad tracks. Undeveloped and/or agricultural land was located on the adjacent property north of the site. By 1988, a railroad spur was located on the adjacent property east/northeast of the site, and additional commercial structures were developed to the west/northwest. In 1993, a larger warehouse type structure was developed further to the southwest and by 2007, the railroad spur was no longer located to the east/northeast of the site. By 2010, the surrounding properties were developed with the current improvements. No RECs were identified with respect to the current or past use of adjoining properties.

- VERTEX conducted a regulatory review that included a search of state and federal regulatory databases to identify environmental concerns for the site and surrounding properties. Five facilities were identified within the ASTM search distances of the site. Based on distance, apparent gradient relationship, regulatory status, and/or other facility-specific characteristics, no RECs to the site were identified with respect to these facilities.

Non-ASTM Additional Services

In accordance with the scope of work, VERTEX conducted additional services as discussed in Section 9.0 of this report, including the assessment of asbestos-containing materials (ACMs) and lead-based paint (LBP). Assessment of the additional services revealed the following:

- Suspect ACMs observed included tile flooring and associated mastics, drywall, roofing materials, and piping insulation. During the site visit, VERTEX observed a warning sign within an office area hallway identifying roofing, boiler fuel lines, office drywall, and cooling tower side walls as ACMs. VERTEX reviewed the site's asbestos Operations and Maintenance (O&M) plan. No concerns were identified regarding review of the O&M Plan. The materials assessed as well as the materials previously confirmed as ACM were observed to be in generally undamaged physical condition. Based on the fact the site

maintains an ACM O&M plan and the fact that ACM has been sampled and identified within the site building, ACM is not considered a Business Environmental Risk.

- Based on the date of construction (1972), it is possible that LBP is present at the site. No peeling or chipped paint was observed within the site building during the site visit conducted by VERTEX. Based on the industrial use of the site and the fact that no peeling or chipped paint was observed within the site building, the potential presence of LBP within the site building is not considered a Business Environmental Risk to this investigation.

Conclusions

VERTEX has performed a Phase I ESA in conformance with the scope and limitations of ASTM E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, of the INVISTA Property, located at 110 Voyles Road, Athens, Georgia. Any exceptions to, or deletions from, this practice are described in Section 8.0 of this report. This assessment has revealed no evidence of RECs, CRECs, or HRECs in connection with the site. However, the following *de minimis* conditions were identified:

- *De minimis* staining was observed on the concrete around the compactor; however, no evidence of a release of hazardous substances or petroleum products was observed.

- Low concentrations of xylene were detected in groundwater in the area of former fuel oil USTs during a 1988 investigation. The concentration detected was well below the MCL and is considered de minimis.

No additional investigation is recommended at this time.

FINDINGS

Recognized Environmental Condition (REC) is defined by the ASTM Standard Practice E1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

- According to site personnel, two heating oil underground storage tanks (USTs) were previously located on the southeastern exterior of the subject property building. These USTs were reportedly removed in 1986; however, no closure documentation or other information was provided for AEI's review. No records of the USTs were identified by the municipal or regulatory agencies contacted during this assessment. Based on the lack of closure documentation, these former tanks represent a REC for the subject property.

Controlled Recognized Environmental Condition (CREC) is defined by the ASTM Standard Practice E1527-13 as a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

- AEI did not identify evidence of CRECs during the course of this assessment.

Historical Recognized Environmental Condition (HREC) is defined by the ASTM Standard Practice E1527-13 as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

- AEI did not identify evidence of HRECs during the course of this assessment.

Other Environmental Considerations warrant discussion, but do not qualify as RECs as defined by the ASTM Standard Practice E1527-13. These include, but are not limited to, de minimis conditions and/or environmental considerations such as the presence of ACMs, LBP, radon, mold, and lead in drinking water, which can affect the liabilities and financial obligations of the client, the health and safety of site occupants, and the value and marketability of the subject property.

- Due to the age of the subject property building, there is a potential that ACMs are present. The observed suspect ACMs at the subject property were in good condition at the time of the site reconnaissance and are not expected to pose a health and safety concern to the occupants of the subject property at this time. In the event that building renovation or demolition activities are planned, a thorough asbestos survey to identify asbestos-containing building materials is required in accordance with the EPA NESHAP 40 CFR Part 61 prior to demolition or renovation activities that may disturb suspect ACMs.

- Due to the age of the subject property building, there is a potential that LBP is present. All observed painted surfaces were in good condition and are not expected to pose a health and safety concern to the occupants of the subject property at this time. Local regulations may apply to LBP in association with building demolition/renovations and worker/occupant protection. Actual material samples would need to be collected or an X-ray fluorescence (XRF) survey performed in order to determine if LBP is present. It should be noted that construction activities that disturb materials or paints containing any amount of lead may be subject to certain requirements of the OSHA lead standard contained in 29 CFR 1910.1025 and 1926.62.

Conclusions, Opinions, and Recommendations

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Standard Practice E1527-13, the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), and the January 15, 2014 Wells Fargo Bank *Phase I ESA Scope of Work* of 110 Voyles Road, Athens, Clarke County, Georgia, the *subject property*. Any exceptions to, or deletions from, this practice are described in Sections 1.4, 1.5, and 1.6 of this report.

AEI did not identify evidence of RECs or CRECs in connection with the property except for those previously identified in the Findings section. AEI recommends the following:

- Pending the receipt of additional information, AEI recommends that a subsurface assessment of the former USTs be conducted to evaluate the presence/absence of the tanks and any associated impacts.

Phase II
2/15/19
satisfies this

All Phase Environmental, LLC

February 15, 2019

For: Alan Gray
Rooker Company

Subject Site: Invista-Dupont
110 Voyles Road
Athens, Georgia 30601

Limited Phase II Subsurface Investigation Report

All Phase Environmental, LLC completed a Limited Phase II Subsurface Investigation for the Invista-Dupont facility in Athens, Georgia on February 4, 2019. The purpose of the investigation was to test for petroleum hydrocarbons in areas near the former heating oil underground storage tanks (USTs). These non-regulated UST systems were removed prior to 1988 UST regulations. Heating oil USTs would not require any sampling by today's standards, however, any contamination from the former USTs would be regulated. We used present-day UST regulations to assess the current subsurface groundwater conditions near the former UST locations.

Three monitoring wells exist on the subject property in the area of the former USTs. All Phase Environmental collected groundwater samples from two of the monitoring wells (MW-1 and MW-2). (See the enclosed Site Map 1). The third monitoring well was dry. Before each sample was collected with a disposable bailer, the depth to groundwater was measured and the monitoring wells were purged of three well volumes of water. The average depth to groundwater was approximately 36 feet. The groundwater samples were manifested, placed in lab supplied containers, and were shipped overnight to AES Laboratories. The samples were analyzed for BTEX and PAHs.

A hand auger was used to collect one soil sample (HA-1) from a drainpipe discharge area that leads from the parking lot and the former AST dike location. (See the enclosed Site Map 2). The soil sample was collected from 6-12 inches below the ground surface (bgs). The soil sample was manifested, placed in lab supplied containers, and was shipped overnight to AES Laboratories. The sample was analyzed for BTEX, PAHs, TPH-DRO, and TPH-GRO. This sample was needed to assess existing soil conditions down-gradient from the dike drain and parking lot storm water drainage.

Results of Lab Analysis

Table 1 – Soil Sample

	B mg/kg	T mg/kg	E mg/kg	X mg/kg	GRO mg/kg	DRO mg/kg	PAHs mg/kg
HA-1 6"-12"	BRL	BRL	BRL	BRL	BRL	**68**	BRL
Regulatory Standards	0.005	0.400	0.500	27.00	10	10	N/A

BRL = Below Reporting Limits
Concentrations in bold exceed regulatory standards.
Please see the lab report for complete names of chemicals analyzed in the samples.

Table 2 – Groundwater Samples

	B ug/L	T ug/L	E ug/L	X ug/L	PAHs ug/L
MW-1, 35.70'	BRL	BRL	BRL	BRL	BRL
MW-2, 37.55'	BRL	BRL	BRL	BRL	BRL
In-Stream Water Quality Standards	51	5,980	2,100	N/A	N/A

BRL = Below Reporting Limits
Please see the lab report for complete names of chemicals analyzed in the samples.

Although the former heating oil tanks are not regulated by the GA EPD UST Management Program, any potential contamination would be subject to the rules and regulations set forth by the EPD. The above tables include the most stringent regulatory standards for sites located in a lower groundwater pollution susceptibility area as listed in the GA EPD's *UST Guidance Documents*. We also used these guidelines for the basis for our conclusions and recommendations.

Conclusions:

1. BTEX and PAH compounds were below laboratory reporting limits in soil and groundwater.

2. TPH-GRO compounds were below laboratory reporting limits in soil.

3. TPH-DRO (total petroleum hydrocarbon-diesel range organics) contamination levels detected in the soil sample were above the recommended 10 mg/kg. However, the PAH analysis consists of several specific diesel range organics. Therefore, since BTEX and

PAH compounds were delineated to BRL, no further actions or investigations are recommended regarding the detected amount of TPH-DRO.

If you have any questions or comments, please contact us and we will discuss the report with you.

Thomas O. Tweedell — February 18, 2019 (Date)

Signature of Registered Professional Geologist

I certify that I have directed and supervised the field work and preparation of this plan, in accordance with State Rules and Regulations. As a registered geologist, I certify that I am a qualified groundwater professional, as defined by the Georgia State Board of Professional Geologists. All of the information and laboratory data in this plan and in all of the attachments are true, accurate, complete, and in accordance with applicable State Rules and Regulations.

Amanda T. Robertson — February 18, 2019 (Date)



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

February 12, 2019

Tom Tweedell
All Phase Environmental

1233 Wolfskin Road
Arnoldsville GA 30619

RE: Rooter

Dear Tom Tweedell: Order No: 1902401

Analytical Environmental Services, Inc. received 4 samples on 2/6/2019 10:16:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/18-06/30/19.
State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective 07/01/18-06/30/19 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/19.
These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Jessica Shilling

Jessica Shilling

Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1902401

Date: 2-4-2019 Page 1 of 1

COMPANY: ~~All Phase Environmental~~ Tom Tweedell 1233 Wolfskin Rd Annadiville GA 30619 (APE)

ADDRESS:

PHONE: 706 549 9456

EMAIL: allphase1230@att.net

SAMPLED BY: Tom Tweedell (TOT)

SIGNATURE:

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes)	REMARKS	Number of Containers
1	HA-1 6"-12" creek/drainage bed	2-4-19	1125	✓		SO	✓		5
2	MW-1, 35.7' btoc	2-4-19	1150	✓		GW	H+I		6
3	MW-2, 37.55' btoc	2-4-19	1210	✓		GW	H+I		4
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

ANALYSIS REQUESTED: BTEX; PAH-S; TPH-GRO; TPH-DRO; I; I; I

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

RELINQUISHED BY: DATE/TIME:
1. Tom Tweedell (TOT) 2/5/19 4pm
2.
3.

RECEIVED BY: DATE/TIME:
1. Andrew Peters 2-6-19 10:16
2.
3.

