Ramey, David E

From: Parris, Bruce
Sent: Monday, July 15, 2013 4:08 PM
To: Ramey, David E
Subject: "Virkler" FW: Phase I Report - AEI
Attachments: Final Phase I ESA Charlotte NC - Project 320548.pdf; Unlisted Virkler Property FOIA 7-12-13.pdf

David,
This one needs quick review and attention please. I'm also attaching a letter I sent to Mr. Virkler on Friday evening 7/12 which gives some additional perspective from our point of view. The property is not currently a listed site and Mr. Virkler wants an NFA which we can't do since they haven't given us any data and aren't a listed site. There is a Virkler site in our inventory but that is a different location (1022 Pressley Rd) than this one which is located at 12345 Steele Creek Rd. He is now submitting some testing work he indicates they just had done in an effort to at least get a letter of non-listing from us based on his consultant's findings, however, if the consulting work is insufficient to support their conclusion, then we would have to list the site unless they can provide additional information that you deem is needed to verify their claim that any contamination detected on their property is coming from off-site. I have not read the report as it was just submitted but need someone to start on this one asap for reasons I'll explain. Furthermore, Mr. Virkler claims that they have an NFA from DENR for when they originally bought the property and he claims they detected contamination then too (of which we have no records of either the letter or the site which I can locate). Perhaps the early site documentation is included in the recent report he had done which he is now submitting for review as a "non-site". Thanks.

Bruce Parris - Bruce.Parris@ncdenr.gov
Environmental Supervisor II, Western Region
Div. of Waste Mgt. - Superfund Section - Inactive Hazardous Sites Branch
Mooresville Regional Office
610 East Center Ave, Suite 301
Mooresville, NC 28115
Ph: (704) 663-1699 Fax: (704) 663-6040
http://portal.ncdenr.org/web/wm/sf/ihshome

North Carolina Department of
Environment and Natural Resources

The Superfund Section - IHSB's Specifications for Electronic Document Submittal can be found at:
http://portal.ncdenr.org/c/document_library/get_file?uuid=cb794534-e1a2-4c7a-b4c2-faf3c8d056d9&groupId=38361

From: Howard Virkler [mailto:hvirkler@virklerchemical.com]
Sent: Monday, July 15, 2013 3:28 PM
To: Parris, Bruce
Subject: Fwd: Phase I Report - AEI

Dear Bruce,

Thank you for the letter you sent Friday. I have decided to take your advice and send the recent Phase I to your agency so that you have all the facts.

Attached please find a Phase I report completed July 1 2013 by AEI Consultants. Right before Appendix F is a report done by Steve Hart of Hart Hickman which should be helpful.

Please study this information as soon as possible. Our aim is to get a letter from NCDENR which states no further action required. You will note that ground water sampling was done before we purchased the property which indicated low levels of PCE. At that time we recieved a letter from NCDENR which said no furhter action required. You will note that the levels detected in subsequent testing have declined. The highest PCE concentrations are at the northern edge of our property with very little south of our factory. Any contamination from our site would be south of our factory.

Thank you for your attention to this matter.

Best regards.

Best regards

Howard "Biff" Virkler

Virkler Chemical

12345 Steele Creek Road

Charlotte, NC 28273

W 704 587 3934

C 704 408 8399

F 704 587 3354

HVirkler@VirklerChemical.com

www.VirklerChemical.com

---------- Forwarded message ----------
From: **Nikole Morgan** <nmorgan@aeiconsultants.com>
Date: Mon, Jul 15, 2013 at 2:44 PM
Subject: Phase I Report - AEI
To: hvirkler@virklerchemical.com

Howard,

Please find the Phase I attached to this email. Let me know if you have any problems opening the report.

Thank you,

Nikole Morgan (formerly Reynolds)
Business Development Manager
AEI Consultants
301 McCullough Drive 4th Floor
Charlotte, NC 28262

p. 704.773.5117
f. 404.963.0834

www.aeiconsultants.com

AEI Consultants
Environmental & Engineering Services

July 1, 2013

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

Property Identification:
Process Innovations, LLC
12345 Steele Creek Road
Charlotte, Mecklenburg County, North Carolina 28278

AEI Project No. 320548

Prepared for:
Bank of the Ozarks
4200 Park Road
Charlotte, North Carolina 28209

Prepared by:
AEI Consultants
6065 Roswell Road, Suite 940
Atlanta, Georgia 30328
(678) 279-2820

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PROJECT SUMMARY

Process Innovations, LLC
12345 Steele Creek Road, Charlotte, Mecklenburg County, North Carolina 28278

Report Section		No Further Action	REC	HREC	BER	Recommended Action
2.1	Current use of subject property	X				
2.2	Adjoining property information		X			**Re-file 2011 submittal to the North Carolina Department of Environment and Natural Resources requesting response.**
3.1	Historical Summary		X			**See above**
4.0	Regulatory Agency Records Review		X			**See above**
5.0	Regulatory Database Records Review	X				
6.3	Previous Reports		X			**Previous reports identified RECs.**
7.0	Site Inspection and Reconnaissance				X	**Store drums outside within secondary containment.**
7.2.1	Asbestos-Containing Materials	X				
7.2.2	Lead-Based Paint	X				
7.2.3	Radon	X				
7.2.4	Lead in Drinking Water	X				
7.2.5	Mold	X				

EXECUTIVE SUMMARY

AEI Consultants (AEI) was retained by Bank of the Ozarks to conduct a Phase I Environmental Site Assessment (ESA), in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at 12345 Steele Creek Road in the City of Charlotte, Mecklenburg County, North Carolina. Any exceptions to, or deletions from, this practice are described in Section 1.3 of this report.

PROPERTY DESCRIPTION

The subject property, primarily occupied by Virkler Chemical, a toll manufacturer, is located at the southeastern corner of the intersection of Steele Creek Road (North Carolina Highway 160) and Sam Neely Road in an industrial area of southwestern Charlotte, North Carolina. The 19.03-acre property is improved with a 151,515-square foot commercial industrial manufacturing building with areas identified to contain laboratories, formulation and mixing tanks, an interior tank farm, canopy-covered tanker truck loading areas, hot rooms, and warehouse/distribution. Tens Tech and Perfect Lithium were also identified to occupy on-site laboratory space. The subject property is further improved with a 2,100-square foot mechanic shop, a 600-square foot flammable drum storage building, truck scales, an exterior tank farm, a cooling tower, canopy-covered air compressors, a stormwater retention basin, fencing, asphalt-paved parking areas and associated landscaping.

Virkler Chemical is a toll manufacturer with operations including chemical blending and distribution for industries including cosmetics, oil field, metal working, fiber/textile processing, paper industries, emulsion polymerizations, asphalt emulsification, plastic additives, food processing, water treatment, specialty cleaning and animal nutrition. During the site inspection, various chemicals were identified to be located on-site for blending and redistribution as documented in the appendices. Significant amounts of chlorinated solvents were not noted. During the site reconnaissance, AEI noted that housekeeping practices were sufficient to minimize releases into the environment. Although some small, isolated spills were observed, the materials were contained on the building floor. The site contact has identified the floor to have been specially designed and constructed with chemical-resistant flooring, as well as concave and convex flooring for leak containment. Floor drains and sumps direct wastewater to a treatment tank prior to discharge, thereby containing and treating spills within the property building. Although the property maintains a National Pollution Discharge Elimination System (NPDES) permit, a copy of the permit and any sampling was not provided.

Virkler Chemical has occupied the subject property since site development in 1989/90 and has operated under several different names including Chemical Technologies LLC; and Process Innovation LLC. Due to the length of on-site operations, several prior investigations have been completed at the subject property which have confirmed releases into the environment. Prior to the construction of the building, the property was undeveloped agricultural lands.

AEI completed a review of regulatory databases, which identified the subject property tenant, Virkler Chemical, Chemical Technologies LLC, and Process Innovation LLC, as a Hazardous Materials Incident Support System (HMIRS), Section 7 Tracking System (SSTS), Toxic Substances Control Act (TSCA), Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) / TSCA Tracking System (FTTS), Facility Index Notification System (FINDS), and Aerometric Information Retrieval System Facility Subsystem (US AIRS) site.

The immediately surrounding properties consist of the following:

Direction from Site	Address-Tenant/Use
North	Atlantic Packaging & Supply (12201 Steele Creek Road) – packaging material manufacturing - which contains two real estate parcels; the eastern of which was formerly Thypin Steel manufacturing plant (12825 Sam Neely Road) –steel fabrication
Northeast	Beta International (12933 Sam Neely Road) which is undergoing brownfield redevelopment and was formerly Valmet Paper Machinery (paper plant equipment manufacturing), New South Fabricators (steel fabrication), and Southern Steel Company (steel fabrication)
Northwest	Okuma America (12200 Steele Creek Road) – forklift manufacturing
South	Comer Industries (12730 Virkler Drive) – office/warehouse Warehouse (12810 Virkler Drive) Undeveloped woodland (12830 Virkler Drive)
East	Vacant grassland (unnumbered Sam Neely Road). Texas Pipe and Supply (12910 Sam Neely Road) – pipe yard.
West	Aplix (12300 Steele Creek Road) – hook and loop fastening.

The adjacent site to the northeast (Beta International) was identified in the regulatory database as a Brownfield, Underground Storage Tank (UST), and Leaking UST (LUST) (petroleum) site. The adjacent sites to the west (Aplix) and northwest (Okuma) were identified as Resource Conservation and Recovery Act (RCRA) Small Quantity Generator (SQG) sites.

Located ~1,000-feet to the east was a site named Aquair (13300 Sam Neely Road, also known as SNL Corporation), which was identified as a Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) No-Further Remedial Action Planned (NFRAP) and State Hazardous Waste Site (SHWS) pertaining to a historical solvent recovery business.

Based upon topographic map interpretation and numerous subsurface investigations on the subject property and surrounding areas, the direction of groundwater flow beneath the subject property is inferred to be to the south-southeast and is present at depths of 15 to 20 feet below ground surface (bgs).

FINDINGS

Recognized Environmental Conditions (RECs) are defined by the ASTM Standard Practice E1527-05 as 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 a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. AEI's assessment has revealed the following RECs associated with the subject property or nearby properties:

- In 2006 and 2011, further soil and groundwater investigations were conducted by others. These prior investigations have identified several constituents in site soils and/or groundwater, including PCE (groundwater only), lead (groundwater only), selenium, chromium, and PAHs, and above their respective regulatory concentrations. According to the prior reports, contamination was attributed to the following factors:

- Laboratory error, sampling error, and/or naturally occurring background levels for the selenium and chromium;
- Off-site, historically known contamination for the PCE constituents;
- Off-site contamination from the up-gradient Valmet Paper Machinery property for the lead; and
- Parking lot runoff for the PAHs.

In May 2011, the subject property owners (then known as Process Innovation, LLC) prepared Inactive Hazardous Sites Branch Notification Forms for submittal to the NCDENR for the elevated PCE and PAH contaminants. However, according to NCDENR officials, these forms were never received. Since this apparent failure to submit these required forms potentially represents an open matter, and because NCDENR may require further investigations, the identified contamination from subsurface investigations from 2006 and 2011 represents a REC.

Historical Recognized Environmental Conditions (HRECs) are defined by the ASTM Standard Practice E1527-05 as an environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently. AEI's assessment has revealed the following HRECs associated with the subject property or nearby properties:

- The subject property, prior to development, formed the northwestern portion of a 46-acre land tract known as the 'Burroughs Property' (a.k.a The Sam Neely Road Site). In July 1988, seven groundwater monitoring wells, including one on the subject property, MW-6, were installed on the Burroughs Property to determine subsurface soil and groundwater conditions. The analysis revealed several VOCs to exceed the NC 2L Groundwater Standard, and that MW-6 was located near the edge of the apparent contaminant plume. Five additional wells were installed (MW-8 through MW-12) along the western portion of the Burroughs Property in November 1988, of which MW-9 and MW-11 were located along the southern and western boundaries of the current subject property respectively. Groundwater samples were collected; however, none of the samples were identified with VOC concentrations, including PCE.

  The source of the VOCs was reportedly identified as areas along Sam Neely Road or possibly from areas north of Sam Neely Road, most likely from the Valmet Corporation (currently the Beta International site at 12933 Sam Neely Road) or Thypin Steel, Inc. (which formed the eastern portion of what is now the larger Atlantic Packaging & Supply property at 12201 Steele Creek Road) located directly across Sam Neely Road. As such, the NCDENR stated in a February 24, 1989 letter that "our findings at this time show no reason to continue the investigation of the portion of the Steele Creek – Sam Neely Road property as outlined on the attached document." While the referenced "attached document" has since been misplaced by NCDENR officials, the NCDENR appears to have been referencing the western portion of the Burroughs Property/Sam Neely Road Site, upon which the current subject property is located.

  Further investigation of the larger Burroughs Property/Sam Neely Road Site was being conducted and incorporated sampling from the adjacent/nearby Valmet Corporation and Thypin Steel, Inc. properties. On March 9, 1994, after several rounds of sampling and analysis of the Burroughs Property/Sam Neely Road Site monitoring wells (MWs 1 through

5), the NCDENR issued a No Further Action Required letter for the Burroughs Property/Sam Neely Road Site.

Based upon the issuance of a No Further Action letter for the Burroughs Property, the prior release is considered HREC.

De Minimis Environmental Conditions include environmental concerns identified by AEI that warrant discussion but do not qualify as RECs, as defined by the ASTM Standard Practice E1527-05. AEI's assessment has revealed the following de minimis environmental conditions associated with the subject property or nearby properties:

- Surrounding the canopy-covered air compressors in the eastern portion of the subject property and near the doorway to the Mechanic Building air compressor were areas of apparent oily-substance stained soil. The concrete pads housing the air compressors were observed with oily-substance staining and oil dry to contain/absorb oil spills and leaks. The area of affected soil was estimated to be approximately 50 square feet. During prior subsurface investigations, no substantial impacts were detected. Based on these prior investigations, the staining is considered de minimis.

Business Environmental Risks (BERs) include risks which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of the subject property, not necessarily limited to those environmental issues required to be investigated in the standard ASTM scope. BERs may affect the liabilities and financial obligations of the client, the health & safety of site occupants, and the value and marketability of the subject property. AEI's assessment has revealed the following BERs associated with the subject property or nearby properties:

- Two exterior areas were identified where intact drums were staged for pending offsite shipment with no apparent leaks observed. Sixteen drums were staged in on the asphalt at the north loading dock area. Fifty-six drums were staged on the asphalt at the southeastern loading area (near the flammable storage building). In both locations, the staged drums were located upgradient of storm water drainage inlets that discharge to the onsite retention pond and were absent of secondary containment. While no significant environmental concerns were noted for these stored drums, AEI recommends development of and implementation of a site-specific spill containment and countermeasure plan that addresses drum staging for shipment.

- According to the site contact, waste water generated at the subject property is required to be pre-treated to adjust pH concentrations as part of the NPDES permit and before being discharged into the municipal sewer system. A series of on-site sumps and drains were identified and are reported to be connected to a below ground holding tank which was observed on the northeastern portion of the subject property and surrounded by chain-link fence. The tank system is equipped with a water sampler where the pH is confirmed and adjustment, as necessary. According to available records and prior reports, the facility has occasionally received Notice of Violations (NOVs) for reporting results past the deadline. In addition, NOVs have been received for exceedance of permit limits. No paperwork was provided for review on these NOVs, nor was a copy of the NPDES Permit or the most recent testing data provided by the site contact. Based on the absence of data concerning the NPDES permit and wastewater testing within the holding tank, the holding tank and NPDES permit represent a Business Environmental Risk.

CONCLUSIONS, OPINIONS AND RECOMMENDATIONS

We have performed a Phase I Environmental Site Assessment for the property located at 12345 Steele Creek Road in the City of Charlotte, Mecklenburg County, North Carolina, in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312). Any exceptions to, or deletions from, this practice are described in Section 1.3 of this report.

This assessment has revealed evidence of RECs in connection with the property previously identified in the *Findings* section. AEI recommends that the subject property owner ensure receipt of the May 26, 2011 Inactive Hazardous Sites Branch Notification Forms by the NCDENR. Alternately, the subject property owner should re-submit these forms to the NCDENR and await further instructions. In addition to the submittals for PCE and PAH, AEI also recommends that the subject property owner prepare a notification for the elevated lead concentration in groundwater discovered in 2006 and attributed to the up-gradient Valmet Paper Machinery property.

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FIGURES

APPENDICES

1.0 INTRODUCTION

This report documents the methods and findings of the Phase I Environmental Site Assessment (ESA) performed in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at 12345 Steele Creek Road in the City of Charlotte, Mecklenburg County, North Carolina (Figure 1: Site Location Map, Figure 2: Site Map, and Appendix A: Property Photographs).

1.1 SCOPE OF WORK

The purpose of the Phase I Environmental Site Assessment is to assist the client in identifying potential environmental liabilities associated with the presence of any hazardous substances or petroleum products, their use, storage, and disposal at and in the vicinity of the subject property, as well as regulatory non-compliance that may have occurred at the subject property. Property assessment activities focused on: 1) a review of federal, state, tribal and local databases that identify and describe underground fuel tank sites, leaking underground fuel tank sites, hazardous waste generation sites, and hazardous waste storage and disposal facility sites within the ASTM approximate minimum search distance; 2) a property and surrounding site reconnaissance, and interviews with the past and present owners and current occupants and operators to identify potential environmental contamination; and 3) a review of historical sources to help ascertain previous land use at the site and in the surrounding area.

The goal of AEI Consultants in conducting the Phase I Environmental Site Assessment was to identify the presence or likely presence of any hazardous substances or petroleum products on the property that may indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum product into the soil, groundwater, or surface water of the property.

1.2 SIGNIFICANT ASSUMPTIONS

The following assumptions are made by AEI Consultants in this report. AEI Consultants relied on information derived from secondary sources including governmental agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, and personal interviews. AEI Consultants has reviewed and evaluated the thoroughness and reliability of the information derived from secondary sources including government agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, or personal interviews. It appears that all information obtained from outside sources and reviewed for this assessment is thorough and reliable. However, AEI cannot guarantee the thoroughness or reliability of this information.

Groundwater flow and depth to groundwater, unless otherwise specified by on-site well data, or well data from adjacent sites are assumed based on contours depicted on the United States Geological Survey topographic maps. AEI Consultants assumes the property has been correctly and accurately identified by the client, designated representative of the client, property contact, property owner, and property owner's representatives.

1.3 LIMITATIONS

Property conditions, as well as local, state, tribal and federal regulations can change significantly over time. Therefore, the recommendations and conclusions presented as a result of this study apply strictly to the environmental regulations and property conditions existing at the time the study was performed. Available information has been analyzed using currently accepted assessment techniques and it is believed that the inferences made are reasonably representative of the property. AEI Consultants makes no warranty, expressed or implied, except that the services have been performed in accordance with generally accepted environmental property assessment practices applicable at the time and location of the study.

Considerations identified by ASTM as beyond the scope of a Phase I ESA that may affect business environmental risk at a given property include the following: asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, mold, vapor intrusion, and high voltage lines. These environmental issues or conditions may warrant assessment based on the type of the property transaction; however, they are considered non-scope issues under ASTM Standard Practice E1527-05.

If requested by the client, these non-scope issues are discussed in Section 7.2. Otherwise, the purpose of this assessment is solely to satisfy one of the requirements for qualification of the innocent landowner defense, contiguous property owner or bona fide prospective purchaser under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). ASTM Standard Practice E1527-05 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) constitute the "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in:

1) 42 U.S.C § 9601(35)(B), referenced in the ASTM Standard Practice E1527-05.

2) Sections 101(35)(B) (ii) and (iii) of CERCLA and referenced in the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312).

3) 42 U.S.C. 9601(40) and 42 U.S.C. 9607(q).

The Phase I Environmental Site Assessment is not, and should not be construed as, a warranty or guarantee about the presence or absence of environmental contaminants that may affect the property. Neither is the assessment intended to assure clear title to the property in question. The sole purpose of assessment into property title records is to ascertain a historical basis of prior land use. All findings, conclusions, and recommendations stated in this report are based upon facts, circumstances, and industry-accepted procedures for such services as they existed at the time this report was prepared (i.e., federal, state, and local laws, rules, regulations, market conditions, economic conditions, political climate, and other applicable matters). All findings, conclusions, and recommendations stated in this report are based on the data and information provided, and observations and conditions that existed on the date and time of the property visit.

Responses received from local, state, or federal agencies or other secondary sources of information after the issuance of this report may change certain facts, findings, conclusions, or circumstances to the report. A change in any fact, circumstance, or industry-accepted

procedure upon which this report was based may adversely affect the findings, conclusions, and recommendations expressed in this report.

1.4 LIMITING CONDITIONS

The performance of this Phase I Environmental Site Assessment was limited by the following condition(s):

- The User did not complete the ASTM User questionnaire or provide the User information to AEI. AEI assumes that qualification for the LLPs is being established by the User in documentation outside of this investigation.

- The North Carolina Department of Environment and Natural Resources (NCDENR) file for the subject property was not at the state office as it had been sent to a State vendor for electronic scanning, and as such was not reasonably ascertainable. Copies of the NCDENR file had been described in previous reports. Copies of the previous reports did not contain the NCDENR file. AEI relied upon the previous report descriptions for the content of the State file. Based on the quality of information obtained from other sources (past reports, interviews), this limitation is not expected to significantly alter the findings of this assessment.

- Interviews with historical owners, operators, or occupants were not possible within the time frame of this investigation. Based on the quality of information obtained from other sources, this data gap is not expected to alter the findings of this assessment.

1.5 DATA GAPS AND DATA FAILURE

According to ASTM E1527-05, data gaps occur when the Environmental Professional is unable to obtain information required, despite good faith efforts to gather such information.

Data failure is one type of data gap. According to ASTM E1527-05 “data failure occurs when all of the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met”. Pursuant to ASTM Standards, historical sources are required to document property use back to the property’s first developed use or back to 1940, whichever is earlier.

Significant data gaps were not identified during the course of this assessment.

1.6 RELIANCE

All reports, both verbal and written, are for the benefit of Bank of the Ozarks. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI’s Proposal and Standard Terms & Conditions executed by Bank of the Ozarks on June 10, 2013. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI’s liability to the client and all relying parties.

2.0 SITE AND VICINITY DESCRIPTION

2.1 SITE LOCATION AND DESCRIPTION

The subject property, which consists of chemical manufacturing plant, is located in the southeastern corner of the intersection of Steele Creek Road (North Carolina Highway 160) and Sam Neely Road in a primarily industrial area of southwestern Charlotte, North Carolina. The property totals approximately 19.03 acres and is improved with an irregularly-shaped single-story building totaling approximately 151,515 square feet that contains laboratories, locker rooms, formulation and mixing tanks, an interior tank farm, canopy-covered tanker truck loading areas, hot rooms, and warehousing. The building is slab-on-grade constructed with specially designed and constructed chemical-resistant flooring, as well as concave and convex flooring for leak containment. Floor drains and sumps direct wastewater to a treatment tank prior to discharge, thereby containing and treating spills within the property building. The subject property is currently predominantly occupied by Virkler Chemical, with additional tenants using laboratory space including Tens Tech and Perfect Lithium. On-site operations include contract chemical formulation. In addition to the subject property building, the property is improved with 2,100 square foot metal building used as a mechanic shop, a 600 square foot metal building used for flammable drum storage, truck scales, an exterior tank farm, a cooling tower, canopy-covered air compressors, a stormwater retention basin, fencing, asphalt-paved parking areas and associated landscaping.

The subject property was identified in the regulatory database as a Hazardous Materials Incident Support System (HMIRS), Section 7 Tracking System (SSTS), Toxic Substances Control Act (TSCA), Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) / TSCA Tracking System (FTTS), Facility Index Notification System (FINDS), and Aerometric Information Retrieval System Facility Subsystem (US AIRS) site, and is further discussed in Section 5.1.

The Assessor's Parcel Number (APN) for the subject property is 20142102. According to Mr. Howard Virkler (representative of the subject property owner), heating and cooling systems on the subject property are fueled by natural gas and electricity provided by Piedmont Natural Gas and Duke Energy, respectively, and potable water and sewage disposal are provided by Charlotte/Mecklenburg Utilities.

Refer to Figure 1: Site Location Map, Figure 2: Site Map, and Appendix A: Property Photographs for site location.

2.2 SITE AND VICINITY CHARACTERISTICS

The subject property is located in an industrial area of southwestern Charlotte, North Carolina.

The immediately surrounding properties consist of the following:

Direction from Site	Address-Tenant/Use
North	Atlantic Packaging & Supply (12201 Steele Creek Road) – packaging material manufacturing - which contains two real estate parcels; the eastern of which was formerly Thypin Steel manufacturing plant (12825 Sam Neely Road) –steel fabrication

Northeast	Beta International (12933 Sam Neely Road) which is undergoing brownfield redevelopment and was formerly Valmet Paper Machinery (paper plant equipment manufacturing), New South Fabricators (steel fabrication), and Southern Steel Company (steel fabrication)
Northwest	Okuma America (12200 Steele Creek Road) – forklift manufacturing
South	Comer Industries (12730 Virkler Drive) – office/warehouse Warehouse (12810 Virkler Drive) Undeveloped woodland (12830 Virkler Drive)
East	Vacant grassland (unnumbered Sam Neely Road). Texas Pipe and Supply (12910 Sam Neely Road) – pipe yard.
West	Aplix (12300 Steele Creek Road) – hook and loop fastening.

The adjacent site to the northeast (Beta International) was identified in the regulatory database as a Brownfield, Underground Storage Tank (UST), and Leaking UST (LUST) (petroleum) site. The adjacent sites to the west (Aplix) and northwest (Okuma) were identified as Resource Conservation and Recovery Act (RCRA) Small Quantity Generator (SQG) sites.

Located ~1,000-feet to the east was a site named Aquair (13300 Sam Neely Road, also known as SNL Corporation), which was identified as a Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) No-Further Remedial Action Planned (NFRAP) and State Hazardous Waste Site (SHWS) pertaining to a historical solvent recovery business.

Please refer to Section 5.1 for further discussion of these listings.

2.3 PHYSICAL SETTING

Geology: According to information obtained from the US Geological Survey (USGS), the area surrounding the subject property is underlain by the Gabbro of Concord Plutonic Suite deposits of the Devonian/Ordovician-era. Based on a review of the United States Department of Agriculture (USDA) Soil Survey for the area of the subject property, the soils in the vicinity of the subject property are classified as the Iredell fine sandy loam series. Soils from this series are characterized as moderately well drained fine sandy loam underlain by clay and clay loam.	
USGS Topographic Map:	Charlotte West, NC Quadrangle Fort Mill, SC Quadrangle
Nearest surface water to subject property :	Polk Ditch/2000 feet south, which flows into Walker Branch of Steele Creek (2 miles, south)
Gradient Direction/Source:	South/Previous Report: Phase II Environmental Site Assessment
Estimated Depth to Groundwater/Source:	15 to 20 feet bgs/Previous Report: Phase II Environmental Site Assessment

3.0 HISTORICAL REVIEW OF SITE AND VICINITY

3.1 HISTORICAL SUMMARY

Reasonably ascertainable standard historical sources as outlined in ASTM Standard E1527-05 were used to determine previous uses and occupancies of the subject property that are likely to have led to RECs in connection with the subject property. A chronological summary of historical data found, including but not limited to aerial photographs, historic city directories, Sanborn fire insurance maps and agency records is as follows:

Date Range	Subject Property Description/Use	Source(s)
1938-1989	Undeveloped Agricultural Land	Aerials, Interviews, Historic Topographic Maps, Building Records, Previous Reports
1990-Present	Chemical Manufacturing Plant	Aerials, Interviews, Previous Reports

According to historical sources, the current subject property building was constructed in 1989-1990 by Virkler Chemical for use as chemical manufacturing plant. Prior to the construction of the building, the property was undeveloped agricultural lands. The subject property is currently owned by Virkler Realty, LLC.

The following is a pertinent subject property history as obtained from the historical sources noted above:

- The subject property, prior to development, formed the northwestern portion of a 46-acre land tract known as the 'Burroughs Property' (a.k.a The Sam Neely Road Site).
- In July 1988, seven groundwater monitoring wells were installed on the Burroughs Property to determine subsurface soil and groundwater conditions with respect to previously identified on- and off-site sources of potential contamination. Of those seven wells, only one (MW-6) was installed on what is the current subject property. Groundwater samples were collected from the first five monitoring wells and combined to form one composite sample; this composite sample did not include groundwater from MW-6. The composite groundwater sample analysis indicated the presence of eight chlorinated volatile organic compounds (VOCs), including tetrachloroethylene (PCE) at 67 parts-per-billion (ppb), above State regulatory drinking water standards.
- In July and August 1988, at the request of the North Carolina Department of Environment and Natural Resources (NCDENR), individual sampling of the seven wells was conducted. The analysis revealed several VOCs exceeding the NC 2L Groundwater Standard in MW's 1 through 6. The analytical results also indicated that MW-6 was located near the edge of the apparent contaminant plume.
- Five additional wells were installed (MW-8 through MW-12) along the western portion of the Burroughs Property in November 1988, of which MW-9 and MW-11 were located along the southern and western boundaries of the current subject property respectively. Groundwater samples were collected from MW's 6, 9, and 11 (among others). There were no detections of any VOCs in these subject property monitoring wells.
- The results of the foregoing analyses led the Burroughs Property consultants and the NCDENR to believe that the source of the VOCs had apparently originated from areas along

Sam Neely Road or possibly from areas north of Sam Neely Road, most likely from the Valmet Corporation (currently the Beta International site at 12933 Sam Neely Road) or Thypin Steel, Inc. (which formed the eastern portion of what is now the larger Atlantic Packaging & Supply property at 12201 Steele Creek Road) located directly across Sam Neely Road. As such, The NCDENR stated in a February 24, 1989 letter that "our findings at this time show no reason to continue the investigation of the portion of the Steele Creek – Sam Neely Road property as outlined on the attached document." While the referenced "attached document" has since been misplaced by NCDENR officials, the NCDENR appears to have been referencing the western portion of the Burroughs Property/Sam Neely Road Site, upon which the current subject property is located.

- The current subject property began development in 1989 – 1990 and started operations as the Virkler Company conducting chemical formulation for the textile and asphalt industries. While undergoing several business name and ownership changes, the business activity at the subject property appears to have remained the same since 1990.
- Concurrent to the Virkler Company's operations, further investigation of the larger Burroughs Property/Sam Neely Road Site was being conducted and incorporated sampling from the adjacent/nearby Valmet Corporation and Thypin Steel, Inc. properties. On March 9, 1994, after several rounds of sampling and analysis of the Burroughs Property/Sam Neely Road Site monitoring wells (MWs 1 through 5), the NCDENR issued a No Further Action Required letter for the Burroughs Property/Sam Neely Road Site.
- In 2006, nine temporary groundwater monitoring wells were installed around the subject property building to determine if contamination was present on-site due to property operations. Only 2 of the 9 groundwater samples collected (TMW-4 and TMW-8) were analyzed for VOCs plus tentatively identified compounds (TIC's), Semi-VOCs plus TIC's, RCRA metals, sulfate and nitrate and formaldehyde. A PCE concentration of 1.4 ppb was detected in the sample from TMW-4 located north of the aboveground tank farm above the NCAC 2L Standard. A concentration of lead in TMW-4 was also detected at a level above the 2L Standard. A sample was also collected and analyzed from the surface water drainage along the southeastern portion of the site. All detections were below the 2L Standards. Based on the information obtained, it was the opinion of the site consultant that the migration of groundwater from Aquair (located ~1,000-feet to the east at 13300 Sam Neely Road) was the cause of the elevated level of PCE in the sample from TMW-4. Furthermore, the migration of groundwater from Valmet was believed to be the cause of the elevated level of lead found in the groundwater from sample TMW-4. Based on these findings, no further action for the soil or groundwater was recommended. Analytical results were not reported to NCDENR.
- In 2011, a Phase II was conducted to investigate previously-identified Recognized Environmental Conditions (RECs) including:
    - The presence of PCE that was detected in groundwater during historical investigations on the property;
    - Sewer line and chiller area dead vegetation which may have affected groundwater quality; and
    - An asphalt additive spill that occurred on or about April 8, 2011 from the unloading/loading area and its possible impact top the retention pond water and sediment.

Ten groundwater monitoring wells were installed at the subject property. Soil and groundwater samples were retrieved and analyzed for VOCs, SVOCs, RCRA Metals, and organochlorine pesticides (OCPs). In addition, a surface water sample (from the stormwater retention pond) and a sediment sample were retrieved and analyzed for VOCs, SVOCs, RCRA Metals, and pH.

- Soil Analysis: Concentrations of arsenic, barium, chromium, lead, and selenium were detected in all but one of the soil samples. Selenium was the only constituent that exceeded the applicable Groundwater Protection Based Soil Remediation Goals (SRGs). As selenium was not detected in the groundwater samples above the regulatory standards, it was surmised that the selenium in soil concentrations represented natural background values for the metal. As such, the issue was considered low risk.
- Groundwater Analysis: Chloroform, barium, chromium and PCE were detected in several groundwater samples; however, only chromium and PCE were detected above their respective groundwater standards. A second round of sampling revealed a lower level of chromium in groundwater, leading the site consultant to the conclusion that sampling error (turbid water) and/or lab error was the likely cause of the initial elevated levels. As to the detection of PCE, the consultant reiterated previous findings that the PCE appeared to have migrated from off-site sources.
- Stormwater Surface/Sediment Analysis: Several polycyclic aromatic hydrocarbon (PAH) compounds were found to exceed EPA Region 4 Waste Management Division sediment screening values for Hazardous Waste Sites.

If available, copies of historical sources are provided in the report appendices.

3.2 AERIAL PHOTOGRAPH REVIEW

AEI Consultants reviewed aerial photographs of the subject property and surrounding area. Aerial photographs were reviewed for the following years:

Date(s)	Scale	Subject Property Description	Surrounding Area Descriptions
1938	Unknown	Undeveloped agricultural fields	**North:** Seven buildings clustered appearing to be a farm complex surrounded by undeveloped agricultural lands. **South:** woodland and agricultural fields with apparent tobacco barns **East:** agricultural fields with apparent tobacco barns **West:** agricultural fields with an apparent residence

1951	Unknown	Unchanged from 1938 aerial photo	**North:** Seven buildings clustered appearing to be a farm complex adjacent to a diamond-shaped ground scar measuring approximately 500 feet long by 250 feet wide. **South:** unchanged from 1938 aerial photo **East:** unchanged from 1938 aerial photo **West:** unchanged from 1938 aerial photo
1965 1973	Unknown	Unchanged from 1951 aerial photo	**North:** Fewer buildings clustered at the apparent farm complex with the 1951 diamond-shaped feature appearing vegetated as agricultural field. **South:** unchanged from 1951 aerial photo **East:** unchanged from 1951 aerial photo **West:** unchanged from 1951 aerial photo
1983	Unknown	Unchanged from 1973 aerial photo	**North:** developed with three industrial buildings **South:** unchanged from 1973 aerial photo **East:** unchanged from 1973 aerial photo **West:** developed with one industrial building
1993	Unknown	Subject property is developed in current-day configuration.	**North:** developed with four industrial buildings **South:** unchanged from 1983 aerial photo **East:** unchanged from 1983 aerial photo **West:** developed with two industrial buildings
2006	Unknown	Subject property is developed in current-day configuration	**North:** predominantly unchanged from 1993 aerial photo except one building expanded with addition **South:** developed with one industrial building **East:** unchanged from 1993 aerial photo **West:** predominantly unchanged from 1993 aerial photo except one building expanded with addition

2012	Unknown	Subject property is developed in current-day configuration	**North:** predominantly unchanged from 2006 aerial photo **South:** developed with two industrial buildings **East:** developed with one industrial building and pipe yard **West:** predominantly unchanged from 2006 aerial photo except one building expanded with addition

3.3 SANBORN FIRE INSURANCE MAPS

Sanborn Fire Insurance maps were developed in the late 1800s and early 1900s for use as an assessment tool for fire insurance rates in urbanized areas. A search was made of EDR's collection of Sanborn Fire Insurance maps. Sanborn map coverage was not available for the subject property.

3.4 CITY DIRECTORIES

A search of historic city directories was conducted for the subject property at 12345 Steele Creek Road. Directories were available for Charlotte, North Carolina from the late 1800s through 1963. However, the subject property, during these time periods, was beyond the city limits and undeveloped agricultural or woodland and not developed as demonstrated from other historical sources. Based on experience with City Directory content and coverage, the subject property would not have a record in the City Directory. Therefore, no City Directory search was pertinent.

3.5 HISTORICAL TOPOGRAPHIC MAPS

A search of US Geological Survey historical topographic maps was conducted for the subject property. The subject property spans two USGS quadrangles and coverage was available for the upper quadrangle (Charlotte West, NC) but absent for the lower quadrangle (Fort Mill, SC) The 1949 historical topographic maps was reviewed and showed:

Date(s)	Subject Property Description	Surrounding Area Descriptions
1949	Undeveloped agricultural lands	**North:** residence and barns **South:** undetermined due to lack of coverage **East:** undeveloped agricultural lands with the former US Naval Depot located about 1.5 miles east of the subject property **West:** undeveloped agricultural lands

3.6 CHAIN OF TITLE

In accordance with our approved scope of services, a Chain of Title search was not performed as part of this assessment.

4.0 REGULATORY AGENCY RECORDS REVIEW

4.1 REGULATORY AGENCIES

Local and state agencies, such as environmental health departments, fire prevention bureaus, and building and planning departments are contacted to identify any current or previous reports of hazardous materials use, storage, and/or unauthorized releases that may have impacted the subject property. In addition, information pertaining to Activity and Use Limitations (AULs), defined as legal or physical restrictions, or limitations on the use of, or access to, a site or facility, is requested.

4.1.1 HEALTH DEPARTMENT

On June 21 and 24, 2013, AEI contacted the Mecklenburg County Land Use and Environmental Services Agency (LUESA) for information on the subject property and nearby sites of concern. LUESA covers air quality, assessor's office, code enforcement, environmental health, solid waste, and water and land resources. Files at this agency may contain information regarding hazardous materials storage, as well as information regarding unauthorized releases of petroleum hydrocarbons or other contaminants that may affect the soil or groundwater in the area. Mr. Dennis Tyndall reported that the subject property contained a record of 21 monitoring wells, all of which have been abandoned. He indicated that an adjacent property (to the north/northeast) had a record as a Leaking Underground Storage Tank. He indicated that there was not a record of widespread groundwater contamination in the area.

No information indicating current or prior use or storage of hazardous materials, or the existence of AULs was on file for the subject property with the LUESA.

4.1.2 FIRE DEPARTMENT

On June 21, 2013, AEI contacted the Charlotte-Mecklenburg Fire Marshal's Office within the Land Use and Environmental Services Agency for information on the subject property to identify any evidence of previous or current hazardous material usage. The office staff reported that records of flammable, ignitable, and corrosive substances were associated with the property.

No information indicating the existence of AULs was on file for the subject property with the Fire Marshal's office.