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier
other:

PROJECT INFORMATION
PROJECT NAME: Rooster
PROJECT #: 110
SITE ADDRESS: Vaughn rd
SEND REPORT TO: All Phase Env
INVOICE TO (IF DIFFERENT FROM ABOVE):
QUOTE #: PO#:

RECEIPT
Total # of Containers:

Turnaround Time (TAT) Request
- [x] Standard
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other

STATE PROGRAM (if any):
E-mail? ✓ Fax? ☐
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

7.11.18_CO

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST=Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 12-Feb-19

Client:	All Phase Environmental
Project:	Rooter
Lab ID:	1902401

Case Narrative

Sample Receiving Nonconformance:

A Trip Blank was provided but not listed on the Chain of Custody. Trip blank analyzed at no cost to the client.

Analytical Environmental Services, Inc Date: 12-Feb-19

Client:	All Phase Environmental	**Client Sample ID:**	HA-1 6"-12" CREEK/ DRAINAC
Project Name:	Rooter	**Collection Date:**	2/4/2019 11:25:00 AM
Lab ID:	1902401-001	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
VOLATILE ORGANICS SW8260B				(SW5035)				
Benzene	BRL	0.0008		mg/Kg-dry	274172	1	02/08/2019 19:59	JF
Toluene	BRL	0.0008		mg/Kg-dry	274172	1	02/08/2019 19:59	JF
Ethylbenzene	BRL	0.0008		mg/Kg-dry	274172	1	02/08/2019 19:59	JF
m,p-Xylene	BRL	0.0008		mg/Kg-dry	274172	1	02/08/2019 19:59	JF
o-Xylene	BRL	0.0008		mg/Kg-dry	274172	1	02/08/2019 19:59	JF
Surr: 4-Bromofluorobenzene	91.6	65.1-125		%REC	274172	1	02/08/2019 19:59	JF
POLYAROMATIC HYDROCARBONS SW8270D				(SW3546)				
Naphthalene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Acenaphthylene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
1-Methylnaphthalene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
2-Methylnaphthalene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Acenaphthene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Fluorene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Phenanthrene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Anthracene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Fluoranthene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Pyrene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Benz(a)anthracene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Chrysene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Benzo(b)fluoranthene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Benzo(k)fluoranthene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Benzo(a)pyrene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Dibenz(a,h)anthracene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Benzo(g,h,i)perylene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Indeno(1,2,3-cd)pyrene	BRL	0.45		mg/Kg-dry	274079	1	02/08/2019 19:02	RF
Surr: 2-Fluorobiphenyl	63.6	54.4-120		%REC	274079	1	02/08/2019 19:02	RF
Surr: 4-Terphenyl-d14	57.2	60.4-120	S	%REC	274079	1	02/08/2019 19:02	RF
Surr: Nitrobenzene-d5	70	51-120		%REC	274079	1	02/08/2019 19:02	RF
GASOLINE RANGE ORGANICS SW8015C				(SW5035)				
TPH (Gasoline Range Organics)	BRL	0.38		mg/Kg-dry	274172	1	02/08/2019 19:59	JF
Surr: a,a,a-trifluorotoluene	112	71.5-133		%REC	274172	1	02/08/2019 19:59	JF
DIESEL RANGE ORGANICS SW8015C				(SW3550C)				
TPH (Diesel Range Organics)	68	9.2		mg/Kg-dry	274090	1	02/08/2019 22:06	RF
Surr: Dioctylphthalate	110	51.1-122		%REC	274090	1	02/08/2019 22:06	RF
PERCENT MOISTURE D2216								
Percent Moisture	27.1	0		wt%	R390633	1	02/08/2019 14:00	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 12-Feb-19

Client:	All Phase Environmental	**Client Sample ID:**	MW-1, 35.7' B TO C
Project Name:	Rooter	**Collection Date:**	2/4/2019 11:50:00 AM
Lab ID:	1902401-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
VOLATILE ORGANICS SW8260B				(SW5030B)				
Benzene	BRL	1.0		ug/L	274270	1	02/08/2019 13:57	OM
Toluene	BRL	1.0		ug/L	274270	1	02/08/2019 13:57	OM
Ethylbenzene	BRL	1.0		ug/L	274270	1	02/08/2019 13:57	OM
m,p-Xylene	BRL	1.0		ug/L	274270	1	02/08/2019 13:57	OM
o-Xylene	BRL	1.0		ug/L	274270	1	02/08/2019 13:57	OM
Surr: 4-Bromofluorobenzene	104	64-125		%REC	274270	1	02/08/2019 13:57	OM
PAHs by Microextraction SW8270D				(SW3511)				
1-Methylnaphthalene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
2-Methylnaphthalene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Acenaphthene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Acenaphthylene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Anthracene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Benz(a)anthracene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Benzo(a)pyrene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Benzo(b)fluoranthene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Benzo(g,h,i)perylene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Benzo(k)fluoranthene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Chrysene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Dibenz(a,h)anthracene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Fluoranthene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Fluorene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Indeno(1,2,3-cd)pyrene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Naphthalene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Phenanthrene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Pyrene	BRL	9.1		ug/L	274123	1	02/07/2019 17:06	RF
Surr: 2-Fluorobiphenyl	87.7	52.2-120		%REC	274123	1	02/07/2019 17:06	RF
Surr: 4-Terphenyl-d14	123	42.7-120	S	%REC	274123	1	02/07/2019 17:06	RF
Surr: Nitrobenzene-d5	107	50.7-122		%REC	274123	1	02/07/2019 17:06	RF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 12-Feb-19

Client:	All Phase Environmental	**Client Sample ID:**	MW-2, 37.55' B TO C
Project Name:	Rooter	**Collection Date:**	2/4/2019 12:12:00 PM
Lab ID:	1902401-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
VOLATILE ORGANICS SW8260B				(SW5030B)				
Benzene	BRL	1.0		ug/L	274270	1	02/08/2019 14:21	OM
Toluene	BRL	1.0		ug/L	274270	1	02/08/2019 14:21	OM
Ethylbenzene	BRL	1.0		ug/L	274270	1	02/08/2019 14:21	OM
m,p-Xylene	BRL	1.0		ug/L	274270	1	02/08/2019 14:21	OM
o-Xylene	BRL	1.0		ug/L	274270	1	02/08/2019 14:21	OM
Surr: 4-Bromofluorobenzene	103	64-125		%REC	274270	1	02/08/2019 14:21	OM
PAHs by Microextraction SW8270D				(SW3511)				
1-Methylnaphthalene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
2-Methylnaphthalene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Acenaphthene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Acenaphthylene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Anthracene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Benz(a)anthracene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Benzo(a)pyrene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Benzo(b)fluoranthene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Benzo(g,h,i)perylene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Benzo(k)fluoranthene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Chrysene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Dibenz(a,h)anthracene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Fluoranthene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Fluorene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Indeno(1,2,3-cd)pyrene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Naphthalene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Phenanthrene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Pyrene	BRL	8.9		ug/L	274123	1	02/07/2019 18:16	RF
Surr: 2-Fluorobiphenyl	89.4	52.2-120		%REC	274123	1	02/07/2019 18:16	RF
Surr: 4-Terphenyl-d14	140	42.7-120	S	%REC	274123	1	02/07/2019 18:16	RF
Surr: Nitrobenzene-d5	118	50.7-122		%REC	274123	1	02/07/2019 18:16	RF

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 12-Feb-19

Client:	All Phase Environmental	**Client Sample ID:**	TRIP BLANK
Project Name:	Rooter	**Collection Date:**	2/4/2019
Lab ID:	1902401-004	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Benzene	BRL	1.0		ug/L	274270	1	02/08/2019 12:20	OM
Toluene	BRL	1.0		ug/L	274270	1	02/08/2019 12:20	OM
Ethylbenzene	BRL	1.0		ug/L	274270	1	02/08/2019 12:20	OM
m,p-Xylene	BRL	1.0		ug/L	274270	1	02/08/2019 12:20	OM
o-Xylene	BRL	1.0		ug/L	274270	1	02/08/2019 12:20	OM
Surr: 4-Bromofluorobenzene	104	64-125		%REC	274270	1	02/08/2019 12:20	OM

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Clear Save as

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: ALL PHASE ENVIRONMENTAL AES Work Order Number: 1902401

2. Carrier: FedEx ☐ UPS ☒ USPS ☐ Client ☐ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	◉	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	◉	○	○		
5.	Custody seals intact on shipping container?	◉	○	○		
6.	Temperature blanks present?	◉	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	◉	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	◉	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	◉	○	○		
10.	Sampler name and/or signature on COC?	◉	○	○		
11.	Were all samples received within holding time?	◉	○	○		
12.	TAT marked on the COC?	◉	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 1.8 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). EW 2/6/19

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	◉	○	○		
17.	Custody seals present on sample containers?	○	◉	○		
18.	Custody seals intact on sample containers?	○	○	◉		
19.	Do sample container labels match the COC?	◉	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	◉	○	○		
21.	Were all of the samples listed on the COC received?	◉	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	◉	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	◉	○	○		
24.	Were samples received in appropriate containers?	◉	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	◉	○	○		
26.	Were trip blanks submitted?	◉	○	○	listed on COC ☐ not listed on COC ■	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). EW 2/6/19

This section only applies to samples where pH can be checked at Sample Receipt.

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	○	○	◉		
29.	Containers meet preservation guidelines?	○	○	◉		
30.	Was pH adjusted at Sample Receipt?	○	○	◉		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). EW 2/6/19

Locked

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

ANALYTICAL QC SUMMARY REPORT

BatchID: 274079

Sample ID: MB-274079 Client ID: Units: ug/Kg Prep Date: 02/07/2019 Run No: 390545
SampleType: MBLK TestCode: POLYAROMATIC HYDROCARBONS SW8270D BatchID: 274079 Analysis Date: 02/07/2019 Seq No: 8738400

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	BRL	330									
2-Methylnaphthalene	BRL	330									
Acenaphthene	BRL	330									
Acenaphthylene	BRL	330									
Anthracene	BRL	330									
Benz(a)anthracene	BRL	330									
Benzo(a)pyrene	BRL	330									
Benzo(b)fluoranthene	BRL	330									
Benzo(g,h,i)perylene	BRL	330									
Benzo(k)fluoranthene	BRL	330									
Chrysene	BRL	330									
Dibenz(a,h)anthracene	BRL	330									
Fluoranthene	BRL	330									
Fluorene	BRL	330									
Indeno(1,2,3-cd)pyrene	BRL	330									
Naphthalene	BRL	330									
Phenanthrene	BRL	330									
Pyrene	BRL	330									
Surr: 2-Fluorobiphenyl	1731	0	1667		104	54.4	120				
Surr: 4-Terphenyl-d14	1748	0	1667		105	60.4	120				
Surr: Nitrobenzene-d5	1779	0	1667		107	51	120				

Sample ID: LCS-274079 Client ID: Units: ug/Kg Prep Date: 02/07/2019 Run No: 390545
SampleType: LCS TestCode: POLYAROMATIC HYDROCARBONS SW8270D BatchID: 274079 Analysis Date: 02/07/2019 Seq No: 8738403

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1752	330	1667		105	67.6	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL QC SUMMARY REPORT