4.1.3 BUILDING DEPARTMENT

On June 21, 2013, AEI contacted the Mecklenburg County Land Use and Environmental Services Agency (LUESA) for information on the subject property in order to identify historical tenants and property use. AEI was directed to review the online holdings for current permits, of which none were identified. AEI was directed to review the online holdings for the assessor's office for building details and construction dates.

No information indicating current or prior use or storage of hazardous materials, or the existence of AULs was on file for the subject property with the LUESA.

4.1.5 COUNTY ASSESSOR OFFICE

On June 17, 2013, AEI reviewed the online holdings of the Mecklenburg County assessor's office for information on the subject property in order to determine the earliest recorded date of development and use.

According to the Mecklenburg County assessor's office, the earliest recorded date of development on subject property was 1990, and the subject property was utilized for industrial purposes.

4.1.6 DEPARTMENT OF OIL AND GAS

As the State of North Carolina does not maintain a Department of Oil and Gas, AEI consulted the USGS topographic map which indicated that there are no oil or gas wells within 500 feet of the subject property. AEI reviewed the National Pipeline Mapping, which indicated that there is no natural gas transmission or hazardous liquid pipelines within 500 feet of the subject property. No environmental concerns were noted during the map review.

4.1.7 OTHER AGENCIES SEARCHED

On June 18, 2013, AEI reviewed the online holdings of the North Carolina Department of Environment and Natural Resources (NCDENR), Division of Waste Management as well as the U.S. Environmental Protection Agency's (EPA) Multisystem Envirofacts records.

- The NCDENR did not have records published electronically for the subject property. NCDENR did have records published electronically for the previous Virkler Chemical plant location in eastern Charlotte at 1022 Pressley Road; however, this was not at the subject property.
- The NCDENR did have records published electronically for some of the adjacent properties. The AquaAir property (located east of the subject property and not adjacent) had records of groundwater contamination of chlorinated solvents and chromium reported to be flowing easterly (away from the subject property) with instruction to the responsible party to file deeded land use restrictions. The Valmet property (located northeast of the subject property) had records of petroleum contamination to groundwater.
- The NCDENR did not have records published electronically for the Atlantic Packaging and Supply (formerly Thypin Steel, and formerly the location of the 1951 aerial photograph diamond-shaped feature).
- The US EPA had records for the subject property under the file name of Chemical Technologies pertaining to air emissions. The EPA file indicated a violation in 1995 with fines and penalties over $15,000. Subsequent inspections conducted between 1996 and 2007 did not identify violations.
- The US EPA had records for the nearby property to the east under the site name of "SNL Corporation Aqua Air Site." The EPA records indicated the facility had a permit to discharge tetrachloroethene and other chlorinated solvents since 1999 as well as a 1982 RCRA record indicating tank and container storage but no contents cited.

On June 18 and 25, 2013, AEI searched the NCDENR online records for the Aquair site. The NCDENR records were numerous and described several remedial actions including soil and groundwater remediation. The remedial actions were being completed by the responsible party between late 1990s and 2006, at which time the responsible party withdrew from the Inactive

Hazardous Sites Branch's Registered Environmental Consultant Program. It appears that no further remedial actions have occurred since 2006. The documents reviewed indicated chlorinated solvent contamination of the groundwater flowing easterly/southeasterly from the site (opposite direction than subject property).

On June 25, 2013, AEI searched the NCDENR online records for the Thonit A Simmons SHWS site. The records primarily contained annual letters to the responsible party on file that the property remained an Inactive Hazardous Site. The records included a 1999 memorandum summarizing a 1991 sampling event where soil samples indicated chromium and bis(2-ethylhexyl)phthalate at concentrations greater than state remediation levels. The site was described as a hospital bed manufacturer since 1977 using paints, thinners, and non-halogenated solvents.

5.0 REGULATORY DATABASE RECORDS REVIEW

AEI contracted Environmental Data Resources, Inc. (EDR) to conduct a search of federal, state, tribal, and local databases containing known and suspected sites of environmental contamination. The number of listed sites identified within the approximate minimum search distance (AMSD) from the Federal and State environmental records database listings specified in ASTM Standard E 1527-05 are summarized in the following table. A copy of the regulatory database report is included in Appendix B of this report.

The subject property was identified in the databases reviewed as an SSTS, FTTS, TSCA, FINDS, and US AIRS site. These listings are further discussed below.

In determining if a site is a potential environmental concern to the subject property in the records summary table below, AEI has applied the following criteria to classify the site(s) as low concern: 1) the site(s) only hold an operating permit (which does not imply a release), 2) the site(s) have been granted "No Further Action" by the appropriate regulatory agency, and/or 3) based upon AEI's review, the distance and/or topographic position relative to the subject property reduce the level of risk associated with the site(s).

5.1 RECORDS SUMMARY

Database	Search Distance (Miles)	Subject Property Listed	Total Number of Listings	Potential Environmental Concern to the Subject Property (Yes/No)
NPL	1	No	0	
DELISTED NPL	0.5	No	0	
CERCLIS	0.5	No	0	
CERCLIS NFRAP	0.5	No	1	Further discussed below.
RCRA CORRACTS	1	No	0	
RCRA-TSD	0.5	No	0	
RCRA LG-GEN, SM-GEN, CESQGs, VGN, NLR	TP/ADJ	No	3	Further discussed below.
US ENG CONTROLS	TP	No	0	
US INST CONTROLS	TP	No	0	
ERNS	TP	No	0	

Database	Search Distance (Miles)	Subject Property Listed	Total Number of Listings	Potential Environmental Concern to the Subject Property (Yes/No)
STATE/TRIBAL HWS	1	No	2	One of these sites is further discussed below. Based on the relative distance, the current regulatory status, and/or the assumed direction of groundwater flow, the remaining site is not expected to represent a significant environmental concern.
STATE/TRIBAL SWLF	0.5	No	0	
STATE/TRIBAL REGISTERED STORAGE TANKS	TP/ADJ	No	1	Further discussed below.
STATE/TRIBAL LUST	0.5	No	1	Further discussed below.
STATE/TRIBAL ENG-INST CONTROLS	TP	No	0	
STATE/TRIBAL VCP	0.5	No	0	
STATE/TRIBAL BROWNFIELD	0.5	No	1	Further discussed below.
ORPHAN	N/A	No	1	One of the identified orphan sites was located nearby to the subject property under the name of AquaAir with an extra digit in its street address. This site is discussed below. The remainder of the orphan sites were not adjacent sites, and therefore, these sites are not expected to represent a significant environmental concern.
NON-ASTM DATABASES	TP/ADJ	Yes	Multiple	Further discussed below

Site Name: Multiple Listings Database(s): SSTS, FTTS, TSCA, FINDS, and US AIRS Address: 12345 Steele Creek Road Distance: Subject Property Direction: Subject Property
Comments: FINDS is typically a pointer to other databases, and is used as a tracking tool by the US EPA and State agencies. It is a compilation of the following lists: Permit Compliance System (PCS), Aerometric Information Retrieval System (AIRS), the enforcement document used to manage and track information on civil judicial enforcement cases (Docket), Federal Underground Injection Control (FURS), the criminal docket system used to track criminal enforcement actions for all environmental statutes (C-Docket), Federal Facilities Information System (FFIS), state environmental laws and statutes (State), and the PCB activity data system (PADS). This property is listed twice as a FINDS; one listing (Registry ID 110040986172) in association with the Environmental Interest/Information System; the other listings (Registry ID 110000349702) in association with AIRS, U.S. EPA Toxic Release Inventory System (TRIS), SSTS, the National Emissions Inventory (NEI), and the Nation Compliance Database (NCDB). No further information was provided under this listing. The subject property was identified as a HMIRS site as a result of its reporting to U.S. Department of Transportation of a spill of 250 gallons of hydrochloric acid on 17 February 2012 as a result of a forklift accident when loading a trailer for shipment that punctured the shipping container. The record describes that the spill was contained within the trailer and that a cleanup contractor responded. According to the information presented in the database, the remaining subject property listings pertain to pesticide production and air emissions.

Site Name: Valmet Paper Machinery / New South Fabricators Database(s): UST, LUST, Brownfield / RCRA-CESQG Address: 12933 Sam Neely Road Distance: Adjacent Direction: Northeast (upgradient/sidegradient)
Comments: Under the Valmet site name the database record describes three USTs that were installed in 1976 and removed in 1990. Two of the USTs were 30,000-gallon capacity each containing diesel. The third UST was 2,000 gallon capacity containing gasoline. Initially reported in 1991 after UST removal and recorded as closed in 2002. In 2012, it appears to have been re-opened and re-closed out as soil contamination by petroleum. Under the New South Fabricators site name (aka Southern Steel) the database record identifies a RCRA-CESQG since 2009 with record of RCRA-SQG between 1998-2008 of ignitable hazardous waste and non-halogenated solvents.

Site Name: Aplix Database(s): RCRA SQG, RCRA LQG Address: 12300 Steele Creek Road, Charlotte, NC Distance: Adjacent Direction: West (sidegradient)
Comments: This property was identified as a small quantity generator in 2012, prior to which it was identified as a large quantity generator since 1989 of flammable, corrosive, and non-halogenated solvents. Several violations are currently on file, pertaining mainly to minor issues involving labeling and recordkeeping. Based on the current regulatory status and the topographic location of this site relative to the subject property, this adjacent listing does not appear to represent a significant environmental concern.

Site Name: Okuma America Database(s): RCRA SQG Address: 12200 Steele Creek Road, Charlotte, NC Distance: Adjacent Direction: Northwest (upgradient)
Comments: This property was identified as a RCRA SQG of ignitable hazardous wastes since 2003. No violations were recorded. Based on the current regulatory status, this adjacent listing does not appear to represent a significant environmental concern.

Site Name: Aquair Corporation Database(s): RCRA Non-Generator, CERCLIS-NFRAP, SHWS, IMD Address: 13300 Sam Neely Road Distance: 2,500 feet Direction: East (sidegradient)
Comments: Formerly operating as a solvent recovery business, this property was identified as a historical large quantity generator in 1990 followed by as a non-generator handler in 1997 of chlorinated solvents and heavy metals. RCRA compliance inspections occurred between 1987 and 1991 reporting no violations. USEPA investigated under Superfund between 1985 and 1991 finding the site not eligible for the National Priority List. Identified in the database report as an orphan site, Aquair was identified as a SHWS. The database report provided no information. See Section 4, other agency records.

Site Name: Thonit A Simmons Database(s): SHWS Address: 11900 Steele Creek Road Distance: 0.4 mile Direction: North (upgradient)
Comments: This property was identified as a SHWS. No details were included in the database record. According to information obtained from the NCDENR online records, the Thonit A Simmons site was described as a hospital bed manufacturer since 1977 using paints, thinners, and non-halogenated solvents. The records primarily contained annual letters to the responsible party on file that the property remained an Inactive Hazardous Site. The records included a 1999 memorandum summarizing a 1991 sampling event where soil samples indicated chromium and bis(2-ethylhexyl)phthalate at concentrations greater than state remediation levels. Given the distance from the subject property and the local site topography, this site is not expected to represent a significant environmental concern.

6.0 INTERVIEWS AND USER PROVIDED INFORMATION

6.1 INTERVIEWS

Pursuant to ASTM E1527-05, the following interviews were performed during this investigation in order to obtain information indicating RECs in connection with the subject property.

6.1.1 INTERVIEW WITH OWNER

Mr. Howard Virkler, representative of the subject property owner, Virkler Realty, LLC, was contacted June 17, 18 and 19, 2013. Mr. Virkler has been associated with the subject property for 24 years. Mr. Virkler was asked if he was aware of any of the following:

Any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property.		Yes	**X**	No
Any pending, threatened or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property.		Yes	**X**	No
Any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.		Yes	**X**	No
Any incidents of flooding, leaks, or other water intrusion, and/or complaints related to indoor air quality.		Yes	**X**	No

Mr. Virkler reported the following:

- He designed and oversaw the construction of the facility which has concave and convex flooring to enable flow of spilled or leaked chemicals to be contained and cleaned up with a capacity of 20,000 gallons in multiple locations. He described the chemical resistant materials installed into the floor system to prevent spill intrusion into subsurface soils and groundwater. He described vitron seams, polyethylene backer bars at joints, and three layers of 6-mil polyethylene overlapped beneath the twelve-inch thick 5,000 psi concrete.
- The subject property is owned by Virkler Realty, LLC and tenants include Virkler Chemical, Perfect Lithium, and Tens Tech.
- Virkler Chemical was previously known as Process Innovation (prior to 1 April 2013). Process Innovation was previously known as Chemical Technologies (prior to 5 December 2008), Chemical Technologies was previously known as Virkler Company (prior to September 2003).
- Virkler Chemical formulates chemicals per customer specifications.
- He described a 350 gallon asphalt emulsifier spill in 2008/2009 where a drain port was not fully closed on the receiving tanker and the tanker was not fully within the covered canopy loading area; therefore, the product escaped the tanker at a point beyond the point where flow would enter the sump at the loading area. The estimated 350 gallons occurred on the concrete and asphalt-covered and curbed driveway and were contained and vacuumed up by site personnel. He estimated that all but 5 gallons were recovered. He explained that the emulsifier was non-toxic. A stain remained that when rained upon would have a slight sheen. Site personnel have since removed the stain.
- He described drum loading/unloading using lifter equipment.

- He explained the past history of assessments and investigations. He reported that all previous monitoring wells have been abandoned.
- He reported not receiving any notices from adjacent land owners of land use restrictions due to groundwater contamination.
- He explained the manufacturing process, the facility features, sumps/drains, laboratories, warehousing, and tank farms.
- He explained that Virkler made a business decision at the opening of this facility to not handle chlorinated solvents. He reported that a past tenant had a small solvent distiller and stored few drums of chlorinated solvents at the site. He explained that Virkler required the past tenant to conduct all chlorinated solvent activity and storage within a stainless steel basin equipped with a leak/spill detection alarm (float switch). He reported no spills of chlorinated solvent outside of the stainless steel basin, nor disposal of waste chlorinated solvent into the facility drains and sumps.
- He provided copies of past reports.

6.1.2 INTERVIEW WITH KEY SITE MANAGER

Mr. Virkler was also considered the Key Site Manager. See Section 6.1.1 for Mr. Virkler's interview.

6.1.3 PAST OWNERS, OPERATORS AND OCCUPANTS

Interviews with past owners and occupants regarding historical onsite operations were not reasonably ascertainable. However, based on information obtained from other sources including the current site owner, it is likely that the information provided by past owners and operators would have been duplicative.

6.1.4 INTERVIEW WITH OTHERS

On June 20 and 21, 2013, AEI interviewed representatives of the North Carolina Department of Environment and Natural Resources as summarized below:

- Inactive Hazardous Sites Branch, Central Office – Ms. Charlotte Jesneck indicated the following:
  - The subject property was identified as number NONCD0002540. This identification number reportedly relates back to the original site number that was given to the Burroughs Property.
  - The site file was not available as it is being digitally scanned and is physically located at the vendor. The site file was expected to be returned in about three months. If requested, the site file can be accelerated with an expected return in about two weeks.
  - The State database record describes a 1994 letter indicating that the site was closed because of "clean" groundwater data. Ms. Jesneck clarified that the "clean" designation meant absent of any contamination, not contamination below a certain threshold.
  - The State database record did not indicate receipt of Notification Forms dated 2011.
  - Ms. Jesneck was not aware of regional groundwater contamination or an adjacent site with a known groundwater plume migrating towards the subject property.
  - Ms. Jesneck explained that the 1994 letter was issued by a precursor to the NCDENR.

- Ms. Jesneck explained that in 2007 the NCDENR reorganized and that the responsibility for the subject property transferred to her department.

- Mooresville, NC Regional Office – Mr. Andrew Pittman indicated the following:
  - The Inactive Hazardous Sites Branch regional staff are not assigned projects geographically so no one person is a central point-of-contact for the southwestern area of Charlotte. Therefore, there was no one person to inquire about regional knowledge of groundwater contamination.
  - A file search was suggested to investigate each of the adjacent properties and the subject property record.
  - The file materials at the regional office would be the same as contained at the central office in Raleigh.

Information obtained during interviews with local government officials is incorporated into the appropriate segments of this section.

6.2 USER PROVIDED INFORMATION

User provided information is intended to help identify the possibility of RECs in connection with the subject property. According to ASTM E1527-05 and EPA's AAI Rule, certain items should be researched by the prospective landowner or grantee, and the results of such inquiries may be provided to the environmental professional. The responsibility for qualifying for Landowner Liability Protections (LLPs) by conducting the inquiries ultimately rests with the User, and providing the information to the environmental professional would be prudent if such information is available.

The User did not complete the ASTM User questionnaire or provide the User information to AEI. AEI assumes that qualification for the LLPs is being established by the User in documentation outside of this assessment.

6.3 PREVIOUS REPORTS AND OTHER PROVIDED DOCUMENTATION

Numerous previous reports and documentation were provided to AEI by the site owner, Mr. Howard Virkler during this assessment. A summary of this information follows:

Letter from North Carolina Department of Natural Resources and Community Development, Division of Environmental Management for Incident Number 3807 "Steele Creek and Sam Neely Road." (February 24, 1989)

The State identifies it has reviewed reports Law Engineering (September 8, 1988), Westinghouse Environmental (November 30, 1988), and its groundwater analyses (October 4, 1988) finding that no further groundwater investigations are warranted at a portion of the named site referencing an attached document. However, the attached document was not included.

Letter from Preister Associates to North Carolina Department of Environment, Health, and Natural Resources, Division of Environmental Management for site name "Steele Creek Associates Property." (February 11, 1994)

The letter identifies that in 1990 the State required groundwater to be re-sampled and analyzed by a different EPA method. The letter describes sampling and analysis conducted in November

1992 by Cooper Environmental, in August 1993 by Priester Associates, and in January 1994 by Priester Associates from four monitoring wells. The letter describes transmitting analytical data from these sampling events that shows concentrations below detection limits.

Letter from North Carolina Department of Environment, Health, and Natural Resources, Division of Waste Management, Mooresville Regional Office to Priester & Associates (March 9, 1994).

This letter, provided by Mr. Virkler, was often cited in previous reports but not included. The letter pertains to a site called "Steele Creek Associates" Incident Number 3807, Mecklenburg County, North Carolina. The letter states that the NCDEHNR (the precursor to the current NCDENR) had reviewed the groundwater analytical results submitted and that "based on these results, no further action is required at the subject site at this time."

Letter from Cooper Environmental, Inc., to Virkler Chemical (September 10, 1997).

The letter identifies that Cooper Environmental conducted a facility audit for air emission permit compliance. The letter identifies that there were two boilers (one steam, one hot oil). The letter identifies that air emissions were maintained under the following permits:

- Permit No. 96-106-213 - Covers storage tanks containing volatile organic liquids (indoor and outdoor tank farms).
- Permit No. 96-107-213 - Covers four (4) weigh tanks, thirteen (13) blending vessels, and one (1) ammonia salt neutralization process with a custom phosphoric acid scrubber.
- Permit No. 96-109-213 - Covers three reactor vessels and one (1) ammonia salt neutralization process with a custom phosphoric acid scrubber.
- Permit No. 91-163-213 - Covers one (1) 13.4 MM BTU/hr boiler fueled by natural gas and #2 fuel oil.

Phase I Environmental Site Assessment, prepared by Cooper Environmental, Inc., (February 14, 2002).

A Phase I ESA was performed in accordance with ASTM E1527-00 that identifies the following:

- The subject property was formerly a portion of a larger site that included a LUST and groundwater contamination. The larger site was named "Steele Creek and Sam Neely Road." Based on a prior assessment, there was an uncontrolled disposal of solid waste on the larger site but did not find evidence of hazardous waste. Groundwater sampling was conducted and found contamination in three of seven monitoring wells of the larger site; however, not at the subject property. Cooper Environmental reported a telephone conversation with a representative of the NCDENR indicating that the NCDENR had issued a letter issuing closure of the larger site.
- Aboveground storage tanks containing various chemicals were present on the subject property.
- Two pad-mounted electrical transformers, owned by the utility, were present on the exterior of the building and nine electrical transformers, owned by the subject property, were present within the interior of the building. Subject property personnel interviewed reported that the electrical transformers did not contain PCBs. No leaks or stains were recorded.
- Waste materials were disposed (offsite) by Ecoflow. Waste water was discharged under "Wastewater Permit #0206." Exhaust fans are permitted under "Air Permit #99-202-213."

- No Recognized Environmental Conditions were reported.

Preliminary Site Assessment, prepared by WPC (February 23, 2006)

A site assessment inclusive of groundwater and surface water sampling and analysis was conducted for the Virkler Company. Nine temporary monitoring wells were installed at various locations at the subject property; however, groundwater from only two of the wells was submitted for laboratory analysis (one at the upgradient property boundary and one downgradient. One surface water sample was collected from the onsite grassy swale. Bored soils were field screened but not subjected to laboratory analysis. This report described the following:

- The presence of PCE and lead in groundwater at concentrations slightly above groundwater standards at one of the temporary monitoring wells on the eastern portion of the subject property.
- The absence of chemicals above water quality standards in the surface water.
- Groundwater flow south and east.
- Summarized Constituents of Concern at adjacent and nearby contaminated properties. Surmising that the subject property has been affected by offsite contamination that migrated to beneath the subject property from the Valmet (northeast of subject property) and Aquair (east of the subject property) groundwater contaminations. Based on these findings, no further action was recommended.

Phase I Environmental Site Assessment, prepared by Arcadis (April 20, 2011)

A Phase I Environmental Site Assessment in accordance with ASTM E1527-05 was conducted at the subject property that identified the following:

- Three RECs were identified as: 1) groundwater contamination of PCE and lead citing the 2006 WPC report; 2) dead vegetation in proximity to the cooling tower and a sanitary sewer clean-out; and 3) spill of an asphalt additive that reached the storm water drain discharging into the onsite retention basin.
- Identified groundwater contamination as a HREC because it was “historical.”
- Identified three sumps within the building and noted that inspection of the sumps and piping was obstructed by the liquid contents.
- Identified the presence of a parts washer in the mechanic building.
- Identified the presence of oily-stained soils, stressed vegetation, and equipment leaks associated with the air compressors.
- Identified four 5-gallon buckets of roofing tar missing lids that overflow apparently oily-water during rain events.
- No environmental liens or activity use limitations were discovered.
- Reported that the site owner had stated that no correspondence had been received from adjacent or nearby property owners indicating releases to the subject property.
- A solvent still and few drums of PCE were reported in the manufacturing area.
- Described a spill of 350 gallons of an asphalt additive occurred on April 8, 2011 that began at the “loading/unloading area” (covered canopy tanker truck loading/unloading) traveling southeast in the asphalt and concrete-covered driveway. Described that a heavy rain

occurred on 9 April 2011 that transported the spill residuals along the curb and into a storm drain discharging into the retention basin.

- Reported that no underground storage tanks were recorded.
- Reported that one aboveground storage tank within the outside tank farm contained "oil" (not specified) and that the remainder of the aboveground storage tanks were either empty or contained chemical manufacturing fluids.
- Described the wastewater treatment system and its National Pollutant Discharge Elimination System (NPDES) pH-based discharge limit. Reported that Notice of Violations were filed against and remedied by the owner for submitting the self-monitoring report late, not violation of discharge limits.
- Concludes that the PCE groundwater contamination at the subject property is sourced from PCE contamination plume originating at the Thypin Steel and Valmet properties (adjacent to the north / northeast) citing 1980s/1990s investigations.

Draft Phase II Environmental Site Assessment, prepared by Arcadis (April 21, 2011)

Described as a follow-up to three RECs identified in the Phase I ESA by Arcadis (groundwater contamination, barren vegetation areas near the cooling tower and sewer clean-out, and asphalt additive spill), ten permanent monitoring wells were installed and groundwater analyzed, soil borings collected during the install of the monitoring wells were analyzed, and sediment and surface water were collected and analyzed from the discharge into the onsite retention pond.

Reported the analytical findings as:

- Chromium was detected in two monitoring wells exceeding the groundwater quality standard (MW5, 210 ug/L; MW8, 23 ug/L); however, upon confirmatory re-sampling at the elevated concentration location (MW5), chromium was detected at concentrations below the groundwater standard and the initial analytical results were described as inaccurate due to sampling error (turbidity) or laboratory error.
- PCE was detected in six of the ten monitoring wells with concentrations from four monitoring wells exceeding the groundwater quality standard (MW4, 1.8 ug/L; MW5, 1.6 ug/L; MW6, 1.3 ug/L; MW10, 1.3 ug/L).
- PAHs and chromium were detected in pond sediments above US EPA sediment screening values.
- Constituents detected in the surface water sample did not exceed water quality standards.
- Groundwater flows to the south.

Concluded that:

- "While possible onsite sources of PCE were identified at the Site, there was no direct evidence in the soil or groundwater sampling results of an onsite release of this chemical to the environment."
- "Based on sampling results and regulatory exceedances observed in the sediments, further retention pond investigation and regulatory reporting of the incident may be required along with remediation action as required."

Letter from Process Innovation to North Carolina Department of Environment and Natural Resources, Inactive Hazardous Waste Site Branch (May 27, 2011).

This letter summarized the site history, surmised migration from an offsite source to have caused onsite contamination, and transmitted two "Notification of an Inactive Hazardous Substance or Waste Disposal Site" forms. The first Notification pertained to the presence of PCE in groundwater. The second Notification pertained to the spill of 350 gallons of an asphalt additive that may enter the retention pond. The second Notification included information on the chemical composition of the asphalt additive described as not containing hazardous substances. These forms listed the site name as "Virkler Company" and were submitted by Mr. Howard Virkler as Manager, Virkler Realty, LLC.

Virkler Property Environmental Site Investigation Summary prepared by Golder & Associates (cites work completed in April 2011, but appears to be an incomplete draft and undated).

This report summarizes file reviews conducted at the NCDENR, Inactive Hazardous Waste Site Branch. Pertinent excerpts are below:

- Law Engineering: *Report of Preliminary Site Contamination Assessment – Sam Neely Road Site, Mecklenburg County, NC* to Mr. Howard Virkler, The Virkler Company.
  - This Report summarized the installation of groundwater monitoring wells and chemical analyses of groundwater samples collected at the site. Seven (7) monitoring wells (MW-1 through MW-7) were installed onsite at depths ranging from 19 to 25 feet below ground surface (bgs). Soil sampling was conducted with and boring logs constructed, but no soil samples were analyzed. Groundwater levels ranged from 9 to 14 feet bgs in MW-1 through MW-5. Monitoring wells MW-6 and MW-7 were not gauged or sampled at the request of Mr. Virkler. Samples from wells MW-1 through MW-5 were combined to form one composite groundwater sample. Analysis indicated the presence of eight (8) chlorinated VOCs, including Tetrachloroethylene (PCE) at 67 parts-per-billion (ppb), above State regulatory drinking water standards.
  - The Report indicated that the source of the VOCs was uncertain based on the site-specific information collected to date and may originate onsite or may have migrated in the groundwater from adjacent facilities. Based on groundwater elevations for 5 monitoring wells, groundwater flow at the site was south-southeast….
- 1988 Law Engineering: *Report of Groundwater Analytical Testing, Sam Neely Road, Mecklenburg County, NC* to Steele Creek Associates, Ltd. c/o Commonwealth Engineering Associates, Mr. John D. Froscher, P.E., Agent for Steele Creek Assoc.
  - This Report summarized groundwater analytical testing conducted at the site conducted for MW-1 through MW-7 during July and August 1988 following the report of analytical results of Law's Preliminary Site Contamination Assessment to NCDENR. The NCDENR elected to re-sample and analyze individual monitoring wells to more clearly identify potential contamination sources. MW's 1 through 6 contained several VOCs exceeding the NC 2L Groundwater Standard. No VOCs were detected in MW-7. MW's 2, 3, and 4 exhibited the highest concentrations of VOCs, including PCE. MW-2 along the northeastern edge of the site along Sam Neely Road contained the most number of detectable VOCs. MW-2, 3, and 6 were located in upgradient areas of the site. MW-1, 5, and 7 were located near the lower elevations of the property. Groundwater flows south-southeast. The analytical results indicated that upgradient MW-2 and MW-3 contained VOCs that apparently have originated from areas along Sam Neely Road or possibly from areas north of Sam Neely Road. MW-4 was also found to have high concentrations of similar constituents detected in wells MW-2 and MW-3, indicating that

the groundwater contaminant plume migrated a considerable distance downgradient from the source(s). The analytical results also indicated that MW-6 was located near the edge of the contaminant plume and that MW-7 was located beyond the downgradient extent of groundwater contamination. Based on site-specific information obtained to date at the time of the Report, it appeared likely that groundwater contamination existed on the adjacent properties to the north, south, and east of the site.

- 1988 NCDENR Pollution Incident Reporting Form – Incident #3807
  - This reporting form was completed by Law Engineering on 11-9-88 and submitted to the NCDENR which documented the discovery of "low level solvent" groundwater contamination onsite as a result of an environmental site assessment conducted by Law in July 1988. Incident #3807 was assigned to the site. Recommended action included the installation of four monitoring wells. The reporting form indicated that soil samples were collected and analyzed by the Solid and Hazardous Waste Branch shortly after the incident was reported with the intent to determine whether groundwater contamination on the site was a result of surface dumping. The results indicated "very low level contamination by gasoline constituents." Soil samples collected and analyzed by Law along a sewer line parallel to Sam Neely Road on the northern edge of the site indicated only "very low levels of methylene chloride", which was just one of the 14 different compounds detected in the groundwater onsite. The reporting form stated that a plume map constructed over the area "indicates that the source is likely to be from the Valmet Corporation or Thypin Steel, Inc. properties located directly across Sam Neely Road.
  - During the NCDENR file review, Thypin Steel was not found to be listed as having any incidents. Both Thypin Steel and Valmet were not listed as RCRA generators of hazardous wastes.
- 11-30-1988 Westinghouse Environmental Services: *Hydrogeologic Assessment – Burroughs Property, Charlotte, NC* to Steele Creek Associates, Inc. c/o Commonwealth Engineering Associates, Inc., Mr. Michael Sturm
  - This Report summarized the Hydrogeologic Assessment for the Burroughs property (includes current Virkler site) and included a preliminary environmental evaluation of the western portion of the Burroughs property (current location of Virkler facility) as indicated in Westinghouse's proposal dated 11-9-88. The assessment evaluated the possibility and potential of contamination within the shallow groundwater aquifer beneath the western portion of the site, determined and confirmed the groundwater flow to the south-southeast on the site, and delineated potential portions of the western site area that were free of contamination in the groundwater and were potentially available for sale.
  - At the time of the Report, the site was bordered by Steele Creek Road, Aplix, Inc., and Gita Sporting Goods to the west. Diagonally across the intersection of Steele Creek Road and Sam Neely Road was Okuma Machine Tools (no incidents) and Simmons Healthcare (RCRA generator – no incidents). To the north was Sam Neely Road and Dexter Corporation (no incidents), Bottlers Machinery (no incidents), Thypin Steel (no incidents), and Valmet (UST incident). To the east approximately 1,000 feet was Aquair (RCRA generator-open IHSB incident). To the south was wooded and undeveloped property.
  - Five additional wells were installed by Westinghouse (MW-8 through MW-12) along the western portion of the property. Groundwater samples were collected from MW-3

(eastern portion of site) and MW's 6-12 (western portion of the site). MW's 1, 2, 4, and 5 were not sampled as the investigation did not include the eastern portion of the property where contamination was already identified. Sampling results indicated the presence of PCE in MW-3 @ 7 ppb along Sam Neely Road and low levels of methylene chloride in MW-7 and MW-8, along the southern portion of the western parcel. There were no detections of any VOCs in MW-6, 9, 10, 11, or 12. MW-3 was located on the eastern parcel.

- 2-24-1989 Letter from NCDENR – Mooresville Regional Office to Mr. Howard Virkler, Virkler Company RE: Steele Creek and Sam Neely Road Property, Incident #3807, Mecklenburg County, NC
  - This letter indicated that NCDENR reviewed the reports by Law Engineering, dated September 8, 1988, and Westinghouse Environmental Services, dated November 30, 1988, and the groundwater analyses conducted by NCDENR on October 4, 1988. The NCDENR stated "our findings at this time show no reason to continue the investigation of the portion of the Steele Creek – Sam Neely Road property as outlined on the attached document."
  - During the current NCDENR file review, no documents were attached to this letter. However, the portion of the property the NCDENR is referring to is the western portion, where the Virkler facility is currently located.
- 9-7-1989 Westinghouse Environmental and Geotechnical Services, Inc.: *Ground-Water Sampling and Chemical Analysis Report – Burroughs Property, Eastern Tract, Charlotte, NC* to Steele Creek Associates, Ltd. c/o Commonwealth Engineering Associates, Inc., Ms. Tamara Putz
  - This Report summarized previous site investigations to date and presented the results of Westinghouse's recent groundwater sampling and chemical analyses of 9 wells, 5 located onsite (MW-1 through MW-5) and 4 located in the vicinity of the site (NC-1 through NC-4) located north of Sam Neely Road on the Thypin Steel and Valmet properties. The Report also indicated that Mr. Michael Sturm of Steele Creek Associates was reported via fax on 1-12-89, the chemical analytical testing results of the saw dust found on the property originally by Law near the vegetation scar. Analysis indicated the saw dust contained trichloroethane at 13 ppb, trichloroethylene (TCE) at 480 ppb, and toluene at 26 ppb.
- Several letters between the State and various private entities were summarized indicating continued groundwater sampling and debate regarding analytical methods (see chronological summary in Appendix I-8).
- 3-9-1994 Site Closure Letter from Ms. Chris DeRoller, NCDENR Mooresville Regional Office to Priester & Associates RE: Steele Creek Associates Property, Incident #3807, Mecklenburg County
  - This No Further Action letter indicated that Ms. DeRoller reviewed the results of the last three groundwater sampling events for the site received by NCDENR on 3-8-94 and "based on these results, no further action is required at the subject site at this time."
  - The NCDENR files did not contain any information for the Virkler site following the 3-9-94 NFA letter.
- The Cooper Environmental (2002) and WPC (2006) reports were summarized.

Nearby Facilities File Review Summaries – Virkler Site @ 12345 Steele Creek Road, Charlotte, NC prepared by unidentified author and undated; however, appears to be authored by Golder & Associates in 2011.

This report appears to be a working draft and incomplete. However, it provides a summary of file reviews conducted at several of the adjacent and nearby properties as below:

- Former Valmet Facility, 12933 Sam Neely Road – UST Incident #6386
  - Described that #2 diesel oil was discovered in soil in 1990 during removal of two 30,000-gallon fuel oil tanks.
  - Described a NFA letter from NCDENR indicating the site was closed out and no further action was required.
- Former Unocol Facility (approx. 4600 feet ENE of the site), 12040 Goodrich Drive, Charlotte, NC – UST Incident #11909
  - Described a report submitted to NCDENR summarizing July 2000 annual groundwater monitoring event where petroleum hydrocarbons were below Gross Contaminant Levels (GCL) but vinyl chloride was about 1,000 times greater than the groundwater quality standard as well as nineteen VOCs and semi-VOCs including PCE between 5 and 240 ppb were identified in groundwater.
  - Described groundwater flow to be north-northeast (away from the Virkler property).
- Brenntag Southeast Facility (approximately 5900 feet ENE of the site), 11750 Fruehauf Drive, Charlotte – IHSB ID # NONCD0002796 – former Annandale Corporation facility
  - Described several investigation reports completed in the 1980s and 1990s that identified heavy metal contamination of soils.
  - Describes several investigation reports completed between the mid-2000s and 2012 indicating clean-up activities were proceeding.

Letter from Hart Hickman to Process Innovations, dated 30 January 2013.

This letter provides a summary of the environmental assessments and studies that have occurred at the 12345 Steele Creek Road facility. The letter includes:

- Summary of 1980s/1990s groundwater sampling and results indicating chlorinated solvent contamination at properties to the north of Sam Neely Road (north of the subject property) with groundwater flowing towards the subject property.
- Citation of the 1994 No Further Action letter indicating groundwater wells could be abandoned.
- Summary of the 2006 WPC site assessment and identification of low concentrations of PCE (1.4 ug/L) in groundwater.
- Summary of the 2011 Arcadis investigation, identification of low concentrations of PCE in groundwater (1.3 to 1.8 ug/L).
- Discussion pertaining to the detection of chromium in groundwater (2011 Arcadis) and its subsequent re-sampling indicating false elevated concentration initially reported.
- Discussion pertaining to offsite migration of PCE from an undetermined source having affected the subject property groundwater.
- Discussion pertaining to vapor intrusion from the PCE in groundwater is of no risk because the PCE concentrations are well below the State screening level for consideration of structural vapor intrusion from groundwater impacts.

- Discussion pertaining to PAHs in retention pond sediments being typical constituents at low concentrations as expected and associated with parking lot runoff.

7.0 SITE INSPECTION AND RECONNAISSANCE

On June 19, 2013, a site reconnaissance of the subject property and adjacent properties was conducted by Mr. Corry Platt of AEI in order to obtain information indicating the likelihood of RECs at the subject property and adjacent properties as specified in ASTM Standard Practice E1527-05 §8.4.2, 8.4.3 and 8.4.4. During the onsite reconnaissance, AEI was accompanied by Mr. Howard Virkler, Owner of Virkler Chemical.

7.1 SUBJECT PROPERTY RECONNAISSANCE FINDINGS

Yes	No	Observation
X		Hazardous Substances and/or Petroleum Products in Connection with Property Use
X		Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs / USTs)
	X	Hazardous Substance and Petroleum Product Containers and Unidentified Containers not in Connection with Property Use
	X	Unidentified Substance Containers
X		Electrical or Mechanical Equipment Likely to Contain Fluids
X		Interior Stains or Corrosion
	X	Strong, Pungent or Noxious Odors
X		Pools of Liquid
X		Drains, Sumps and Clarifiers
X		Pits, Ponds and Lagoons
X		Stained Soil or Pavement
	X	Stressed Vegetation
	X	Solid Waste Disposal or Evidence of Fill Materials
X		Waste Water Discharges
X		Wells
	X	Septic Systems
X		Other

The subject property is currently occupied by Virkler Chemical, with additional tenants using laboratory space including Tens Tech and Perfect Lithium. On-site operations consist of chemical formulation, warehousing, and research and development laboratories. The above identified observed items are further discussed below.

HAZARDOUS SUBSTANCES AND/OR PETROLEUM PRODUCTS IN CONNECTION WITH PROPERTY USE

The subject property is a chemical manufacturing plant. A variety of hazardous substances were reported onsite which are listed in Appendix G. Hazardous substances are stored in interior and exterior areas, generally with secondary containment. Spills and chemical product was observed on the floors; however, these were contained and vacuumed up by site personnel for recycling as a standard business practice. AEI observed no apparent concerns with the business practices.

Two exterior areas were identified where intact drums were staged for pending offsite shipment with no apparent leaks observed. Sixteen drums were staged in on the asphalt at the north loading dock area. Fifty-six drums were staged on the asphalt at the southeastern loading area

(near the flammable storage building). In both locations, the staged drums were located upgradient of storm water drainage inlets that discharge to the onsite retention pond and were absent of secondary containment. While no significant environmental concerns were noted for these stored drums, AEI recommends development of and implementation of a site-specific spill containment and countermeasure plan that addresses drum staging for shipment.

A small parts washer was observed in the mechanic shop building. No leaks or stains were observed and the capacity was estimated at 5 gallons. Site personnel reported that it is seldom used and that contracted vendors do equipment maintenance (e.g., forklift, oil changes) carrying waste oils and materials offsite for proper disposal. Based on these observations, the parts washer is not expected to represent a significant environmental concern.

A single 55-gallon drum is used to contain waste oil generated onsite from air compressor servicing. This drum is located in the former air compressor room within the interior of the building and within its secondary containment. Based on these observations, the drum is not expected to represent a significant environmental concern.

During the site reconnaissance, a stainless steel tray was observed within the subject property building. According to the site contact, the steel tray formerly housed a solvent distiller. The distiller was used by a prior tenant of the subject property. In a prior report, several drums of PCE were observed in the vicinity of the distiller. The stainless steel tray was reported to feature an alarm float switch that would activate when a release of liquids was detected. According to the site contact, no issues were noted with the former distiller machinery and no spills of PCE were reported. Given these reported information, and the engineering safeguards in place at the property (chemically-resistant flooring systems), the presence of the stainless steel tray, and the historic presence of a solvent distiller, are unlikely to represent a significant environmental concern.

ABOVEGROUND & UNDERGROUND HAZARDOUS SUBSTANCE OR PETROLEUM PRODUCT STORAGE TANKS (ASTS / USTS)

No underground storage tanks were observed or reported on the subject property.

Virkler reported 62 aboveground storage tanks (ASTs) located at the subject property used to contain constituents for its chemical formulation business. The ASTs were reported as varying capacities between 3,300 and 8,000 gallons. The ASTs are located in the interior tank farm, interior formulation area, and exterior tank farm. Each of these AST areas has drains and sumps connected to a below ground holding tank and are within secondary containment. The content and quantity of hazardous substances within each AST varies depending upon business inventory and production rates. At the time of the site visit, Virkler provided a tank inventory which is present in Appendix F. Tank Number 6-8 was identified as a 6,000-gallon #2 Fuel Oil tank located in the outside tank farm; however, the inventory showed this tank to be empty and site personnel indicated it has not been used in years.

ELECTRICAL OR MECHANICAL EQUIPMENT LIKELY TO CONTAIN FLUIDS

Toxic polychlorinated biphenyls (PCBs) were commonly used historically in electrical equipment such as transformers, fluorescent lamp ballasts, and capacitors. According to United States EPA regulation 40 CFR, Part 761, there are three categories for classifying such equipment: <50 ppm of PCBs is considered “Non-PCB”; between 50 and 500 ppm is considered “PCB-

Contaminated"; and >500 ppm is considered "PCB-Containing". Pursuant to 15 U.S.C. 2605(e)(2)(A), the manufacture, process, or distribution in commerce or use of any polychlorinated biphenyl in any manner other than in a totally enclosed manner was prohibited after January 1, 1977.

Transformers

The management of potential PCB-containing transformers is the responsibility of the local utility or the transformer owner. Actual material samples need to be collected to determine if transformers are PCB-containing.

Four pad-mounted transformers were observed on the exterior of the subject property during the site inspection. The transformers are owned and operated by Duke Energy and are labeled as non-PCB containing. The past reports indicate that nine transformers were located within the interior of the subject property building owned by Virkler. AEI observed electrical transformers in two locations within the interior of the subject property building. The transformers observed by AEI appeared intact with no apparent leaks. Based on the presumed date of installation when the building was constructed in 1990, the transformers are not expected to be PCB containing. Federal Regulations (40 CFR 761. Subpart G) require any release of material containing greater than 50 ppm PCB and occurring after May 4, 1987, be cleaned up by the Owner (Duke Energy) following the United States Environmental Protection Agency's (USEPA) PCB spill cleanup policy. Since the subject property was developed in 1990, PCB-containing transformers should be of low concern. No spills, staining or leaks were observed on or around the transformers. Based on the good condition of the equipment, the transformers are not expected to represent a significant environmental concern.

INTERIOR STAINS OR CORROSION

Stains were observed on equipment, flooring, and walls indicating past spills or leaks. However, these were observed in areas expected to feature minor spills as part of the business practice. Furthermore, according to the site contact chemically-resistant materials are installed into the floor system to prevent spill intrusion into subsurface soils and groundwater. These include vitron seams, polyethylene backer bars at joints, and three layers of 6-mil polyethylene overlapped beneath the twelve-inch thick 5,000 psi concrete. Spills entering interior drains are routed to a below ground holding tank for treatment prior to discharge into the municipal sewer system.

POOLS OF LIQUID

Pools of liquid were observed on flooring and within the drains/sumps as expected as part of the business practice and were not observed migrating beyond the confines of the building and/or secondary containment.

DRAINS, SUMPS AND CLARIFIERS

Seven storm drains were observed in the parking, loading, and grassy areas of the subject property. Intact drums were stored upgradient of three of the storm drains (two drains in northern loading area; one drain in southeastern loading area). The past reports identified a product spill entering the storm drain in the southeastern loading area. Based on current observations, no environmental concerns were noted.

A series of drains, sumps, and treatment tanks are present at the subject property. Floor drains were observed in the restrooms, locker rooms, and laboratories. Trench drains / sumps were observed in the formulation area, interior tank farm, and exterior tank farm. The site owner reported that the sumps and drains are connected to a treatment/holding tank. Within the holding tank, the pH is checked and adjusted as necessary. The water is then released to the sanitary sewer system. This is further discussed below.

At the exterior tank farm there is a sump. There is a trash pump that the site owner reported is used to withdraw storm water and discharge through a flexible hose to a grassy swale rather than through the facility piping to the treatment tank in accordance with the facility's National Pollutant Discharge Elimination System (NPDES) permit. The site owner reported that this is monitored by and conducted by site personnel after rain events; however, the discharge to the grassy swale is not sampled or analyzed. Since the water discharged to this grassy swale would likely be rain water that is unaffected by onsite operations, no environmental concerns are apparent.

PITS, PONDS AND LAGOONS

There is a retention basin in the southeastern portion of the subject property that accepts runoff from onsite and offsite sources. The retention pond was observed overgrown with standing water and separated from the remainder of the subject property by chain-link fence, which interfered with AEI's observation of the pond. The portion of the pond that AEI could observe did not appear to have a sheen or other indications of environmental concern. The owner reported that past investigations included sampling and analysis of pond sediments and surface water. During these investigations, several PAH compounds were found to exceed EPA Region 4 Waste Management Division sediment screening values for Hazardous Waste Sites. However, the PAH levels detected were believed to be the result of ordinary parking lot runoff.

A grassy swale containing water was observed running north-south in the eastern portion of the subject property leading to the retention basin. The grassy swale was overgrown. This area was assessed as part of a Phase II Investigation in 2011. Please see Sections 3.1 and 6.3 for further discussion of this investigation. The waters observed in the grassy swale did not appear to have a sheen or other indications of environmental concern. Based on these observations, no environmental concerns were noted.

STAINED SOIL OR PAVEMENT

An area of stained pavement was observed in the vicinity of the southeastern loading area leading to the storm water drain inlet. Trailers and miscellaneous equipment were stored in this portion of the loading area. The area of stained pavement was estimated to be approximately 50 square feet.

Surrounding the canopy-covered air compressors in the eastern portion of the subject property and near the doorway to the Mechanic Building air compressor were areas of apparent oily-substance stained soil. The concrete pads housing the air compressors were observed with oily-substance staining and oil dry to contain/absorb oil spills and leaks. The area of affected soil was estimated to be approximately 50 square feet. During prior subsurface investigations, no substantial impacts were detected. Based on these prior investigations, the staining is considered de minimis.

STRESSED VEGETATION

An area devoid of vegetation was observed surrounding and downgradient of the cooling tower. The cooling tower was observed leaking. This area was assessed as part of a Phase II Investigation in 2011. Please see Sections 3.1 and 6.3 for further discussion of this investigation.

WASTE WATER DISCHARGES

Waste water is treated onsite in accordance with the subject property NPDES permit. A below ground holding tank was observed on the northeastern portion of the subject property surrounded by chain-link fence. The subject property contact reported that all onsite sumps and drains drain into this holding tank. A water sampler was observed within the chain-link fence compound. Within the holding tank, the pH is checked and adjusted as necessary. The water is then released to the sanitary sewer system. According to available records and prior reports, the facility has occasionally received Notice of Violations (NOVs) for reporting results past the deadline. In addition, NOVs have been received for exceedance of permit limits. No paperwork was provided for review on these NOVs, nor was a copy of the NPDES Permit or the most recent testing data provided by the site contact. Based on the absence of data concerning the NPDES permit and wastewater testing within the holding tank, the holding tank and NPDES permit represent a Business Environmental Risk.

WELLS

No wells were reported or observed onsite. Historic groundwater monitoring wells discussed throughout this report have all been abandoned. These are further discussed in Sections 3.1 and 6.3.

OTHER

Four laboratories were observed within the subject property building. Various laboratory-sized chemical containers were observed stored in each laboratory in various states of labeling. While AEI did not inspect each container, no apparent leaks or spills were observed.

Floor drains and sink drains were observed in the laboratories. These features were reported by the site owner to be interconnected with treatment tank system prior to discharge into the municipal sewer system.

7.2 NON-ASTM SERVICES

7.2.1 ASBESTOS-CONTAINING BUILDING MATERIALS

<u>OSHA</u>

For buildings constructed prior to 1981, the Code of Federal Regulations (29 CFR 1926.1101 and 29 CFR 1910.1001) define presumed asbestos-containing material (PACM) as 1. Thermal System Insulation (TSI), e.g., boiler insulation, pipe lagging, fireproofing; and 2. Surfacing Materials, e.g., acoustical ceilings. Building owners/employers are responsible for locating the presence and quantity of PACM. Building Owners/employers can rebut installed material as PACM by either having an inspection in accordance with Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763, Subpart E) or hiring an accredited inspector to take bulk samples of the suspect material.

Typical materials not covered by the presumptive rule include but are not limited to: floor tiles and adhesives, wallboard systems, siding and roofing. Building materials such as wallboard systems may contain asbestos but unless a building owner/employer has specific knowledge or should have known through the exercise of due diligence that these other materials contain asbestos, the standard does not compel the building owner to sample these materials.

NESHAP

The applicability of the EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Chapter 61, Subpart M) apply to the owner or operator of a facility where an inspection for the presence of asbestos-containing materials (ACM), including Category I (asbestos containing packings, gaskets, resilient floor coverings and asphalt roofing products), and Category II (all remaining types of non-friable asbestos containing material not included in Category I that when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure), non-friable ACM must occur prior to the commencement of demolition or renovation activities. NESHAP defines ACM as any material or product that contains *greater than* 1% asbestos. It should be noted that the NESHAP regulation applies to all facilities regardless of construction date, including: 1. Any institutional, commercial, public, industrial, or residential structure, installation, or building; 2. Any ship; and 3. Any active or inactive waste disposal site. This requirement is typically enforced by the EPA or by local air pollution control/air quality management districts.

The information below is for general informational purposes only and does not constitute an asbestos survey. In addition, the information is not intended to comply with federal, state or local regulations in regards to ACM.

Although the cutoff date of 1981 is generally accepted for estimating the likelihood that a building contains ACMs, building materials manufactured after 1981, while not expected to, may still contain asbestos. AEI presents the following observed materials that would be considered suspect ACMs in the event of a thorough survey.

Suspect Asbestos Containing Materials (ACMs)

Material	Location	Friable	Condition
Drywall Systems	Throughout Building Interior	Yes	Good
Flooring Systems	Throughout Building Interior	No	Good
Boiler Insulation	Boiler Room	Yes	Good
Roofing Systems	Roof	Not Inspected	Not Inspected

All observed suspect ACMs 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. In the event that building renovation or demolition activities are planned, an asbestos survey focusing on the damaged materials and adhering to AHERA sampling protocol should be performed prior to demolition or renovation activities that may disturb ACMs.

7.2.2 Lead-Based Paint

Lead-based paint (LBP) is defined as any paint, varnish, stain, or other applied coating that has ≥1 mg/cm^2 (5,000 µg/g or 5,000 ppm) or more of lead by federal guidelines; state and local definitions may differ from the federal definitions in amounts ranging from 0.5 mg/cm^2 to 2.0 mg/cm^2. Section 1017 of the Housing and Urban Development (HUD) Guidelines, Residential

Lead-Based Paint Hazard Reduction Act of 1992, otherwise known as "Title X", defines a LBP hazard is "any condition that causes exposure to lead that would result in adverse human health effects" resulting from lead-contaminated dust, bare, lead-contaminated soil, and/or lead-contaminated paint that is deteriorated or present on accessible, friction, or impact surfaces. Therefore, under Title X, intact lead-based paint on most walls and ceilings would not be considered a "hazard", although the paint should be maintained and its condition and monitored to ensure that it does not deteriorate and become a hazard. Additionally, Section 1018 of this law directed HUD and EPA to require the disclosure of known information on lead-based paint and lead-based paint hazards before the sale or lease of most housing built before 1978. Most private housing, public housing, federally owned or subsidized housing are affected by this rule.

Lead-containing paint (LCP) is defined as any paint with any detectable amount of lead present in it. It is important to note that LCP may create a lead hazard when being removed. The condition of these materials must be monitored when they are being disturbed. In the event LCP is subject to abrading, sanding, torching and/or cutting during demolition or renovation activities, there may be regulatory issues that must be addressed.

The information below is for general informational purposes only and does not constitute a lead hazard evaluation. In addition, the information is not intended to comply with federal, state or local regulations in regards to lead-containing paints.

In buildings constructed after 1978, it is unlikely that LBP is present. Structures built prior to 1978 and especially prior to the 1960's should be expected to contain LBP.

Due to the age of the subject property buildings, it is unlikely that lead-based paint is present.

7.2.3 RADON

Radon is a naturally-occurring, odorless, invisible gas. Natural radon levels vary and are closely related to geologic formations. Radon may enter buildings through basement sumps or other openings.

The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the EPA Action limit of 4.0 picoCuries per Liter (pCi/L). It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the EPA recommends site specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Radon sampling was not requested as part of this assessment. According to the US EPA, the radon zone level for the area is Zone 3, which has a predicted average indoor screening level less than 2.0 pCi/L and therefore below the EPA Action Level of 4.0 pCi/L.

7.2.4 DRINKING WATER SOURCES AND LEAD IN DRINKING WATER

The Charlotte-Mecklenburg Utilities Department supplies potable water to the subject property. The most recent water quality report states that lead levels in the areas water supply were within standards established by the U.S. EPA.

7.2.5 MOLD / INDOOR AIR QUALITY ISSUES

Molds are simple, microscopic organisms, which can often be seen in the form of discoloration, frequently green, gray, white, brown or black. When excessive moisture or water accumulates indoors, mold growth will often occur, particularly if the moisture problem remains undiscovered or is not addressed. As such, interior areas of buildings characterized by poor ventilation and high humidity are the most common locations of mold growth. Building materials including drywall, wallpaper, baseboards, wood framing, insulation, and carpeting often play host to such growth. Mold spores primarily cause health problems through the inhalation of mold spores or the toxins they emit when they are present in large numbers. This can occur primarily when there is active mold growth within places where people live or work.

Mold, if present, may or may not visually manifest itself. Neither the individual completing this inspection, nor AEI has any liability for the identification of mold-related concerns except as defined in applicable industry standards. In short, this Phase I ESA should not be construed as a mold survey or inspection.

AEI observed interior areas of the subject property building(s) in order to identify the significant presence of mold. AEI did not note obvious visual or olfactory indications of the presence of mold, but did observe obvious indications of water damage as evidenced by stained ceiling tiles in the administration/laboratory portion of the building (western portion of the subject property). The site owner reported that isolated locations of roof leaks existed and that a roofing contractor was under contract to make repairs. Given the lack of observed mold growth, no bulk sampling of suspect surfaces was conducted as part of this assessment and no additional action with respect to mold appears to be warranted at this time.

This activity was not designed to discover all areas which may be affected by mold growth on the subject property. Rather, it is intended to give the client an indication if significant (based on observed areas) mold growth is present at the subject property. Additional areas of mold not observed as part of this limited assessment, possibly in pipe chases, HVAC systems and behind enclosed walls and ceilings, may be present on the subject property.

7.3 ADJACENT PROPERTY RECONNAISSANCE FINDINGS

Yes	No	Observation
	X	Hazardous Substances and/or Petroleum Products in Connection with Property Use
X		Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs / USTs)
	X	Hazardous Substance and Petroleum Product Containers and Unidentified Containers not in Connection with Property Use
	X	Unidentified Substance Containers
X		Electrical or Mechanical Equipment Likely to Contain Fluids
	X	Strong, Pungent or Noxious Odors
	X	Pools of Liquid

	X	Drains, Sumps and Clarifiers
	X	Pits, Ponds and Lagoons
	X	Stained Soil or Pavement
	X	Stressed Vegetation
X		Solid Waste Disposal or Evidence of Fill Materials
	X	Waste Water Discharges
	X	Wells
	X	Septic Systems
X		Other

The above identified observed items are further discussed below.

ABOVEGROUND & UNDERGROUND HAZARDOUS SUBSTANCE OR PETROLEUM PRODUCT STORAGE TANKS (ASTS / USTS)

One aboveground storage tank was observed through a chain-link fence at the adjacent property to the east (Texas Pipe and Supply, 12910 Sam Neely Road) that appeared to be a diesel fuel tank within secondary containment.

Six drums were observed through a chain-link fence at the adjacent property to the east (Texas Pipe and Supply, 12910 Sam Neely Road). Due to the distance from the road, AEI could not ascertain the content label. The drums appeared to be stored on gravel.

ELECTRICAL OR MECHANICAL EQUIPMENT LIKELY TO CONTAIN FLUIDS

Toxic polychlorinated biphenyls (PCBs) were commonly used historically in electrical equipment such as transformers, fluorescent lamp ballasts, and capacitors. According to United States EPA regulation 40 CFR, Part 761, there are three categories for classifying such equipment: <50 ppm of PCBs is considered "Non-PCB"; between 50 and 500 ppm is considered "PCB-Contaminated"; and >500 ppm is considered "PCB-Containing". Pursuant to 15 U.S.C. 2605(e)(2)(A), the manufacture, process, or distribution in commerce or use of any polychlorinated biphenyl in any manner other than in a totally enclosed manner was prohibited after January 1, 1977.

Transformers

The management of potential PCB-containing transformers is the responsibility of the local utility or the transformer owner. Actual material samples need to be collected to determine if transformers are PCB-containing.

Four pole-mounted transformers were observed on the adjacent sites during the site inspection along Sam Neely Road (12825 and 12933 Sam Neely Road). Pad-mounted transformers were observed on the adjacent sites during the site inspection (12730 Virkler Drive, 12300 Steele Creek Road, 12201 Steele Creek Road). No spills, staining or leaks were observed on or around the transformer(s). Based on the good condition of the equipment, the transformer(s) is/are not expected to represent a significant environmental concern.

SOLID WASTE DISPOSAL OR EVIDENCE OF FILL MATERIALS

Evidence of fill was observed at the adjacent property to the west (Aplix, 12300 Steele Creek Road). A grass-covered earthen hill approximately 20 feet high was observed at the southeastern portion of this adjacent property (which is southwest of the subject property).

OTHER

Excavation activities were observed at the adjacent property to the northeast (the former Valmet facility, 12933 Sam Neely Road). It appeared that this adjacent property was undergoing redevelopment.

8.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

By signing this report, the senior author declares that, to the best of his or her professional knowledge and belief, he or she meets the definition of *Environmental Professional* as defined in §312.10 of 40 CFR Part 312.

The senior author has the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject property. The senior author has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:

Corry Platt
Associate Consultant

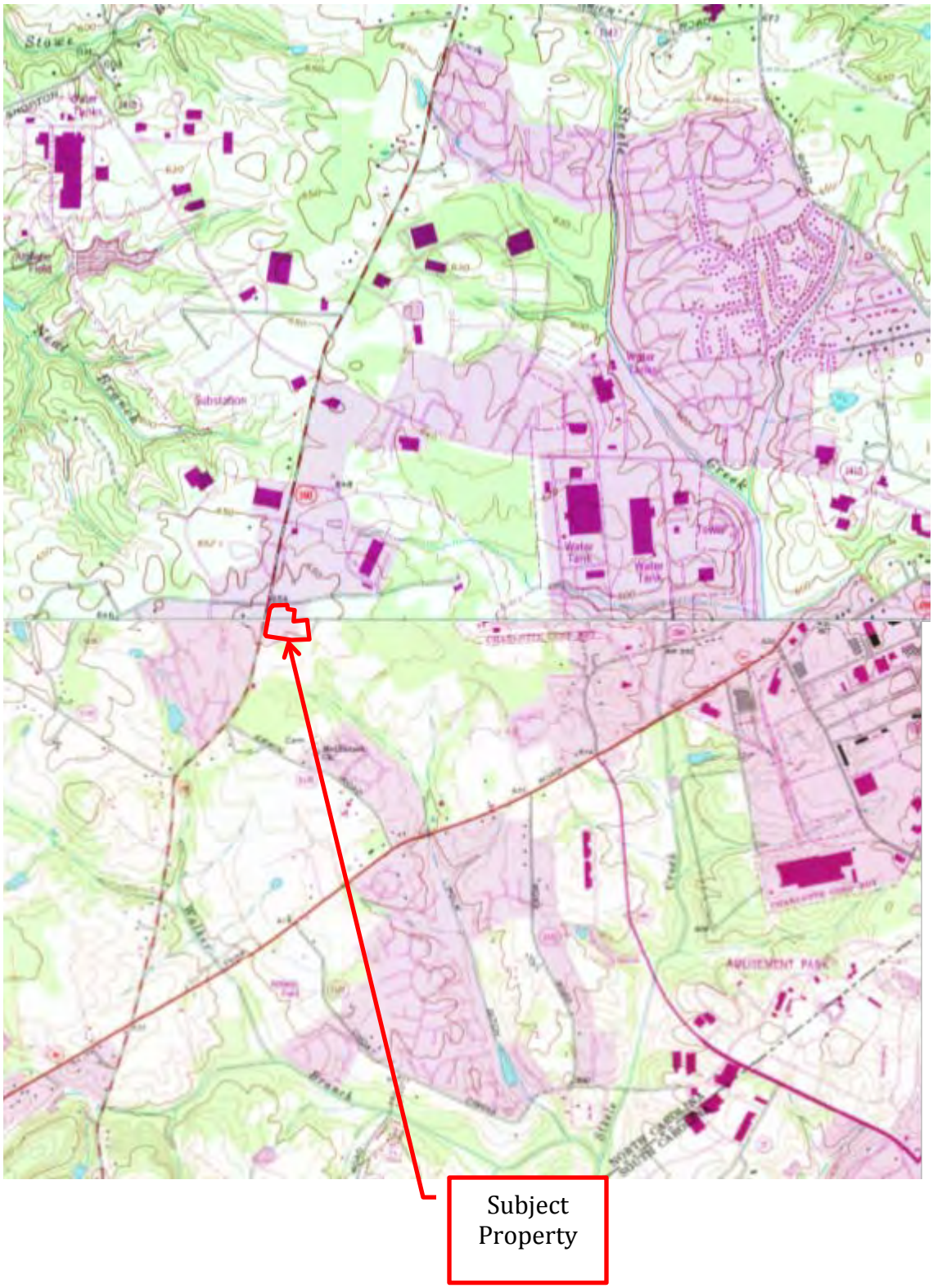
Reviewed By:

Michael Clements
Senior Author

9.0 REFERENCES

Item	Date(s)	Source
Topographic Maps	1949, 1993	United States Geological Survey
Regulatory Database	June 12, 2013	Environmental Data Resources, Inc.
Aerial Photography	1938, 1951, 1965, 1973, 1983, 1993, 2006, 2012	University of Georgia Map Library Google Earth
Sanborn Map Search	June 12, 2013	Environmental Data Resources, Inc.
Property Tax Information	2013	Mecklenburg County Assessor's Office http://charmeck.org/mecklenburg/county/AssessorsOffice/RealEstate/Pages/default.aspx
Site Interview	June 19, 2013	Mr. Howard Virkler
Prior Reports	September 10, 1997 February 14, 2002 February 23, 2006 April 20, 2011 April 21, 2011 May 2, 2011 January 30, 2013	Cooper Environmental, Inc. Cooper Environmental, Inc. WPC Arcadis Arcadis Hart & Hickman Hart & Hickman
Soils Information	2013	U.S. Department of Agriculture National Resources Conservation Service Web Soil Survey http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm
Radon Information	1993	U.S. Environmental Protection Agency http://www.epa.gov/radon/zonemap.html

FIGURES



SITE LOCATION MAP

12345 Steele Creek Road, Charlotte, North Carolina 28273

N

Source: USGS 7.5 minute Quadrangles:
upper half from Charlotte West, NC (1993);
lower half from Fort Mill SC (1993)

FIGURE 1

Project Number: 320548

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SITE MAP

12345 Steele Creek Road, Charlotte, North Carolina 28273

N

* Listed in Regulatory Database

Legend

Approximate Property Boundary

Inferred Groundwater Flow Direction

FIGURE 2

Project Number: 320548

AEI Consultants

SITE FEATURES

12345 Steele Creek Road, Charlotte, North Carolina 28273

N

Legend

Approximate Property Boundary

Groundwater Flow Direction

Groundwater Monitoring Wells (Westinghouse-1988)

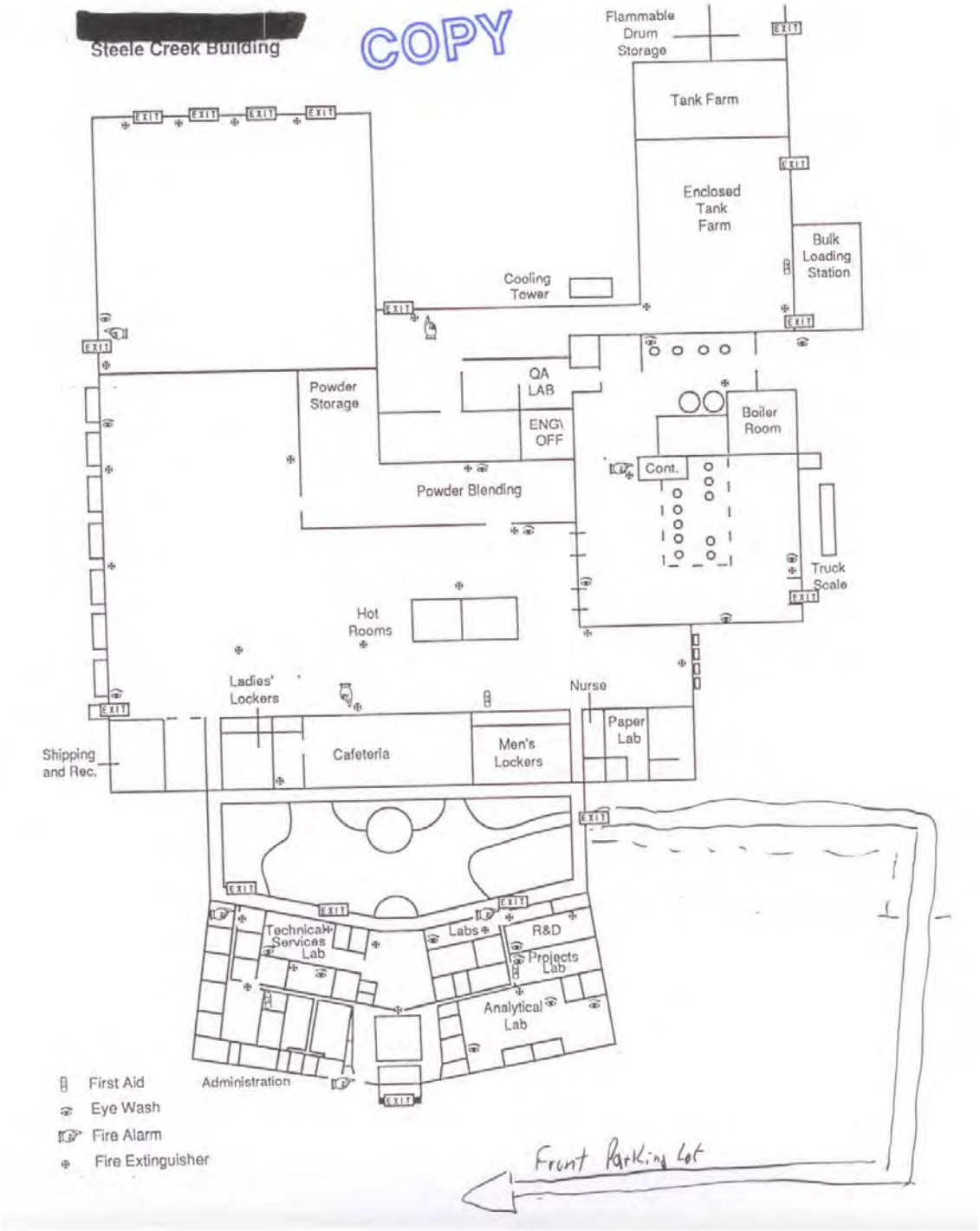
Groundwater Monitoring Wells (WPC-2006)

Groundwater Monitoring Wells (Arcadis-2011)

FIGURE 3

Project Number: 320548

AEI Consultants



NORTH

PLANT LAYOUT

12345 Steele Creek Road, Charlotte, North Carolina 28273

N

Source: Virkler Chemical

June 2013

FIGURE 4

Project Number: 320548

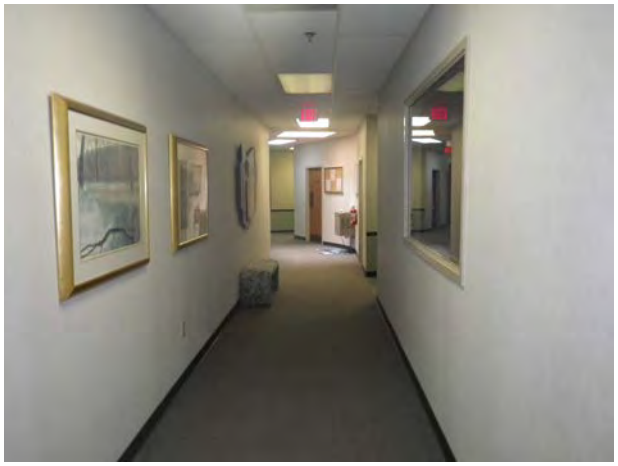
AEI Consultants

APPENDIX A

PROPERTY PHOTOGRAPHS

1. Subject Property West Entrance

2. Subject Property West Truck Entrance



3. Typical Interior Administration Building

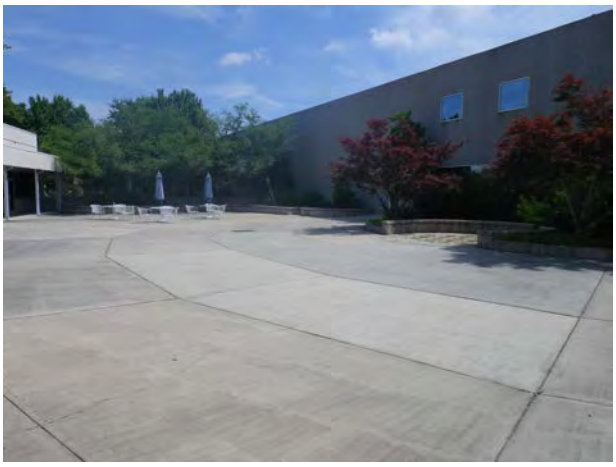
4. Typical Laboratory

5. Laundry

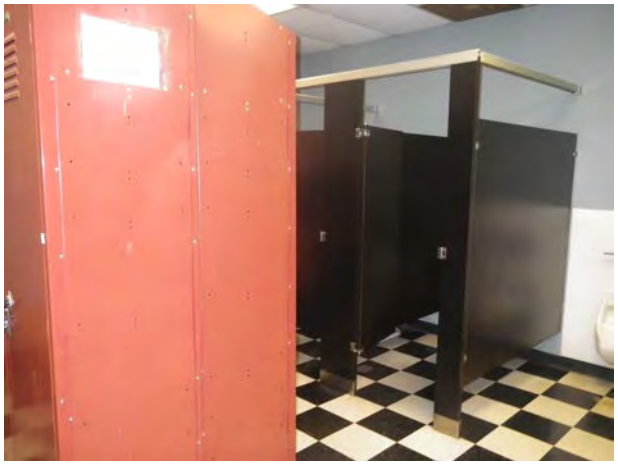
6. Floor drain in laundry

7. Typical laboratory chemical storage

8. Paper Laboratory



9. Internal Courtyard



10. Typical Locker Room

11. Tote Warehouse

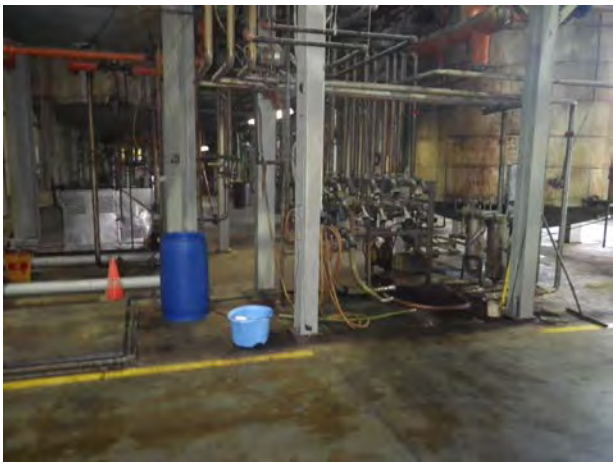
12. Drum Warehouse

13. Warehouse Shop Sink

14. Stainless Steel tray where former tenant's solvent distiller was housed (alarm float switch, midway right)

15. Powder blending

16. Typical Hot Room

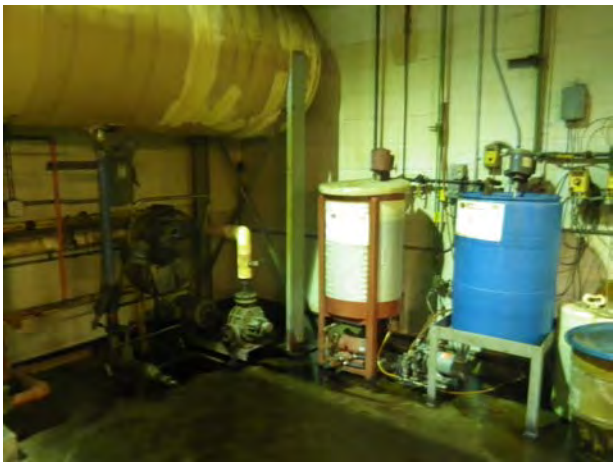


17. Formulation Area

18. Drain/Sump at Formulation Area

19. Typical tank at Formulation Area

20. Container weighing station



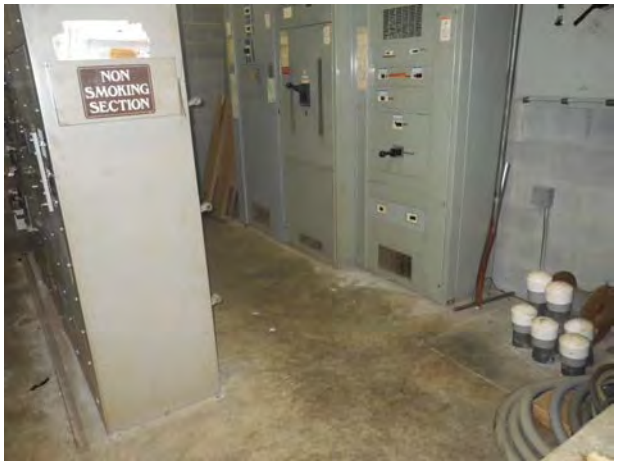
21. Boiler Room

22. Boiler Room

23. Floor Drain, Boiler Room

24. Old Air Compressor Room

25. Typical interior tank farm



26. Interior electric room

27. Tote and drum storage in warehouse – fluid leak shown right side of view

28. Former monitoring well, south of Bulk Loading

29. Bulk Loading

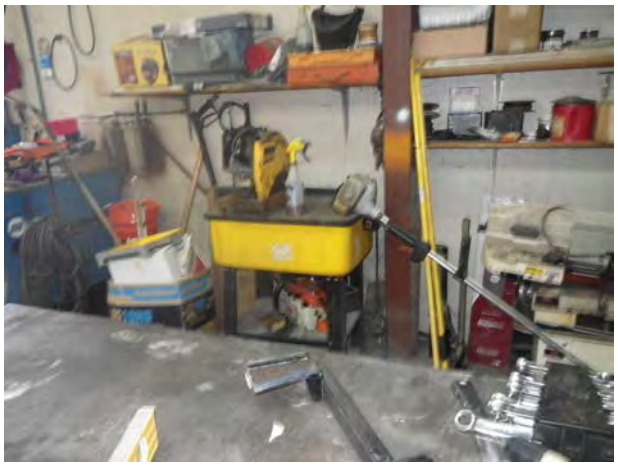
30. Bulk Loading Floor Drain

31. Bulk Loading Sump

32. Flammable Storage Building

33. Mechanic Building

34. Mechanic Building Interior



35. Parts washer in Mechanic Building

36. Mechanic Building Air Compressor – Stained Soil

37. Exterior Tank Farm

38. Exterior Tank Farm Sump

39. Exterior Tank Farm Sump Trash Pump hose discharges to grassy swale

40. Site/Municipal sewer connection with sampler

41. East Covered Canopy Air Compressor – soil stain

42. Southeast Covered Canopy Air Compressor – soil stain

43. Grassy swale

44. Standing water where grassy swale meets fenced retention pond

45. Stained pavement near southeast storm drain

46. Southeast Drum Staging

47. North Drum Staging

48. East Waste Material Storage

49. Subject Property from Sam Nealy and Steele Creek Roads intersection

50. Subject Property from Sam Nealy Road facing southwest

51. Subject Property north face and north loading area

52. Subject Property from northeast facing west

53. Subject Property from northeast facing south

54. Subject Property east face

51. Subject Property south face

52. Subject Property south boundary along Virkler Road

53. Subject Property retention pond discharge at Virkler Drive

54. Adjacent Property East – Texas Pipe – from Virkler Drive facing north

55. Adjacent Property – South – wooded lot on Virkler Drive

56. Adjacent Property South – warehouse – 12810 Virkler Drive

57. Adjacent Property South – Comer Industries – 12730 Virkler Drive

58. Adjacent Property West – Aplix – 12300 Steele Creek Road

59. Adjacent Property West – Aplix – monitoring stations, purpose undetermined

60. Adjacent Property Northwest – Okuma - 12200 Steele Creek Road

61. Adjacent Property – North – Atlantic Packaging – 12201 Steele Creek Road

62. Adjacent Property – North – Atlantic Packaging – 12825 Sam Nealy Road

63. Adjacent Property – Northeast – former Valmet – 12933 Sam Nealy Road

64. Adjacent Property – East – Vacant Lot, Sam Nealy Road

65. Adjacent Property – East – Texas Pipe – 12910 Sam Nealy Road

66. Typical Pole-mounted transformer along Sam Nealy Road

67. Typical Utility Pad-mounted transformer – north side, Subject Property, outside fence

68. Typical Utility Pad-mounted transformer – north side, Subject Property, inside fence

APPENDIX B

REGULATORY DATABASE

320548
12345 Steele Creek Road
Charlotte, NC 28273

Inquiry Number: 3633136.2s
June 12, 2013

FirstSearch Area/Linear Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

Search Summary Report

TARGET SITE **12345 STEELE CREEK ROAD**
CHARLOTTE, NC 28273

Category	Sel	Site	1/8	1/4	1/2	> 1/2	ZIP	TOTALS
NPL	Y	0	0	0	0	0	0	0
NPL Delisted	Y	0	0	0	0	0	0	0
CERCLIS	Y	0	0	0	0	-	2	2
NFRAP	Y	0	1	0	0	-	0	1
RCRA COR ACT	Y	0	0	0	0	0	0	0
RCRA TSD	Y	0	0	0	0	-	0	0
RCRA GEN	Y	0	2	1	-	-	0	3
Federal IC / EC	Y	0	0	0	0	-	0	0
ERNS	Y	0	-	-	-	-	0	0
State/Tribal CERCLIS	Y	0	0	0	1	1	13	15
State/Tribal SWL	Y	0	0	0	0	-	4	4
State/Tribal LTANKS	Y	0	0	1	0	-	1	2
State/Tribal Tanks	Y	0	0	1	-	-	0	1
State/Tribal IC / EC	Y	0	0	0	0	-	0	0
State/Tribal VCP	Y	0	0	0	0	-	0	0
ST/Tribal Brownfields	Y	0	0	1	0	-	0	1
US Brownfields	Y	0	0	0	0	-	1	1
Other Haz Sites	Y	0	-	-	-	-	0	0
Spills	Y	1	1	-	-	-	5	7
Other	Y	7	2	-	-	-	0	9
	- Totals --	8	6	4	1	1	26	46