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

BatchID: 274079

Sample ID: LCS-274079 Client ID:
SampleType: LCS TestCode: POLYAROMATIC HYDROCARBONS SW8270D
Units: ug/Kg BatchID: 274079
Prep Date: 02/07/2019 Analysis Date: 02/07/2019
Run No: 390545 Seq No: 8738403

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2-Methylnaphthalene	1741	330	1667		104	66.9	120				
Acenaphthene	1682	330	1667		101	67.5	120				
Acenaphthylene	1720	330	1667		103	66.5	120				
Anthracene	1743	330	1667		105	70	120				
Benz(a)anthracene	1783	330	1667		107	70	120				
Benzo(a)pyrene	1762	330	1667		106	70	120				
Benzo(b)fluoranthene	1733	330	1667		104	64.9	120				
Benzo(g,h,i)perylene	1749	330	1667		105	70	120				
Benzo(k)fluoranthene	1735	330	1667		104	70	120				
Chrysene	1732	330	1667		104	68.3	120				
Dibenz(a,h)anthracene	1713	330	1667		103	70	120				
Fluoranthene	1714	330	1667		103	70	120				
Fluorene	1701	330	1667		102	69.5	120				
Indeno(1,2,3-cd)pyrene	1748	330	1667		105	70	120				
Naphthalene	1722	330	1667		103	62.8	120				
Phenanthrene	1662	330	1667		99.7	70	120				
Pyrene	1770	330	1667		106	70	120				
Surr: 2-Fluorobiphenyl	1764	0	1667		106	54.4	120				
Surr: 4-Terphenyl-d14	1842	0	1667		110	60.4	120				
Surr: Nitrobenzene-d5	1903	0	1667		114	51	120				

Sample ID: 1902483-002BMS Client ID:
SampleType: MS TestCode: POLYAROMATIC HYDROCARBONS SW8270D
Units: mg/Kg-dry BatchID: 274079
Prep Date: 02/07/2019 Analysis Date: 02/07/2019
Run No: 390545 Seq No: 8739351

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1.660	0.35	1.765		94.1	57.1	120				
2-Methylnaphthalene	1.631	0.35	1.765		92.4	54.9	120				
Acenaphthene	1.609	0.35	1.765		91.2	51.4	120				

Qualifiers:

- `>` Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- `<` Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

ANALYTICAL QC SUMMARY REPORT

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

BatchID: 274079

Sample ID: 1902483-002BMS Client ID:
SampleType: MS TestCode: POLYAROMATIC HYDROCARBONS SW8270D
Units: mg/Kg-dry Prep Date: 02/07/2019 Run No: 390545
BatchID: 274079 Analysis Date: 02/07/2019 Seq No: 8739351

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Acenaphthylene	1.667	0.35	1.765		94.5	56.5	120				
Anthracene	1.701	0.35	1.765		96.4	61.5	120				
Benz(a)anthracene	1.767	0.35	1.765		100	59.6	120				
Benzo(a)pyrene	1.748	0.35	1.765		99.0	63.2	120				
Benzo(b)fluoranthene	1.703	0.35	1.765		96.5	52.3	124				
Benzo(g,h,i)perylene	1.724	0.35	1.765		97.7	50.7	120				
Benzo(k)fluoranthene	1.666	0.35	1.765		94.4	59.2	120				
Chrysene	1.734	0.35	1.765		98.2	56.5	120				
Dibenz(a,h)anthracene	1.687	0.35	1.765		95.6	51.2	119				
Fluoranthene	1.713	0.35	1.765		97.1	58.1	120				
Fluorene	1.663	0.35	1.765		94.2	52.6	120				
Indeno(1,2,3-cd)pyrene	1.684	0.35	1.765		95.4	51.7	119				
Naphthalene	1.537	0.35	1.765		87.1	49.9	120				
Phenanthrene	1.652	0.35	1.765		93.6	57.4	120				
Pyrene	1.767	0.35	1.765		100	56.8	120				
Surr: 2-Fluorobiphenyl	1.544	0	1.765		87.5	54.4	120				
Surr: 4-Terphenyl-d14	1.712	0	1.765		97.0	60.4	120				
Surr: Nitrobenzene-d5	1.511	0	1.765		85.6	51	120				

Sample ID: 1902483-002BMSD Client ID:
SampleType: MSD TestCode: POLYAROMATIC HYDROCARBONS SW8270D
Units: mg/Kg-dry Prep Date: 02/07/2019 Run No: 390545
BatchID: 274079 Analysis Date: 02/07/2019 Seq No: 8739352

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1.700	0.35	1.765		96.3	57.1	120	1.660	2.35	49.8	
2-Methylnaphthalene	1.636	0.35	1.765		92.7	54.9	120	1.631	0.302	54.2	
Acenaphthene	1.630	0.35	1.765		92.4	51.4	120	1.609	1.31	35.6	
Acenaphthylene	1.678	0.35	1.765		95.1	56.5	120	1.667	0.633	26.4	
Anthracene	1.706	0.35	1.765		96.6	61.5	120	1.701	0.290	24.3	

Qualifiers:

- `>` Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- `<` Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

ANALYTICAL QC SUMMARY REPORT

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

BatchID: 274079

Sample ID: 1902483-002BMSD Client ID:
SampleType: MSD TestCode: POLYAROMATIC HYDROCARBONS SW8270D
Units: mg/Kg-dry Prep Date: 02/07/2019 Run No: 390545
BatchID: 274079 Analysis Date: 02/07/2019 Seq No: 8739352

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benz(a)anthracene	1.790	0.35	1.765		101	59.6	120	1.767	1.31	24.8	
Benzo(a)pyrene	1.780	0.35	1.765		101	63.2	120	1.748	1.80	21.8	
Benzo(b)fluoranthene	1.754	0.35	1.765		99.4	52.3	124	1.703	2.94	35.2	
Benzo(g,h,i)perylene	1.730	0.35	1.765		98.0	50.7	120	1.724	0.327	27.7	
Benzo(k)fluoranthene	1.706	0.35	1.765		96.6	59.2	120	1.666	2.35	31.8	
Chrysene	1.752	0.35	1.765		99.2	56.5	120	1.734	1.01	32.7	
Dibenz(a,h)anthracene	1.714	0.35	1.765		97.1	51.2	119	1.687	1.62	34.8	
Fluoranthene	1.706	0.35	1.765		96.7	58.1	120	1.713	0.413	34.2	
Fluorene	1.705	0.35	1.765		96.6	52.6	120	1.663	2.52	52.9	
Indeno(1,2,3-cd)pyrene	1.761	0.35	1.765		99.8	51.7	119	1.684	4.47	35.2	
Naphthalene	1.533	0.35	1.765		86.8	49.9	120	1.537	0.276	54.6	
Phenanthrene	1.620	0.35	1.765		91.8	57.4	120	1.652	1.94	51.4	
Pyrene	1.811	0.35	1.765		103	56.8	120	1.767	2.45	33.8	
Surr: 2-Fluorobiphenyl	1.568	0	1.765		88.8	54.4	120	1.544	0	0	
Surr: 4-Terphenyl-d14	1.725	0	1.765		97.8	60.4	120	1.712	0	0	
Surr: Nitrobenzene-d5	1.571	0	1.765		89.0	51	120	1.511	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL QC SUMMARY REPORT

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

BatchID: 274090

Sample ID: MB-274090	Client ID:				Units: mg/Kg		Prep Date: 02/07/2019		Run No: 390716	
SampleType: MBLK	TestCode: DIESEL RANGE ORGANICS SW8015C				BatchID: 274090		Analysis Date: 02/08/2019		Seq No: 8742618	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
TPH (Diesel Range Organics)	BRL	6.7								
Surr: Dioctylphthalate	3.004	0	3.300		91.0	51.1	122			

Sample ID: LCS-274090	Client ID:				Units: mg/Kg		Prep Date: 02/07/2019		Run No: 390716	
SampleType: LCS	TestCode: DIESEL RANGE ORGANICS SW8015C				BatchID: 274090		Analysis Date: 02/08/2019		Seq No: 8742616	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
TPH (Diesel Range Organics)	26.62	6.7	33.30		79.9	47.3	120			
Surr: Dioctylphthalate	3.023	0	3.330		90.8	51.1	122			

Sample ID: 1902483-002BMS	Client ID:				Units: mg/Kg-dry		Prep Date: 02/07/2019		Run No: 390716	
SampleType: MS	TestCode: DIESEL RANGE ORGANICS SW8015C				BatchID: 274090		Analysis Date: 02/08/2019		Seq No: 8742623	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
TPH (Diesel Range Organics)	18.87	7.1	35.26		53.5	40.5	120			
Surr: Dioctylphthalate	2.195	0	3.526		62.3	51.1	122			

Sample ID: 1902483-002BMSD	Client ID:				Units: mg/Kg-dry		Prep Date: 02/07/2019		Run No: 390716	
SampleType: MSD	TestCode: DIESEL RANGE ORGANICS SW8015C				BatchID: 274090		Analysis Date: 02/08/2019		Seq No: 8742624	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
TPH (Diesel Range Organics)	21.13	7.1	35.26		59.9	40.5	120	18.87	11.3	27.5
Surr: Dioctylphthalate	2.345	0	3.526		66.5	51.1	122	2.195	0	0

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL QC SUMMARY REPORT

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

BatchID: 274123

Sample ID: MB-274123 | Client ID: | Units: ug/L | Prep Date: 02/07/2019 | Run No: 390756
SampleType: MBLK | TestCode: PAHs by Microextraction SW8270D | BatchID: 274123 | Analysis Date: 02/07/2019 | Seq No: 8743672

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	BRL	8.6									
2-Methylnaphthalene	BRL	8.6									
Acenaphthene	BRL	8.6									
Acenaphthylene	BRL	8.6									
Anthracene	BRL	8.6									
Benz(a)anthracene	BRL	8.6									
Benzo(a)pyrene	BRL	8.6									
Benzo(b)fluoranthene	BRL	8.6									
Benzo(g,h,i)perylene	BRL	8.6									
Benzo(k)fluoranthene	BRL	8.6									
Chrysene	BRL	8.6									
Dibenz(a,h)anthracene	BRL	8.6									
Fluoranthene	BRL	8.6									
Fluorene	BRL	8.6									
Indeno(1,2,3-cd)pyrene	BRL	8.6									
Naphthalene	BRL	8.6									
Phenanthrene	BRL	8.6									
Pyrene	BRL	8.6									
Surr: 2-Fluorobiphenyl	27.03	0	28.57		94.6	70	130				
Surr: 4-Terphenyl-d14	31.73	0	28.57		111	70	130				
Surr: Nitrobenzene-d5	31.74	0	28.57		111	70	130				

Sample ID: LCS-274123 | Client ID: | Units: ug/L | Prep Date: 02/07/2019 | Run No: 390756
SampleType: LCS | TestCode: PAHs by Microextraction SW8270D | BatchID: 274123 | Analysis Date: 02/07/2019 | Seq No: 8743673

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	30.24	8.6	28.57		106	70	130				
2-Methylnaphthalene	28.27	8.6	28.57		98.9	70	130				

Qualifiers:

- `>` Greater than Result value
- `<` Less than Result value
- B Analyte detected in the associated method blank
- BRL Below reporting limit
- E Estimated (value above quantitation range)
- H Holding times for preparation or analysis exceeded
- J Estimated value detected below Reporting Limit
- N Analyte not NELAC certified
- R RPD outside limits due to matrix
- Rpt Lim Reporting Limit
- S Spike Recovery outside limits due to matrix

ANALYTICAL QC SUMMARY REPORT

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

BatchID: 274123

Sample ID: LCS-274123 | Client ID: | Units: ug/L | Prep Date: 02/07/2019 | Run No: 390756
SampleType: LCS | TestCode: PAHs by Microextraction SW8270D | BatchID: 274123 | Analysis Date: 02/07/2019 | Seq No: 8743673

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Acenaphthene	29.75	8.6	28.57		104	70	130				
Acenaphthylene	31.02	8.6	28.57		109	70	130				
Anthracene	32.35	8.6	28.57		113	70	130				
Benz(a)anthracene	34.30	8.6	28.57		120	70	130				
Benzo(a)pyrene	33.36	8.6	28.57		117	70	130				
Benzo(b)fluoranthene	32.30	8.6	28.57		113	70	130				
Benzo(g,h,i)perylene	34.64	8.6	28.57		121	70	130				
Benzo(k)fluoranthene	32.41	8.6	28.57		113	70	130				
Chrysene	31.87	8.6	28.57		112	70	130				
Dibenz(a,h)anthracene	35.42	8.6	28.57		124	70	130				
Fluoranthene	34.07	8.6	28.57		119	70	130				
Fluorene	29.38	8.6	28.57		103	70	130				
Indeno(1,2,3-cd)pyrene	35.71	8.6	28.57		125	70	130				
Naphthalene	27.92	8.6	28.57		97.7	70	130				
Phenanthrene	30.79	8.6	28.57		108	70	130				
Pyrene	31.48	8.6	28.57		110	70	130				
Surr: 2-Fluorobiphenyl	28.39	0	28.57		99.4	70	130				
Surr: 4-Terphenyl-d14	32.59	0	28.57		114	70	130				
Surr: Nitrobenzene-d5	33.72	0	28.57		118	70	130				

Sample ID: 1902401-002BMS | Client ID: MW-1, 35.7' B TO C | Units: ug/L | Prep Date: 02/07/2019 | Run No: 390756
SampleType: MS | TestCode: PAHs by Microextraction SW8270D | BatchID: 274123 | Analysis Date: 02/07/2019 | Seq No: 8743675

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	31.71	9.1	30.22		105	53.4	120				
2-Methylnaphthalene	30.92	9.1	30.22		102	49.3	120				
Acenaphthene	32.42	9.1	30.22		107	59.8	120				
Acenaphthylene	34.58	9.1	30.22		114	56.3	120				

Qualifiers:

- `>` Greater than Result value
- `<` Less than Result value
- B Analyte detected in the associated method blank
- BRL Below reporting limit
- E Estimated (value above quantitation range)
- H Holding times for preparation or analysis exceeded
- J Estimated value detected below Reporting Limit
- N Analyte not NELAC certified
- R RPD outside limits due to matrix
- Rpt Lim Reporting Limit
- S Spike Recovery outside limits due to matrix

ANALYTICAL QC SUMMARY REPORT

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

BatchID: 274123

Sample ID: 1902401-002BMS | Client ID: MW-1, 35.7' B TO C | Units: ug/L | Prep Date: 02/07/2019 | Run No: 390756
SampleType: MS | TestCode: PAHs by Microextraction SW8270D | BatchID: 274123 | Analysis Date: 02/07/2019 | Seq No: 8743675

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	32.78	9.1	30.22		108	64.2	118				
Benz(a)anthracene	18.84	9.1	30.22		62.3	63	124				S
Benzo(a)pyrene	37.31	9.1	30.22		123	57.6	126				
Benzo(b)fluoranthene	29.58	9.1	30.22		97.9	62.1	133				
Benzo(g,h,i)perylene	31.40	9.1	30.22		104	54.8	127				
Benzo(k)fluoranthene	41.79	9.1	30.22		138	52.4	123				S
Chrysene	32.33	9.1	30.22		107	62.6	118				
Dibenz(a,h)anthracene	33.10	9.1	30.22		110	52.8	125				
Fluoranthene	37.36	9.1	30.22		124	69.7	121				S
Fluorene	35.97	9.1	30.22		119	57.8	117				S
Indeno(1,2,3-cd)pyrene	32.56	9.1	30.22		108	51.1	129				
Naphthalene	30.87	9.1	30.22		102	43.5	120				
Phenanthrene	32.61	9.1	30.22		108	61.7	121				
Pyrene	39.19	9.1	30.22		130	67.3	118				S
Surr: 2-Fluorobiphenyl	28.64	0	30.22		94.8	52.2	120				
Surr: 4-Terphenyl-d14	38.54	0	30.22		128	42.7	120				S
Surr: Nitrobenzene-d5	36.61	0	30.22		121	50.7	122				

Sample ID: 1902401-002BMSD | Client ID: MW-1, 35.7' B TO C | Units: ug/L | Prep Date: 02/07/2019 | Run No: 390756
SampleType: MSD | TestCode: PAHs by Microextraction SW8270D | BatchID: 274123 | Analysis Date: 02/07/2019 | Seq No: 8743676

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	29.78	9.2	30.58		97.4	53.4	120	31.71	6.27	19.6	
2-Methylnaphthalene	28.67	9.2	30.58		93.8	49.3	120	30.92	7.54	21.2	
Acenaphthene	30.41	9.2	30.58		99.4	59.8	120	32.42	6.40	19.2	
Acenaphthylene	32.49	9.2	30.58		106	56.3	120	34.58	6.23	18.9	
Anthracene	31.84	9.2	30.58		104	64.2	118	32.78	2.90	18.9	
Benz(a)anthracene	20.15	9.2	30.58		65.9	63	124	18.84	6.74	18.4	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL QC SUMMARY REPORT

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

BatchID: 274123

Sample ID: 1902401-002BMSD Client ID: MW-1, 35.7' B TO C
SampleType: MSD TestCode: PAHs by Microextraction SW8270D
Units: ug/L Prep Date: 02/07/2019 Run No: 390756
BatchID: 274123 Analysis Date: 02/07/2019 Seq No: 8743676

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzo(a)pyrene	36.65	9.2	30.58		120	57.6	126	37.31	1.77	21.9	
Benzo(b)fluoranthene	34.02	9.2	30.58		111	62.1	133	29.58	14.0	22.2	
Benzo(g,h,i)perylene	30.81	9.2	30.58		101	54.8	127	31.40	1.92	25.8	
Benzo(k)fluoranthene	36.65	9.2	30.58		120	52.4	123	41.79	13.1	21.2	
Chrysene	36.75	9.2	30.58		120	62.6	118	32.33	12.8	17.5	S
Dibenz(a,h)anthracene	32.65	9.2	30.58		107	52.8	125	33.10	1.35	26	
Fluoranthene	36.46	9.2	30.58		119	69.7	121	37.36	2.45	17.8	
Fluorene	34.84	9.2	30.58		114	57.8	117	35.97	3.18	21.6	
Indeno(1,2,3-cd)pyrene	32.57	9.2	30.58		107	51.1	129	32.56	0.026	26	
Naphthalene	27.09	9.2	30.58		88.6	43.5	120	30.87	13.0	21.9	
Phenanthrene	31.24	9.2	30.58		102	61.7	121	32.61	4.31	21.8	
Pyrene	42.43	9.2	30.58		139	67.3	118	39.19	7.95	18	S
Surr: 2-Fluorobiphenyl	29.90	0	30.58		97.8	52.2	120	28.64	0	0	
Surr: 4-Terphenyl-d14	45.94	0	30.58		150	42.7	120	38.54	0	0	S
Surr: Nitrobenzene-d5	38.39	0	30.58		126	50.7	122	36.61	0	0	S

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL QC SUMMARY REPORT

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

BatchID: 274172

Sample ID: MB-274172 | Client ID: | Units: ug/Kg | Prep Date: 02/07/2019 | Run No: 390522
SampleType: MBLK | TestCode: VOLATILE ORGANICS SW8260B | BatchID: 274172 | Analysis Date: 02/07/2019 | Seq No: 8737811

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	BRL	1.0									
Ethylbenzene	BRL	1.0									
m,p-Xylene	BRL	1.0									
o-Xylene	BRL	1.0									
Toluene	BRL	1.0									
Surr: 4-Bromofluorobenzene	44.22	0	50.00		88.4	65.1	125				

Sample ID: MB-274172 | Client ID: | Units: mg/Kg | Prep Date: 02/07/2019 | Run No: 390692
SampleType: MBLK | TestCode: GASOLINE RANGE ORGANICS SW8015C | BatchID: 274172 | Analysis Date: 02/08/2019 | Seq No: 8742439

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
TPH (Gasoline Range Organics)	BRL	0.50									
Surr: a,a,a-trifluorotoluene	0.05510	0	0.0500		110	71.5	133				

Sample ID: LCS-274172 | Client ID: | Units: ug/Kg | Prep Date: 02/07/2019 | Run No: 390522
SampleType: LCS | TestCode: VOLATILE ORGANICS SW8260B | BatchID: 274172 | Analysis Date: 02/07/2019 | Seq No: 8739421

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	49.52	1.0	50.00		99.0	71.3	130				
Ethylbenzene	52.37	1.0	50.00		105	74.7	126				
m,p-Xylene	102.9	1.0	100.0		103	72.5	127				
o-Xylene	51.49	1.0	50.00		103	73.1	127				
Toluene	50.35	1.0	50.00		101	70.4	127				
Surr: 4-Bromofluorobenzene	48.89	0	50.00		97.8	65.1	125				

Qualifiers:

- `>` Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- `<` Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

ANALYTICAL QC SUMMARY REPORT

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

BatchID: 274172

Sample ID: LCS-274172 | Client ID: | Units: mg/Kg | Prep Date: 02/07/2019 | Run No: 390692
SampleType: LCS | TestCode: GASOLINE RANGE ORGANICS SW8015C | BatchID: 274172 | Analysis Date: 02/08/2019 | Seq No: 8742443

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
TPH (Gasoline Range Organics)	1.057	0.50	1.000		106	68.8	123				
Surr: a,a,a-trifluorotoluene	0.05856	0	0.0500		117	71.5	133				

Sample ID: 1902401-001AMS | Client ID: HA-1 6"-12" CREEK/ DRAINAGE BED | Units: mg/Kg-dry | Prep Date: 02/07/2019 | Run No: 390795
SampleType: MS | TestCode: GASOLINE RANGE ORGANICS SW8015C | BatchID: 274172 | Analysis Date: 02/11/2019 | Seq No: 8744569

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
TPH (Gasoline Range Organics)	0.6699	0.39	0.7727		86.7	54.2	134				
Surr: a,a,a-trifluorotoluene	0.04919	0	0.0386		127	71.5	133				

Sample ID: 1902263-001ADUP | Client ID: | Units: mg/Kg-dry | Prep Date: 02/07/2019 | Run No: 390795
SampleType: DUP | TestCode: GASOLINE RANGE ORGANICS SW8015C | BatchID: 274172 | Analysis Date: 02/11/2019 | Seq No: 8744564

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
TPH (Gasoline Range Organics)	BRL	0.70						0.1420	0	20	
Surr: a,a,a-trifluorotoluene	0.08625	0						0.09491	0	0	

Sample ID: 1902374-001ADUP | Client ID: | Units: mg/Kg-dry | Prep Date: 02/07/2019 | Run No: 390621
SampleType: DUP | TestCode: VOLATILE ORGANICS SW8260B | BatchID: 274172 | Analysis Date: 02/08/2019 | Seq No: 8742137

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	BRL	0.0011						0	0	20	
Ethylbenzene	BRL	0.0011						0	0	20	
m,p-Xylene	BRL	0.0011						0	0	20	
o-Xylene	BRL	0.0011						0	0	20	
Toluene	BRL	0.0011						0	0	20	
Surr: 4-Bromofluorobenzene	0.05549	0						0.05230	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL QC SUMMARY REPORT

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

BatchID: 274270

Sample ID: MB-274270 Client ID:
SampleType: MBLK TestCode: VOLATILE ORGANICS SW8260B
Units: ug/L Prep Date: 02/08/2019 Run No: 390620
BatchID: 274270 Analysis Date: 02/08/2019 Seq No: 8740128

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	BRL	1.0									
Ethylbenzene	BRL	1.0									
m,p-Xylene	BRL	1.0									
o-Xylene	BRL	1.0									
Toluene	BRL	1.0									
Surr: 4-Bromofluorobenzene	51.18	0	50.00		102	64	125				

Sample ID: LCS-274270 Client ID:
SampleType: LCS TestCode: VOLATILE ORGANICS SW8260B
Units: ug/L Prep Date: 02/08/2019 Run No: 390620
BatchID: 274270 Analysis Date: 02/08/2019 Seq No: 8741805

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	48.28	1.0	50.00		96.6	72.3	126				
Ethylbenzene	48.17	1.0	50.00		96.3	72.8	126				
m,p-Xylene	94.56	1.0	100.0		94.6	70	129				
o-Xylene	46.78	1.0	50.00		93.6	70.3	126				
Toluene	48.11	1.0	50.00		96.2	70.5	128				
Surr: 4-Bromofluorobenzene	52.17	0	50.00		104	64	125				

Sample ID: 1902404-009AMS Client ID:
SampleType: MS TestCode: VOLATILE ORGANICS SW8260B
Units: ug/L Prep Date: 02/08/2019 Run No: 390620
BatchID: 274270 Analysis Date: 02/08/2019 Seq No: 8741803

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	48.10	1.0	50.00		96.2	66.1	137				
Ethylbenzene	48.68	1.0	50.00		97.4	74	134				
m,p-Xylene	96.44	1.0	100.0		96.4	73.8	136				
o-Xylene	47.98	1.0	50.00		96.0	71.6	135				
Toluene	48.28	1.0	50.00		96.6	63.8	141				
Surr: 4-Bromofluorobenzene	54.11	0	50.00		108	64	125				

Qualifiers:

- `>` Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- `<` Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

ANALYTICAL QC SUMMARY REPORT

Client: All Phase Environmental
Project Name: Rooter
Workorder: 1902401

BatchID: 274270

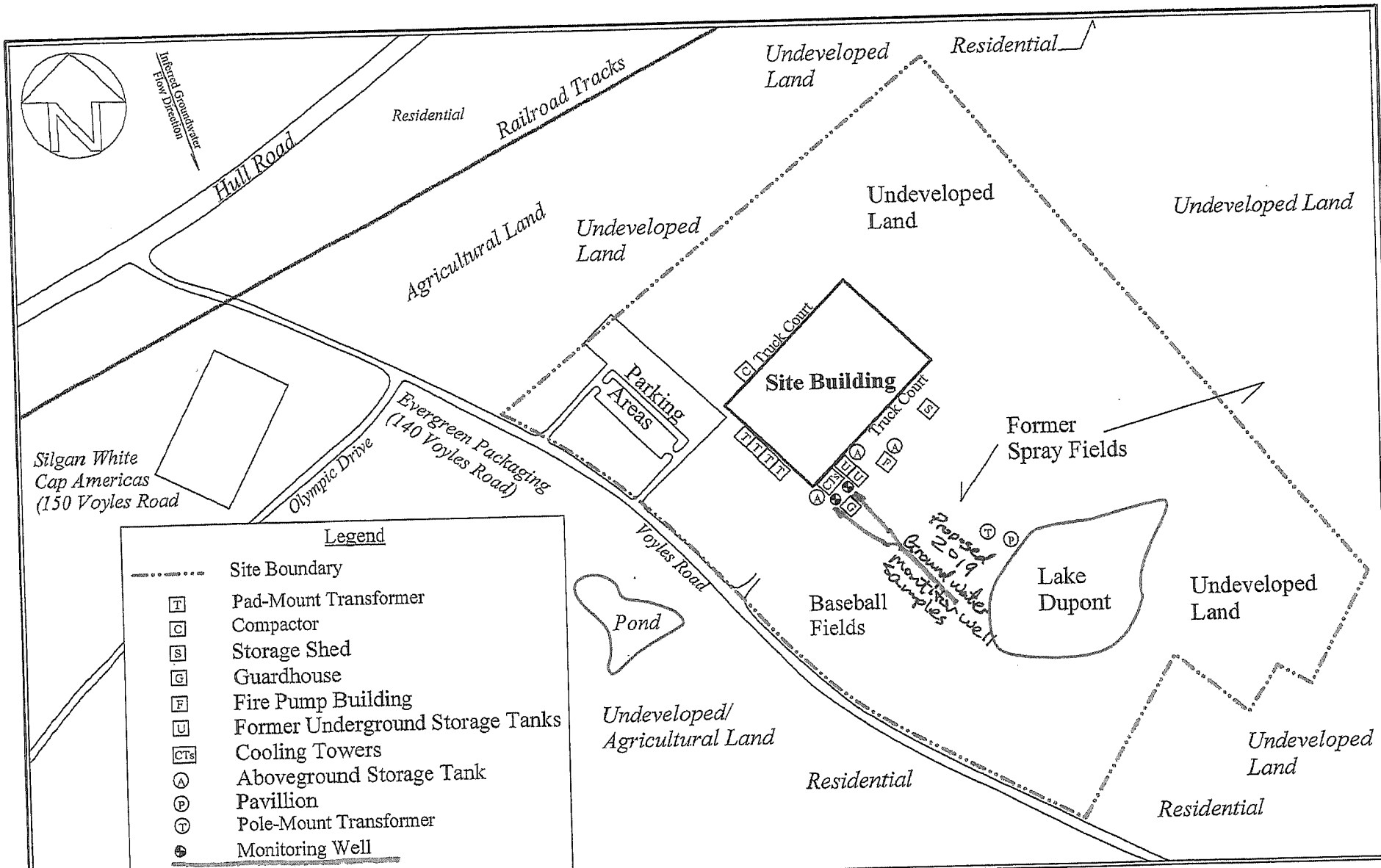
Sample ID: 1902401-002ADUP Client ID: MW-1, 35.7' B TO C
SampleType: DUP TestCode: VOLATILE ORGANICS SW8260B

Units: ug/L Prep Date: 02/08/2019 Run No: 390620
BatchID: 274270 Analysis Date: 02/08/2019 Seq No: 8741804

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	BRL	1.0						0	0	20	
Ethylbenzene	BRL	1.0						0	0	20	
m,p-Xylene	BRL	1.0						0	0	20	
o-Xylene	BRL	1.0						0	0	20	
Toluene	BRL	1.0						0	0	20	
Surr: 4-Bromofluorobenzene	52.21	0				64	125	52.18	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



SITE SCHEMATIC

Invista Property
110 Voyles Road
Athens, Georgia 30601

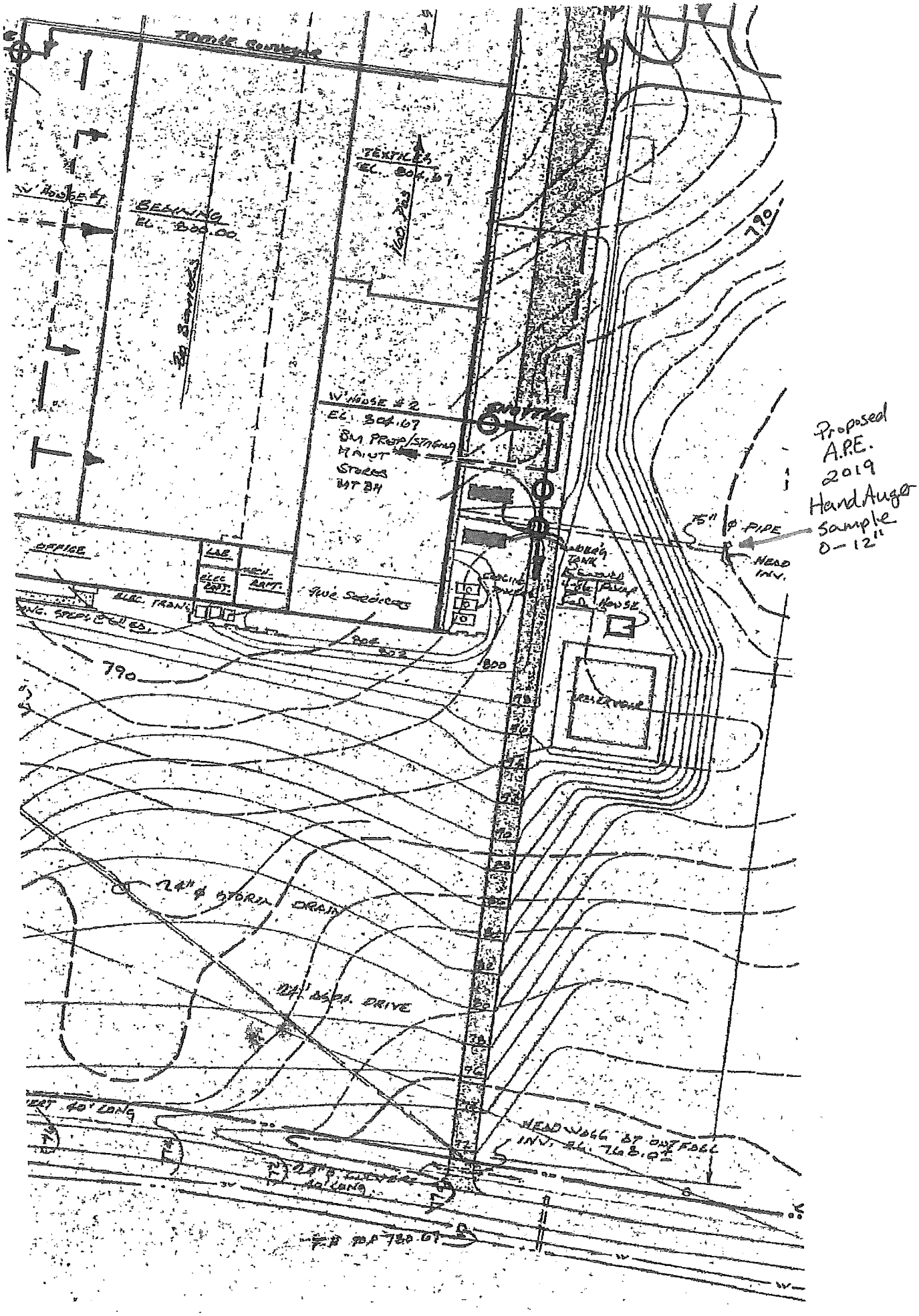
SCALE: NOT TO SCALE

July 2018

VERTEX Proj. No. 51521

VERTEX®

Figure No. 2


Proposed
A.P.E.
2019
Hand Auger
Sample
0-12"
75" ø PIPE
HEAD INV.
790
24" ø STORM DRAIN
124' DEPR. DRIVE
HEAD WALL AT OUTFALL
INV. EL. 768.0±
OFFICE
LAB.
ELEC. EQPT.
MAIN ENT.
ELEC. PANEL
SHED
TANK
PUMP
HOUSE