Search Summary Report

TARGET SITE: **12345 STEELE CREEK ROAD**
CHARLOTTE, NC 28273

Category	Database	Update	Radius	Site	1/8	1/4	1/2	> 1/2	ZIP	TOTALS
NPL	NPL	02/01/2013	1.000	0	0	0	0	0	0	0
	Proposed NPL	02/01/2013	1.000	0	0	0	0	0	0	0
NPL Delisted	Delisted NPL	02/01/2013	1.000	0	0	0	0	0	0	0
CERCLIS	CERCLIS	02/04/2013	0.500	0	0	0	0	-	2	2
NFRAP	CERC-NFRAP	02/05/2013	0.500	0	1	0	0	-	0	1
RCRA COR ACT	CORRACTS	02/12/2013	1.000	0	0	0	0	0	0	0
RCRA TSD	RCRA-TSDF	02/12/2013	0.500	0	0	0	0	-	0	0
RCRA GEN	RCRA-LQG	02/12/2013	0.250	0	0	0	-	-	0	0
	RCRA-SQG	02/12/2013	0.250	0	2	0	-	-	0	2
	RCRA-CESQG	02/12/2013	0.250	0	0	1	-	-	0	1
Federal IC / EC	US ENG CONTROLS	03/14/2013	0.500	0	0	0	0	-	0	0
	US INST CONTROL	03/14/2013	0.500	0	0	0	0	-	0	0
ERNS	ERNS	12/31/2012	TP	0	-	-	-	-	0	0
State/Tribal CERCLIS	SHWS	01/15/2013	1.000	0	0	0	1	1	13	15
State/Tribal SWL	SWF/LF	04/01/2013	0.500	0	0	0	0	-	4	4
State/Tribal LTANKS	LUST	02/08/2013	0.500	0	0	1	0	-	0	1
	LAST	02/08/2013	0.500	0	0	0	0	-	1	1
	INDIAN LUST	09/28/2012	0.500	0	0	0	0	-	0	0
State/Tribal Tanks	UST	02/12/2013	0.250	0	0	1	-	-	0	1
	AST	03/25/2013	0.250	0	0	0	-	-	0	0
	INDIAN UST	09/28/2012	0.250	0	0	0	-	-	0	0
State/Tribal IC / EC	INST CONTROL	01/15/2013	0.500	0	0	0	0	-	0	0
State/Tribal VCP	VCP	01/15/2013	0.500	0	0	0	0	-	0	0
ST/Tribal Brownfields	BROWNFIELDS	04/04/2013	0.500	0	0	1	0	-	0	1

Search Summary Report

TARGET SITE: **12345 STEELE CREEK ROAD**
CHARLOTTE, NC 28273

Category	Database	Update	Radius	Site	1/8	1/4	1/2	> 1/2	ZIP	TOTALS
US Brownfields	US BROWNFIELDS	12/10/2012	0.500	0	0	0	0	-	1	1
Other Haz Sites	US CDL	03/04/2013	TP	0	-	-	-	-	0	0
Spills	HMIRS	12/31/2012	TP	1	-	-	-	-	0	1
	IMD	07/21/2006	TP	0	1	-	-	-	5	6
	SPILLS 90	09/27/2012	TP	0	-	-	-	-	0	0
	SPILLS 80	06/14/2001	TP	0	-	-	-	-	0	0
Other	RCRA NonGen / NLR	02/12/2013	TP	0	1	-	-	-	0	1
	TRIS	12/31/2009	TP	0	-	-	-	-	0	0
	TSCA	12/31/2006	TP	1	-	-	-	-	0	1
	FTTS	04/09/2009	TP	1	-	-	-	-	0	1
	SSTS	12/31/2009	TP	2	-	-	-	-	0	2
	ICIS	07/20/2011	TP	0	-	-	-	-	0	0
	PADS	11/01/2012	TP	0	-	-	-	-	0	0
	MLTS	06/21/2011	TP	0	-	-	-	-	0	0
	RADINFO	04/09/2013	TP	0	-	-	-	-	0	0
	FINDS	10/23/2011	TP	2	1	-	-	-	0	3
	RAATS	04/17/1995	TP	0	-	-	-	-	0	0
	DRYCLEANERS	02/06/2013	0.250	0	0	0	-	-	0	0
	INDIAN RESERV	12/31/2005	1.000	0	0	0	0	0	0	0
	US AIRS	01/23/2013	TP	1	-	-	-	-	0	1
	PRP	12/02/2012	TP	0	-	-	-	-	0	0
	LEAD SMELTERS	01/29/2013	TP	0	-	-	-	-	0	0
	- Totals --			8	6	4	1	1	26	46

Site Information Report

Request Date:	JUNE 11, 2013	**Search Type:**	COORD
Request Name:	SUSY	**Job Number:**	38585

Target Site: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		UTMs
Longitude:	80.979400	80.9794000 - 80˚ 58' 45.84''	Easting:	501877.0
Latitude:	35.125000	35.1250000 - 35˚ 7' 30.00''	Northing:	3886707.5
Elevation:	649 ft. above sea level		Zone:	Zone 17

Demographics

Sites: 20 **Non-Geocoded:** 26 **Population:** N/A

RADON:

Federal EPA Radon Zone for MECKLENBURG County: 3

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 MECKLENBURG COUNTY, NC

Number of sites tested: 46

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.569 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.900 pCi/L	100%	0%	0%
Basement	1.278 pCi/L	100%	0%	0%

Target Site Summary Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

TOTAL: 46 GEOCODED: 20 NON GEOCODED: 26

Map ID	DB Type --ID/Status	Site Name	Address	Dist/Dir	ElevDiff	Page No.
A1	HMIRS	12345 STEEL CREEK RD.	12345 STEEL CREEK RD. CHAROLTTE, NC 28273	0.00	+ 0	1
A2	SSTS	CHEMICAL TECHNOLOGIES LLC	12345 STEELE CREEK RD CHARLOTTE, NC 28273	0.00	+ 0	2
A3	FTTS	VIRKLER CORP.	12345 STEELE CREEK ROAD CHARLOTTE, NC 28273	0.00	+ 0	4
A4	SSTS	VIRKLER CO	12345 STEELE CREEK RD CHARLOTTE, NC 28273	0.00	+ 0	5
A5	TSCA	CHARLOTTE	12345 STEELE CREEK ROAD CHARLOTTE, NC 28273	0.00	+ 0	6
A6	FINDS	PROCESS INNOVATION LLC	12345 STEELE CREEK CHARLOTTE, NC 28273	0.00	+ 0	7
A7	US AIRS	THE VIRKLER COMPANY	12345 STEELE CREEK ROAD CHARLOTTE, NC 28273	0.00	+ 0	8
A7	FINDS	THE VIRKLER COMPANY	12345 STEELE CREEK ROAD CHARLOTTE, NC 28273	0.00	+ 0	13

Sites Summary Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

TOTAL: 46 GEOCODED: 20 NON GEOCODED: 26

Map ID	DB Type --ID/Status	Site Name	Address	Dist/Dir	ElevDiff	Page No.
A8	IMD --85386	AQUAIR CORP	13300 SAM NEELY RD CHARLOTTE, NC 28217	0.00	+ 1	14
A8	FINDS	AQUAIR CORP	13300 SAM NEELY RD CHARLOTTE, NC 28217	0.00	+ 1	16
A8	RCRA NonGen / NLR --NCD074511361	AQUAIR CORP	13300 SAM NEELY RD CHARLOTTE, NC 28217	0.00	+ 1	17
A8	CERC-NFRAP --NCD074511361	AQUAIR CORP	13300 SAM NEELY RD CHARLOTTE, NC 28217	0.00	+ 1	21
9	RCRA-SQG --NCD980605729	APLIX, INC.	12300 STEELE CR ROAD CHARLOTTE, NC 28273	0.01 NW	- 2	23
10	RCRA-SQG --NCD982078834	OKUMA AMERICA INC	12200 STEELE CREEK RD CHARLOTTE, NC 28241	0.09 NNW	- 1	32
B11	BROWNFIELDS	VALMET PAPER MACHINERY	12933 SAM NEELY ROAD CHARLOTTE, NC 28217	0.25 NE	- 12	34
B11	UST --Removed	VALMET PAPER MACHINERY	12933 SAM NEELY ROAD CHARLOTTE, NC 28217	0.25 NE	- 12	35
B11	LUST --PETROLEUM --40113 --40137 --6386 --Closed Out	VALMET PAPER MACHINERY	12933 SAM NEELY ROAD CHARLOTTE, NC 28217	0.25 NE	- 12	37
B12	RCRA-CESQG --NCD982083636	NEW SOUTH FABRICATORS LLC	12933 SAM NEELY RD CHARLOTTE, NC 28273	0.25 NE	- 12	44
13	SHWS --NCD095470332	THONIT A SIMMONS COMPANY	11900 STEELE CREEK ROAD CHARLOTTE, NC	0.37 North	- 9	48
14	SHWS --NONCD0002656	CHARLOTTE DISTRIBUTION CENTER	12040 GOODRICH DRIVE CHARLOTTE, NC 28217	0.71 East	- 42	49

Sites Summary Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

TOTAL: 46 GEOCODED: 20 NON GEOCODED: 26

Map ID	DB Type --ID/Status	Site Name	Address	Dist/Dir	ElevDiff	Page No.
	SWF/LF --Open	MECKLENBURG COUNTY LANDFILL	17131 HIGHWAY 521 CHARLOTTE, NC	NON GC	N/A	N/A
	CERCLIS --NCR000144410	TRANSPORTATION SECURITY ADMINI	3800 ARCO CORP DR. SUITE CHARLOTTE, NC 28273	NON GC	N/A	N/A
	SHWS --NONCD0000003	VAN WATERS & ROGERS	ATANDO INDUSTRIAL PARK CHARLOTTE, NC	NON GC	N/A	N/A
	SHWS --NONCD0001000	PRINTING TECHNOLOGY	1009 CARPET STREET CHARLOTTE, NC	NON GC	N/A	N/A
	SHWS --NCD986188811	CHARLOTTE COAL GAS PLANT NO. 1	S. COLLEGE STREET CHARLOTTE, NC	NON GC	N/A	N/A
	SHWS --NONCD0002161	NCDOT ASPHALT SITE #2 (CROWDER	CROWDER CONST, HWY 16, 64 CHARLOTTE, NC	NON GC	N/A	N/A
	IMD --12234	ELMWOOD CIRCLE	ELMWOOD CIRCLE CHARLOTTE, NC	NON GC	N/A	N/A
	SHWS --NONCD0001678	ELMWOOD CIRCLE	ELMWOOD CIRCLE CHARLOTTE, NC	NON GC	N/A	N/A
	LAST --85292	NCDOT BRIDGE 108	GRAHAM STREET BRIDGE OVER CHARLOTTE, NC	NON GC	N/A	N/A
	IMD --85292	NCDOT BRIDGE 108	GRAHAM STREET BRIDGE OVER CHARLOTTE, NC	NON GC	N/A	N/A
	SHWS --NONCD0002177	NCDOT BRIDGE 108	GRAHAM STREET BRIDGE OVER CHARLOTTE, NC	NON GC	N/A	N/A
	IMD --85685	H. M. WADE FURNITURE	SOUTH GRAHAM STREET CHARLOTTE, NC	NON GC	N/A	N/A

Sites Summary Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

TOTAL: 46 GEOCODED: 20 NON GEOCODED: 26

Map ID	DB Type --ID/Status	Site Name	Address	Dist/Dir	ElevDiff	Page No.
	SHWS --NONCD0000073	H. M. WADE FURNITURE	SOUTH GRAHAM STREET CHARLOTTE, NC	NON GC	N/A	N/A
	SHWS --NONCD0000074	TEXTILE CHEMICAL FACILITY	GRAHAM STREET CHARLOTTE, NC	NON GC	N/A	N/A
	SWF/LF --InactiveClosed	C D SPANGLER CONSTRUCTION CO	U.S. HIGHWAY 29 CHARLOTTE, NC	NON GC	N/A	N/A
	IMD --85687	HWY 49 BATTERY DUMP	NC HIGHWAY 49 CHARLOTTE, NC	NON GC	N/A	N/A
	SHWS --NONCD0001018	HWY 49 BATTERY DUMP	NC HIGHWAY 49 CHARLOTTE, NC	NON GC	N/A	N/A
	US BROWNFIELDS	QUICK STOP	739 US HIGHWAY 25 N CHARLOTTE, NC 30442	NON GC	N/A	N/A
	SWF/LF --InactiveClosed	JOHN CROSLAND COMPANY	NEWLAND ROAD CHARLOTTE, NC	NON GC	N/A	N/A
	SWF/LF --InactiveClosed	HENSON'S, INC. MULCH & MORE	OLD LANDCASTER HWY CHARLOTTE, NC	NON GC	N/A	N/A
	SHWS --NCD079045027	QUEENS PROPERTY	RESEARCH DRIVE CHARLOTTE, NC	NON GC	N/A	N/A
	SHWS --NCD074511361	AQUAIR CORPORATION	133000 SAM NEELY RD CHARLOTTE, NC	NON GC	N/A	N/A
	CERCLIS --NCN000410684	DOVE ENVIRONMENTAL STORAGE UNI	THE MINI STORAGE CENTER CHARLOTTE, NC	NON GC	N/A	N/A
	IMD --85265	THIRD AND CHURCH STREET	THIRD AND CHURCH STREET CHARLOTTE, NC	NON GC	N/A	N/A
	SHWS --NONCD0002589	THIRD AND CHURCH STREET	THIRD AND CHURCH STREET CHARLOTTE, NC	NON GC	N/A	N/A

Sites Summary Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

TOTAL: 46 GEOCODED: 20 NON GEOCODED: 26

Map ID	DB Type --ID/Status	Site Name	Address	Dist/Dir	ElevDiff	Page No.
	SHWS --NCD074518671	DOW CHEMICAL CORP/ALLIED CHEMI	2 WOODLAWN GREEN RD CHARLOTTE, NC	NON GC	N/A	N/A

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

HMIRS

EDR ID: 2012109427 **DIST/DIR:** 0.000 **ELEVATION:** 649 **MAP ID:** A1

NAME: 12345 STEEL CREEK RD. **Rev:** 12/31/2012

ADDRESS: 12345 STEEL CREEK RD.
CHAROLTTE, NC 28273
MECKL

SOURCE: US U.S. Department of Transportation

Click this hyperlink while viewing on your computer to access additional HMIRS detail in the EDR Site Report.

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

SSTS

EDR ID: 1007446103 **DIST/DIR:** 0.000 **ELEVATION:** 649 **MAP ID:** A2

NAME: CHEMICAL TECHNOLOGIES LLC **Rev:** 12/31/2009

ADDRESS: 12345 STEELE CREEK RD
CHARLOTTE, NC 28273
MECKLENBURG

SOURCE: US EPA

SSTS:
Product: PREV-AM
Contact: Not reported
Status: Not reported
Registration Number: 069259NC001
Report Year: 2004
Permit: Not reported
Product Number: 107266200003
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide-Fungicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: SIS 7200
Contact: Not reported
Status: Not reported
Registration Number: 069259NC001
Report Year: 2004
Permit: Not reported
Product Number: 107517400001
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide-Fungicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: SIS 7200
Contact: Not reported
Status: Not reported
Registration Number: 069259NC001
Report Year: 2005
Permit: Not reported
Product Number: 07517400001
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide-Fungicide
Product Use: All other products
UOM: Not reported

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

SSTS

EDR ID: 1007446103 **DIST/DIR:** 0.000 **ELEVATION:** 649 **MAP ID:** A2

NAME: CHEMICAL TECHNOLOGIES LLC **Rev:** 12/31/2009

ADDRESS: 12345 STEELE CREEK RD
CHARLOTTE, NC 28273
MECKLENBURG

SOURCE: US EPA

Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

FTTS

EDR ID: 1007298767 **DIST/DIR:** 0.000 **ELEVATION:** 649 **MAP ID:** A3

NAME: VIRKLER CORP. **Rev:** 04/09/2009

ADDRESS: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

SOURCE: US EPA/Office of Prevention, Pesticides and Toxic Substances

FTTS INSP:
Inspection Number: 199703105439 1
Region: 04
Inspection Date: 03/10/97
Inspector: BILL HENDERSON
Violation occurred: No
Investigation Type: EPCRA, Enforcement, SEE Conducted
Investigation Reason: Neutral Scheme, Region
Legislation Code: EPCRA
Facility Function: Manufacturer

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

SSTS

EDR ID: 1012049973 **DIST/DIR:** 0.000 **ELEVATION:** 649 **MAP ID:** A4

NAME: VIRKLER CO **Rev:** 12/31/2009

ADDRESS: 12345 STEELE CREEK RD
CHARLOTTE, NC 28273

SOURCE: US EPA

SSTS:
Product: CLEARWOOD MW1
Contact: Not reported
Status: Not reported
Registration Number: 084326NC001
Report Year: 2007
Permit: Registered
Product Number: 08399700006
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide-Fungicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: 04
Zero product: Not reported
Pesticide RUP report: Not reported

Product: Not reported
Contact: NICKOLAS ALTMAN COO P: 70458815890301
Status: Not reported
Registration Number: 084326-NC-001
Report Year: 2008
Permit: Not reported
Product Number: Not reported
Product Type: Not reported
Product Class: Not reported
Product Use: Not reported
UOM: Not reported
Market: Not reported
Region: 4
Zero product: Yes
Pesticide RUP report: Not reported

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

TSCA

EDR ID: 1001957418 **DIST/DIR:** 0.000 **ELEVATION:** 649 **MAP ID:** A5

NAME: CHARLOTTE **Rev:** 12/31/2006

ADDRESS: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

SOURCE: US EPA

Click this hyperlink while viewing on your computer to access additional TSCA detail in the EDR Site Report.

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

FINDS

EDR ID: 1014784017 **DIST/DIR:** 0.000 **ELEVATION:** 649 **MAP ID:** A6

NAME: PROCESS INNOVATION LLC **Rev:** 10/23/2011

ADDRESS: 12345 STEELE CREEK RD
CHARLOTTE, NC 28273

SOURCE: US EPA

FINDS:

Registry ID: 110040986172

Environmental Interest/Information System
CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

US AIRS

EDR ID: 1004546551 **DIST/DIR:** 0.000 **ELEVATION:** 649 **MAP ID:** A7

NAME: THE VIRKLER COMPANY **Rev:** 01/23/2013

ADDRESS: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273
MECKLENBURG

SOURCE: US EPA

AIRS (AFS):

Airs Minor Details:
EPA plant ID: 110000349702
Plant name: THE VIRKLER COMPANY
Plant address: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 282733738
County: MECKLENBURG
Region code: 04
Dunn & Bradst #: Not reported
Air quality cntrl region: 167
Sic code: 2841
Sic code desc: SOAP AND OTHER DETERGENTS
North Am. industrial classf: 325199
NAIC code description: All Other Basic Organic Chemical Manufacturing
Default compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Default classification: POTENTIAL UNCONTROLLED EMISSIONS < 100 TONS/YEAR
Govt facility: ALL OTHER FACILITIES NOT OWNED OR OPERATED BY A FEDERAL, STATE, OR LOCAL GOVERNMENT
Current HPV: Not reported

Compliance and Enforcement Major Issues:
Air program: SIP SOURCE
National action type: Not reported
Date achieved: 00000
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: Not reported
Date achieved: 00000
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: Not reported
Date achieved: 00000
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: Not reported
Date achieved: 00000
Penalty amount: Not reported

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

US AIRS

EDR ID: 1004546551 **DIST/DIR:** 0.000 **ELEVATION:** 649 **MAP ID:** A7

NAME: THE VIRKLER COMPANY **Rev:** 01/23/2013

ADDRESS: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273
MECKLENBURG

SOURCE: US EPA

Air program: Not reported
National action type: Not reported
Date achieved: Not reported
Penalty amount: Not reported

Air program: Not reported
National action type: Not reported
Date achieved: Not reported
Penalty amount: Not reported

Air program: Not reported
National action type: Not reported
Date achieved: Not reported
Penalty amount: Not reported

Air program: Not reported
National action type: Not reported
Date achieved: Not reported
Penalty amount: Not reported

Historical Compliance Minor Sources:
State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1002
Air prog code hist file: 9

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1004
Air prog code hist file: 9

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1102
Air prog code hist file: 9

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1103
Air prog code hist file: 9

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1201
Air prog code hist file: 9

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1203
Air prog code hist file: 9

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

US AIRS

EDR ID: 1004546551 **DIST/DIR:** 0.000 **ELEVATION:** 649 **MAP ID:** A7

NAME: THE VIRKLER COMPANY **Rev:** 01/23/2013

ADDRESS: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273
MECKLENBURG

SOURCE: US EPA

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1204
Air prog code hist file: 9

State compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Hist compliance date: 1002
Air prog code hist file: 0

State compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Hist compliance date: 1004
Air prog code hist file: 0

State compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Hist compliance date: 1101
Air prog code hist file: 0

State compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Hist compliance date: 1103
Air prog code hist file: 0

State compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Hist compliance date: 1201
Air prog code hist file: 0

State compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Hist compliance date: 1202
Air prog code hist file: 0

State compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Hist compliance date: 1204
Air prog code hist file: 0

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1001
Air prog code hist file: 9

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1003
Air prog code hist file: 9

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1101
Air prog code hist file: 9

State compliance status: IN COMPLIANCE - INSPECTION

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

US AIRS

EDR ID: 1004546551 **DIST/DIR:** 0.000 **ELEVATION:** 649 **MAP ID:** A7

NAME: THE VIRKLER COMPANY **Rev:** 01/23/2013

ADDRESS: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273
MECKLENBURG

SOURCE: US EPA

Hist compliance date: 1104
Air prog code hist file: 9

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1202
Air prog code hist file: 9

State compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Hist compliance date: 1001
Air prog code hist file: 0

State compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Hist compliance date: 1003
Air prog code hist file: 0

State compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Hist compliance date: 1102
Air prog code hist file: 0

State compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Hist compliance date: 1104
Air prog code hist file: 0

State compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Hist compliance date: 1203
Air prog code hist file: 0

Compliance & Violation Data by Minor Sources:
Air program code: SIP SOURCE
Plant air program pollutant: Not reported
Default pollutant classification: Not reported
Def. poll. compliance status: IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS
Def. attainment/non attnmnt: ATTAINMENT AREA FOR GIVEN POLLUTANT
Repeat violator date: Not reported
Turnover compliance: Not reported

Air program code: SIP SOURCE
Plant air program pollutant: VOLATILE ORGANIC COMPOUNDS
Default pollutant classification: POTENTIAL UNCONTROLLED EMISSIONS < 100 TONS/YEAR
Def. poll. compliance status: IN COMPLIANCE - INSPECTION
Def. attainment/non attnmnt: ALL OTHER NON-ATTAINMENT FOR PRIMARY AND SECONDARY STANDARDS
Repeat violator date: Not reported
Turnover compliance: Not reported

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

US AIRS

EDR ID: 1004546551 **DIST/DIR:** 0.000 **ELEVATION:** 649 **MAP ID:** A7

NAME: THE VIRKLER COMPANY **Rev:** 01/23/2013

ADDRESS: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273
MECKLENBURG

SOURCE: US EPA

Air program code: NSPS
Plant air program pollutant: CARBON MONOXIDE
Default pollutant classification: POTENTIAL UNCONTROLLED EMISSIONS < 100 TONS/YEAR
Def. poll. compliance status: IN COMPLIANCE - INSPECTION
Def. attainment/non attnmnt: ATTAINMENT AREA FOR GIVEN POLLUTANT
Repeat violator date: Not reported
Turnover compliance: Not reported

Air program code: NSPS
Plant air program pollutant: TOTAL PARTICULATE MATTER
Default pollutant classification: POTENTIAL UNCONTROLLED EMISSIONS < 100 TONS/YEAR
Def. poll. compliance status: IN COMPLIANCE - INSPECTION
Def. attainment/non attnmnt: ATTAINMENT AREA FOR GIVEN POLLUTANT
Repeat violator date: Not reported
Turnover compliance: Not reported

Air program code: NSPS
Plant air program pollutant: SULFUR DIOXIDE
Default pollutant classification: POTENTIAL UNCONTROLLED EMISSIONS < 100 TONS/YEAR
Def. poll. compliance status: IN COMPLIANCE - INSPECTION
Def. attainment/non attnmnt: ATTAINMENT AREA FOR GIVEN POLLUTANT
Repeat violator date: Not reported
Turnover compliance: Not reported

Air program code: NSPS
Plant air program pollutant: VOLATILE ORGANIC COMPOUNDS
Default pollutant classification: POTENTIAL UNCONTROLLED EMISSIONS < 100 TONS/YEAR
Def. poll. compliance status: IN COMPLIANCE - INSPECTION
Def. attainment/non attnmnt: ALL OTHER NON-ATTAINMENT FOR PRIMARY AND SECONDARY STANDARDS
Repeat violator date: Not reported
Turnover compliance: Not reported

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

FINDS

EDR ID: 1004546551 **DIST/DIR:** 0.000 **ELEVATION:** 649 **MAP ID:** A7

NAME: THE VIRKLER COMPANY **Rev:** 10/23/2011

ADDRESS: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273
MECKLENBURG

SOURCE: US EPA

FINDS:

Registry ID: 110000349702

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.

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

SSTS (Section Seven Tracking System) evolved from the FIFRA and TSCA Enforcement System (FATES). SSTS tracks the registration of all pesticide-producing establishments and tracks annually the types and amounts of pesticides, active ingredients, and related devices that are produced, sold, or distributed each year.

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

IMD

EDR ID: 1000146819 **DIST/DIR:** 0.000 **ELEVATION:** 650 **MAP ID:** A8

NAME: AQUAIR CORP

ADDRESS: 13300 SAM NEELY RD
CHARLOTTE, NC 28217
MECKLENBURG

SOURCE: NC Department of Environment and Natural Resources

Rev: 07/21/2006
ID/Status: 85386

IMD:
Region: MOR
Facility ID: 85386
Date Occurred: 8/1/1980
Submit Date: 2/6/2001
GW Contam: Yes, Groundwater Contamination has been detected
Soil Contam: Not reported
Incident Desc: THIS IS A CERCLA SITE. GW SECTION DOES NOT HAVE A FILE ON THE INCIDENT HOWEVER, PREVIOUS DATABASE INDICATES THAT THERE IS GROUNDWATER CONTAMINATION AT THE SITE.
Operator: ,
Contact Phone: Not reported
Owner Company: Not reported
Operator Address: Not reported
Operator City: Not reported
Oper City,St,Zip: Not reported
Ownership: Not Reported
Operation: Not Reported
Material: Not reported
Qty Lost 1: Not reported
Qty Recovered 1: Not reported
Source: Unknown
Type: Other inorganics
Location: Not reported
Setting: Not reported
Risk Site: Not reported
Site Priority: Not reported
Priority Code: NOD
Priority Update: Not reported
Dem Contact: CER
Wells Affected: No
Num Affected: 0
Wells Contam: Not reported
Sampled By: Not reported
Samples Include: Not reported
7.5 Min Quad: Not reported
5 Min Quad: Not reported
Latitude: Not reported
Longitude: Not reported
Latitude Number: Not reported
Longitude Number: Not reported
Latitude Decimal: Not reported
Longitude Decimal: Not reported
GPS: EST

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

IMD

EDR ID: 1000146819 **DIST/DIR:** 0.000 **ELEVATION:** 650 **MAP ID:** A8

NAME: AQUAIR CORP

ADDRESS: 13300 SAM NEELY RD
CHARLOTTE, NC 28217
MECKLENBURG

SOURCE: NC Department of Environment and Natural Resources

Rev: 07/21/2006
ID/Status: 85386

Agency: DWQ
Facility ID: 85386
Last Modified: 4/30/2001
Incident Phase: NOD
NOV Issued: Not reported
NORR Issued: Not reported
45 Day Report: Not reported
Public Meeting Held: Not reported
Corrective Action Planned: Not reported
SOC Sighned: Not reported
Reclassification Report: Not reported
RS Designation: Not reported
Closure Request Date: Not reported
Close-out Report: Not reported

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

FINDS

EDR ID: 1000146819 **DIST/DIR:** 0.000 **ELEVATION:** 650 **MAP ID:** A8

NAME: AQUAIR CORP **Rev:** 10/23/2011

ADDRESS: 13300 SAM NEELY RD
CHARLOTTE, NC 28217
MECKLENBURG

SOURCE: US EPA

FINDS:

Registry ID: 110009841868

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

NC-FITS (North Carolina - Facility Identification Template For States) is North Carolina Department of Environment and Natural Resources' (NCDENR) Facility Identification Template for States that provides a common facility identifier in order to improve accessibility to comprehensive information about environmental regulated entities in the state of North Carolina.

PCS (Permit Compliance System) is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA NonGen / NLR

EDR ID: 1000146819 **DIST/DIR:** 0.000 **ELEVATION:** 650 **MAP ID:** A8

NAME: AQUAIR CORP
ADDRESS: 13300 SAM NEELY RD
CHARLOTTE, NC 28217
MECKLENBURG
SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD074511361

RCRA NonGen / NLR:
Date form received by agency: 01/13/1997
Facility name: AQUAIR CORP
Facility address: 13300 SAM NEELY RD
CHARLOTTE, NC 28217
EPA ID: NCD074511361
Mailing address: PO BOX 7048
CHARLOTTE, NC 28217
Contact: PUGH JAMES
Contact address: 13300 SAM NEELY RD
CHARLOTTE, NC 28217
Contact country: US
Contact telephone: (704) 588-0332
Contact email: Not reported
EPA Region: 04
Land type: Private
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: AQUAIR CORP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA NonGen / NLR

EDR ID: 1000146819 **DIST/DIR:** 0.000 **ELEVATION:** 650 **MAP ID:** A8

NAME: AQUAIR CORP
ADDRESS: 13300 SAM NEELY RD
CHARLOTTE, NC 28217
MECKLENBURG
SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD074511361

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/20/1990
Facility name: AQUAIR CORP
Site name: AQUAIR CORPORATION
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F004
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: CRESOLS AND CRESYLIC ACID, AND NITROBENZENE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA NonGen / NLR

EDR ID: 1000146819 **DIST/DIR:** 0.000 **ELEVATION:** 650 **MAP ID:** A8

NAME: AQUAIR CORP
ADDRESS: 13300 SAM NEELY RD
CHARLOTTE, NC 28217
MECKLENBURG
SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD074511361

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: K002
Waste name: WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF CHROME YELLOW AND ORANGE PIGMENTS.

Waste code: K008
Waste name: OVEN RESIDUE FROM THE PRODUCTION OF CHROME OXIDE GREEN PIGMENTS

Waste code: K019
Waste name: HEAVY ENDS FROM THE DISTILLATION OF ETHYLENE DICHLORIDE IN ETHYLENE DICHLORIDE PRODUCTION.

Waste code: K022
Waste name: DISTILLATION BOTTOM TARS FROM THE PRODUCTION OF PHENOL/ACETONE FROM CUMENE

Waste code: U012
Waste name: ANILINE (I,T)

Waste code: U044
Waste name: CHLOROFORM

Waste code: U048
Waste name: O-CHLOROPHENOL

Waste code: U052
Waste name: CRESOL (CRESYLIC ACID)

Waste code: U123
Waste name: FORMIC ACID (C,T)

Waste code: U154
Waste name: METHANOL (I)

Waste code: U188
Waste name: PHENOL

Waste code: U196
Waste name: PYRIDINE

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA NonGen / NLR

EDR ID: 1000146819 **DIST/DIR:** 0.000 **ELEVATION:** 650 **MAP ID:** A8

NAME: AQUAIR CORP

ADDRESS: 13300 SAM NEELY RD
CHARLOTTE, NC 28217
MECKLENBURG

SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD074511361

Waste code: U209
Waste name: ETHANE, 1,1,2,2-TETRACHLORO-

Waste code: U210
Waste name: ETHENE, TETRACHLORO-

Waste code: U223
Waste name: BENZENE, 1,3-DIISOCYANATOMETHYL- (R,T)

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 09/04/1991
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/24/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/08/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/26/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

CERC-NFRAP

EDR ID: 1000146819 **DIST/DIR:** 0.000 **ELEVATION:** 650 **MAP ID:** A8

NAME: AQUAIR CORP
ADDRESS: 13300 SAM NEELY RD
CHARLOTTE, NC 28217
MECKLENBURG
SOURCE: US EPA

Rev: 02/05/2013
ID/Status: NCD074511361

CERC-NFRAP:
Site ID: 0402880
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 4309230.00000
Person ID: 4270042.00000

Contact Sequence ID: 4357103.00000
Person ID: 4000084.00000

Contact Sequence ID: 4368628.00000
Person ID: 4270039.00000

Contact Sequence ID: 4429132.00000
Person ID: 4000312.00000

Contact Sequence ID: 4430049.00000
Person ID: 4000508.00000

Contact Sequence ID: 4537883.00000
Person ID: 4000533.00000

Contact Sequence ID: 4702145.00000
Person ID: 4000308.00000

Contact Sequence ID: 4751959.00000
Person ID: 4000275.00000

Contact Sequence ID: 4777100.00000
Person ID: 13002428.00000

Contact Sequence ID: 4830723.00000
Person ID: 4270104.00000

Contact Sequence ID: 13094317.00000
Person ID: 4272610.00000

CERCLIS-NFRAP Site Alias Name(s):
Alias Name: AQUAIR CORP
Alias Address: Not reported

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

CERC-NFRAP

EDR ID: 1000146819 **DIST/DIR:** 0.000 **ELEVATION:** 650 **MAP ID:** A8

NAME: AQUAIR CORP
ADDRESS: 13300 SAM NEELY RD
CHARLOTTE, NC 28217
MECKLENBURG
SOURCE: US EPA

Rev: 02/05/2013
ID/Status: NCD074511361

MECKLENBURG, NC

CERCLIS-NFRAP Assessment History:
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 01/31/89
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 06/27/85
Priority Level: Low priority for further assessment

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 06/28/93
Priority Level: Not reported

Action: DISCOVERY
Date Started: / /
Date Completed: 08/01/80
Priority Level: Not reported

Action: SITE INSPECTION
Date Started: / /
Date Completed: 12/02/91
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-SQG

EDR ID: 1000265195 **DIST/DIR:** 0.005 NW **ELEVATION:** 647 **MAP ID:** 9

NAME: APLIX, INC.
ADDRESS: 12300 STEELE CR ROAD
CHARLOTTE, NC 28273
MECKLENBURG
SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD980605729

RCRA-SQG:
Date form received by agency: 03/21/2012
Facility name: APLIX
Facility address: 12300 STEELE CREEK RD
CHARLOTTE, NC 28273
EPA ID: NCD980605729
Mailing address: PO BOX 7505
CHARLOTTE, NC 28241
Contact: PRESTON RAMSEY
Contact address: PO BOX 7505
CHARLOTTE, NC 28241
Contact country: US
Contact telephone: 704-588-1920
Contact email: PRAMSEY@APPLIX.COM
EPA Region: 04
Land type: Private
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: PATRICK BILLARANT
Owner/operator address: 12300 STEELE CREEK RD
CHARLOTTE, NC 28273
Owner/operator country: Not reported
Owner/operator telephone: (704) 588-1920
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-SQG

EDR ID: 1000265195 **DIST/DIR:** 0.005 NW **ELEVATION:** 647 **MAP ID:** 9

NAME: APLIX, INC.
ADDRESS: 12300 STEELE CR ROAD
CHARLOTTE, NC 28273
MECKLENBURG
SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD980605729

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/10/2002
Facility name: APLIX
Classification: Small Quantity Generator

Date form received by agency: 04/04/2000
Facility name: APLIX
Site name: APLIX INC
Classification: Large Quantity Generator

Date form received by agency: 11/13/1998
Facility name: APLIX
Site name: APLIX INC.
Classification: Large Quantity Generator

Date form received by agency: 01/24/1996
Facility name: APLIX
Site name: APLIX, INC.
Classification: Large Quantity Generator

Date form received by agency: 02/21/1994
Facility name: APLIX
Site name: APLIX, INC
Classification: Large Quantity Generator

Date form received by agency: 01/30/1992
Facility name: APLIX
Site name: APLIX INC
Classification: Large Quantity Generator

Date form received by agency: 03/20/1990
Facility name: APLIX
Site name: APLIX INC.
Classification: Large Quantity Generator

Date form received by agency: 10/26/1989

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-SQG

EDR ID: 1000265195 **DIST/DIR:** 0.005 NW **ELEVATION:** 647 **MAP ID:** 9

NAME: APLIX, INC.