SITE SELECTION AND EVALUATION REPORT FOR PROPOSED LAND APPLICATION SYSTEM

RWDC Industries, LLC
Athens, Georgia

January 2020

PREPARED BY

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NUTTER+ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Site Selection and Evaluation Report For Proposed Land Application System

Athens, Georgia

Prepared for:

RWDC Industries, LLC

Prepared by

Nutter & Associates, Inc.
Athens, Georgia
(706) 354-7925

January 2020

TABLE OF CONTENTS

LIST OF TABLES ii

LIST OF FIGURES iii

1.0 INTRODUCTION 1

2.0 SITE DESCRIPTION 2
2.1 Proposed LAS Site 2
2.4 Threatened or Endangered Species 2
2.5 Cultural and Historic Resources 2

3.0 SITE SOIL CHARACTERISTICS 3
3.1 Suitable Soils 3
3.1.1 Appling Series 3
3.1.2 Madison Series 4
3.1.3 Pacolet Series 4
3.2 Site Reconnaissance 4

4.0 CONCLUSION AND RECOMMENDATIONS 5

5.0 REFERENCES 6

APPENDIX A. Soil Profile Descriptions

LIST OF TABLES

Table 1. Physical characteristics of suitable soil series as reported in the Soil Survey of Clarke and Oconee Counties.

LIST OF FIGURES

Figure 1. Site vicinity and location of the proposed RWDC Industries LAS site, Athens, Clarke County, Georgia.

Figure 2. USGS topographic map of the proposed RWDC Industries LAS site, Athens, Clarke County, Georgia.

Figure 3. FEMA flood hazard zones map of the proposed RWDC Industries LAS site, Athens, Clarke County, Georgia.

Figure 4. NRCS soil map of the proposed RWDC Industries LAS site, Athens, Clarke County, Georgia.

Figure 5. Projected suitable soil areas, RWDC Industries Athens Facility, Clarke County, Georgia.

1.0 INTRODUCTION

RWDC Industries, LLC is evaluating the feasibility for a Land Application System (LAS) that will provide treatment of "recovery water" from a biopolymer production facility in Athens, Clarke County, Georgia. Total flow is initially projected to be approximately 30,000 gallons per day (GPD) at startup. The vast majority of the flow is intended to be reused within the facility following treatment by dissolved air flotation (DAF) and polishing within a constructed wetland recycling system. The volume of material discharged to the LAS may be as high as 200,000 GPD, but after the entire water recovery system is installed and operational the discharge to LAS will average approximately 50,000 to 75,000 GPD on a more consistent long-term basis. Projected flow volume will be further refined during the design phase of the project. There will be no domestic waste or hazardous constituents included in these streams to LAS, and solids may be utilized as a soil amendment.

The proposed site is a 132-acre parcel located off of Voyles Road (Figure 1). Undeveloped areas of the site are being considered for use with the wetland recycling system and land application spray fields.

Nutter & Associates, Inc. has prepared this Site Selection and Evaluation Report (SSER) in general accordance with Table 2.1-2 of the Georgia Environmental Protection Division (EPD) *Guidelines for Slow-Rate Land Treatment of Wastewater (Revised, 2010)* for the area considered for the LAS.

The objective of the project is to permit a land application system that will provide treatment of recovery water from the biopolymer production facility. The information provided in this evaluation report is submitted to obtain concurrence from EPD to proceed with a detailed site investigation and preparation of a Design Development Report for the project.

2.0 SITE DESCRIPTION

The proposed site is in Clarke County, within the Winder Slope District of the Southern Piedmont Section of the Piedmont physiographic province (Clarke and Zisa, 1976). This area is characterized by the headwater tributaries of the major streams draining to the Atlantic Ocean. The stream valleys are broad and shallow with gentle side slopes separated by broad, rounded divides. The location of Clarke County and the general vicinity of the RWDC site are presented in Figure 1. The following sections describe general features of the proposed site, including land use, topography, and drainage/surface water features.

2.1 Proposed LAS Site

The proposed LAS site (Site) is located northeast of the City of Athens at 110 Voyles Road (Figure 1). The Site is accessed directly from Voyles Road. The Site is owned by RWDC Industries, LLC and was formerly a Invista/Dupont facility. The associated infrastructure is currently being renovated for use as biopolymer production facility. The undeveloped portions of the 132-acre site are vegetated with mixed pine/hardwood forested land and maintained grass. A large impoundment utilized as a recreational pond is in the eastern portion of the site. A former LAS operated by Dupont is located southeast of the RWDC facility, which is no longer in operation. Portions of the former LAS site may be utilized for land treatment or for siting the wetland recycling system.

The site pond is an impoundment of an unnamed tributary to the East Fork of Trail Creek. Trail Creek ultimately flows to the North Oconee River. Another unnamed tributary bisects the western boundary of the site and joins East Fork just south of the impoundment. The western portions of the site are characterized by gentle slopes ranging from 2 to 15 percent with steeper slopes near the stream channels and draws. The eastern portion of the site is flatter and includes areas around the existing facility that have been graded to nearly level. Elevations at the site range from 813 feet North American Vertical Datum (NAVD88) along the ridge tops to 728 feet in the floodplain along the tributaries to East Fork. Figure 2 presents a portion of the USGS Athens East, GA 7.5-minute topographic map showing the site topography and surface hydrologic features. Figure 3 presents FEMA flood zone mapping.

2.2 Threatened or Endangered Species

Review of the US Fish and Wildlife Service (USFWS) "Initial Project Scoping (IPaC)" identified no federally listed threatened, endangered, or candidate species that may occur near the Site. No critical habitats were identified within the project area.

2.3 Cultural and Historic Resources

The National Register of Historic Places website was consulted to determine the presence of cultural resources within the project area. No resources were identified within the site vicinity. In addition, the USGS topographic quadrangle shows no cemeteries within the Site.

3.0 SITE SOIL CHARACTERISTICS

Based on the Soil Conservation Service (SCS) Soil Survey of Clarke and Oconee Counties (Robertson, 1968), the soil series mapped within the Site are Appling, Cecil, Colfax, Chewacla, Davidson, Madison, and Pacolet. A rock outcrop and a water feature are also mapped. Figure 4 presents the NRCS soils map for the site. Due to topographic location and seasonal high-water table, Colfax and Chewacla series soils are not suitable for wastewater irrigation and are excluded from consideration. Physical characteristics of the suitable soil series significant to wastewater treatment as reported by the USDA-NRCS Soil Survey are presented in Table 1. A brief description of the suitable soils mapped on the site follows.

3.1 Suitable Soils

3.1.1 Appling Series

The Appling series consists of very deep, well drained, moderately permeable soils. They are formed in material weathered from felsic igneous and metamorphic rocks. Appling soils are found in the uplands on ridges and hillsides. Slopes range from 0 to 25 percent. The surface horizon is generally brown with a sandy loam to loamy sand texture to 6 inches. The subsurface horizon to 60 inches is yellowish-red to brown with a clay loam to clay texture. Below 60 inches, a reddish yellow loamy saprolite extends to a depth greater than 60 inches. The depth of bedrock is greater than 60 inches. The depth of the seasonal high-water table is greater than 60 inches.

3.1.2 Cecil Series

Cecil series consists of deep, well drained, moderately permeable soils. They are formed in material weathered from granite, gneiss, and schist. Cecil soils are found in the uplands on broad plateaus, ridgetops, and hillsides. Slopes range from 2 to 10 percent. The surface horizon is generally dark yellowish-brown with a sandy loam texture to 7 inches. The subsurface horizon to 50 inches is yellowish-red to red with a clay loam to clay texture. Below 50 inches, a reddish loamy saprolite extends to a depth of 60 inches. The depth of bedrock is greater than 60 inches. The depth of the seasonal high-water table is greater than 60 inches.

3.1.3 Davidson Series

The Davidson series consists of very deep, well drained, moderately permeable soils. They are formed in material weathered from dark colored rocks. Davidson soils are found on gently sloping to moderately steep uplands in the Piedmont. Slopes range from 2 to 25 percent. The surface horizon is generally dark reddish-brown with a loam texture to 7 inches. The subsurface horizon to 72 inches is dark red with a clay texture. The depth of bedrock is greater than 72 inches. The depth of the seasonal high-water table is greater than 60 inches.

3.1.4 Madison Series

Madison series consists of deep, well drained, moderately permeable soils. They are formed in material weathered from felsic metamorphic or igneous rocks high in mica content. Madison soils are found on gently sloping to steep uplands. Slopes are mostly between 4 and 15 percent but range from 2 to 60 percent. The surface horizon is generally yellowish brown to strong brown with a sandy loam texture to 6 inches. The subsurface horizon to 35 inches is red with a clay texture. Below 35 inches, a yellowish red loamy saprolite extends to a depth of 72 inches. The depth to bedrock is greater than 60 inches. The depth of the seasonal high-water table is greater than 60 inches.

3.1.5 Pacolet Series

Pacolet series consists of deep, well drained, moderately permeable soils. They are formed in material weathered from granite, gneiss, and mica schist. Pacolet soils are found on moderately long or short hillsides that are mainly adjacent to drainage ways. Slopes range from 10 to 25 percent. The surface horizon is generally brown with a sandy loam texture to 5 inches. The subsurface horizon to 30 inches is red with a clay loam texture. Below 30 inches, a brownish-yellow sandy loam saprolite extends to a depth of 60 inches. The depth to bedrock is greater than 60 inches. The depth of the seasonal high-water table is greater than 60 inches.

3.2 Site Reconnaissance

In September 2019, Nutter & Associates, Inc. conducted a preliminary site evaluation to confirm the published soil mapping and to assess suitability for land treatment at the Site. Representative portions of the site were traversed and the topography and general landscape characteristics were observed. Five (5) hand auger borings were advanced across the site to capture different landscape positions (Figure 5). Soil profile descriptions are included in Appendix A. The vast majority of the site consists of Cecil and Pacolet series soils, which are suitable for land treatment.

Soils in the leveled area southeast of the facility were graded (see soil boring B4). The surface horizon and clay subsoil horizon were removed sometime in the past. The remaining soil profile is consistent with saprolitic horizons observed deeper in Cecil and Pacolet series soils.

Cecil and Pacolet series soils are considered suitable for land application of recovery water from the RWDC facility. Based on the site evaluation and Geographic Information Systems (GIS) analysis, approximately 40 acres are projected to be suitable for land treatment (Figure 5). This projected suitable area consists of the suitable soil series remaining after observing setbacks required for habitable structures, property boundaries, streams, and other unsuitable landscape positions.

4.0 CONCLUSION AND RECOMMENDATIONS

Based on the available published data, preliminary site reconnaissance, and experience with other land application systems that have similar landscapes and soil characteristics, the site is suitable for land treatment of recovery water. The portions of the site suitable for treatment include ridgetops and side slopes. The unsuitable areas occur along the drainage features, surface water bodies, and property boundaries. Based on the site evaluation, the soil series suitable for land treatment include Cecil and Pacolet.

Of the 132 acres, approximately 40 acres are considered suitable for land treatment. This suitable area consists of the suitable soil series excluding setbacks.

Nutter & Associates, Inc. requests EPD concurrence that the sites are suitable for the proposed land application system and permission to precede with preparation of a Design Development Report for the project.

5.0 REFERENCES

Clark, W.Z., Jr. and A.C. Zisa. 1976. Physiographic Map of Georgia, Georgia Department of Natural Resources, Atlanta, Georgia.

Robertson, Stanley M. 1968. Soil Survey of Clarke and Oconee Counties, Georgia. US Department of Agriculture Soil Conservation Service. US Government Printing Office, Washington, D.C.

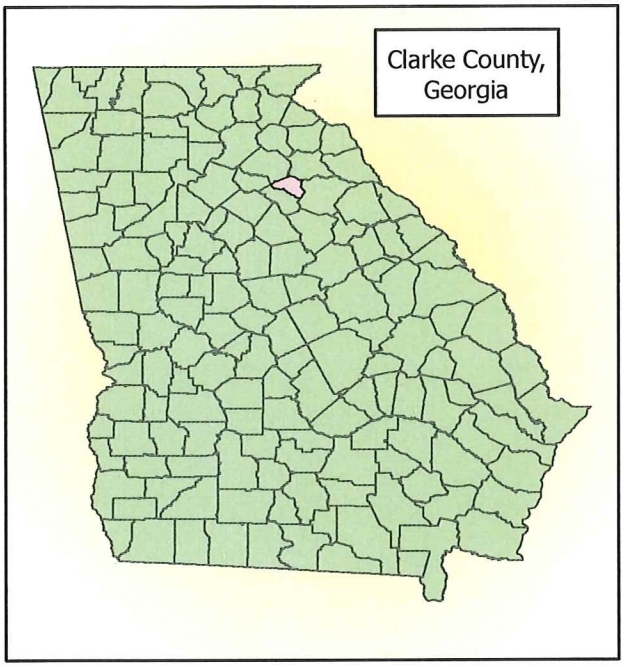
TABLE

Table 1. Physical characteristics of suitable soil series as reported in the Soil Survey of Clarke and Oconee Counties.

Soil Series	Erosion Hazard	Drainage	Seasonal High Water Table	Depth to Bedrock	Horizon Depth	Permeability
			inches			Inches/hour
Cecil	Moderate	WD[1]	>72	>60	0-8	2.0-6.3
					8-14	0.63-2.0
					14-46	0.63-2.0
					46-52	0.63-2.0
Pacolet	Moderate	WD[1]	>72	72	0-5	2.0-6.3
					5-12	0.63-2.0
					12-26	0.63-2.0
					26-50	0.63-2.0

[1]WD = well drained

FIGURES



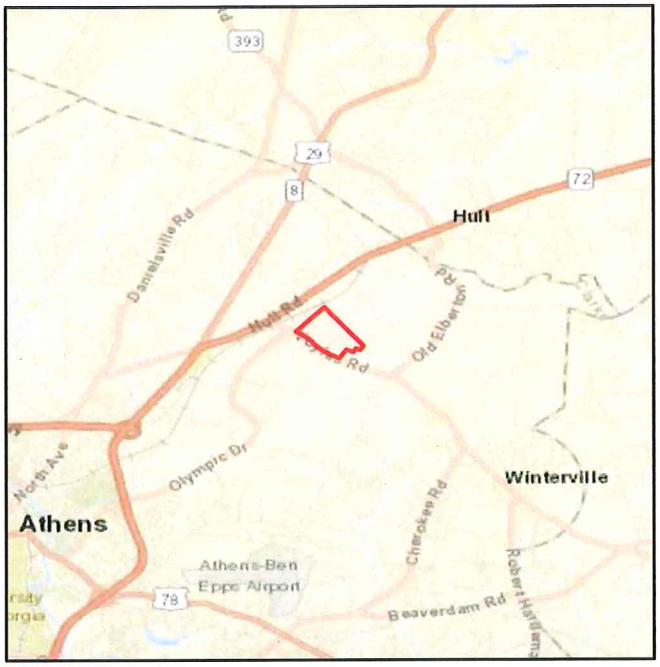




Figure 1. Site vicinity and location of the proposed RWDC Industries LAS site, Athens, Clarke County, Georgia.

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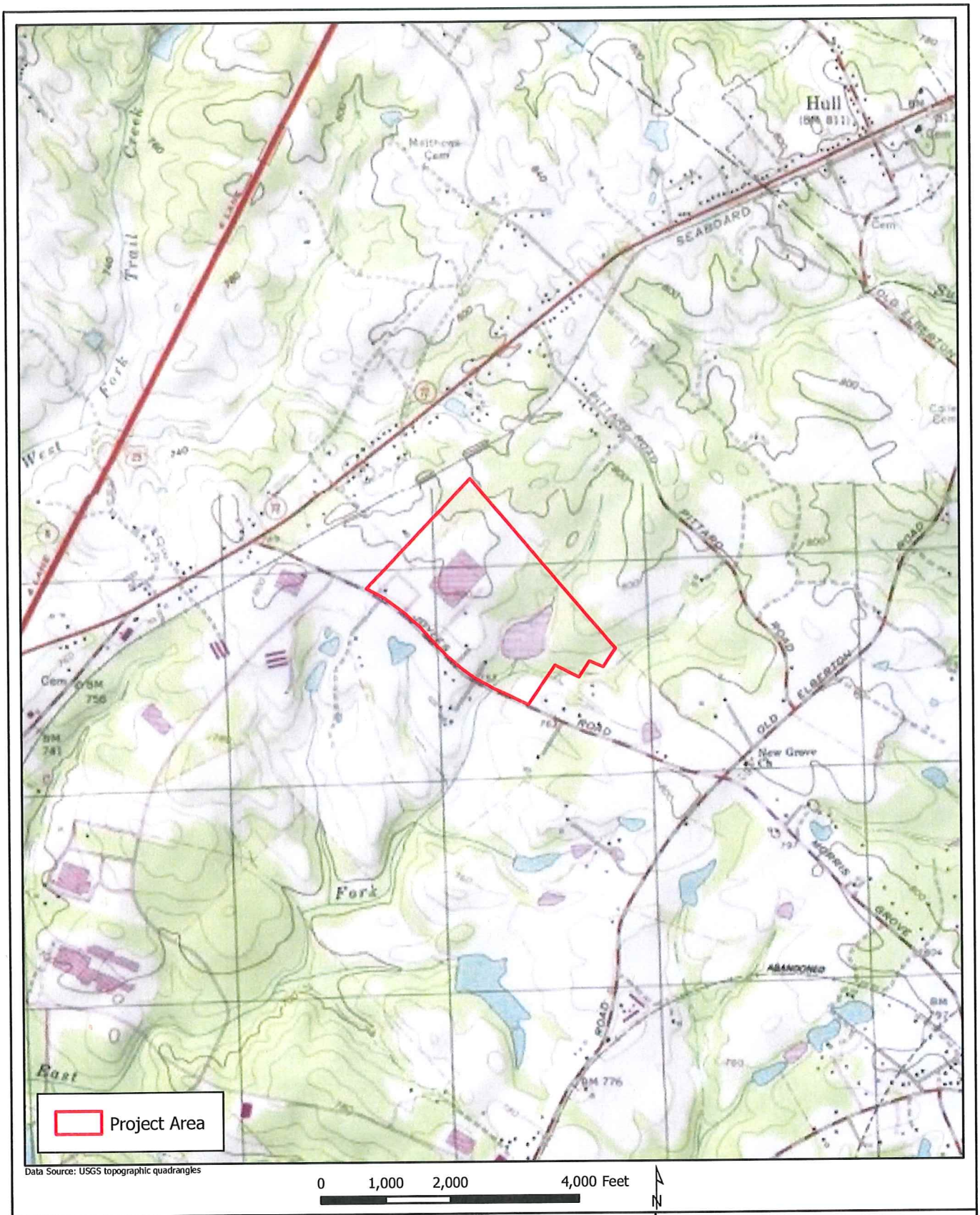


Figure 2. USGS topographic map of the proposed RWDC Industries LAS site, Athens, Clarke County, Georgia.

NUTTER+ASSOCIATES
ENVIRONMENTAL CONSULTANTS

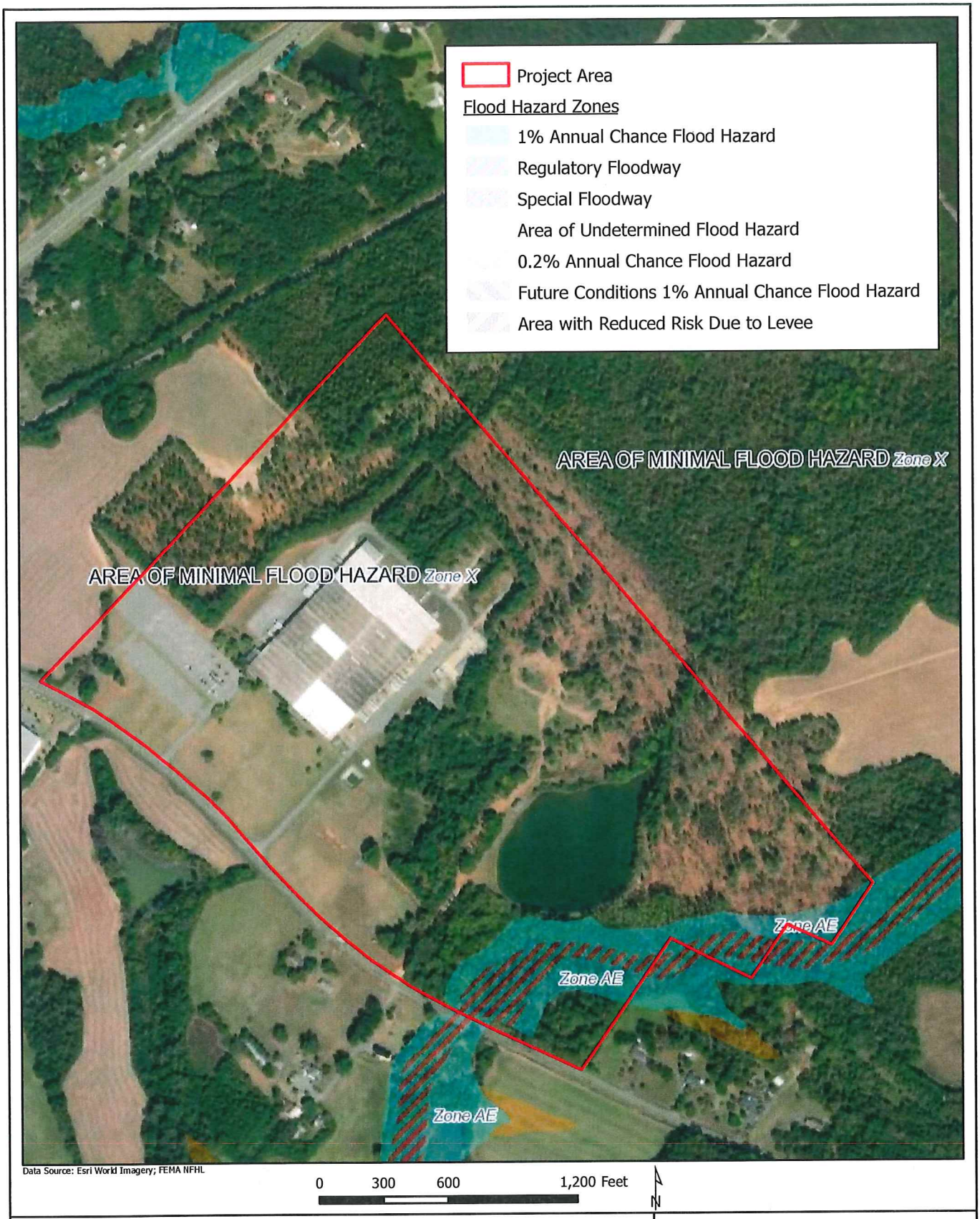


Figure 3. FEMA flood hazard zones map of the proposed RWDC Industries LAS site, Athens, Clarke County, Georgia.