ADDRESS: 12300 STEELE CR ROAD
CHARLOTTE, NC 28273
MECKLENBURG

SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD980605729

Facility name: APLIX
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D008
Waste name: LEAD

Waste code: D035
Waste name: METHYL ETHYL KETONE

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 02/07/2005
Date achieved compliance: 03/14/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-SQG

EDR ID: 1000265195 **DIST/DIR:** 0.005 NW **ELEVATION:** 647 **MAP ID:** 9

NAME: APLIX, INC.
ADDRESS: 12300 STEELE CR ROAD
CHARLOTTE, NC 28273
MECKLENBURG
SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD980605729

Enforcement action date: 03/14/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(c)(1)(ii),(a)(4),265.52
Area of violation: Generators - Pre-transport
Date violation determined: 08/13/1992
Date achieved compliance: 09/17/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/13/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 268.7(a)(i)(a)(7)
Area of violation: LDR - General
Date violation determined: 08/13/1992
Date achieved compliance: 09/17/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/13/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.11
Area of violation: Generators - General
Date violation determined: 09/04/1991
Date achieved compliance: 01/14/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/04/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-SQG

EDR ID: 1000265195 **DIST/DIR:** 0.005 NW **ELEVATION:** 647 **MAP ID:** 9

NAME: APLIX, INC.
ADDRESS: 12300 STEELE CR ROAD
CHARLOTTE, NC 28273
MECKLENBURG
SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD980605729

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 10/25/1989
Date achieved compliance: 01/02/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/04/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 10/02/1986
Date achieved compliance: 11/12/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/14/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 05/21/1985
Date achieved compliance: 06/28/1985
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/05/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-SQG

EDR ID: 1000265195 **DIST/DIR:** 0.005 NW **ELEVATION:** 647 **MAP ID:** 9

NAME: APLIX, INC.

ADDRESS: 12300 STEELE CR ROAD
CHARLOTTE, NC 28273
MECKLENBURG

SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD980605729

Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 06/19/1984
Date achieved compliance: 07/23/1984
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/09/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 11/03/2011
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/14/2005
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/07/2005
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/14/2005
Evaluation lead agency: State

Evaluation date: 12/19/2001
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/11/1999
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-SQG

EDR ID: 1000265195 **DIST/DIR:** 0.005 NW **ELEVATION:** 647 **MAP ID:** 9

NAME: APLIX, INC.
ADDRESS: 12300 STEELE CR ROAD
CHARLOTTE, NC 28273
MECKLENBURG
SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD980605729

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/08/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/15/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/22/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/17/1992
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: LDR - General
Date achieved compliance: 09/17/1992
Evaluation lead agency: State

Evaluation date: 09/17/1992
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Generators - Pre-transport
Date achieved compliance: 09/17/1992
Evaluation lead agency: State

Evaluation date: 08/13/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 09/17/1992
Evaluation lead agency: State

Evaluation date: 08/13/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 09/17/1992
Evaluation lead agency: State

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-SQG

EDR ID: 1000265195 **DIST/DIR:** 0.005 NW **ELEVATION:** 647 **MAP ID:** 9

NAME: APLIX, INC.
ADDRESS: 12300 STEELE CR ROAD
CHARLOTTE, NC 28273
MECKLENBURG
SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD980605729

Evaluation date: 01/14/1992
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Generators - General
Date achieved compliance: 01/14/1992
Evaluation lead agency: State

Evaluation date: 09/04/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/16/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/02/1990
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/25/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/02/1990
Evaluation lead agency: State

Evaluation date: 10/06/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/02/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/12/1986
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-SQG

EDR ID: 1000265195 **DIST/DIR:** 0.005 NW **ELEVATION:** 647 **MAP ID:** 9

NAME: APLIX, INC.

ADDRESS: 12300 STEELE CR ROAD
CHARLOTTE, NC 28273
MECKLENBURG

SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD980605729

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/02/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/12/1986
Evaluation lead agency: State

Evaluation date: 06/28/1985
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/21/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/28/1985
Evaluation lead agency: State

Evaluation date: 06/19/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/23/1984
Evaluation lead agency: State

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-SQG

EDR ID: 1000831307 **DIST/DIR:** 0.094 NNW **ELEVATION:** 648 **MAP ID:** 10

NAME: OKUMA AMERICA INC

ADDRESS: 12200 STEELE CREEK RD
CHARLOTTE, NC 28241
MECKLENBURG

SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD982078834

RCRA-SQG:
Date form received by agency: 08/29/2003
Facility name: OKUMA AMERICA INC
Facility address: 12200 STEELE CREEK RD
CHARLOTTE, NC 28241
EPA ID: NCD982078834
Mailing address: PO BOX 7866
CHARLOTTE, NC 28241
Contact: WAYNE MCCONNELL
Contact address: 12200 STEELE CREEK RD
CHARLOTTE, NC 28241
Contact country: US
Contact telephone: (704) 588-7000
Contact email: Not reported
EPA Region: 04
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: OKUMA MACHINERY WORKS
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: OKUMA MACHINERY WORKS
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/0001
Owner/Op end date: Not reported

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-SQG

EDR ID: 1000831307 **DIST/DIR:** 0.094 NNW **ELEVATION:** 648 **MAP ID:** 10

NAME: OKUMA AMERICA INC

ADDRESS: 12200 STEELE CREEK RD
CHARLOTTE, NC 28241
MECKLENBURG

SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD982078834

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 12/09/1998
Facility name: OKUMA AMERICA INC
Site name: OKUMA MACHINE TOOLS INC
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

BROWNFIELDS

EDR ID: U003144598 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B11

NAME: VALMET PAPER MACHINERY **Rev:** 04/04/2013

ADDRESS: 12933 SAM NEELY ROAD
CHARLOTTE, NC 28217

SOURCE: NC Department of Environment and Natural Resources

BROWNFIELDS:
Project Type: ACTIVE ELIGIBLE PROJECTS

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

UST

EDR ID: U003144598 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B11

NAME: VALMET PAPER MACHINERY

ADDRESS: 12933 SAM NEELY ROAD
CHARLOTTE, NC 28217

Rev: 02/12/2013
ID/Status: Removed

SOURCE: NC Department of Environment and Natural Resources

UST:
Facility Id: 00-0-0000014580
Contact: VALMET PAPER MACHINERY
Contact Address1: 12933 SAM NEELY ROAD
Contact Address2: Not reported
Contact City/State/Zip: CHARLOTTE, NC 28217
FIPS County Desc: Mecklenburg
Latitude: 0
Longitude: 0

Tank Id: 1
Tank Status: Removed
Installed Date: 06/26/1976
Perm Close Date: 11/01/1990
Product Key: 1
Product Name: Diesel
Tank Capacity: 30000
Root Tank Id: Not reported
Main Tank: No
Compartment Tank: No
Manifold Tank: Not reported
Commercial: Yes
Regulated: Yes
Tank Construction: Single Wall Steel
Piping Construction: Unknown
Piping System Key: Unknown
Other CP Tank: Not reported

Tank Id: 2
Tank Status: Removed
Installed Date: 06/26/1976
Perm Close Date: 11/01/1990
Product Key: 1
Product Name: Diesel
Tank Capacity: 30000
Root Tank Id: Not reported
Main Tank: No
Compartment Tank: No
Manifold Tank: Not reported
Commercial: Yes
Regulated: Yes
Tank Construction: Single Wall Steel
Piping Construction: Unknown

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

UST

EDR ID: U003144598 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B11

NAME: VALMET PAPER MACHINERY

ADDRESS: 12933 SAM NEELY ROAD
CHARLOTTE, NC 28217

Rev: 02/12/2013
ID/Status: Removed

SOURCE: NC Department of Environment and Natural Resources

Piping System Key: Unknown
Other CP Tank: Not reported

Tank Id: 3
Tank Status: Removed
Installed Date: 06/26/1976
Perm Close Date: 11/01/1990
Product Key: 3
Product Name: Gasoline, Gas Mix
Tank Capacity: 2000
Root Tank Id: Not reported
Main Tank: No
Compartment Tank: No
Manifold Tank: Not reported
Commercial: Yes
Regulated: Yes
Tank Construction: Single Wall Steel
Piping Construction: Unknown
Piping System Key: Unknown
Other CP Tank: Not reported

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

LUST

EDR ID: U003144598 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B11

NAME: VALMET PAPER MACHINERY

ADDRESS: 12933 SAM NEELY ROAD
CHARLOTTE, NC 28217

SOURCE: NC Department of Environment and Natural Resources

Rev: 02/08/2013
ID/Status: PETROLEUM
ID/Status: 40113
ID/Status: 40137
ID/Status: 6386
ID/Status: Closed Out

LUST:
Facility ID: Not reported
UST Number: MO-8576
Incident Number: 40113
Contamination Type: Soil
Source Type: Leak-underground
Product Type: PETROLEUM
Date Reported: 09/07/2012
Date Occur: 09/06/2012
Cleanup: Not reported
Closure Request: Not reported
Close Out: 12/05/2012
Level Of Soil Cleanup Achieved: Not reported
Tank Regulated Status: Regulated
Of Supply Wells: 0
Commercial/NonCommercial UST Site: COMMERCIAL
Risk Classification: Not reported
Risk Class Based On Review: Not reported
Corrective Action Plan Type: Not reported
NOV Issue Date: Not reported
NORR Issue Date: Not reported
Site Priority: Not reported
Phase Of LSA Req: Not reported
Site Risk Reason: Not reported
Land Use: Not reported
MTBE: No
MTBE1: Unknown
Flag: Yes
Flag1: No
LUR Filed: Not reported
Release Detection: 0
Current Status: File Located in House
RBCA GW: Not reported
PETOPT: 3
RPL: False
CD Num: 0
Reel Num: 0
RPOW: False
RPOP: False
Error Flag: 0
Error Code: N
Valid: False
Lat/Long: Not reported
Lat/Long Decimal: 35.1278 -80.9744

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

LUST

EDR ID: U003144598 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B11

NAME: VALMET PAPER MACHINERY

ADDRESS: 12933 SAM NEELY ROAD
CHARLOTTE, NC 28217

SOURCE: NC Department of Environment and Natural Resources

Rev: 02/08/2013
ID/Status: PETROLEUM
ID/Status: 40113
ID/Status: 40137
ID/Status: 6386
ID/Status: Closed Out

Testlat: Not reported
Regional Officer Project Mgr: DPB
Region: Mooresville
Company: Not reported
Contact Person: Not reported
Telephone: Not reported
RP Address: Not reported
RP City,St,Zip: NC
RP County: Not reported
Comments: Not reported
5 Min Quad: Not reported

PIRF:
Facility Id: 40113
Date Occurred: 9/6/2012
Date Reported: 9/7/2012
Description Of Incident: Not reported
Owner/Operator: Not reported
Ownership: 3
Operation Type: 6
Type: 3
Location: 1
Site Priority: Not reported
Priority Update: Not reported
Wells Affected Y/N: N
Samples Include: Not reported
7#5 Minute Quad: Y
5 Minute Quad: Not reported
Pirf/Min Soil: Not reported
Release Code: Not reported
Source Code: Not reported
Err Type: 2
Cause: 7
Source: C
Ust Number: P

Last Modified: Not reported
Incident Phase: Not reported
NOV Issued: Not reported
NORR Issued: Not reported
45 Day Report: Not reported
Public Meeting Held: Not reported
Corrective Action Planned: Not reported
SOC Signed: Not reported
Reclassification Report: Not reported

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

LUST

EDR ID: U003144598 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B11

NAME: VALMET PAPER MACHINERY

ADDRESS: 12933 SAM NEELY ROAD
CHARLOTTE, NC 28217

SOURCE: NC Department of Environment and Natural Resources

Rev: 02/08/2013
ID/Status: PETROLEUM
ID/Status: 40113
ID/Status: 40137
ID/Status: 6386
ID/Status: Closed Out

RS Designation: Not reported
Closure Request Date: Not reported
Close-out Report: Not reported

Facility ID: Not reported
UST Number: MO-8603
Incident Number: 40137
Contamination Type: Soil
Source Type: Leak-underground
Product Type: PETROLEUM
Date Reported: 10/24/2012
Date Occur: 09/06/2012
Cleanup: Not reported
Closure Request: Not reported
Close Out: 12/05/2012
Level Of Soil Cleanup Achieved: Not reported
Tank Regulated Status: Regulated
Of Supply Wells: 0
Commercial/NonCommercial UST Site: COMMERCIAL
Risk Classification: Not reported
Risk Class Based On Review: Not reported
Corrective Action Plan Type: Not reported
NOV Issue Date: Not reported
NORR Issue Date: Not reported
Site Priority: Not reported
Phase Of LSA Req: Not reported
Site Risk Reason: Not reported
Land Use: Not reported
MTBE: No
MTBE1: Unknown
Flag: No
Flag1: No
LUR Filed: Not reported
Release Detection: 0
Current Status: File Located in House
RBCA GW: Not reported
PETOPT: 3
RPL: False
CD Num: 0
Reel Num: 0
RPOW: False
RPOP: False
Error Flag: 0
Error Code: N
Valid: False

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

LUST

EDR ID: U003144598 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B11

NAME: VALMET PAPER MACHINERY

ADDRESS: 12933 SAM NEELY ROAD
CHARLOTTE, NC 28217

SOURCE: NC Department of Environment and Natural Resources

Rev: 02/08/2013
ID/Status: PETROLEUM
ID/Status: 40113
ID/Status: 40137
ID/Status: 6386
ID/Status: Closed Out

Lat/Long: Not reported
Lat/Long Decimal: 0 0
Testlat: Not reported
Regional Officer Project Mgr: DPB
Region: Mooresville
Company: Not reported
Contact Person: Not reported
Telephone: Not reported
RP Address: Not reported
RP City,St,Zip: NC
RP County: Not reported
Comments: Not reported
5 Min Quad: Not reported

PIRF:
Facility Id: 40137
Date Occurred: 9/6/2012
Date Reported: 10/24/2012
Description Of Incident: Not reported
Owner/Operator: Not reported
Ownership: 4
Operation Type: 6
Type: 3
Location: 1
Site Priority: Not reported
Priority Update: Not reported
Wells Affected Y/N: N
Samples Include: Not reported
7#5 Minute Quad: N
5 Minute Quad: Not reported
Pirf/Min Soil: Not reported
Release Code: Not reported
Source Code: Not reported
Err Type: 2
Cause: 7
Source: C
Ust Number: P

Last Modified: 12/5/2012
Incident Phase: Closed Out
NOV Issued: Not reported
NORR Issued: Not reported
45 Day Report: Not reported
Public Meeting Held: Not reported
Corrective Action Planned: Not reported

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

LUST

EDR ID: U003144598 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B11

NAME: VALMET PAPER MACHINERY

ADDRESS: 12933 SAM NEELY ROAD
CHARLOTTE, NC 28217

SOURCE: NC Department of Environment and Natural Resources

Rev: 02/08/2013
ID/Status: PETROLEUM
ID/Status: 40113
ID/Status: 40137
ID/Status: 6386
ID/Status: Closed Out

SOC Signed: Not reported
Reclassification Report: Not reported
RS Designation: Not reported
Closure Request Date: Not reported
Close-out Report: Not reported

Facility ID: Not reported
UST Number: MO-3029
Incident Number: 6386
Contamination Type: Soil
Source Type: Leak-underground
Product Type: PETROLEUM
Date Reported: 10/14/1991
Date Occur: Not reported
Cleanup: 10/14/1991
Closure Request: 2002-01-22 00:00:00
Close Out: 01/24/2002
Level Of Soil Cleanup Achieved: Soil to Groundwater
Tank Regulated Status: Regulated
Of Supply Wells: 0
Commercial/NonCommercial UST Site: COMMERCIAL
Risk Classification: L
Risk Class Based On Review: L
Corrective Action Plan Type: Not reported
NOV Issue Date: Not reported
NORR Issue Date: Not reported
Site Priority: Not reported
Phase Of LSA Req: 1
Site Risk Reason: Not reported
Land Use: Not reported
MTBE: Not reported
MTBE1: Unknown
Flag: Yes
Flag1: No
LUR Filed: Not reported
Release Detection: 0
Current Status: File Located in Archives
RBCA GW: Not reported
PETOPT: 3
RPL: False
CD Num: 118
Reel Num: 0
RPOW: False
RPOP: False
Error Flag: 0

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Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

LUST

EDR ID: U003144598 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B11

NAME: VALMET PAPER MACHINERY

ADDRESS: 12933 SAM NEELY ROAD
CHARLOTTE, NC 28217

SOURCE: NC Department of Environment and Natural Resources

Rev: 02/08/2013
ID/Status: PETROLEUM
ID/Status: 40113
ID/Status: 40137
ID/Status: 6386
ID/Status: Closed Out

Error Code: Not reported
Valid: False
Lat/Long: 35 7 39.96 - 80 58 30
Lat/Long Decimal: 35.1277 -80.9749
Testlat: Not reported
Regional Officer Project Mgr: AJS
Region: Mooresville
Company: Not reported
Contact Person: VALMET-KMW INC.
Telephone: Not reported
RP Address: SAME
RP City,St,Zip: CHARLOTTE, NC 28241
RP County: ME
Comments: Not reported
5 Min Quad: R67N

PIRF:
Facility Id: 6386
Date Occurred: 10/24/1990
Date Reported: 2/20/1991
Description Of Incident: AFTER REMOVAL OF 3 USTS CONTAMINATION WAS OBSERVED.
Owner/Operator: VALMET-KMW INC.
Ownership: 4
Operation Type: 5
Type: 4
Location: 1
Site Priority: 080E
Priority Update: 5/15/1998
Wells Affected Y/N: N
Samples Include: 0
7#5 Minute Quad: 3
5 Minute Quad: 2
Pirf/Min Soil: Not reported
Release Code: Not reported
Source Code: Pirf
Err Type: Not reported
Cause: Not reported
Source: Not reported
Ust Number: Not reported

Last Modified: 2/12/2002
Incident Phase: Closed Out
NOV Issued: 2/14/1991
NORR Issued: Not reported
45 Day Report: Not reported

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

LUST

EDR ID: U003144598 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B11

NAME: VALMET PAPER MACHINERY

ADDRESS: 12933 SAM NEELY ROAD
CHARLOTTE, NC 28217

SOURCE: NC Department of Environment and Natural Resources

Rev: 02/08/2013
ID/Status: PETROLEUM
ID/Status: 40113
ID/Status: 40137
ID/Status: 6386
ID/Status: Closed Out

Public Meeting Held: Not reported
Corrective Action Planned: Not reported
SOC Signed: Not reported
Reclassification Report: Not reported
RS Designation: Not reported
Closure Request Date: Not reported
Close-out Report: 1/24/2002

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-CESQG

EDR ID: 1000298619 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B12

NAME: NEW SOUTH FABRICATORS LLC
ADDRESS: 12933 SAM NEELY RD
CHARLOTTE, NC 28273
MECKLENBURG
SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD982083636

RCRA-CESQG:
Date form received by agency: 10/12/2009
Facility name: NEW SOUTH FABRICATORS LLC
Facility address: 12933 SAM NEELY RD
CHARLOTTE, NC 28273
EPA ID: NCD982083636
Mailing address: SAM NEELY RD
CHARLOTTE, NC 28273
Contact: KEITH LOWDER
Contact address: SAM NEELY RD
CHARLOTTE, NC 28273
Contact country: US
Contact telephone: 980-722-7002
Contact email: MAINTENANCE@BETAINTERNATIONAL.COM FX#704-398-0018
EPA Region: 04
Land type: Private
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:
Owner/operator name: NEW SOUTH FABRICATORS LLC
Owner/operator address: SAM NEELY RD
CHARLOTTE, NC 28273
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 09/01/2009
Owner/Op end date: Not reported

Owner/operator name: SOUTHERN STEEL CO LLC

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-CESQG

EDR ID: 1000298619 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B12

NAME: NEW SOUTH FABRICATORS LLC
ADDRESS: 12933 SAM NEELY RD
CHARLOTTE, NC 28273
MECKLENBURG
SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD982083636

Owner/operator address: 12933 SAM NEELY RD
CHARLOTTE, NC 28273
Owner/operator country: Not reported
Owner/operator telephone: (704) 504-9360
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 04/29/2002
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 07/31/2008
Facility name: NEW SOUTH FABRICATORS LLC
Site name: SOUTHERN STEEL CO LLC
Classification: Small Quantity Generator

Date form received by agency: 05/08/2002
Facility name: NEW SOUTH FABRICATORS LLC
Site name: SOUTHERN STEEL CO LLC
Classification: Small Quantity Generator

Date form received by agency: 12/09/1998
Facility name: NEW SOUTH FABRICATORS LLC
Site name: SOUTHERN STEEL CO LLC
Classification: Small Quantity Generator

Hazardous Waste Summary:

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-CESQG

EDR ID: 1000298619 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B12

NAME: NEW SOUTH FABRICATORS LLC

ADDRESS: 12933 SAM NEELY RD
CHARLOTTE, NC 28273
MECKLENBURG

SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD982083636

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Waste code: D035
Waste name: METHYL ETHYL KETONE

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 07/11/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

- Continued on next page -

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

RCRA-CESQG

EDR ID: 1000298619 **DIST/DIR:** 0.248 NE **ELEVATION:** 637 **MAP ID:** B12

NAME: NEW SOUTH FABRICATORS LLC

ADDRESS: 12933 SAM NEELY RD
CHARLOTTE, NC 28273
MECKLENBURG

SOURCE: US Environmental Protection Agency

Rev: 02/12/2013
ID/Status: NCD982083636

Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

SHWS

EDR ID: 1000316315 **DIST/DIR:** 0.374 North **ELEVATION:** 640 **MAP ID:** 13

NAME: THONIT A SIMMONS COMPANY

ADDRESS: 11900 STEELE CREEK ROAD
CHARLOTTE, NC
MECKLENBURG

SOURCE: NC Department of Environment, Health and Natural Resources

Rev: 01/15/2013
ID/Status: NCD095470332

SHWS:
Facility ID: NCD095470332
Lat/Longitude: 35.1391613131754 / -80.9807274313889
Geolocation Method: HARD COPY MAP

Site Detail Report

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

SHWS

EDR ID: U003144972 **DIST/DIR:** 0.715 East **ELEVATION:** 607 **MAP ID:** 14

NAME: CHARLOTTE DISTRIBUTION CENTER

ADDRESS: 12040 GOODRICH DRIVE
CHARLOTTE, NC 28217

Rev: 01/15/2013
ID/Status: NONCD0002656

SOURCE: NC Department of Environment, Health and Natural Resources

SHWS:
Facility ID: NONCD0002656
Lat/Longitude: 35.127222 / -80.963888
Geolocation Method: UNKNOWN

Database Descriptions

NPL: NPL 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. NPL - National Priority List Proposed NPL - Proposed National Priority List Sites.

NPL Delisted: DELISTED NPL 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. DELISTED NPL - National Priority List Deletions

CERCLIS: CERCLIS CERCLIS 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). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL. CERCLIS - Comprehensive Environmental Response, Compensation, and Liability Information System

NFRAP: CERCLIS-NFRAP Archived sites are sites that have been removed and archived from the inventory of CERCLIS 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 this 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. This 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 a potential NPL site. CERCLIS-NFRAP - CERCLIS No Further Remedial Action Planned

RCRA COR ACT: CORRACTS CORRACTS identifies hazardous waste handlers with RCRA corrective action activity. CORRACTS - Corrective Action Report

RCRA TSD: RCRA-TSDF 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. RCRA-TSDF - RCRA - Treatment, Storage and Disposal

RCRA GEN: RCRA-LQG 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. RCRA-LQG - RCRA - Large Quantity Generators RCRA-SQG - RCRA - Small Quantity Generators. RCRA-CESQG - RCRA - Conditionally Exempt Small Quantity Generators.

Federal IC / EC: US ENG CONTROLS 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. US ENG CONTROLS - Engineering Controls Sites List US INST CONTROL - Sites with Institutional Controls.

ERNS: ERNS Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances. ERNS - Emergency Response Notification System

Database Descriptions

State/Tribal CERCLIS: SHWS 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. SHWS - Inactive Hazardous Sites Inventory

State/Tribal SWL: SWF/LF 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. SWF/LF - List of Solid Waste Facilities

State/Tribal LTANKS: LUST This database contains information obtained from the Regional Offices. It provides a more detailed explanation of current and historic activity for individual sites, as well as what was previously found in the Incident Management Database. Sites in this database with Incident Numbers are considered LUSTs. LUST - Regional UST Database LAST - Leaking Aboveground Storage Tanks. INDIAN LUST R4 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R9 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R10 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R1 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R6 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R7 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R8 - Leaking Underground Storage Tanks on Indian Land.

State/Tribal Tanks: UST 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. UST - Petroleum Underground Storage Tank Database AST - AST Database. INDIAN UST R5 - Underground Storage Tanks on Indian Land. INDIAN UST R6 - Underground Storage Tanks on Indian Land. INDIAN UST R4 - Underground Storage Tanks on Indian Land. INDIAN UST R7 - Underground Storage Tanks on Indian Land. INDIAN UST R10 - Underground Storage Tanks on Indian Land. INDIAN UST R1 - Underground Storage Tanks on Indian Land. INDIAN UST R8 - Underground Storage Tanks on Indian Land. INDIAN UST R9 - Underground Storage Tanks on Indian Land.

State/Tribal IC / EC: INST CONTROL A land use restricted site is a property where there are limits or requirements on future use of the property due to varying levels of cleanup possible, practical, or necessary at the site. INST CONTROL - No Further Action Sites With Land Use Restrictions Monitoring

State/Tribal VCP: VCP Responsible Party Voluntary Action site locations. VCP - Responsible Party Voluntary Action Sites

ST/Tribal Brownfields: BROWNFIELDS A brownfield site is an abandoned, idled, or underused property where the threat of environmental contamination has hindered its redevelopment. All of the sites in the inventory are working toward a brownfield agreement for cleanup and liabitliy control. BROWNFIELDS - Brownfields Projects Inventory

US Brownfields: US BROWNFIELDS 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. US BROWNFIELDS - A Listing of Brownfields Sites

Other Haz Sites: US CDL 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. US CDL - Clandestine Drug Labs

Database Descriptions

Spills: HMIRS Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT. HMIRS - Hazardous Materials Information Reporting System IMD - Incident Management Database. SPILLS 80 - SPILLS80 data from FirstSearch. SPILLS 90 - SPILLS90 data from FirstSearch.

Other: RCRA NonGen / NLR 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. RCRA NonGen / NLR - RCRA - Non Generators TRIS - Toxic Chemical Release Inventory System. TSCA - Toxic Substances Control Act. FTTS - FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act). FTTS INSP - FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act). SSTS - Section 7 Tracking Systems. ICIS - Integrated Compliance Information System. PADS - PCB Activity Database System. MLTS - Material Licensing Tracking System. RADINFO - Radiation Information Database. FINDS - Facility Index System/Facility Registry System. RAATS - RCRA Administrative Action Tracking System. BRS - Biennial Reporting System. DRYCLEANERS - Drycleaning Sites. INDIAN RESERV - Indian Reservations. FEDLAND - Federal and Indian Lands. US AIRS MINOR - Air Facility System Data. US AIRS (AFS) - Aerometric Information Retrieval System Facility Subsystem (AFS). LEAD SMELTER 2 - Lead Smelter Sites. LEAD SMELTER 1 - Lead Smelter Sites. PRP - Potentially Responsible Parties.

Database Sources

NPL: EPA

Updated Quarterly

NPL Delisted: EPA

Updated Quarterly

CERCLIS: EPA

Updated Quarterly

NFRAP: EPA

Updated Quarterly

RCRA COR ACT: EPA

Updated Quarterly

RCRA TSD: Environmental Protection Agency

Updated Quarterly

RCRA GEN: Environmental Protection Agency

Updated Quarterly

Federal IC / EC: Environmental Protection Agency

Varies

ERNS: National Response Center, United States Coast Guard

Updated Annually

State/Tribal CERCLIS: Department of Environment, Health and Natural Resources

Updated Quarterly

State/Tribal SWL: Department of Environment and Natural Resources

Updated Semi-Annually

State/Tribal LTANKS: Department of Environment and Natural Resources

Updated Quarterly

State/Tribal Tanks: Department of Environment and Natural Resources

Updated Quarterly

Database Sources

State/Tribal IC / EC: Department of Environment, Health and Natural Resources

Updated Quarterly

State/Tribal VCP: Department of Environment and Natural Resources

Updated Semi-Annually

ST/Tribal Brownfields: Department of Environment and Natural Resources

Varies

US Brownfields: Environmental Protection Agency

Updated Semi-Annually

Other Haz Sites: Drug Enforcement Administration

Updated Quarterly

Spills: U.S. Department of Transportation

Updated Annually

Other: Environmental Protection Agency

Varies

Street Name Report for Streets near the Target Property

Target Property: 12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

JOB: 38585

Street Name	Dist/Dir	Street Name	Dist/Dir
Sam Neely Rd	0.06 North		
State Hwy 160	0.08 WNW		
Virkler Dr	0.11 South		
Westhall Dr	0.24 West		

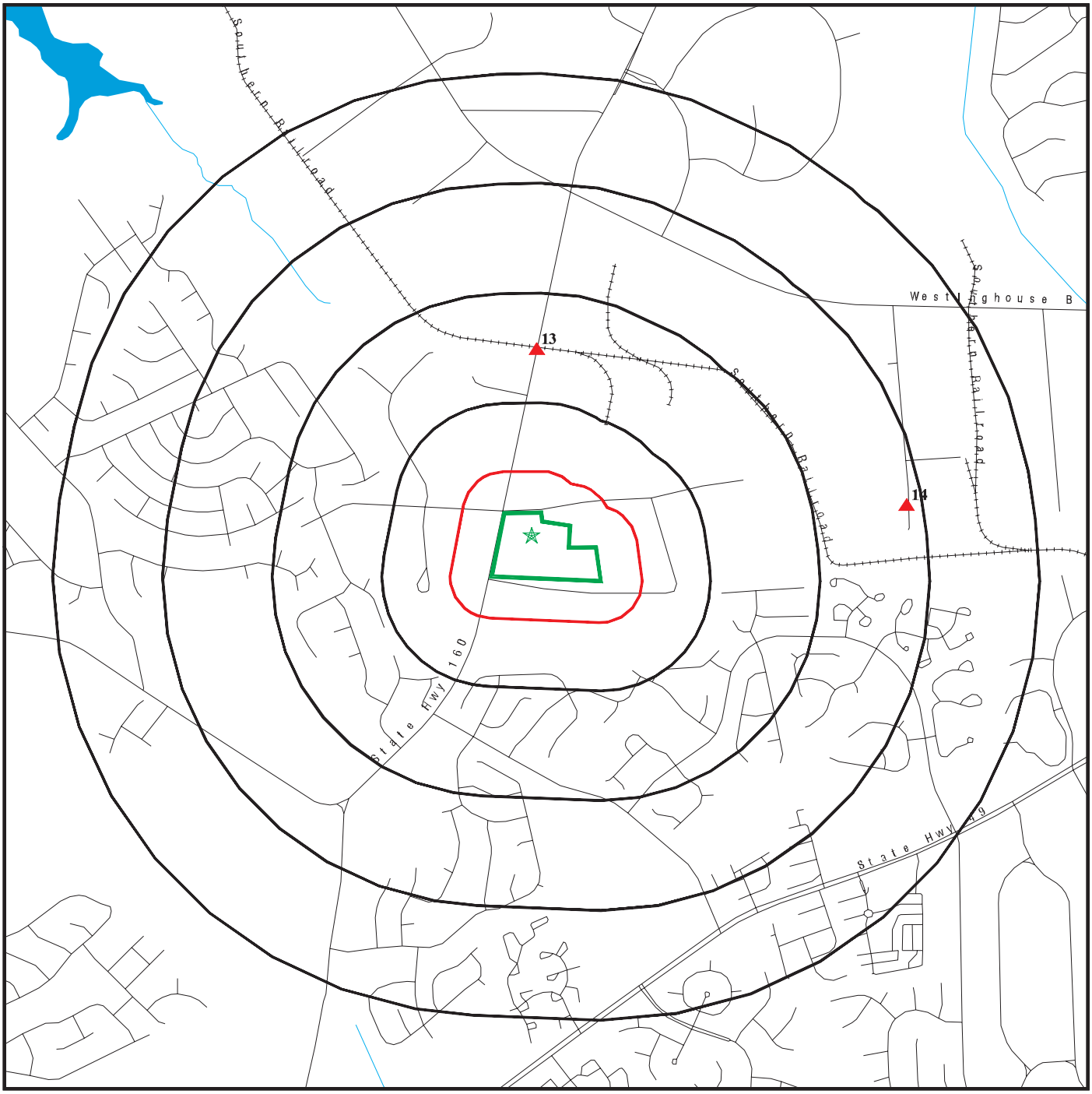
Environmental FirstSearch

1.000 Mile Radius

ASTM MAP: NPL, RCRACOR, STATES Sites

EDR® Environmental Data Resources Inc

12345 STEELE CREEK ROAD CHARLOTTE, NC 28273



Black Rings Represent Qtr. Mile Radius; Red Ring Represents 500 ft. Radius

★ Target Property (Latitude: 35.125 Longitude: 80.9794)

▲ Identified Sites

National Priority List Sites

Indian Reservations BIA

Hazardous Substance Disposal Sites

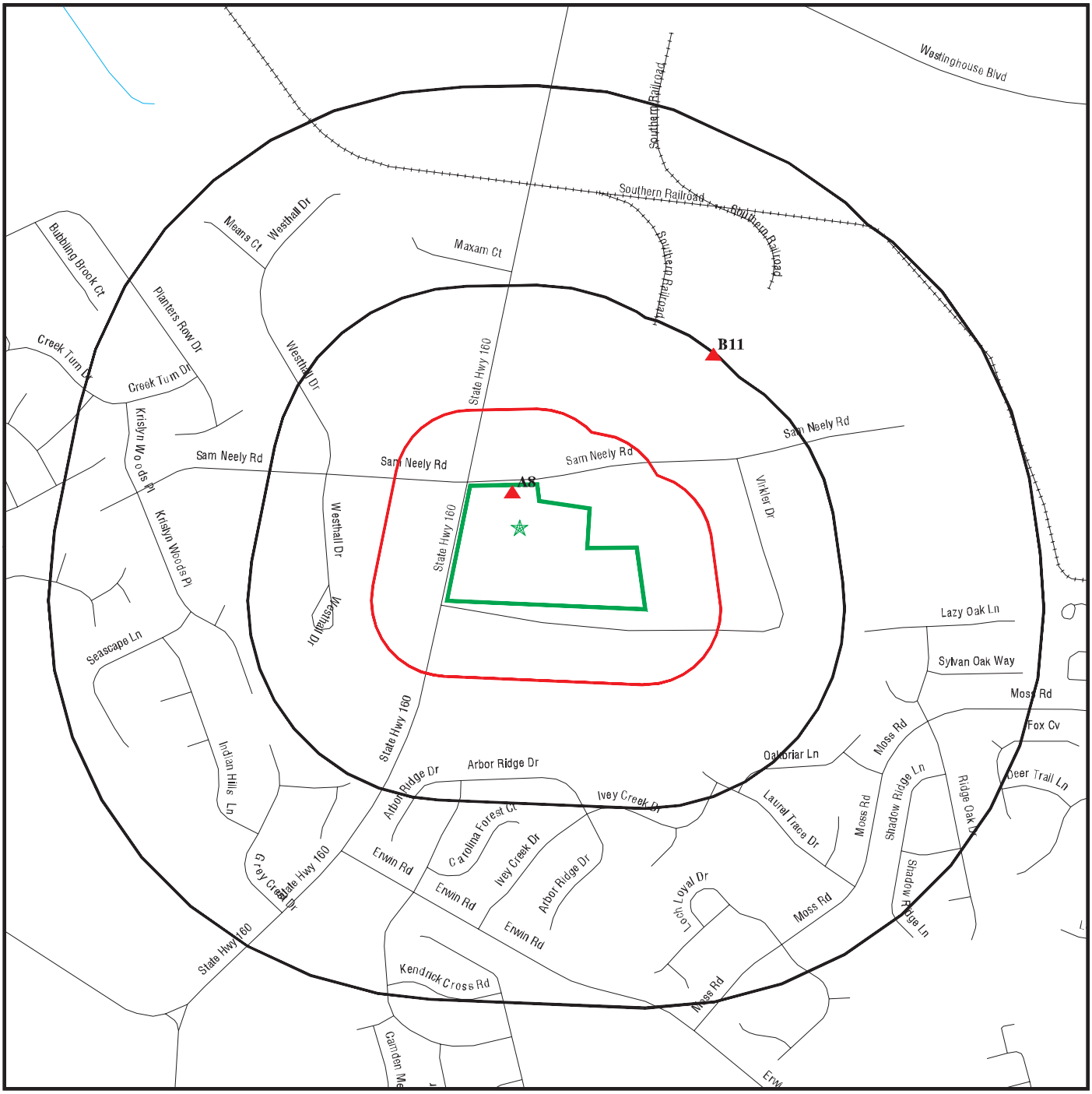
Environmental FirstSearch

0.500 Mile Radius

ASTM MAP: CERCLIS, RCRATSD, LUST, SWL

EDR® Environmental Data Resources Inc

12345 STEELE CREEK ROAD CHARLOTTE, NC 28273



Black Rings Represent Qtr. Mile Radius; Red Ring Represents 500 ft. Radius

★ Target Property (Latitude: 35.125 Longitude: 80.9794)

▲ Identified Sites

National Priority List Sites

Indian Reservations BIA

Hazardous Substance Disposal Sites

EDR Reference Code (EDR Internal use only): 3633136.2s

13-06-12.09:42:07.Wed

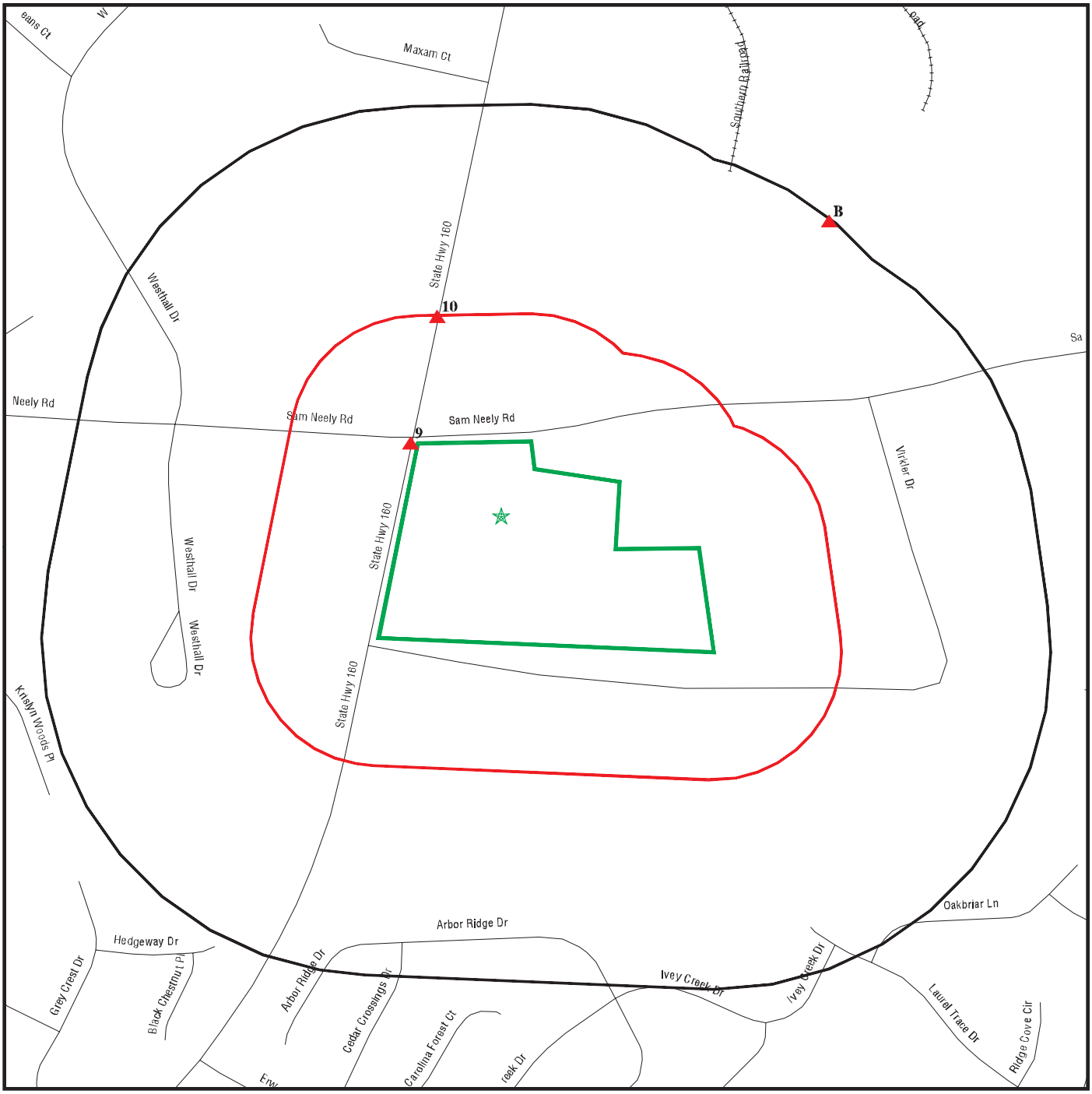
Environmental FirstSearch

0.25 Mile Radius

ASTM MAP: RCRAGEN, ERNS, UST, FED IC/EC, METH LABS

EDR® Environmental Data Resources Inc

12345 STEELE CREEK ROAD CHARLOTTE, NC 28273



Black Rings Represent Qtr. Mile Radius; Red Ring Represents 500 ft. Radius

★ Target Property (Latitude: 35.125 Longitude: 80.9794)

▲ Identified Sites

National Priority List Sites

Indian Reservations BIA

Hazardous Substance Disposal Sites

EDR Reference Code (EDR internal use only): 3633136.2s

13-06-12.09:42:28.Wed

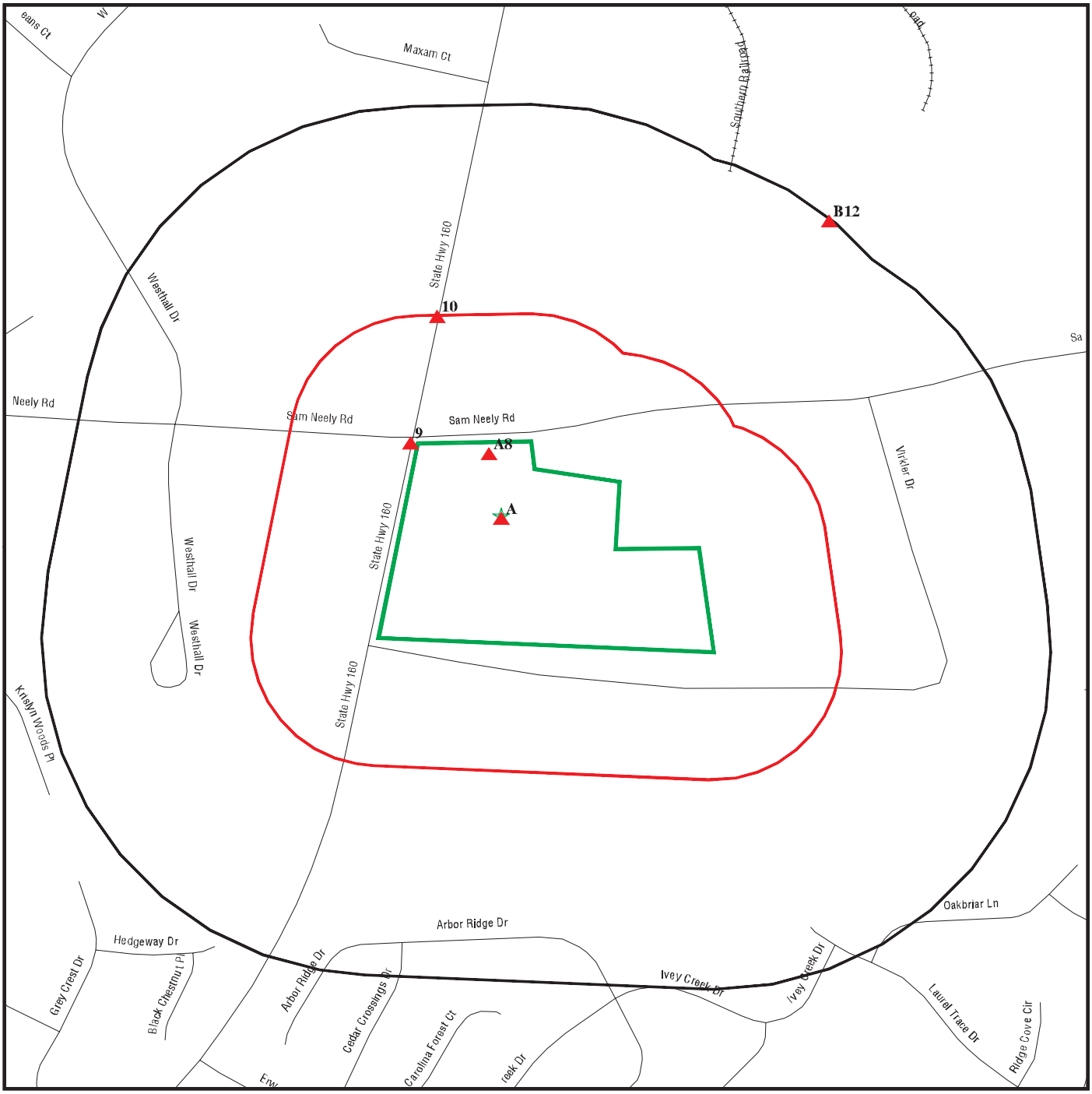
Environmental FirstSearch

0.25 Mile Radius

Non ASTM Map, Spills, FINDS

EDR® Environmental Data Resources Inc

12345 STEELE CREEK ROAD CHARLOTTE, NC 28273



Black Rings Represent Qtr. Mile Radius; Red Ring Represents 500 ft. Radius

- Target Property (Latitude: 35.125 Longitude: 80.9794)
- Identified Sites
- Sensitive Receptors
- National Priority List Sites
- Indian Reservations BIA
- Hazardous Substance Disposal Sites

12345 Steel Creek Rd.
12345 Steel Creek Rd.
CHAROLTTE, NC 28273

Inquiry Number:
June 25, 2013

EDR Site Report™

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

The EDR-Site Report™ is a comprehensive presentation of government filings on a facility identified in a search of federal, state and local environmental databases. The report is divided into three sections:

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

SECTION 1: FACILITY SUMMARY

FACILITY AREA	FACILITY 1 **12345 Steel Creek Rd.** 12345 Steel Creek Rd. CHAROLTTE, NC 28273 EDR ID #2012109427
WASTE MANAGEMENT Facility generates hazardous waste (RCRA)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSDF)	NO
Facility has received Notices of Violations (RCRA/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	NO
Facility has reported leaking underground storage tank incidents (LUST)	NO
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	**YES - p4**
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LF)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	NO
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

WASTE MANAGEMENT

Facility has reported hazardous material incidents to DOT

DATABASE: Hazardous Materials Information Reporting System (HMIRS)

12345 Steel Creek Rd.
12345 Steel Creek Rd.
CHAROLTTE, NC 28273
EDR ID #2012109427

HMIRS:

Report Number:	E-2012020284
Report Source:	Web
Multiple Rows per Incident:	No
Report Type:	A hazardous material incident
Date of Incident:	02/17/2012
Time of Incident:	1105
NRC Number:	Not reported
Fed DOT Agency Name:	Not reported
Fed DOT Report #:	Not reported
Incident City:	CHAROLTTE
Incident County:	MECKL
Incident State:	NC
Incident Zip:	28273
Incident Non-US State:	Not reported
Incident Country:	US
Incident Route:	12345 Steel Creek Rd.
Mode of Transportation:	Highway
Transportation Phase:	UNLOADING
Carrier/Reporter Name:	BRENNTAG SOUTHEAST INC.
Carrier/Reporter Street:	11750 FRUEHAUF DR
Carrier/Reporter City:	CHARLOTTE
Carrier/Reporter State:	NC
Carrier/Reporter Zip:	28273
Carrier/Reporter Non-US State:	Not reported
Carrier/Reporter FED DOT ID:	0
Carrier/Reporter HAZMAT ID:	050911001009T
Carrier/Reporter Country:	US
Shipper Name:	BRENNTAG SOUTHEAST INC.
Shipper Street:	11750 FRUEHAUF DR
Shipper City:	CHARLOTTE
Shipper State:	NC
Shipper Zip:	28273
Shipper Non-US State:	Not reported
Shipper Country:	US
Waybill/Shipping Paper:	Not reported
Shipper HAZMAT Registration ID:	Not reported
Origin City:	CHARLOTTE
Origin State:	NO
Origin Zip:	28273
Origin Non-US State:	Not reported
Origin Country:	US
Destination City:	CHARLOTTE
Destination State:	NO
Destination Postal Code:	28273
Destination Non-US State:	Not reported
Destination Country:	US
Commodity Short Name:	HYDROCHLORIC ACID SOLUT
Commodity Long Name:	HYDROCHLORIC ACID SOLUTION
Technical/Trade Name:	PROTOCOL DECALCIFIER
Identification Number:	UN1789
Hazardous Class Code:	8
Hazardous Class:	CORROSIVE MATERIAL
Packing Group:	II
Quantity Released:	250
Unit of Measure:	LGA
HAZMAT Waste Indicator:	No
HAZMAT Waste EPA ID:	Not reported
HMIS Toxic by Inhalation:	No
TIH Hazard Zone:	Not reported
Material Shipment Approval:	No
Mat. Shipment Approval #:	Not reported
Undeclared HAZMAT Shipment:	No
Packaging Type:	IBC
What Failed Code:	129
What Failed Description:	Inner Receptacle
How Failed Code:	309
How Failed Description:	Punctured
Failure Cause Code:	513
Failure Cause Description:	Forklift Accident

Identification Markings:	31HA
Cont1 Packaging Type:	IBC
Cont1 Material of Construction:	Metal
Cont1 Head Type:	Not reported
Cont1 Package Capacity:	275
Cont1 Package Capacity UOM:	LGA
Cont1 Package Amount:	260
Cont1 Package Amount UOM:	LGA
Cont1 Pkg Number:	24
Cont1 Pkg Shipment # Failed:	1
Cont1 Package Manufacturer:	Not reported
Cont1 Pkg Manufacturer Date:	Not reported
Cont1 Package Serial Number:	Not reported
Cont1 Package Last Test Date:	Not reported
Cont1 Test Material Of Const:	Not reported
Cont1 Pkg Dsign Pressure Rpted:	Not reported
Cont1 Dsign Pressure UOM Rpted:	Not reported
Cont1 Pkg Shell Thickness Rptd:	Not reported
Cont1 Shell Thickness UOM Rptd:	Not reported
Cont1 Head Thickness Reported:	Not reported
Cont1 Head Thickness UOM Rpted:	Not reported
Cont1 Pkg Srvc Pressure Rpted:	Not reported
Cont1 Srvc Pressure UOM Rpted:	Not reported
Cont1 Valve or Device Fail Ind:	No
Cont1 Valve or Device Type:	Not reported
Cont1 Val Device Manufacturer:	Not reported
Cont1 Valve or Device Model:	Not reported
Cont2 Package Type:	IBC
Cont2 Material of Construction:	Plastic
Cont2 Package Capacity:	Not reported
Cont2 Capacity UOM Reported:	Not reported
Cont2 Package Amount:	Not reported
Cont2 Package Amount UOM:	Not reported
Cont2 Pkg Number in Shipment:	Not reported
Cont2 Pkg Shipment # Failed:	Not reported
RAM Package Category:	Not reported
RAM Package Certification:	FALSE
RAM Package Certification #:	Not reported
RAM Nuclide(s) Present:	Not reported
RAM Transport Index:	Not reported
RAM UOM:	Not reported
RAM Activity Rpted:	Not reported
RAM UOM Rpted:	Not reported
RAM Activity:	0
RAM Activity UOM:	Not reported
RAM Material Safety Index:	Not reported
Spillage (Ind:	Yes
Fire Ind:	No
Explosion Ind:	No
Water Sewer Ind:	No
Gas Dispersion Ind:	No
Environmental Damage:	No
No Release Ind:	No
Fire/EMS Report Ind:	No
Fire EMS/EMS Report #:	Not reported
Police Report Ind:	No
Police Report #:	Not reported
In-House Cleanup Ind:	No
Other Cleanup Ind:	Yes
Damage More Than 500:	No
Material Loss:	0
Carrier Damage:	0
Property Damage:	0
Response Cost:	0
Remediation Cleanup Cost:	0
Damage Other (Old Form):	0
Total Amount of Damages:	0
HAZMAT Fatality Indicator:	No
HAZMAT Fatalities Employees:	0
HAZMAT Fatalities Responders:	0
HAZMAT Fatality Gen. Public:	0
Hazmat Fatalities (Old Form):	0
Total Hazmat Fatalities:	Not reported
Non_HAZMAT Fatality Indicator:	No
Non-HAZMAT Fatalities:	0
HAZMAT Injury Indicator:	No
HAZMAT Hospitalized Employees:	0
HAZMAT Hospitalized Responders:	0
HAZMAT Hospitalized Gen Public:	0
HAZMAT Hospitalized (Old Form):	0
Total Hazmat Hosp Injuries:	0
HAZMAT NonHosp Employees:	0
HAZMAT NonHosp Responders:	0
HAZMAT NonHosp Gen. Public:	0
HAZMAT NonHosp (Old Form):	0

SECTION 2: FACILITY DETAIL REPORTS

...Continued...

Total Hazmat NonHosp Injuries:	0
Total Hazmat Injuries:	0
Evacuation Indicator:	No
Public Evacuated:	0
Employees Evacuated:	0
Total Evacuated:	0
Total Evacuation Hours:	0
Major Artery Closed:	No
Major Artery Hours Closed:	0
Material Involved in Accident:	No
Estimated Speed:	0
Weather Conditions:	Not reported
Vehicle Overturn:	No
Vehicle Left Roadway/Track:	No
Passenger Aircraft Indicator:	No
Cargo Passenger Baggage Ind:	Not reported
Incident Occurrence:	Not reported
Shipphase Non-Transported Ind:	No
Shipphase Air First Flight Ind:	No
Shipphase Air SubFlight Ind:	No
Shipphase Init Transport Ind:	No
Shipphase Transfer Indicator:	No
Contact Name:	MR. BRUCE D BIEHL
Contact Title:	DIRECTOR OF REGULATORY AFFAIRS
Contact Business Name:	Not reported
Contact Street:	Not reported
Contact City:	Not reported
Contact State:	Not reported
Contact Postal Code:	Not reported
Contact Non-US State:	Not reported
Contact Country:	Not reported
Preparer of Incident Report:	Carrier
Description of Events:	IBCs being delivered to a staorge warehouse. Storage warehouse employee mishandled IBC and forked a hole in the IBC while on teh trailer in the lower portion of the IBC. Lost most of the product inside the trailer. Response company called by warehouse for response and clean up.
Recommendations/Actions:	Preventive Actions need to be taken by warehouse for improved forklify operations
HMIS Serious Incident Ind:	Yes
HMIS Serious Fatality:	No
HMIS Serious Injury:	No
HMIS Serious Flight Plan:	No
HMIS Serious Evacuations:	No
HMIS Serious Major Artery:	No
HMIS Serious Bulk Release:	Yes
HMIS Serious Marine Pollutant:	No
HMIS Serious Radioactive:	No
HMIS General Package Type:	OHMIR.Ref_Container.descr
HMIS Container Code:	31HA
HMIS Container Description:	Composite with plastic receptacle for liquids and steel outer packaging
HMIS Bulk Incident Indicator:	Yes
Undeclared Shipment:	No

CHARLOTTE
12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273

Inquiry Number:
July 1, 2013

EDR Site Report™

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

The EDR-Site Report™ is a comprehensive presentation of government filings on a facility identified in a search of federal, state and local environmental databases. The report is divided into three sections:

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

SECTION 1: FACILITY SUMMARY

FACILITY AREA	FACILITY 1 **CHARLOTTE** 12345 STEELE CREEK ROAD CHARLOTTE, NC 28273 EDR ID #1001957418
WASTE MANAGEMENT Facility generates hazardous waste (RCRA)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSDF)	NO
Facility has received Notices of Violations (RCRA/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	NO
Facility has reported leaking underground storage tank incidents (LUST)	NO
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LF)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	**YES - p4**
Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	NO
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

MULTIMEDIA

Facility manufactures or imports toxic chemicals on the TSCA list

DATABASE: Toxic Substances Control Act (TSCA)

CHARLOTTE
12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273
EDR ID #1001957418

TSCA:

Company Name:	THE VIRKLER COMPANY
Manuf./Importer Status:	Manufacturer
TSCA Name:	CHARLOTTE
TSCA Address:	12345 STEELE CREEK ROAD CHARLOTTE, NC 28273
Reporting Year:	1998

Chemical Details:

CAS #:	72854-15-0
Preffered CA index name:	Amides, from 2-[(aminoethyl)amino]ethanol and hydrogenated tallow, di-Et sulfate-quaternized
Submitter:	Amides, from 2-[(2-aminoethyl)amino]ethanol and hydrogenated tallow, compds. with diethyl sulfate
Chem. substance definition:	Not reported
Former CAS #:	Not reported
Molecular Formula:	Unspecified
UVCB flag:	UVCB
EPA inventory flag:	Not reported

CAS #:	68155-12-4
Preffered CA index name:	Amides, from 2-[(2-aminoethyl)amino]ethanol and hydrogenated tallow fatty acids
Submitter:	Hydrogenated tallow N-(aminoethyl)ethanolamide; Tallow, fatty acids, hydrogenated, N-(2-aminoethyl)ethanolamide
Chem. substance definition:	Not reported
Former CAS #:	68425-51-4
Molecular Formula:	Unspecified
UVCB flag:	UVCB
EPA inventory flag:	Not reported

CAS #:	142-72-3
Preffered CA index name:	Acetic acid, magnesium salt (2:1)
Submitter:	Not reported
Chem. substance definition:	Not reported
Former CAS #:	873963-51-0
Molecular Formula:	C2H4O2.1/2Mg
UVCB flag:	Not reported
EPA inventory flag:	Not reported

CAS #:	127-09-3
Preffered CA index name:	Acetic acid, sodium salt (1:1)
Submitter:	Not reported
Chem. substance definition:	Not reported
Former CAS #:	325477-99-4; 883902-29-2
Molecular Formula:	C2H4O2.Na
UVCB flag:	Not reported
EPA inventory flag:	Not reported

CAS #:	61791-30-8
Preffered CA index name:	Fatty acids, tall-oil, sesquiesters with polyethylene glycol
Submitter:	Not reported
Chem. substance definition:	Not reported
Former CAS #:	Not reported
Molecular Formula:	((C2H4O)nH2O.Unspecified)x
UVCB flag:	UVCB
EPA inventory flag:	XU

CAS #:	16068-46-5
Preffered CA index name:	Phosphoric acid, potassium salt (1:?)
Submitter:	Not reported
Chem. substance definition:	Not reported
Former CAS #:	Not reported
Molecular Formula:	H3O4P.xK
UVCB flag:	Not reported
EPA inventory flag:	Not reported

Aggregate Production Volume Ranges:

Chemical Name:	Amides, from 2-[(aminoethyl)amino]ethanol and hydrogenated tallow, di-Et sulfate-quaternized

CAS #:	72854150
Range 86:	No Reports
Range 90:	No Reports
Range 94:	10K - 500K
Range 98:	10K - 500K
Range 02:	10K - 500K

Chemical Name:	Amides, from 2-[(2-aminoethyl)amino]ethanol and hydrogenated tallowfatty acids
CAS #:	68155124
Range 86:	10K - 500K
Range 90:	No Reports
Range 94:	10K - 500K
Range 98:	10K - 500K
Range 02:	No Reports

Chemical Name:	Acetic acid, magnesium salt
CAS #:	142723
Range 86:	10K - 500K
Range 90:	>10M - 50M
Range 94:	>1M - 10M
Range 98:	>1M - 10M
Range 02:	10K - 500K

Chemical Name:	Acetic acid, sodium salt
CAS #:	127093
Range 86:	>1M - 10M
Range 90:	>1M - 10M
Range 94:	>1M - 10M
Range 98:	>10M - 50M
Range 02:	>10M - 50M

Chemical Name:	Fatty acids, tall-oil, sesquiesters with polyethylene glycol
CAS #:	61791308
Range 86:	>500K - 1M
Range 90:	10K - 500K
Range 94:	10K - 500K
Range 98:	>500K - 1M
Range 02:	10K - 500K

Chemical Name:	Phosphoric acid, potassium salt
CAS #:	16068465
Range 86:	No Reports
Range 90:	10K - 500K
Range 94:	No Reports
Range 98:	10K - 500K
Range 02:	No Reports

SECTION 3: DATABASES AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

DATABASES FOUND IN THIS REPORT

TSCA: Toxic Substances Control Act
Source: EPA
Telephone: 202-260-5521
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: 12/31/2006
Database Release Frequency: N/A
Date of Last EDR Contact: 06/25/2013
Date of Next Scheduled Update: 10/07/2013

SECTION 3: DATABASES AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

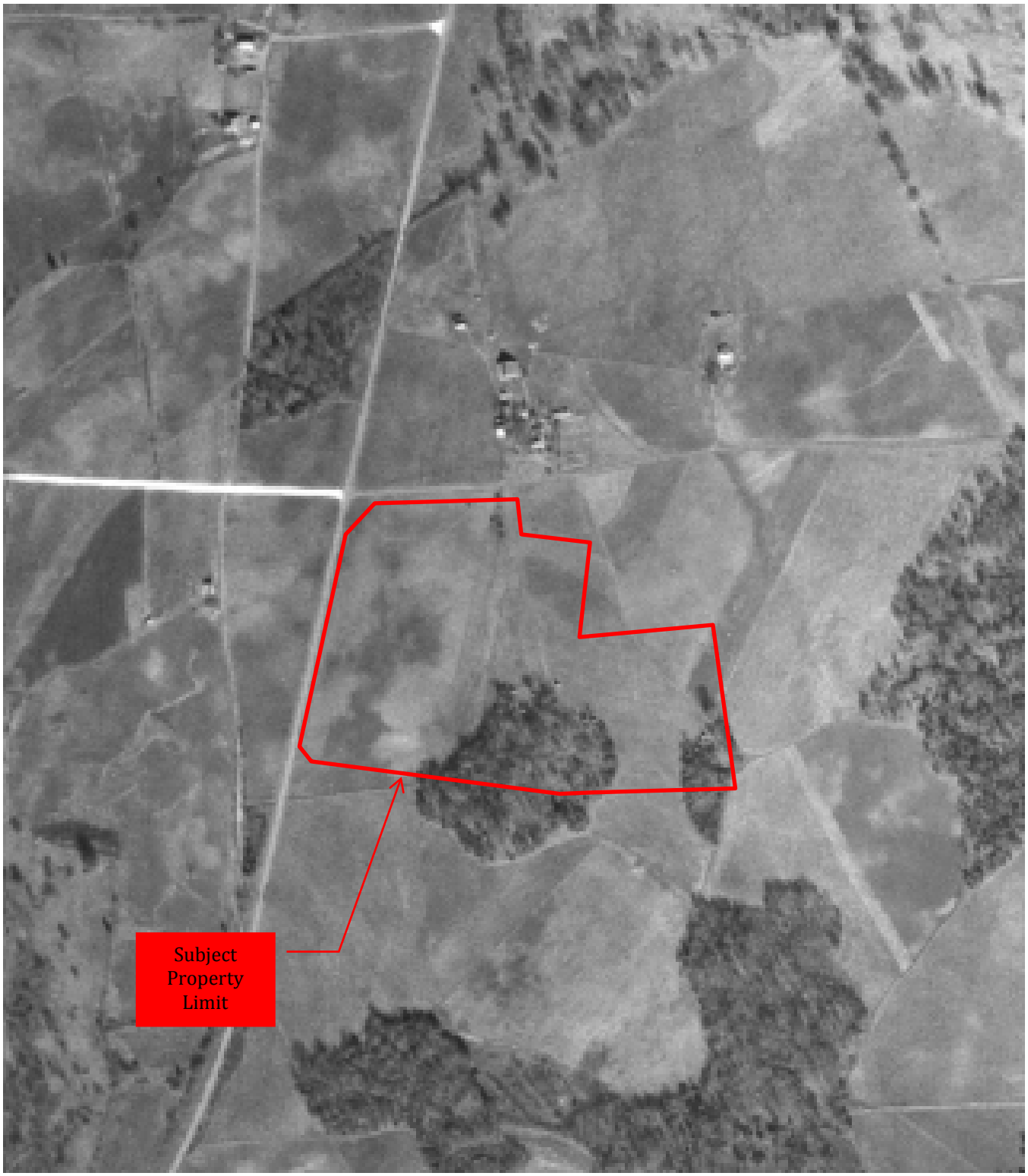
DATABASES FOUND IN THIS REPORT

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2012
Database Release Frequency: Annually
Date of Last EDR Contact: 04/02/2013
Date of Next Scheduled Update: 07/15/2013

APPENDIX C

HISTORICAL SOURCES



AERIAL PHOTOGRAPH

12345 Steele Creek Road, Charlotte, North Carolina 28273

N

Approximate Property Boundary

Year: 1938

Project Number: 320548

AEI Consultants

AERIAL PHOTOGRAPH

12345 Steele Creek Road, Charlotte, North Carolina 28273

N

Approximate Property Boundary

Year: 1951

Project Number: 320548

AEI Consultants

AERIAL PHOTOGRAPH

12345 Steele Creek Road, Charlotte, North Carolina 28273

N

Approximate Property Boundary

Year: 1965

Project Number: 320548

AEI Consultants

AERIAL PHOTOGRAPH

12345 Steele Creek Road, Charlotte, North Carolina 28273

N

Approximate Property Boundary

Year: 1973

Project Number: 320548

AEI Consultants

AERIAL PHOTOGRAPH

12345 Steele Creek Road, Charlotte, North Carolina 28273

N

Approximate Property Boundary

Year: 1983

Project Number: 320548

AEI Consultants

AERIAL PHOTOGRAPH

12345 Steele Creek Road, Charlotte, North Carolina 28273

N

Approximate Property Boundary

Year: 1993

Project Number:320548

AEI Consultants

AERIAL PHOTOGRAPH

12345 Steele Creek Road, Charlotte, North Carolina 28273

N

Approximate Property Boundary

Year: 2006

Project Number: 320548

AEI Consultants

AERIAL PHOTOGRAPH

12345 Steele Creek Road, Charlotte, North Carolina 28273

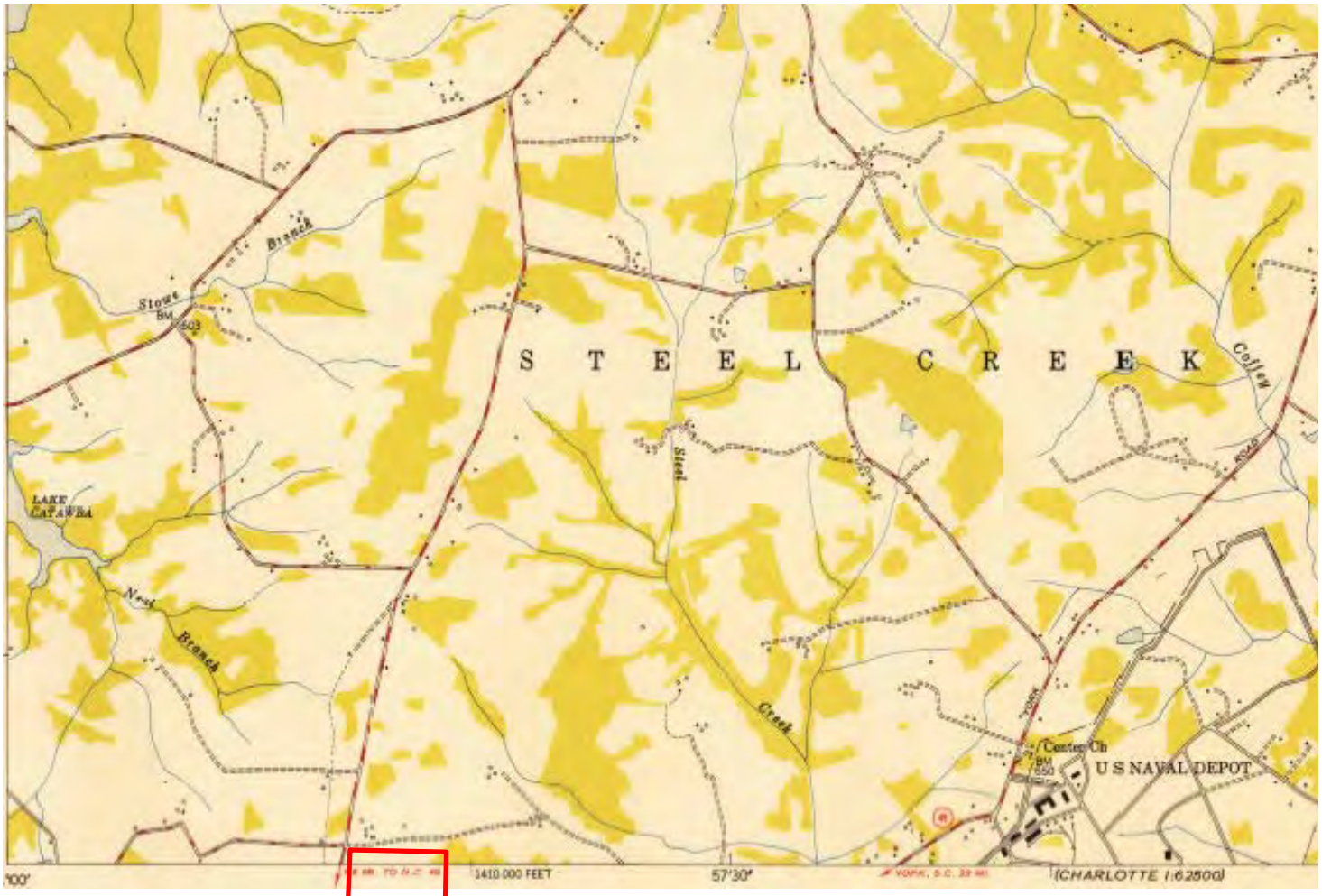
N

Approximate Property Boundary

Year: 2012

Project Number: 320548

AEI Consultants



Subject Property

Note that the subject property spans two USGS quadrangles; however, the lower quadrangle (Fort Mill, SC) was not available on the USGS online store for any period near the historical mapping available for the upper (Charlotte West, NC) quadrangle.

Historic Topographic Map - 1949

12345 Steele Creek Road, Charlotte, North Carolina 28273

N

Source: USGS Charlotte WEST, NC Quadrangle, 1949

Appendix C2

Project Number: 320548

AEI Consultants

320548
12345 Steele Creek Road
Charlotte, NC 28273

Inquiry Number: 3633136.3
June 11, 2013

FirstSearch Fire Insurance Map Abstract Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

FIRE INSURANCE MAP ABSTRACT RESEARCH RESULTS

6/11/13

Site Name:
320548
12345 Steele Creek Road
Charlotte, NC 28273

Client Name:
AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94597

EDR Inquiry # 3633136.3

Contact: Susy

Selected volumes from the Sanborn Library collection have been searched by EDR, and fire insurance maps covering the target property location provided by AEI Consultants were identified for the years listed below.

Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Search Results

Site Name: 320548
Address: 12345 Steele Creek Road
City, State, Zip: Charlotte, NC 28273
Cross Street:
P.O. # 38585
Project: 320548

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.

The complete Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns.

Collections Searched in this report:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

Limited License Terms

AEI Consultants (the client) is permitted to use this Sanborn Map transmittal and each fire insurance map accompanying this report solely for its internal use and the client is not licenced to reproduce this report for redistribution.

APPENDIX D

REGULATORY AGENCY RECORDS

http://oaspub.epa.gov/enviro/multisys2_v2.get_list?facility_uin=110000349702

EPA United States Environmental Protection Agency

Envirofacts

Search Results

CHEMICAL TECHNOLOGIES LLC
12345 STEELE CREEK ROAD
CHARLOTTE, NC 28273-3738

You can navigate within the map with your mouse.

EPA Facility Information

This query was executed on JUN-18-2013

Multisystem Links

- EF Overview
- Search
- Model
- Contact Us

Report an Error

AFS Information

Operating Status:	O	**HPV Flag:**	
Operating Status Description:	OPERATING	**State Registration Number:**	
State County Compliance Source:	3711900213	**Government Facility Code Description:**	PRIVATELY OWNED/OPERATED
Region Code:	04	**Class Code:**	B
Primary SIC Code:	2841	**Class Code Description:**	POTENTIAL UNCONTROLLED EM
Primary SIC Description:	SOAP AND OTHER DETERGENTS	**Compliance Status:**	C
NAICS Code:	325199	**Compliance Status Description:**	IN COMPLIANCE WITH PROCED
NAICS Code Description:	All Other Basic Organic Chemical Manufacturing	**Date Plant Information Last Updated:**	07/20/2012

Air Program Information

Air Program Code	Air Program Description	Air Program Status	Air Program Status Description	Air Program Subpart	Air Program Subpart Description	Class Code	Class Code Description	Compliance Status	Compliance Status Description
0	SIP	O	OPERATING	DC		B	POTENTIAL UNCONTROLLED EM	C	IN COMPLIANCE WITH PROCED
9	NSPS	O	OPERATING	DC	SMALL INDUS-COMMER-INSTITUTL STEAM GENER	B	POTENTIAL UNCONTROLLED EM	3	IN COMPLIANCE - INSPECTIO

Pollutant Data

Air Program Code	Pollutant Code / CAS Number	Pollutant / CAS Description	Attain Indicator	Attain Indicator Description	Pollutant Compliance Status	ES Pollutant Compliance Description	Pollutant Class Code	Pollutant Class Description
0	FACIL	FACILITY-WIDE PERMIT REQUIREMENTS	A	ATTAINMENT AREA FOR A GIV	C	IN COMPLIANCE WITH PROCED		
0	VOC	VOLATILE ORGANIC COMPOUNDS	N	NON-ATTAINMENT FOR PRIMAR	3	IN COMPLIANCE - INSPECTIO	B	POTENTIAL UNCONTROLLED

Air Program Code	Pollutant Code / CAS Number	Pollutant / CAS Description	Attain Indicator	Attain Indicator Description	Pollutant Compliance Status	ES Pollutant Compliance Description	Pollutant Class Code	Pollutant Class Description
								EM
9	CO	CARBON MONOXIDE	A	ATTAINMENT AREA FOR A GIV	3	IN COMPLIANCE - INSPECTIO	B	POTENTIAL UNCONTROLLED EM
9	PT	TOTAL PARTICULATE MATTER	A	ATTAINMENT AREA FOR A GIV	3	IN COMPLIANCE - INSPECTIO	B	POTENTIAL UNCONTROLLED EM
9	SO2	SULFUR DIOXIDE	A	ATTAINMENT AREA FOR A GIV	3	IN COMPLIANCE - INSPECTIO	B	POTENTIAL UNCONTROLLED EM
9	VOC	VOLATILE ORGANIC COMPOUNDS	N	NON-ATTAINMENT FOR PRIMAR	3	IN COMPLIANCE - INSPECTIO	B	POTENTIAL UNCONTROLLED EM

Compliance Monitoring System Plan

CMS Start Date	FY2008 CMS Indicator	FY2008 CMS Indicator Description	FY2009 CMS Indicator	FY2009 CMS Indicator Description

Plant Actions

Action Number	Key Action Numbers	Air Program Codes	National Action Type	National Action Description	Action Type	Action Description	Date Achieved	Penalty Amount	Results Code	Results Code Description	Pollutant Code	Regional Data Element	Regional Data Element 16
90000		0			00	RO ACTION START	27-OCT-02						
00007		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	22-MAR-07		MC	IN COMPLIANCE	FACIL		
00007		9	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	22-MAR-07		MC	IN COMPLIANCE	FACIL		
00006		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	17-NOV-05		MC	IN COMPLIANCE	FACIL		
00006		9	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	17-NOV-05		MC	IN COMPLIANCE	FACIL		
00005		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	15-NOV-00		21	COMPLIANCE			
00005		9	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	15-NOV-00		21	COMPLIANCE			
00004		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	08-OCT-99		21	COMPLIANCE			

Action Number	Key Action Numbers	Air Program Codes	National Action Type	National Action Description	Action Type	Action Description	Date Achieved	Penalty Amount	Results Code	Results Code Description	Pollutant Code	Regional Data Element	Regional Data Element 16
00004		9	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	08-OCT-99		21	COMPLIANCE			
00003		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	27-FEB-96		01	ACTION ACHIEVED			
00003		9	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	27-FEB-96		01	ACTION ACHIEVED			
00002		0			Z8	STATE CIVIL PENALTY COLLECTED	16-AUG-95	$5125	01	ACTION ACHIEVED			
00001		0	7C	STATE/LOCAL NOV ISSUED	56	STATE NOTICE OF VIOLATION	12-JUN-95	$10000	01	ACTION ACHIEVED			

Additional Information can be obtained from Air Facility System AFS Search.

Toxic Releases for Reporting Year 2004

TRI Facility Id28273THVRK12345

SIC Codes for 2004

SIC CODE	SIC CODE DESCRIPTION
2843	SURFACE ACTIVE AGENTS, FINISHING AGENTS, SULFONATED OILS, AND ASSISTANTS
2841	SOAP AND OTHER DETERGENTS, EXCEPT SPECIALTY CLEANERS
2842	SPECIALTY CLEANING, POLISHING, AND SANITATION PREPARATIONS
2869	INDUSTRIAL ORGANIC CHEMICALS, NOT ELSEWHERE CLASSIFIED

Chemicals Released to Air

Chemical Name	TRI Chemical Id	Document Control Number	Total Release	Release Basis Est Code	Environmental Medium
ACRYLIC ACID	000079107	1304202266019	250		FUGITIVE OR NON-POINT EMISSIONS
DIETHANOLAMINE	000111422	1304202265993	250		FUGITIVE OR NON-POINT EMISSIONS
ETHYLENE GLYCOL	000107211	1304202266007	250		FUGITIVE OR NON-POINT EMISSIONS
N,N-DIMETHYLFORMAMIDE	000068122	1304202265981	250		FUGITIVE OR NON-POINT EMISSIONS
N,N-DIMETHYLFORMAMIDE	000068122	1304202265981	250		STACK OR POINT EMISSIONS

Chemicals Transferred to other Sites

There was no data of this type reported for this facility.