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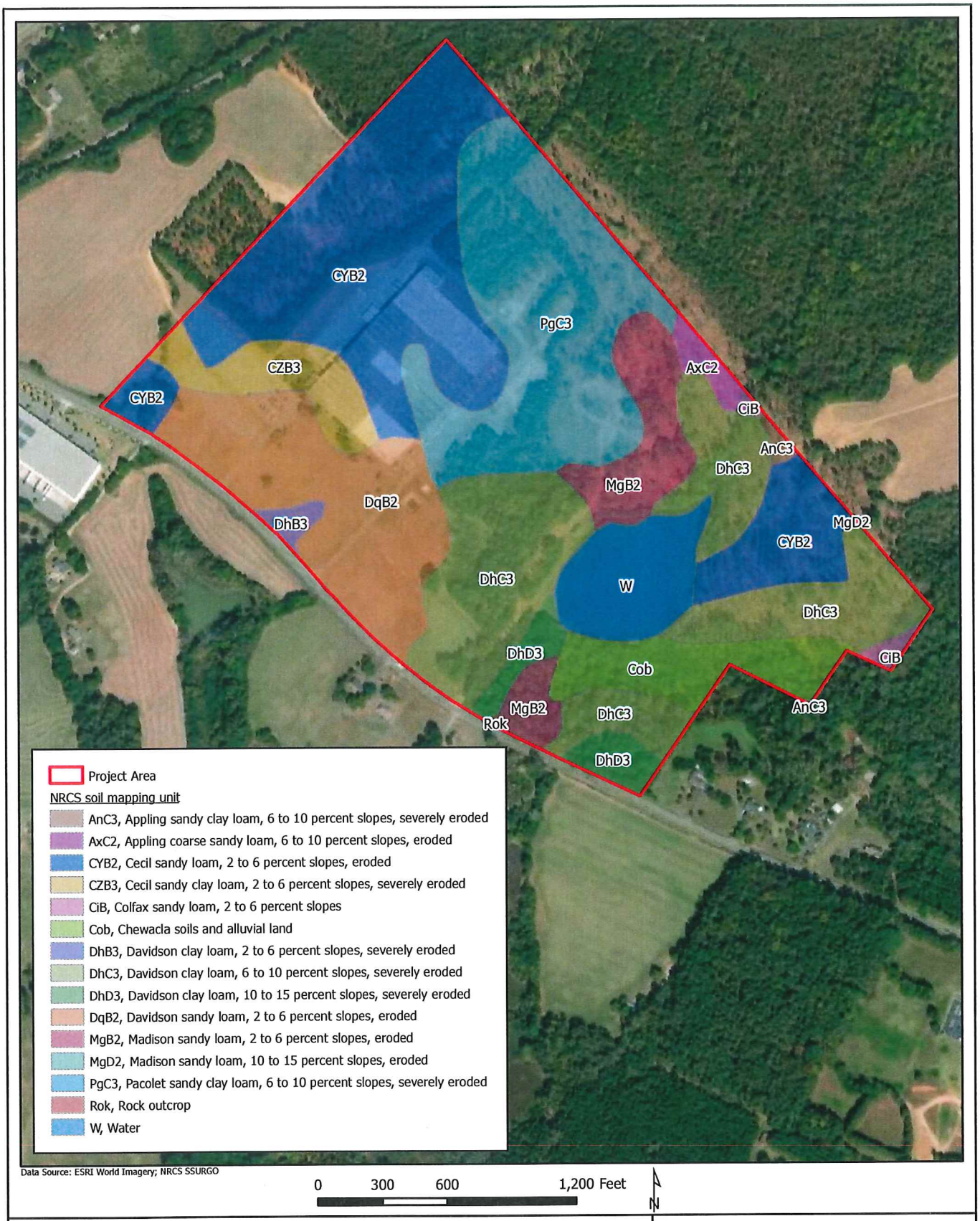


Figure 4. NRCS soil map of the proposed RWDC Industries LAS site, Athens, Clarke County, Georgia.

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Figure 5. Projected suitable soil areas, RWDC Industries Athens Facility, Clarke County, Georgia.

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APPENDIX A

GLOSSARY OF SOIL PROFILE DESCRIPTION SYMBOLS

TEXTURE

S - Sand	LS - Loamy Sand	SL - Sandy Loam
L - Loam	Sil - Silt Loam	Si - Silt
SiCl - Silty Clay Loam	SiC - Silty Clay	CL - Clay Loam
SCL - Sandy Clay Loam	SC - Sandy Clay	C - Clay

BOUNDARY

Distinctness:	Ab - Abrupt	Cl - Clear
	Gr - Gradual	Df - Diffuse
Topography:	Sm - Smooth	Wy - Wavy
	Ir - Irregular	Br - Broken

STRUCTURE

Grade:	0 - Absent	1 - Weak
	2 - Moderate	3 - Strong
Size:	vf - Very Fine	f - Fine
	m - Medium	c - Coarse
	vc - Very Coarse	
Type:	sg - Single Grain	m - Massive
	cr - Crumb (granular)	a - Angular
	abk - Angular Blocky	sbk - Subangluar Blocky
	pl - Platy	cl - Columnar
	pm - Prismatic	

CONSISTENCY

When Moist: VFR - Very Friable; FR - Friable; FM - Firm; VFM - Very Firm; LS - Loose

ROOTS

Number:	O - None	F - Few
	C - Common	M - Many
Size:	< 1 - less than 1mm	1-2 - 1mm to 2mm
	2-5 - 2mm to 5mm	> 5 - greater than 5mm

MOTTLES

Number:	f - Few	c - Common
	m - Many	
Size:	< 5 - Fine (f)	5-15 - Medium (m)
	> 15 - Coarse (co)	
Prominence:	F - Faint	D - Distinct
	P - Prominent	

LITHOCHROMOLGY

MCS - Multi-colored saprolite

SOIL EVALUATION DATA

Project Number: 19-091 | Date: 9-20-19

Soil Scientist: SWD

Boring/ Pit	Depth (inch)	Horizon Name	Matrix Color Hue	Matrix Color Val/Crm	Texture	Consistence Rpt	Consistence Stk	Consistence Pls	Structure (inferred) Grd	Structure (inferred) Sz	Structure (inferred) Typ	Mottles/ Redox Features	Notes ZSS,RH,LTAR,etc.
B1	0-3	A	10YR	4/4	SL	fr			1	m	gr		
6%	3-10	BA	7.5YR	4/6	SL	fr			1	m	gr		
	10-48	Bt1	2.5YR	4/6	C	fr			2	m	sbk		
	48-60+	Bt2	5YR	4/6	C	fr			2	m	sbk	C,F-M 10YR6/4-6/2; 2.5YR4/6; 10YR5/6	
B2	0-3	Bt1	5YR	4/6	SCL	fr			1	m	sbk		
10%	3-48+	Bt2	2.5YR	4/6	C	fr			2	m	sbk		
B3	0-30	Bt	2.5YR	4/6	C	fr			2	m	sbk	auger refusal @ 30"	
5%													
B4	0-60	C	MCS		fS	fr			0		m	MCS = multi-colored saprolite	
0%												TRUNCATED	
B5	0-40+	Bt	2.5YR	4/6	C	fr			2	m	sbk		
75%	40-60+	BC	2.5YR	5/6	SCL	fr			1	m	sbk	MICACEOUS	

Complaint ID 97706 — *Public Copy*

Report generated on December 17, 2022, 6:36 PM.

Status: *Approved/Closed*

Date Received	August 26, 2021, 7:00 PM
Assigned Office	Northeast Region
Date Complaint Closed	November 16, 2021, 5:59 AM
Review Comments	[Not entered]

Complaint

Company intentionally dumps unprocessed/ uncleaned water into drainage ditches as a way to purge systems, product spills cause serious bacterial growth/ kills insects when left in pools. Major spill locations are on the backside of the plant headed out through the tree line where the roadway has been cut to install new drain culverts.
US EPA tracking Number: CWA-FY21-230758-3709-CV
Please email Pamela Riley as follow-up.

Primary Concern	Water Quality Control
Secondary Concern	Comprehensive Solid Waste
Location of Complaint	[Not entered]
City of Complaint	Athens
County of Complaint	Clarke

Source

Facility ID Number	[Not entered]
Source Name	RWDC Industries
Source Contact	Raul Torres, Safety Manager
Source Address	110 Voyles Road Athens, Georgia 30601

Actions

August 31, 2021 — *Initial Investigation*

10:46 AM: Arrived at facility meeting with Safety Manager Raul Torres and Plant Manager Wayne Stanley. I explained the reason for my site visit and provided details of the complaint. A site safety presentation was provided to me.
We then went to the back of the facility as described by the complaint details.
A new drainage pipe had been recently installed at the facility road. There was an associated ditch that ran into the wooded area. There was some standing water in the ditch. The water was a little cloudy. I did not see any dead insects.
There were two containment areas with tanks. The collected rainwater is released when needed. The rainwater's Ph is tested with pH test strips to ensure it is suitable for release.
I did not observe any visible issues at the time of my visit at the back of the facility.
The facility does have the Industrial Stormwater Permit. I did ask to look at the facility's Stormwater Pollution Prevention Plan. I told Mr. Torres they will need to update the facility's plan because the newly installed tanks at the back of the facility were not listed. The plan must be updated annually with any significant chances. They already have plans to update the plan. The update is due November 2021.
A follow-up email was sent to Pamela Riley.
No further action. Recommend closure.

Attachments

None.

(Attachments may not be available for complaints resolved before April 2018. Please note that not every complaint has attachments.)