Chemicals Released via Underground Injection

There was no data of this type reported for this facility.

Chemicals Released to Land

There was no data of this type reported for this facility.

Chemicals Released to Surface Water

There was no data of this type reported for this facility.

Additional Information can be obtained from the Toxics Release Inventory TRI Search.

Additional links for TRI:

This information resource is not maintained, managed, or owned by the Environmental Protection Agency (EPA) or the Envirofacts Support Team. Neither the EPA nor the Envirofacts Support Team is responsible for their content or site operation. The Envirofacts Warehouse provides this reference only as a convenience to our Internet users.

- National Library of Medicine (NLM) TOXMAP EXIT Disclaimer .
- The Environmental Defense Fund's (EDF) Chemical Scorecard has on-line environmental information regarding this facility's EXIT Disclaimer reported TRI releases.

TSCA

No Chemical Information is available for this facility.
Additional Information can be obtained from Toxic Substances Control Act TSCA Search.

TSCA

No Chemical Information is available for this facility.
Additional Information can be obtained from Toxic Substances Control Act TSCA Search.

Last updated on Tuesday, June 18, 2013

http://oaspub.epa.gov/enviro/multisys2_v2.get_list?facility_uin=110009841868

Envirofacts

Search Results

SNL CORPORATION
13300 SAM NEELY ROAD
CHARLOTTE, NC 28217

You can navigate within the map with your mouse.

EPA Facility Information

This query was executed on JUN-18-2013

Multisystem Links

- EF Overview
- Search
- Model
- Contact Us

Report an Error

Water Discharge Permit Information (PCS)

Facility

FACILITY NAME (1)	SNL Corporation Aqua Air Site	NPDES	NC0086673
FACILITY NAME (2)			
STREET 1	13300 Sam Neely Rd	SIC CODE	9999 = NONCLASSIFIABLE ESTABLISHMENTS
CITY	CHARLOTTE METRO AREA	MAJOR / MINOR	
COUNTY NAME	MECKLENBURG	TYPE OF OWNERSHIP	PRI = PRIVATE
STATE	NC	INDUSTRY CLASS	X
ZIP CODE	28217	ACTIVITY STATUS	A = Active
REGION	04	INACTIVE DATE	
LATITUDE	+3507430		
LONGITUDE	-08058090	TYPE OF PERMIT ISSUED	S = STATE
LAT/LON CODE OF ACCURACY	4 = NEAREST 30 SECONDS	PERMIT ISSUED DATE	18-FEB-2010
LAT/LON METHOD		PERMIT EXPIRED DATE	31-JAN-2015
LAT/LON SCALE		ORIGINAL PERMIT ISSUE DATE	20-DEC-1999
LAT/LON DATUM			
LAT/LON DESCRIPTION			
USGS HYDRO BASIN CODE		STREAM SEGMENT	
FLOW	.086	MILEAGE IND	
RECEIVING STREAM CLASS CODE		FEDERAL_GRANT_IND	
RECEIVING WATERS	Steele Creek	FINAL LIMITS IND	F = FINAL
PRETREATMENT CODE			
SLUDGE INDICATOR		SLUDGE CLASS FAC IND	
SLUDGE RELATED PERMIT NUM		ANNUAL DRY SLUDGE PROD	
MAILING NAME	Aqua-Air Site		
MAILING STREET (1)	PO Box 11698	MAILING STREET (2)	
MAILING CITY	Charlotte	MAILING STATE	NC
MAILING ZIP CODE	28220		

SLUDGE COMMERCIAL HANDLER			
SLUDGE HANDLER STREET (1)		SLUDGE HANDLER STREET (2)	
SLUDGE HANDLER CITY		SLUDGE HANDLER STATE	
SLUDGE HANDLER ZIP CODE			
COGNIZANT OFFICIAL	Marshall Gilchrist	COGNIZANT OFFICIAL TEL	704-523-2889

This facility has permits to discharge the following chemical/substances through the points (pipes) listed in the table below:

PARAMETER CODE	PARAMETER DESCRIPTION	NUMBER OF DISCHARGE POINTS
TGP3B	P/F STATRE 7DAY CHR CERIODAPHNIA	1
00530	SOLIDS, TOTAL SUSPENDED	1
32102	CARBON TETRACHLORIDE	1
78389	TETRACHLOROETHENE	1
50050	FLOW, IN CONDUIT OR THRU TREATMENT PLANT	1

Additional Information can be obtained from Water Discharge Permit Information PCS Search.

RCRAInfo

HANDLER ID:NCD074511361

No NAICS Codes are available for the facility listed above.

HANDLER / FACILITY CLASSIFICATION

HANDLER TYPE	LAND DISPOSAL	INCINERATOR	BOILER AND OR INDUSTRIAL FURNACE	STORAGE	TREATMENT

HANDLER TYPE
Not in a universe

LIST OF PROCESS UNIT INFORMATION FOR GROUP 01

PROCESS CODE / DESCRIPTION	LEGAL OPERATING STATUS	UNIT OF MEASUREMENT TYPE / DESCRIPTION	CAPACITY TYPE / DESCRIPTION	QUANTITY	CAPACITY	EFFECTIVE DATE
S01 - CONTAINER	NEVER REGULATED AS A TSD - PROTECTIVE FILER	G - GALLONS	-	1	500	29-NOV-82

LIST OF PROCESS UNIT INFORMATION FOR GROUP 02

PROCESS CODE / DESCRIPTION	LEGAL OPERATING STATUS	UNIT OF MEASUREMENT TYPE / DESCRIPTION	CAPACITY TYPE / DESCRIPTION	QUANTITY	CAPACITY	EFFECTIVE DATE
S02 - TANK STORAGE	NEVER REGULATED AS A TSD - PROTECTIVE FILER	G - GALLONS	-	1	3000	29-NOV-82

Additional Information can be obtained from Resource Conservation and Recovery Information RCRAInfo Search.

State of North Carolina
Department of Natural Resources and Community Development
Mooresville Regional Office

James G. Martin, Governor
William W. Cobey, Jr., Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT
February 24, 1989

Mr. Howard Virkler
Virkler Company
1022 Pressley Road
Charlotte, North Carolina 28217

RE: Steele Creek and Sam Neely Road
Property, Incident #3807
Mecklenburg County, N.C.

Dear Mr. Virkler:

The Groundwater Section of the Mooresville Regional Office has reviewed the reports by Law Engineering, September 8, 1988, and Westinghouse Environmental Services, November 30, 1988, and the groundwater analyses by the Department of Natural Resources and Community Development, October 4, 1988. Our findings at this time show no reason to continue the investigation of the portion of the Steele Creek - Sam Neely Road Property as outlined on the attached document.

This office thanks you for all your cooperation during this investigation, and if you have any further questions, please contact this office at (704) 663-1699.

Sincerely,

Eric J. Klingel, Ph.D., C.P.G.
Hydrogeological Regional Supervisor

EJK/bb

919 North Main Street, P.O. Box 950, Mooresville, N.C. 28115-0950 • Telephone 704-663-1699

Priester
&
Associates

1345 Garner Lane, Suite 105
Jamestown Square Office Park
Columbia, SC 29210
Telephone (803) 798-4377
FAX (803) 798-4378

February 11, 1994

Ms. Chris DeRoller
N. C. Department of Environment, Health,
and Natural Resources
Division of Environmental Management
919 North Main Street
Mooresville, N. C. 28115

Re: Steele Creek Associates Property
Charlotte, N. C. Mecklenburg County

Dear Ms. DeRoller:

As you may recall, your office in July of 1990, made a judgement that all the wells on the Steele Creek Property must be resampled and analyzed by EPA method 601 and 602, instead of method 624. Starting in November of 1992, Cooper Environmental sampled Monitoring Wells 1-4 and all levels were below detectable limits. Following in August of 1993, Priester and Associates sampled Monitoring Wells 1-4 and found all levels below detectable limits. Again, in January of 1994, Priester and Associates sampled, and found all levels below detectable limits. All sampling was accomplished following the appropriate EPA sampling protocol.

Per our discussion on February 11, 1994, enclosed you will find three sets of sampling results for the Steele Creek Associates Property in Mecklenburg County. The three sampling results are from November 25, 1992, August 25, 1993, and January 28, 1994. The analysis show levels of contaminants in the groundwater below the detectable limit using EPA method 601 and 602. At this time, we ask that you consider taking this site off the Groundwater Incidents List, and allow for the abandonment of the monitoring wells according to NCDEM guidelines.

If you have any questions regarding this site please call me at (803) 798-4377.

Sincerely,

L.E. Priester, Jr.

L.E. Priester, Jr., Ph.D.

Enclosure

State of North Carolina
Department of Environment,
Health and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
Vivian H. Burke, Regional Manager

DEHNR

DIVISION OF ENVIRONMENTAL MANAGEMENT

March 9, 1994

Mr. L. E. Priester, Jr.
Priester and Associates
1345 Garner Lane
Suite 105
Jamestown Square Office Park
Columbia, South Carolina 29210

RE: Site Closure
Steele Creek Associates Property
Incident № 3807
Mecklenburg County, N.C.

Dear Mr. Priester:

I have reviewed the results submitted on March 8, 1994 of the last three groundwater sampling events for the subject site. Based on these results, no further action is required at the subject site at this time.

I have enclosed well abandonment forms for your use. If you have any questions concerning proper abandonment procedures please contact Rob Krebs at (704) 663-1699, ext. 242.

Sincerely,

Chris DeRoller
Hydrogeologist

Enclosure: Well Abandonment Forms

cc: Fay Sweat

CMD/sc

Process Innovation

FILE COPY

Process Innovation,LLC

May 26, 2011

Inactive Hazardous Sites Branch Head
Superfund Section
NC Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605

Re: Inactive Hazardous Sites Branch Notification Forms
The Virkler Company
c/o Virkler Realty, LLC
12345 Steele Creek Road
Charlotte, NC 28273

Dear Sir or Madam:

Pursuant to 130A-310.1 of the North Carolina General Statutes for the Inactive Hazardous Sites Response Act, Virkler Realty, LLC is providing notification of inactive hazardous substances at the Virkler Company (Site), located at 12345 Steele Creek Road, Charlotte, NC. This letter is in accompaniment to the two (2) attached IHSB reporting forms for the Site. The Site consists of an approximately 19-acre parcel of land in an industrial setting approximately 7 miles southwest of the downtown of Charlotte, NC with facilities constructed in 1990. The total facility has a building area of 175,000 square feet. In the past, the facility has handled chemical compounds for blending for products used in the paper, textile, and asphalt-paving industries.

The first attached reporting form is for the detection of Tetrachloroethene (PCE) in groundwater above the NC 2L Drinking Water Standard in February 2006 and April 2011. The second reporting form is for the detection of Polycyclic Aromatic Hydrocarbon compounds (PAHs) in sediment from the Site's stormwater retention pond. The following provides a brief description of the two notifications.

Groundwater PCE Reporting Notification
Available documents from the WPC Preliminary Site Investigation Report, dated February 2006, the Arcadis Phase I Environmental Site Assessment (ESA), dated February 11, 2011, and the draft Phase II ESA (April 2011) are included as attachments. The attached February 2006 WPC report also indicated offsite sources as the cause of the groundwater contamination and PCE concentrations in groundwater below 5 ppb. In April 2011, Arcadis confirmed the reported PCE detections reported by WPC. The reported concentrations by Arcadis in 2011 are less than 5 ppb and are consistent with concentrations reported by WPC in 2006.

The Site was previously the western portion of the former "Burroughs Property." The Burroughs Property had a previous incident reported to NCDENR in 1988 (UST Incident #3807) and was subject to a letter dated 2/24/89 by NCDENR stating that based on their findings at that time, there was no reason to continue the investigation of the western portion of the Burroughs property (i.e. the Site). After receiving this letter it appears Virkler Realty, LLC purchased the Site and the existing facilities were constructed. The 2/24/89 letter was issued by NCDENR based on results for groundwater monitoring data

2345 Steele Creek Rd
Charlotte, NC 28273
United States of America

704-588-1589
704-588-6820

for 7 monitoring wells located on the western portion of the Burroughs property as reported by Westinghouse Environmental Services in a report dated 11/30/88. The analytical results were reported using detection limits of 5 parts-per-billion (ppb), which is above the NC 2L Groundwater Standard for PCE and also higher than the reported concentrations of PCE in groundwater at the Site by WPC in 2006 and Arcadis in 2011.

The 1988 Law Environmental Reports associated with Incident #3807 indicated that a dirt road was located on the eastern section of the Burroughs Property and along this dirt road (which is still present today on aerial maps) a number of items with "potential environmental significance" were found, including an empty 55-gal drum, 10' x 15' vegetation scar and sawdust. The Law Reports indicated that groundwater contamination was possibly associated with offsite sources. Based on groundwater monitoring results using detection limits of 1 ppb, NCDENR issued a closure letter for the Burroughs Property Incident #3807 on 3/9/94.

Sediment PAH Reporting Notification

On or around April 8, 2011, Arcadis collected sediment and water samples from the Site's stormwater retention pond. The sediment samples indicated the presence of a number of PAHs above the EPA Region 4 Sediment Screening Values for Hazardous Waste Sites, November 2006. These included: benzo(a)anthracene, benzo(a)pyrene, chrysene, fluoranthene, phenanthrene, and pyrene. The water sample did not indicate the presence of any compounds above NC Surface Water Standards, August 2007. The results were reported in the draft Arcadis Phase II ESA, dated April 2011, which is attached to this report. A Material Safety Data Sheet (MSDS) for a spill for an asphalt additive release (Corsamul 4100) that potentially could have entered the retention pond on or around April 8, 2011, is also attached, which does not contain any of the constituents detected in the sediment samples. The asphalt additive is comprised of Tall-Oil Maleated Amidoamines (TMOA), which are related to fatty acids. TMOAs are not listed as hazardous substances defined by CERCLA, SARA Title III, SARA 313, the Clean Water Act or the Clean Air Act, as indicated in the MSDS. Stormwater runoff from impervious surfaces onsite and upgradient offsite activities are suspected as the source(s) of the low levels of PAHs in the sediment. No known sources have been identified.

Closing

Virkler Realty, LLC, is submitting the attached IHSB reporting forms in compliance with 130A-310.1 of the North Carolina General Statutes for the Inactive Hazardous Sites Response Act. If you have any questions, please contact Ivan Cooper with Golder Associates NC, Inc. at 704-790-1400 or Howard Virkler at 704-587-3934.

Sincerely,

Howard Virkler
Manager
Virkler Realty, LLC

Attachments:

State of NC / Mecklenburg County
Notary: Carolyn J. McCowen
exp: Oct. 12, 2013
5/26/11

1) Groundwater PCE IHSB Notification Form with associated documents
2) Sediment PAH IHSB Notification Form with associated documents

C: Ivan Cooper, Golder Associates NC, Inc., 3440 Toringdon Way, Suite 205, Charlotte, NC 28277.
Brian Eichlin, Golder Associates NC, Inc., 5B Oak Branch Drive, Greensboro, NC 27407.

North Carolina Department of Environment and Natural Resources
Division of Waste Management
Superfund Section
Inactive Hazardous Sites Branch

NCDENR

NOTIFICATION OF AN INACTIVE HAZARDOUS SUBSTANCE OR WASTE DISPOSAL SITE

FILE COPY

Please read instructions before completing and type or print in black ink.

I. SITE NAME AND LOCATION:

Site Name (one site per form) The Virkler Company
Location (street address) 12345 Steele Creek Road
City Charlotte US EPA ID# (if known) n/a
County Mecklenburg
Directions to Site From Raleigh, take I-40W to I-85S toward US-421/High Point/Charlotte. Take the I-485S exit 30A toward I-77S/Columbia. Merge onto I-485S via the exit on the left toward US-29/US-74/Wilkinson Blvd. Take the NC-160 Exit 4 toward Ft. Mill. Turn right onto Steele Creek Road/NC-160. Site is 12345 Steele Creek road on the left.

Attach a USGS topographic map or map of equal or reasonably similar scale (1 inch = 2000 ft.) showing the location and vicinity of the site or facility. Label map with the site name.

II. PERSON COMPLETING FORM:

Name Howard Virkler
Mailing Address 12345 Steele Creek Road
City Charlotte State NC Zip Code 28373
Telephone (704) 587-3934

Present Owner X
Past Owner ___
Present Operator ___
Past Operator ___
Other ___
(*specify*) ___

III. PRESENT OWNER:

Individual Owner or Company Name
Virkler Realty, LLC
Executive Officer Howard Virkler
Mailing Address 12345 Steele Creek Road
City Charlotte State NC Zip Code 28273
Telephone (704) 587-3934

Corporation X
Partnership ___
Individual ___
Government Unit ___
Other ___
(*specify*) ___

IV. CURRENT SITE USE:

Check the item or items which describe the current use of the site.

Residential	___	Forest Land	___	Retirement Home	___
Business	___	Farm Land	___	Other	___
Industrial	X	School/Day Care	___	*(specify)* _____	
Pasture Land	___	Hospital	___	_____	

V. ON-SITE RESIDENTS:

Are there any on-site residents? ___ Yes X No
Number of children (< 6 years old) living on site _____ Number of adults _____

VI. SURROUNDING PROPERTY USE:

Check the appropriate description of the area surrounding the site. (*More than one may apply.*)

Residential	___	Forest Land	___	Retirement Home	___
Business	X	Farm Land	___	Other	___
Industrial	X	School/Day Care	___	*(Specify)* _____	
Pasture Land	___	Hospital	___	_____	

VII. Site Operations (*More than one may apply.*):

	Current	Previous
1. Mining	___	___
2. Paper and wood production	___	___
3. Textiles	___	___
4. Fertilizer	___	___
5. Printing/painting	___	___
6. Leather tanning	___	___
7. Iron/steel foundry	___	___
8. Chemical, general	X	X
9. Plating/polishing	___	___
10. Military/ammunition	___	___
11. Firing range	___	___
12. Rubber/plastics	___	___
13. Utility companies/transformers	___	___
14. Sanitary/refuse	___	___
15. Photo finishing	___	___
16. Lab/hospital	___	___
17. Wood treating	___	___
18. Battery reclamation	___	___
19. Pesticides formulation, packaging and/or distribution	___	___
20. Herbicide formulation, packaging and/or distribution	___	___
21. Other agrichemical formulation, packaging and/or distribution	___	___
22. Dry cleaning	___	___
23. Petrochemical processing or refining	___	___
24. Furniture manufacturing or finishing	___	___
25. Drum reconditioning	___	___
26. Unknown	___	___
27. Other (*specify*) _____	___	___

VIII. ENVIRONMENTAL PERMITS:

List all previous and current environmental permits below.

Type of Permit (*e.g. landfill, nondischarge, etc.*)	Past Present (*circle one*)	Permit Number	Date Issued	Issuing Agency
air permit	Past Present	96-106-213	unknown	Mecklenburg Co. Air
air permit	Past Present	96-107-213	unknown	Control (MAPCO)
air permit	Past Present	96-109-213	unknown	"
air permit	Past Present	91-163-213	unknown	"
	Past Present			
	Past Present			
	Past Present			

IX. KNOWN OR SUSPECTED RELEASES OF HAZARDOUS SUBSTANCES OR WASTE TO THE ENVIRONMENT:

List all on-site spills, disposals and other releases of hazardous substances or materials containing hazardous substances.

Material/ Chemical Released (*Known and suspected*)	Physical State of Material (*Use codes below*)	Approx. Volume Released	Date of Release	Suspected Contaminants (*Use codes below*)	Source of Release (*e.g. tank, buried drums, landfill, product spill, etc.*)	Known or Suspected Contamination: Ground water	Surface Water	Sediment	Soil
						<*Enter "K" if Known and "S" if Suspected*>			
unknown	L		~ 4/8/11	O	suspected stormwater runoff from site operations.			K	

Physical State Codes

G - Containerized Gas
L - Liquid
S - Solid/Powder
Sl - Sludge

Codes for Suspected Contaminants

A - Acids
Ab - Asbestos
Am - Ammonia
B - Bases
C - Cyanide
D - Dioxins
M - Metals
Mu - Mixed Municipal Waste
O - Organic Chemicals
P - PCBs
Pe - Petroleum Products
Ps - Pesticides
W - Waste Oil

X. TOTAL AREA OF ALL DISPOSALS, SPILLS, OR RELEASES OF HAZARDOUS SUBSTANCES OR WASTE:

X less than 1 acre
___ 1 acre or more, but less than 5 acres
___ 5 acres or more, but less than 10 acres
___ 10 acres or more
___ Unknown

XI. AVAILABILITY OF ENVIRONMENTAL ANALYTICAL DATA:

Do any environmental reports or laboratory analytical data exist for the site? X Yes ___ No
If yes, attach reports or data to this form.

XII. IDENTIFY WHETHER ANY OF THE FOLLOWING ARE PRESENT OR WERE PRESENT IN THE PAST AT THE SITE (*More than one may apply.*):

X(past)	Debris pile(s)	X(current)	Tank(s) above ground	x(current)	Spill(s)
___	Land treatment of sludges	___	Septic tank(s)	___	Wastewater lagoon(s)
___	Landfill(s) or buried waste	___	Surface impoundment(s)	___	Drum(s)
___	Tank(s) underground	___	Underground injection of waste		

___ Other (*specify*) _____

XIII. ACCESSIBILITY OF SITE (*More than one may apply.*):

___ 24-hour security guard
___ Security guard < 24-hour/day
___ Physical barrier (steep bank, creek, walls, etc.)
Describe physical barriers _____

___ Site completely surrounded by fence
X Site partially surrounded by fence
X Locked gate
___ Unlocked gate
___ No control of access to site
___ Other (*specify*) _____

XIV. WATER SUPPLY SOURCES:

Identify whether the following are present on site or on adjacent property.

	Present on site		Present on Adjacent Property	
	Yes	No	Yes	No
Spring	___	X	___	X
Well	___	X	___	X
Surface Water Intake	___	X	___	X

XV. SITE SURFACE WATER:

Indicate whether any surface water bodies (e.g. streams and lakes) exist on the site or the property adjacent to the site.

Stormwater drainage located on southeastern portion of property with stormwater retention pond.

XVI. CERTIFICATION AND SIGNATURE:

I certify that to the best of my knowledge and belief, the information supplied on this form is complete and accurate.

Signature _____ Date 5/27/11

Name and Title (*Type or print*) HOWARD R. VIRKLER

Mailing Address 12345 STARK PARK RD
CHARLOTTE, NC 28273

NC STATE

Mecklenburg COUNTY

I, Todd Bennett, a Notary Public for said County and State, do hereby certify that Howard Virkler personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

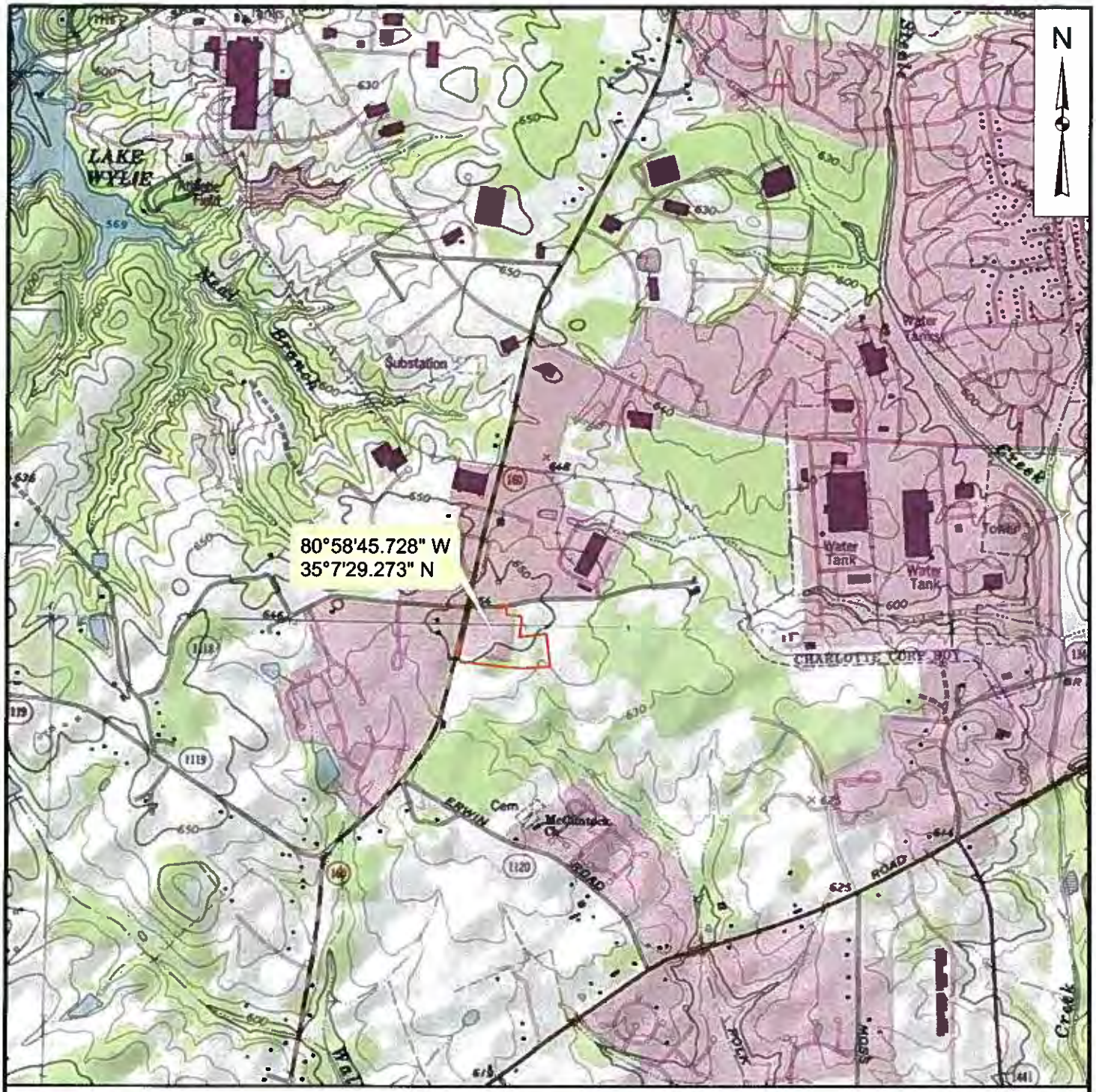
Witness my hand and official seal, this the 27 day of May, 2011.

(*Official Seal*)

TODD BENNETT
Notary Public
Mecklenburg County, NC
My Commission Expires August 19, 2012

_____
Notary Public

My commission expires Aug. 19, 2012.



LEGEND

Virkler Property

0 1,000 2,000 4,000 Feet

SCALE 1:24,000

REFERENCES

Projection: NAD 1983 StatePlane North Carolina FIPS 3200 Feet

USGS 7.5 Minute Quadrangles:
* - Charlotte West (1993)
* - Fort Mill (1993)

PROJECT/REPORT	Virkler Company 12345 Steele Creek Road Charlotte, NC 28273
TITLE	**Topgraphic Map of Vicinity**
	PROJECT No.
	FIGURE 1

CorsiTech™

Material Safety Data Sheet
Corsamul 4100

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Corsamul 4100
Product use	Emulsifying agent
Manufacturer	CorsiTech P.O. Box 27727 Houston, TX 77227-7727 USA
Telephone	1-800-477-5353 (CorsiTech)
In case of emergency	1-800-424-9300 (CHEMTREC) 1-703-527-3887 (CHEMTREC - International)

2. HAZARDS IDENTIFICATION

Physical state	liquid
Color	Brown.
Odor	amine.
Emergency overview	WARNING! Irritant. Not considered to be flammable.

Potential health effects

Inhalation	Over-exposure by inhalation may cause respiratory irritation.
Ingestion	Irritating to mouth, throat and stomach.
Skin	Irritating to skin.
Eyes	Irritating to eyes.
Chronic effects	No known significant effects or critical hazards.

See toxicological information (section 11)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS no.	Weight %
Tall-Oil Maleated Amidoamines	Proprietary	60 - 100

4. FIRST AID MEASURES

Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention.
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	Get medical attention immediately. Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.
Ingestion	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. Never give anything by mouth to an unconscious person.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Notes to physician No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. FIRE-FIGHTING MEASURES

Flash point > 200 °F (> 93.3 °C), Pensky-Martens. Closed cup

Flammability of the product In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing media

Suitable Use an extinguishing agent suitable for the surrounding fire.

Special exposure hazards Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous combustion products carbon dioxide, carbon monoxide, nitrogen oxides

Special protective equipment for fire-fighters Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special remarks on fire hazards Not available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental precautions Avoid contact of spilled material with soil and prevent runoff entering surface waterways. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Spilled material may need to be neutralized before collection begins. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. HANDLING AND STORAGE

Handling Use only with adequate ventilation. Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Empty containers retain product residue and can be hazardous. Do not reuse container. Workers should wash hands and face before eating, drinking and smoking.

Storage Store in accordance with local regulations. Keep container in a well-ventilated area. Store in the original container or an approved alternative made from a compatible material. Keep tightly closed when not in use. Separate from acids. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection

Hands Use chemical-resistant, impervious gloves.

Eyes Safety eyewear should be used when there is a likelihood of exposure.

Body Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Occupational exposure limits

Not established

Engineering measures No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Hygiene measures Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing. Emergency baths, showers, or other equipment appropriate for the potential level of exposure should be located close to the workstation location.

Environmental exposure controls Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Color	Brown.
Odor	amine.
Odor threshold	Not available.
Boiling/condensation point	Not available.
Pour point	10 °F (-12.2 °C)
Flash point	> 200 °F (> 93.3 °C), Pensky-Martens. Closed cup
Flammable limits	Lower: Not available. Upper: Not available.
Auto-ignition temperature	Not available.
pH	11.5 - 12.5, Method (10% in 3:1 IPA/DI H2O)
Evaporation rate	Not available.
Solubility	oil
Vapor density	Not available.

Relative density	0.9819 - 1.0038 @ 20 °C (68 °F)
Vapor pressure	Not available.
Viscosity	Dynamic: 3,000 - 4,000 cPs
Octanol/water partition coefficient (LogPow)	Not available.

Note: Typical values only - not to be interpreted as sales specifications

10. STABILITY AND REACTIVITY

Stability	The product is stable.
Hazardous polymerization	Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	No specific data.
Materials to avoid	acids
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not available.

Irritation/Corrosion

Substance	Test Type	Result
Product	Corrositex	Non-corrosive

Carcinogenicity

None of the components are listed.

12. ECOLOGICAL INFORMATION

Environmental effects No known significant effects or critical hazards.

Aquatic ecotoxicity

Conclusion/Summary Not available.

Other adverse effects No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

Waste disposal The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. TRANSPORT INFORMATION

Refer to the bill of lading or container label for DOT or other transportation hazard classification. Additionally, be aware that shipping descriptions may vary based on mode of transport, shipment volume or weight, container size or type, and/or origin and destination. Consult your company's Hazardous Materials / Dangerous Goods expert or your legal counsel for information specific to your situation.

15. REGULATORY INFORMATION

HCS Classification

Component	Classification
Tall-Oil Maleated Amidoamines	Irritant.

U.S. Federal regulations

CERCLA: Hazardous substances - Reportable quantity:

None of the components are listed.

SARA Title III Section 302 Extremely hazardous substances (40 CFR Part 355):

None of the components are listed.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Immediate (acute) health hazard.

SARA 313 - Supplier notification

None of the components are listed.

Clean Water Act (CWA) 307:

None of the components are listed.

Clean Water Act (CWA) 311:

None of the components are listed.

Clean Air Act (CAA) 112 accidental release prevention:

None of the components are listed.

Clean Air Act (CAA) 112 regulated flammable substances:

None of the components are listed.

Clean Air Act (CAA) 112 regulated toxic substances:

None of the components are listed.

State regulations

Massachusetts Substances: None of the components are listed.

New Jersey Hazardous Substances: None of the components are listed.

Pennsylvania RTK Hazardous Substances: None of the components are listed.

California Prop. 65

Not available.

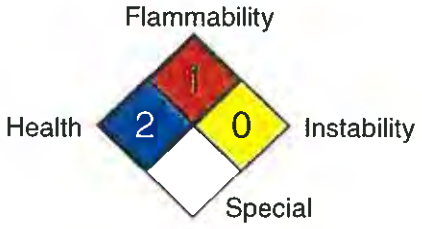
International regulations

United States inventory (TSCA 8b): All components are listed or exempted.

Canada inventory (DSL): All components are listed or exempted.

16. OTHER INFORMATION

National Fire Protection Association (U.S.A.):



Date of issue	01/13/2010
Date of previous issue	00/00/0000
Version	3.0
Prepared by	Product Stewardship

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

North Carolina Department of Environment and Natural Resources
Division of Waste Management
Superfund Section
Inactive Hazardous Sites Branch

NCDENR

NOTIFICATION OF AN INACTIVE HAZARDOUS SUBSTANCE OR WASTE DISPOSAL SITE

FILE COPY

Please read instructions before completing and type or print in black ink.

I. SITE NAME AND LOCATION:

Site Name (one site per form) The Virkler Company
Location (street address) 12345 Steele Creek Road
City Charlotte US EPA ID# (if known) n/a
County Mecklenburg
Directions to Site From Raleigh, take I-40W to I-85S toward US-421/High Point/Charlotte. Take the I-485S exit 30A toward I-77S/Columbia. Merge onto I-485S via the exit on the left toward US-29/US-74/Wilkinson Blvd. Take the NC-160 Exit 4 toward Ft. Mill. Turn right onto Steele Creek Road/NC-160. Site is 12345 Steele Creek road on the left.

Attach a USGS topographic map or map of equal or reasonably similar scale (1 inch = 2000 ft.) showing the location and vicinity of the site or facility. Label map with the site name.

II. PERSON COMPLETING FORM:

Name Howard Virkler
Mailing Address 12345 Steele Creek Road
City Charlotte State NC Zip Code 28373
Telephone (704) 587-3934

Present Owner X
Past Owner ___
Present Operator ___
Past Operator ___
Other ___
(*specify*) ___

III. PRESENT OWNER:

Individual Owner or Company Name
Virkler Realty, LLC
Executive Officer Howard Virkler
Mailing Address 12345 Steele Creek Road
City Charlotte State NC Zip Code 28273
Telephone (704) 587-3934

Corporation X
Partnership ___
Individual ___
Government Unit ___
Other ___
(*specify*) ___

IV. CURRENT SITE USE:

Check the item or items which describe the current use of the site.

Residential	___	Forest Land	___	Retirement Home	___
Business	___	Farm Land	___	Other	___
Industrial	X	School/Day Care	___	*(specify)* _____	
Pasture Land	___	Hospital	___	_____	

V. ON-SITE RESIDENTS:

Are there any on-site residents? ____ Yes X No
Number of children (• •6 years old) living on site _____ Number of adults _____

VI. SURROUNDING PROPERTY USE:

Check the appropriate description of the area surrounding the site. (*More than one may apply.*)

Residential	___	Forest Land	___	Retirement Home	___
Business	X	Farm Land	___	Other	___
Industrial	X	School/Day Care	___	*(Specify)* _____	
Pasture Land	___	Hospital	___	_____	

VII. Site Operations (*More than one may apply.*):

	Current	Previous
1. Mining	___	___
2. Paper and wood production	___	___
3. Textiles	___	___
4. Fertilizer	___	___
5. Printing/painting	___	___
6. Leather tanning	___	___
7. Iron/steel foundry	___	___
8. Chemical, general	X	X
9. Plating/polishing	___	___
10. Military/ammunition	___	___
11. Firing range	___	___
12. Rubber/plastics	___	___
13. Utility companies/transformers	___	___
14. Sanitary/refuse	___	___
15. Photo finishing	___	___
16. Lab/hospital	___	___
17. Wood treating	___	___
18. Battery reclamation	___	___
19. Pesticides formulation, packaging and/or distribution	___	___
20. Herbicide formulation, packaging and/or distribution	___	___
21. Other agrichemical formulation, packaging and/or distribution	___	___
22. Dry cleaning	___	___
23. Petrochemical processing or refining	___	___
24. Furniture manufacturing or finishing	___	___
25. Drum reconditioning	___	___
26. Unknown	___	___
27. Other (*specify*) _____	___	___

VIII. ENVIRONMENTAL PERMITS:

List all previous and current environmental permits below.

Type of Permit (*e.g. landfill, nondischarge, etc.*)	Past Present (*circle one*)	Permit Number	Date Issued	Issuing Agency
air permit	Past Present	96-106-213	unknown	Mecklenburg Co. Air
air permit	Past Present	96-107-213	unknown	Control (MAPCO)
air permit	Past Present	96-109-2	unknown	"
air permit	Past Present	91-163-213	unknown	"
	Past Present			
	Past Present			
	Past Present			

IX. KNOWN OR SUSPECTED RELEASES OF HAZARDOUS SUBSTANCES OR WASTE TO THE ENVIRONMENT:

List all on-site spills, disposals and other releases of hazardous substances or materials containing hazardous substances.

Material/ Chemical Released (*Known and suspected*)	Physical State of Material (*Use codes below*)	Approx. Volume Released	Date of Release	Suspected Contaminants (*Use codes below*)	Source of Release (*e.g. tank, buried drums, landfill, product spill, etc.*)	Known or Suspected Contamination: Ground water	Surface Water	Sediment	Soil
						<*Enter "K" if Known and "S" if Suspected*>			
Tetrachloroethylene	L	unknown	prior to 7/6/88 (Former NCDENR Incident #3807)	O	suspected offsite migration	K			

Physical State Codes

G - Containerized Gas
L - Liquid
S - Solid/Powder
Sl - Sludge

Codes for Suspected Contaminants

A - Acids
Ab - Asbestos
Am - Ammonia
B - Bases
C - Cyanide
D - Dioxins
M - Metals
Mu - Mixed Municipal Waste
O - Organic Chemicals
P - PCBs
Pe - Petroleum Products
Ps - Pesticides
W - Waste Oil

X. TOTAL AREA OF ALL DISPOSALS, SPILLS, OR RELEASES OF HAZARDOUS SUBSTANCES OR WASTE:

____ less than 1 acre
____ 1 acre or more, but less than 5 acres
____ 5 acres or more, but less than 10 acres
____ 10 acres or more
X Unknown

XI. AVAILABILITY OF ENVIRONMENTAL ANALYTICAL DATA:

Do any environmental reports or laboratory analytical data exist for the site? X Yes ____ No
If yes, attach reports or data to this form.

XII. IDENTIFY WHETHER ANY OF THE FOLLOWING ARE PRESENT OR WERE PRESENT IN THE PAST AT THE SITE (*More than one may apply.*):

X(past)	Debris pile(s)	X(current)	Tank(s) above ground	____	Spill(s)
____	Land treatment of sludges	____	Septic tank(s)	____	Wastewater lagoon(s)
____	Landfill(s) or buried waste	____	Surface impoundment(s)	____	Drum(s)
____	Tank(s) underground	____	Underground injection of waste		

____ Other (*specify*) _____

XIII. ACCESSIBILITY OF SITE (*More than one may apply.*):

____ 24-hour security guard
____ Security guard < 24-hour/day
____ Physical barrier (steep bank, creek, walls, etc.)
Describe physical barriers _____

____ Site completely surrounded by fence
X Site partially surrounded by fence
X Locked gate
____ Unlocked gate
____ No control of access to site
____ Other (*specify*) _____

XIV. WATER SUPPLY SOURCES:

Identify whether the following are present on site or on adjacent property.

	Present on site		Present on Adjacent Property	
	Yes	No	Yes	No
Spring	____	X	____	X
Well	____	X	____	X
Surface Water Intake	____	X	____	X

XV. SITE SURFACE WATER:

Indicate whether any surface water bodies (e.g. streams and lakes) exist on the site or the property adjacent to the site.

Stormwater drainage located on southeastern portion of property with stormwater retention pond.

XVI. CERTIFICATION AND SIGNATURE:

I certify that to the best of my knowledge and belief, the information supplied on this form is complete and accurate.

Signature _____ Date 5/27/2011

Name and Title (*Type or print*) HOWARD E. VIRKLER MANAGER

Mailing Address 12345 STARK CREEK RD
CHARLOTTE, NC 28273

North Carolina STATE

Mecklenburg COUNTY

I, Jessica B. Alosi, a Notary Public for said County and State, do hereby certify that Howard E. Virkler personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

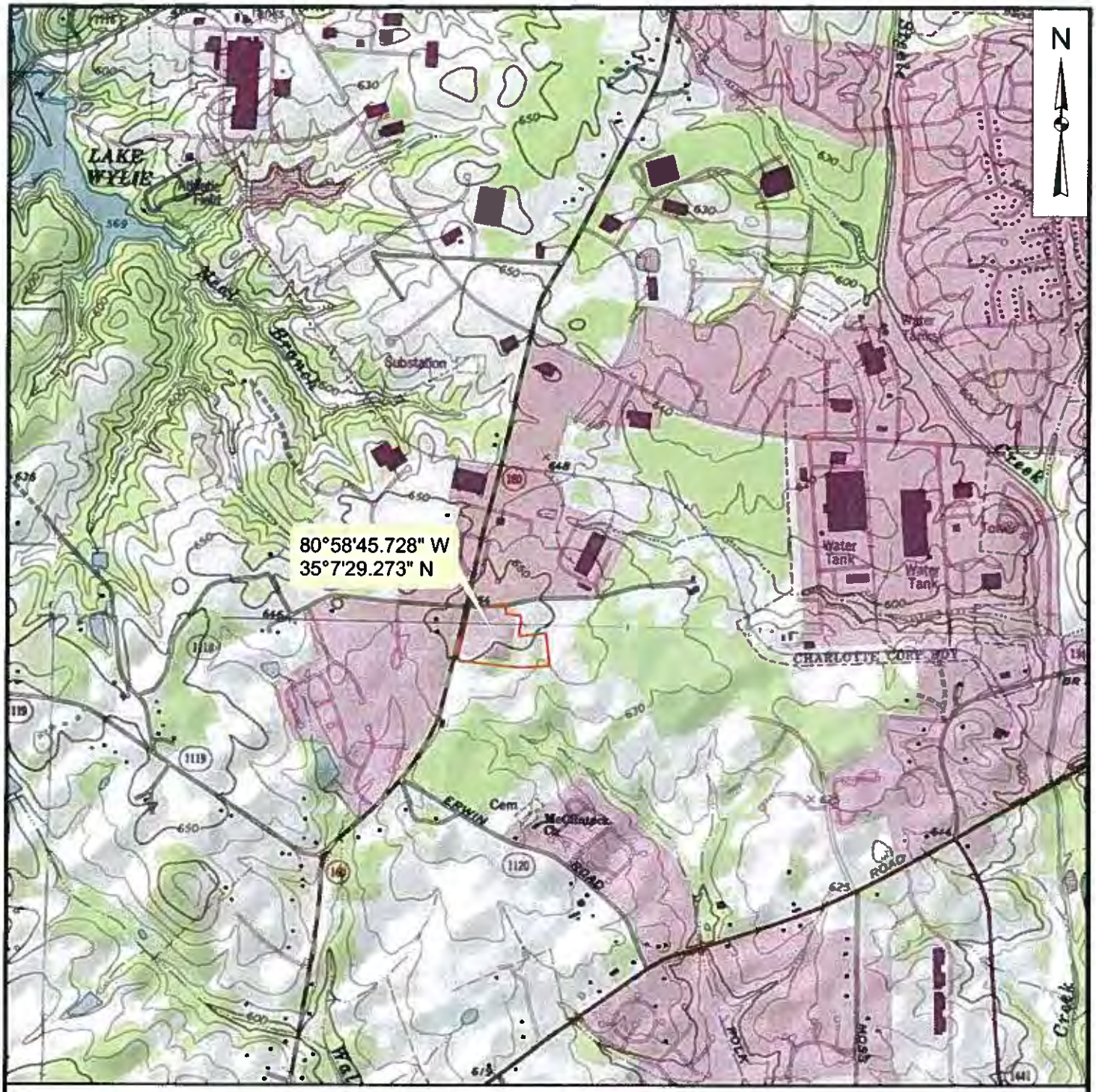
Witness my hand and official seal, this the 27 day of May, 2011.

(*Official Seal*)

_____
Notary Public

My commission expires August 12, 2012.

Jessica B. Alosi
Notary
Public
Mecklenburg Co



LEGEND

Virkler Property

0 1,000 2,000 4,000 Feet

SCALE 1:24,000

REFERENCES

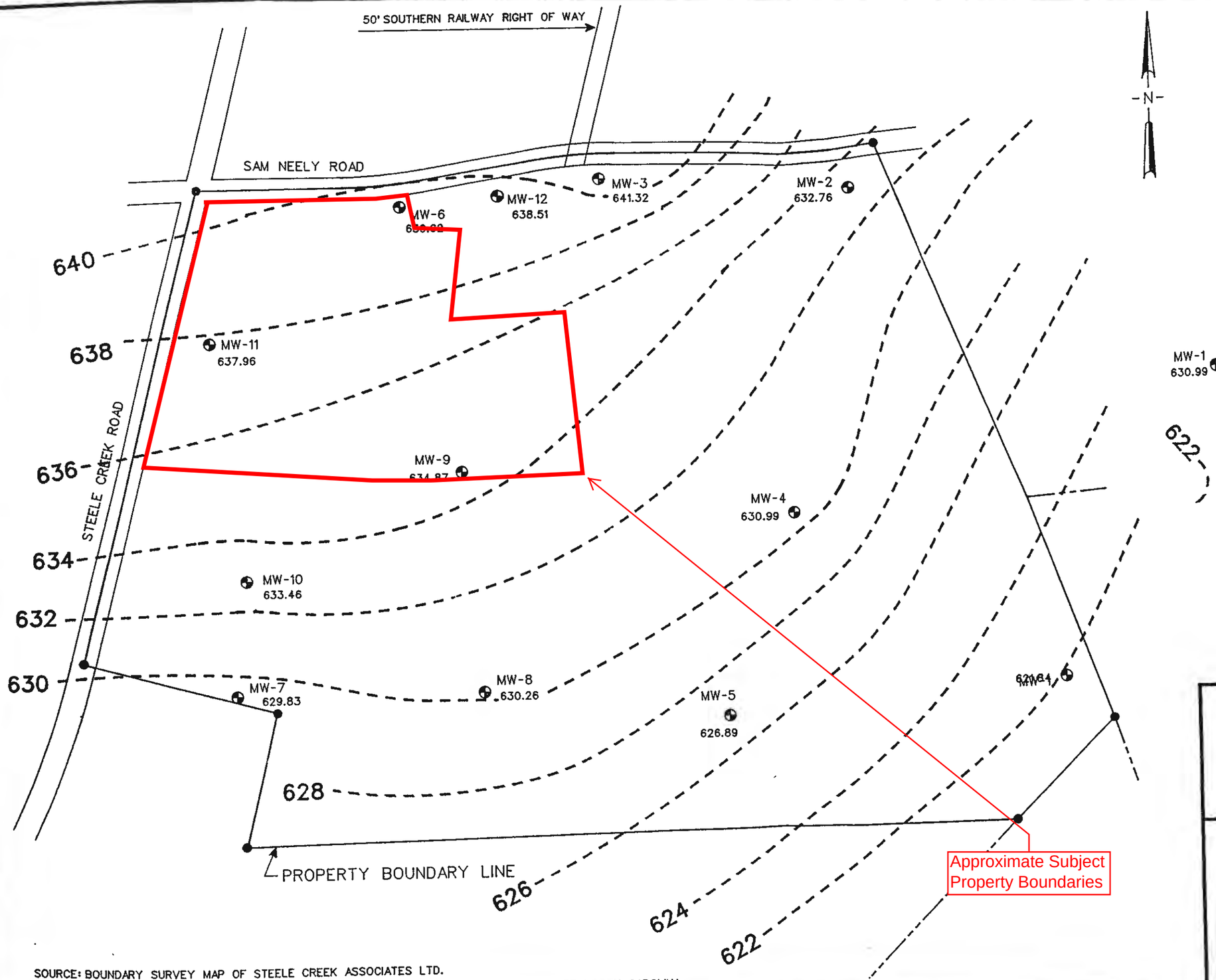
Projection: NAD 1983 StatePlane North Carolina FIPS 3200 Feet

USGS 7.5 Minute Quadrangles:
* - Charlotte West (1993)
* - Fort Mill (1993)

PROJECT/REPORT	Virkler Company 12345 Steele Creek Road Charlotte, NC 28273
TITLE	**Topgraphic Map of Vicinity**
	PROJECT No.
	FIGURE 1

APPENDIX E

PREVIOUS REPORTS



-N-

LEGEND

MW-1 630.99 MONITORING WELL LOCATION AND ELEVATION OF POTENTIOMETRIC SURFACE

622 POTENTIOMETRIC SURFACE NOVEMBER 11, 1988 POTENTIOMETRIC SURFACE ELEVATION CONTOURS ARE INTERPOLATED BETWEEN EACH BORING AND MAY VARY FROM THOSE SHOWN.

200 0 200 400
SCALE IN FEET

Westinghouse Environmental and Geotechnical Services, Inc.

FIGURE 6
POTENTIOMETRIC MAP
NOVEMBER 11, 1988

BURROUGHS PROPERTY
CHARLOTTE, NORTH CAROLINA
4135-88-089

SOURCE: BOUNDARY SURVEY MAP OF STEELE CREEK ASSOCIATES LTD.
MAPPED BY MARY SUSAN LUCAS, OF THE LUCAS COMPANY, DATED JUNE 9, 1988, CHARLOTTE, NORTH CAROLINA

September 10, 1997

Mr. Randy Cook
The Virkler Company
12345 Steele Creek Road
Charlotte, North Carolina 28273

Re: Corrected Air Permit Audit Results
12345 Steele Creek Road
Charlotte, North Carolina
CEI Project No. 97100

Dear Mr. Cook:

Cooper Environmental, Inc. (CEI) was retained by the Virkler Company to conduct an audit of their air permit status under the Mecklenburg County Air Pollution Control Ordinance (MAPCO). This letter addresses the results of this audit and provides recommendations for further action.

Permitted Emission Sources

Air emissions from the Virkler Company are currently maintained under the following permits.

- Permit No. 96-106-213 - Covers storage tanks containing volatile organic liquids (indoor and outdoor tank farms).
- Permit No. 96-107-213 - Covers four (4) weigh tanks, thirteen (13) blending vessels, and one (1) ammonia salt neutralization process with a custom phosphoric acid scrubber.

- Permit No. 96-109-213 - Covers three reactor vessels and one (1) ammonia salt neutralization process with a custom phosphoric acid scrubber.
- Permit No. 91-163-213 - Covers one (1) 13.4 MM BTU/hr boiler fueled by natural gas and #2 fuel oil.

Facility Observations

CEI conducted a facility walkthrough to identify permitted and unpermitted emission sources. Information regarding plant operations was provided by Randy Cook, Regulatory Affairs Director, and Kevin Lowe, Plant Engineer.

The tanks in both the indoor and outdoor tank farms had been verified by Mr. Lowe in February and CEI was requested not to repeat this procedure. Tank number FRP-3 (8000-gallon tank), which is listed on the permit, was reportedly not present. This tank should be deleted during the next permit modification. Two boilers (one steam boiler and one hot oil boiler) were present in addition to the permitted boiler discussed above. Based upon the size (<10 MM BTU/hr) and manufacture date (after June 9, 1989), these boilers do not require permitting.

CEI observed several small dryers, ovens, and related equipment, as well as a sand finishing unit for textiles, in the facility. This equipment was reportedly used exclusively for research and development (R&D) purposes. The sand finishing unit is not vented to the atmosphere and permitting is not required. The ovens and dryers are vented to the roof of the building. CEI contacted Mr. Don Hardin with Mecklenburg County Department of Environmental Protection (MCDEP) regarding permitting of the ovens and dryers. Mr. Hardin stated that the burner sources would be exempted for size and since the equipment is used for R&D purposes, it “would more than likely” be exempt under the laboratory exclusion.

At the time of CEI's audit, the Baikowski Room contained a 1500-gallon blending tank and a dust collector. This equipment was not operating, but the process is projected to be online in the future. Reportedly, no priority pollutants, hazardous air pollutants (HAPs), or toxic air pollutants (TAPs), will be introduced into the mixing tank and, therefore, permitting will not be required. The dust collector is a recirculating unit which collects the particulates in several primary bags and a HEPA filter before discharging air back into the room. Because this machine is not vented to the exterior of the building, emissions do not enter the atmosphere and are, by definition, exempt from permitting.

The powder room is equipped with several dry mixing tanks. Dust from these tanks is collected and piped into a sump which feeds to the wastewater system. The ceiling fans in this area have been closed off to avoid permitting as allowed in the applicable regulations. An HVAC system is present in that room; however, as long as the system is recirculating and not actually discharging the air, permitting is not necessary.

CEI observed several slurry mills and a mixing tank outside the building. CEI understands that another slurry mill may be added in the Baikowski Room in the future. In this process a powder/water slurry is reportedly received in drums and pumped into the mixing tank. After mixing, the slurry is piped to the mills and ground to reduce the powder to a smaller grain size. The powder remains wet during processing and, therefore, particulate emissions should not be generated. Therefore permitting is not needed.

Summary of Recommendations

Based upon site observations and conversations with company and regulatory representatives, the facility appears to be in general compliance with

Mecklenburg County air permitting regulations. The majority of the equipment examined by CEI was either permitted or did not require permitting since the process was not vented to the atmosphere or did not produce regulated emissions. In addition, a Mecklenburg County representative stated that the ovens and dryers (used for R&D purposes) were "more than likely" exempted under the laboratory exclusion and would not require permitting.

One storage tank (FRP-3) was reported on the permit, but was not present at the facility. During the next permit modification, CEI recommends deleting this tank from the permit.

CEI appreciates the opportunity to provide environmental engineering services to The Virkler Company. If you have any questions, please feel free to contact John Burkart or me at 845-2000.

Sincerely,

COOPER ENVIRONMENTAL, INC

Lauren Billheimer, E.I.T.
Environmental Engineer

LEB:\reports\Virkler Audit.doc

February 14, 2002

Ralph Adams
The Virkler Company
12345 Steele Creek Road
Charlotte, North Carolina 28273

RE: Report for Phase I ESA
Virkler
12345 Steele Creek Road
Charlotte, North Carolina 28273
CEI Project No. 22033

Dear Mr. Adams:

Cooper Environmental, Inc. (CEI) is pleased to provide you with two copies of the Phase I Environmental Site Assessment (ESA) prepared for the above referenced site. CEI appreciates the opportunity to complete environmental services for The Virkler Company. CEI is a full service environmental consulting firm and can assist you with asbestos surveys, wetland surveys, geotechnical services, construction material testing, and Phase II environmental services as needed. If you have additional questions regarding this project, please contact me at 704-845-2000.

Sincerely,
COOPER ENVIRONMENTAL, INC.

Christopher R. Burnett, C.E.A.
ESA Department Manager
JRB/C:/Jen's Reports/22033Virkler

ENVIRONMENTAL SITE ASSESSMENT

Virkler
12345 Steele Creek Road
Charlotte, North Carolina 28273

CEI Project No. 22033

Prepared for:
Ralph Adams
The Virkler Company
12345 Steele Creek Road
Charlotte, North Carolina 28273
Issue Date: February 14, 2002

Jennifer Burger
Environmental Auditor

Signature

Christopher Ryan Burnett, C.E.A.
ESA Department Manager

Signature

Prepared by:
COOPER ENVIRONMENTAL, INC.
2300 Sardis Road North, Suite Q
Charlotte, North Carolina 28227
Phone (704) 845-2000

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

The Virkler Company requested that Cooper Environmental, Inc. (CEI) conduct a Phase I Environmental Site Assessment (ESA) on the property referred to as Virkler at 12345 Steele Creek Road in Charlotte, North Carolina. Jennifer Burger, Environmental Auditor, performed the site walk through, inquiries, investigation, and research associated with the Phase I ESA. Christopher R. Burnett, ESA Department Manager, provided project management and quality control on this project.

According to information provided by the Mecklenburg County Tax Assessor's Office, the subject property is comprised of a 137,613-square foot chemical manufacturing plant situated on a 12.42-acre tract. The plant is listed as being constructed in 1990. The site can be accessed by Steele Creek Road to the west and Sam Neely Road to the north. The site is bordered by industrial and undeveloped properties.

A review of aerial photographs, and information from the Mecklenburg County Tax Assessor's Office revealed the plant was built in 1990 as a manufacturer of textile chemicals. In recent years, the plant diversified to other types of chemicals. From at least 1938 to 1990 the property was undeveloped.

CEI did not observe surface water on the subject property. The subject property is not in a flood plain according to the Federal Emergency Management Agency (FEMA) Flood Map Panel (#3701580140B), dated February 1993.

A review of the U.S. Department of the Interior Fish & Wildlife Service National Wetlands Inventory, Charlotte West map dated 1991, did not identify that a designated wetland area is located on the subject property.

CEI reviewed Environmental Data Resources (EDR) and the North Carolina Ground Water Incident database to identify environmental concerns at the site or surrounding properties within ASTM-specified radii. According to the EDR Site Assessment Report and the North Carolina Ground Water Incident database, one

Resource Conservation and Recovery Act (RCRA) site, two State Priority List (SPL) sites, one leaking underground storage tank (LUST) site, one State Hazardous Waste Site (SHWS), and one Comprehensive Environmental Response, Compensation and Liability Index System (CERCLIS) site were identified within minimum search distances. In addition, the subject property was previously part of a larger tract of land that is identified as a LUST and Groundwater Incident site.

CEI reviewed the Groundwater Incident File for Steele Creek and Sam Neely Road at the Mooresville Regional Office of the North Carolina Department of Environment and Natural Resources (NCDENR). Commonwealth Engineering Associates wrote a report summarizing an Environmental Site Assessment completed by LAW Engineering. The Commonwealth report is dated September 2, 1988. According to the Commonwealth report, LAW Engineering discovered uncontrolled disposal of solid waste on the subject property. LAW did not find evidence of hazardous waste. LAW conducted groundwater sampling at the property and found contamination in three out of seven monitoring wells. Commonwealth suggests an off-site source for the contamination. According to the Commonwealth report, monitoring well #6 located on the current subject property contained levels of contaminants below North Carolina 15A NCAC 2L groundwater standards. Monitoring well #7, also on the current subject property, did not detect the contaminants observed in the other wells. In a letter dated March 9, 1994, NCDNER initiated closure of the site. CEI spoke with Peggy Finley at the Mooresville Regional Office of NCDNER and confirmed that the site was closed in 1994. A record of communication and information on this site can be reviewed in Appendix D of this report.

CEI observed aboveground storage tanks (AST) for mixing, weighing, and storage of a variety of chemicals throughout the facility. CEI did not observe underground storage tanks (UST) on the subject property. Kevin Lowe informed CEI that currently there are no underground storage tanks (UST) on the subject property nor had there ever been since the plant was built.

According to Kevin Lowe, Plant Engineer, there are two pad-mounted transformers outside the facility owned by Duke Power. There are nine pad-mounted

transformers inside the facility which are owned by Virkler. CEI did not observe staining or evidence of leakage on the areas immediately surrounding these transformers. Mr. Lowe informed CEI that no transformers on the subject property contain PCBs.

The facility uses a wide variety of chemicals in its processes. A list of all raw materials received by the plant in 2001 is included as Appendix C. Textile chemicals, household cleaners, and chemicals used for the manufacturing of paper and computer components are produced at this plant. Kevin Lowe informed CEI that the 2001 list is representative of the materials received every year.

Based on interviews with onsite personnel, the facility has measures in place to prevent releases. There are three layers of impermeable membrane under the concrete floors in the plant. Vitron seals and curbing are in place where walls meet the floor and at concrete joints. Floors are concave in manufacturing rooms and in the aisles of storage areas to contain spills.

Virkler recycles most chemicals. Waste materials are disposed by Ecoflow. Water is used to wash drums, uniforms, and other equipment and is discharged under Wastewater Permit #0206. The expiration date for this permit is June 30, 2002. The facility is currently working on renewal. The facility also has Air Permit #99-202-213 for its exhaust fans throughout the plant. According to Kevin D. Lowe, the main function of the fans is temperature control.

This assessment did not reveal evidence of recognized environmental conditions in connection with the property that would warrant further environmental investigations.

2.0 INTRODUCTION

2.1 Purpose

The purpose of a Phase I ESA is to view the property for observable environmental liabilities and, based on such observations, to present existing, potential, or suspected condition(s) which may pose an environmental liability to, or restrict the use of, the subject property. A Phase I ESA is designed to examine the potential for environmental damage or liability and to observe apparent problems. A Phase I ESA is neither a regulatory compliance audit nor a scientific analysis of the property's surface or subsurface. Samples of surface waters, soil, or ground water were not collected.

CEI's objectives were to complete a walkthrough of the subject property, research previous activities on the property, and identify surrounding properties with environmental concerns that could potentially impact the subject property. The Phase I ESA was performed in general accordance with the American Society for Testing and Materials (ASTM) Standard Practice for the Phase I ESA Process (E1527-00). The report is presented following the general outline recommended in the standard.

2.2 Limitations

This Phase I ESA report was prepared in general accordance with a contract entered into between The Virkler Company and Cooper Environmental, Inc. (CEI). The findings set forth in this report are strictly limited in time and scope to the observable conditions existing on the date(s) of the relevant physical and documentary examination(s). The responsibilities and obligations of CEI and the findings presented in this report are based solely on the services contracted for by the client and do not incorporate tasks or procedures beyond the scope of agreed upon services or other constraints imposed on CEI by the client. CEI is not responsible for examining, analyzing, or presenting findings or recommendations with respect to any conditions that were concealed, hidden, withheld or in any way not disclosed to or observed by CEI at the time CEI examined the property.

This report may contain recommendations based on the analysis of data accumulated at the time and place set forth in the report, including the reports of others. Compliance with the submitted recommendations in no way assures compliance with pertinent and relevant federal, state and local laws and regulations. In addition, further examination beyond the scope of this report may reveal additional data or conditions requiring the recommendations presented to be reevaluated.

This report may contain findings based on information and data provided by third parties and believed to be accurate but to whose accuracy and credibility CEI cannot verify. Information provided in this report is also based on the review of available documents, records, and maps maintained by governmental and private agencies and in some cases personal interviews, which are subject to the limitations of the availability and accuracy of the documents and recollections of the individual interviewed. CEI makes no warranties or representations, either expressed or implied, with respect to the accuracy and reliability of such data.

This report may contain certain information regarding the previous and current ownership of the property, which is provided for informational purposes only. The information provided herein is not to be construed in any manner as a real estate title report, title opinion, or title certification and is based solely on CEI's limited review of certain records and documents recorded with the relevant county deed and transfer offices. Further, this information does not represent an opinion, representation, or certification that any of the parties noted herein previously had or currently have an interest in the subject property. A review of other agreements concerning the subject property, whether filed or not, which might reflect leases, easements or other conveyances or agreements affecting the use of the property has not been performed by CEI.

No representation or warranty is made that the property examined is free of contaminant impact since only a more complete examination, including testing and sampling procedures outside the scope of the proposal, can assess whether contaminant impact exists. Further, except to the extent otherwise indicated, no attempt was made to ascertain whether the owners or operators of the subject

property have complied with required federal, state, and local environmental laws and regulations. The presence of radioactive materials, biological hazards, subsurface conditions and asbestos was not investigated unless specifically noted otherwise.

This report was prepared solely for the use of the addressee(s) and CEI shall have no obligations or liabilities to any other parties for their use of or reliance on the contents of this report. CEI's obligations and liabilities in connection with this report are limited as set forth in the contract noted above. No changes may be made to the report's form or content without CEI's written permission.

2.3 Variations from ASTM Practice E1527-00

CEI completed this report in general accordance with the recommendations of the American Society for Testing and Materials as set forth in Practice E1527-00.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The site location map (Figure 1) is from the 1993 United States Geological Survey (USGS) topographic map, Fort Mill, NC-SC The approximate center of the site is located by intersecting north latitude 35° 7' 31" and west longitude 80° 58' 50".

3.2 Site and Vicinity Characteristics

According to information provided by the Mecklenburg County Tax Assessor's Office, the subject property is comprised of a 137,613-square foot chemical manufacturing plant situated on a 12.42-acre tract. The plant is listed as being constructed in 1990. The site can be accessed by Steele Creek Road to the west and Sam Neely Road to the north. The site is bordered by industrial and undeveloped properties.

3.3 Environmental Setting

CEI evaluated the environmental setting during the site walk through and reviewed the topographic map evaluations and topographic features. The elevation of the subject property is approximately 650 feet above mean sea level (see Figure 1). The surface gradient is fairly level.

3.3.1 Surface Water Characteristics

CEI did not observe surface water on the subject property. The subject property is not in a flood plain according to the Federal Emergency Management Agency (FEMA) Flood Map Panel (#3701580140B), dated February 1993.

A review of the U.S. Department of the Interior Fish & Wildlife Service National Wetlands Inventory, Charlotte West map dated 1991, did not identify that a designated wetland area is located on the subject property.

3.3.2 Subsurface Geological Characterization

The United States Department of Agriculture – Soil Conservation Service, Soil Survey of Mecklenburg County identifies the characteristics of the soil on the subject property as Iredell fine sandy loam, 1 to 8 percent slopes (IrB).

3.4 Current Property Ownership and Usage

According to tax information obtained from the Mecklenburg County Tax Assessor's office, the subject property consists 12.42 acres out of a total of 51 acres owned by Virkler Realty LLC. The site contains a chemical manufacturing plant and the asphalt and grass-covered areas immediately surrounding the plant. Textile chemicals, household cleaners, and chemicals used for the manufacturing of paper and computer components are produced by this facility.

3.5 Former Usage

A review of aerial photographs, and information from the Mecklenburg County Tax Assessor's Office revealed the plant was built in 1990 as a manufacturer of textile chemicals. In recent years, the plant diversified to other types of chemicals. From at least 1938 to 1990 the property was undeveloped.

3.5.1 Aerial Photograph Review

CEI reviewed the aerial photographs dated 1999, 1997, 1990, 1983, 1986, 1980, 1978, 1975 and 1966 from the Mecklenburg County Tax Assessor's Office. CEI additionally reviewed 1956, 1951, and 1938 aerial photographs at the Soil and Water Conservation Office in Charlotte, North Carolina. The plant first appears on the 1997 aerial photograph, The plant is under construction on the 1990 aerial photograph. The plants to the west and northwest appear on the 1983 aerial photograph. A copy of the 1999 aerial photograph is included as Figure 2 of this report.

3.5.2 Sanborn Map Review

Sanborn Maps were not available for the subject property. A copy of the Sanborn letter is included in Appendix B.

3.6 Adjacent Properties Usage

The subject property is bounded by industrial properties to the west and north across Sam Neely Road. Undeveloped land borders the site to the south and east.

4.0 RECORDS REVIEW

4.1 Federal and State Regulatory Agencies

CEI reviewed federal and state database information in a Site Assessment Report prepared by Environmental Data Resources (EDR). The report was prepared on January 29, 2002. A copy of this report is included in Appendix B. Information was abstracted from the following databases:

- National Priorities List (NPL)
- Comprehensive Environmental Response, Compensation and Liability Index System (CERCLIS)
- Resource Conservation and Recovery Act (RCRA) list from Hazardous Waste Data Management System (HWDMS) database - TSD Facilities
- CORRACTS Database and RCRA Violators and Enforcement Actions
- Emergency Response Notification System (ERNS)
- State Priority List & State Equivalent CERCLIS List including State Hazardous Waste Sites (SHWS) and Hazardous Substance Disposal Sites (HSDS)
- Leaking Underground Storage Tanks (LUST)
- Underground Storage Tanks (UST)
- Solid Waste Facilities (SWLF)

  Additional Database reviewed:
- North Carolina Ground Water Incident List

4.1.1 National Priorities List (NPL)

The National Priorities List (NPL) identifies uncontrolled or abandoned waste sites. As of October 22, 2001, no NPL sites were identified within a one-mile radius of the subject property.

4.1.2 Comprehensive Environmental Response, Compensation and Liability Index System

The Comprehensive Environmental Response, Compensation and Liability Index System (CERCLIS) identifies sites which release, or threaten to release, hazardous substances as defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980. As of July 12, 2001, one site was reported within a one mile radius of the property. The site has the status No Further Remedial Action Planned (NFRAP).

- Aquair Corp (Adjacent), 13300 Sam Neely Road

4.1.3 Resource Conservation and Recovery Act (RCRA) - TSD Facilities and CORRACTS Facilities.

The Resource Conservation and Recovery Act (RCRA) database identifies hazardous waste treatment, storage, and disposal (TSD) facilities or generators and transporters of hazardous waste. CORRACTS identified those TSD facilities that are subject to corrective action under RCRA. As of November 14, 2001, no sites were reported within a one-mile radius of the subject property.

4.1.4 Resource Conservation and Recovery Act (RCRA)-Generators List and Violators

The Resource Conservation and Recovery Act (RCRA) database identifies hazardous waste generators. RCRA Violators are facilities, which have been cited for RCRA Violations at least once since 1980. As of June 21, 2000, one adjacent property was identified as a RCRA small quantity generator facility:

- Aquair Corp, 13300 Sam Neely Road

4.1.5 Emergency Response Notification System (ERNS)

The Emergency Response Notification System (ERNS) identifies releases of oil and hazardous substances reported to federal authorities. As of August 8, 2000, no spills were reported on the subject property.

4.1.6 State Priority List (SPL) & State Equivalent CERCLIS List (SCL)

The State Inactive and Active Hazardous Sites Inventory and Inactive and Active Hazardous Waste Site Priority List identifies potential hazardous substance and waste disposal sites. As of July 2, 2001, two State Priority List sites were identified within one-mile of the subject property, on of which also appears on the orphan list as a State Hazardous Waste Site.

- Aquair Corp (Adjacent), 13300 Sam Neely Road (SPL, SHWS)
- Thonit A. Simmons Co., Steele Creek Road, 1/4-1/2 mile N (SPL)

4.1.7 Leaking Underground Storage Tank Sites (LUSTs)

The North Carolina Leaking UST List, derived from the Ground Water Incident Database, identifies leaking underground storage tanks. As of December 10, 2001, one LUST site was identified within a one-half mile radius of the subject property:

- Steele Creek & Sam Neely Roads (Subject Property)
- Valmet-Charlotte, 12933 Sam Neely Road, 1/4-1/2 mile E

4.1.8 Underground Storage Tank Facility Information

The NCDENR registered Petroleum Underground Storage Tank Database identifies sites containing registered USTs. As of November 2, 2001, no UST sites were reported for the subject property or an adjacent property.

4.1.9 Solid Waste Facility Information

CEI reviewed the locations of permitted landfills in the area surrounding the subject property. Sites are reported from the October 1, 2001 Solid Waste Data File and the Inactive and Closed Solid Waste Sites. No sites were identified within a one-mile radius of the subject property.

4.1.10 Ground Water Incident Files

CEI reviewed the Groundwater Incident File for Steele Creek and Sam Neely Road at the Mooresville Regional Office of the North Carolina Department of Environment and Natural Resources (NCDENR). Commonwealth Engineering Associates wrote a report summarizing an Environmental Site Assessment completed by LAW Engineering. The Commonwealth report is dated September 2, 1988. According to the Commonwealth report, LAW Engineering discovered uncontrolled disposal of solid waste on the subject property. LAW did not find evidence of hazardous waste. LAW conducted groundwater sampling at the property and found contamination in three out of seven monitoring wells. Commonwealth suggests an off-site source for the contamination. According to the Commonwealth report, monitoring well #6 located on the current subject property contained levels of contaminants below North Carolina 15A NCAC 2L groundwater standards. Monitoring well #7, also on the current subject property, did not detect the contaminants observed in the other wells. In a letter dated March 9, 1994, NCDNER initiated closure of the site. CEI spoke with Peggy Finley at the Mooresville Regional Office of NCDNER and confirmed that the site was closed in 1994. A record of communication and information on this site can be reviewed in Appendix D of this report.

4.2 Governmental Agencies

CEI contacted Captain Tony Bateman of the Emergency Management Division regarding reports of hazardous materials and spills at the subject property. Mr. Bateman did not contact CEI within the time frame of this report.

4.3 List of Recorded Sites

According to the EDR Site Assessment Report and the North Carolina Ground Water Incident database, four recorded sites were reported within the minimum search distance:

- Aquair Corp (Adjacent, RCRA, SPL, CERCLIS-NFRAP, SHWS)
- Steele Creek & Sam Neely Roads (Adjacent, LUST)
- Thonit A. Simmons Co. (SPL)
- Valmet-Charlotte (LUST)

LUST-Leaking underground storage tank; SPL-State Priority List; RCRA-Resource Conservation and Recovery Act; CERCLIS-NFRAP- Comprehensive Environmental Response, Compensation and Liability Index System, No Further Remedial Action Planned; SHWS-State Hazardous Waste Site

5.0 SITE RECONNAISSANCE AND INTERVIEWS

On Wednesday, January 31, 2002, CEI representative Jennifer Burger, Environmental Auditor, performed the site walk through of the subject property. During the site walk through, CEI viewed the perimeter of the subject property, interviewd Carl Easterling, Production Manager and Kevin D. Lowe, Plant Engineer, and walked throughout the subject property noting areas of interest or concern. Photographs of the site are provided in Appendix E and a site drawing illustrating the photograph locations is presented as Figure 3.

5.1 Storage Tank Systems

CEI observed aboveground storage tanks (AST) for mixing, weighing, and storage of a variety of chemicals throughout the facility. Kevin Lowe informed CEI that currently there are no underground storage tanks (UST) on the subject property nor had there ever been since the plant was built.

5.2 Transformers and PCB Equipment

According to Kevin Lowe there are two pad-mounted transformers outside the facility owned by Duke Power. There are nine pad-mounted transformers inside the facility which are owned by Virkler. CEI did not observe staining or evidence of leakage on the areas immediately surrounding these transformers. Mr. Lowe informed CEI that no transformers on the subject property contain PCBs.

5.3 Hazardous and Regulated Substances

The facility uses a wide variety of chemicals in its processes. A list of all raw materials received by the plant in 2001 is included as Appendix C. Textile chemicals, household cleaners, and chemicals used for the manufacturing of paper and computer components are produced at this plant. Kevin Lowe informed CEI that the 2001 list is representative of the materials received every year.

5.4 Additional Information

Based on interviews with onsite personnel, the facility has measures in place to prevent releases. There are three layers of impermeable membrane under the concrete floors in the plant. Vitron seals and curbing are in place where walls meet the floor and at concrete joints. Floors are concave in manufacturing rooms and in the aisles of storage areas to contain spills.

Virkler recycles most chemicals. Waste materials are disposed by Ecoflow. Water is used to wash drums, uniforms, and other equipment and is discharged under Wastewater Permit #0206. The expiration date for this permit is June 30, 2002. The facility is currently working on renewal. The facility also has Air Permit #99-202-213 for its exhaust fans throughout the plant. According to Kevin D. Lowe, the main function of the fans is temperature control.

6.0 FINDINGS

CEI representatives performed a Phase I ESA in general accordance with ASTM Practice E 1527-00 on the property to be referred to as Virkler at 12345 Steele Creek Road in Charlotte, North Carolina. Statements of Qualifications for key personnel are included in Appendix F. This assessment did not reveal evidence of recognized environmental conditions in connection with the property that would warrant further environmental investigations.

Preliminary Site Assessment Report

The Virkler Company

12345 Steele Creek Road
Charlotte, North Carolina, 28134

Prepared by:

WPC
10907 Downs Road
Charlotte, North Carolina 28134
704-927-4000

February 23, 2006

WPC Project No. CLT4-06-016

Table of Contents

1.0 Project Background

The Virkler Company (Virkler) is located at 12345 Steele Creek Road, and was operated by Chemical Technologies, Inc for the past two years. The facility was constructed in 1990. The structure was built on a concrete slab on grade and the exterior walls were constructed from heavy corrugated metal. The total facility has a building area of 175,000 SF. The facility includes a 22,000 SF office, a laboratory area, and a chemical manufacturing and storage area. In the past the facility has handled numerous chemical compounds, including copper, zinc, and tin compounds, phthalates, waxes, formaldehydes, soaps, and others. Wastewater was collected and directed to a CMU sampling and discharge point. Stormwater was directed to a collection and drainage area at the rear of the facility. We understand that laboratory wastes were hauled offsite separately. See Figure 1 and 2 for Site Location and Site Map.

WPC understands that Virkler is concerned that releases from previous operations may have environmentally impacted the soil and groundwater at the site. The presence of soil and groundwater contamination at the site may pose a financial impact on the value of the property until fully remediated and addressed. In our site walkthrough we identified numerous areas of potential impact and their associated sampling locations, as shown on the enclosed Figure 3:

1. Chemical loading at rollup door 58 (B-1)
2. Roof drain outside of chemical storage area 58 (B-2)
3. Wastewater vent overflow at Cooling Tower (B-3)
4. Wastewater cleanout overflow in field (B-4)
5. Oil Compressor pad adjacent to Outdoor Tank Farm in the outside rear area (B-5)
6. Maintenance Area (B-6)
7. Truck loading area on south side (B-7)
8. Upgradient background sample (B-8)
9. Truck loading area on north side (B-9)
10. Surface water in rear drainage swale (S-1)

Virkler requested **WPC** to address the above concerns and determine the cost of remediation, if required. **WPC** conducted a limited sampling program, documented below, that provided soil and groundwater samples.

2.0 Sampling Program and Protocol

To prepare for field activities **WPC** prepared a site-specific Health and Safety Plan (HASP) to address the scope of work in accordance with the WPC's Health and Safety Program and Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1910). See

Appendix C for a copy of the HASP. **WPC** personnel mobilized at the site on February 2, 2006 to commence field activities.

Prior to conducting the drilling activities, **WPC** notified North Carolina One-Call Center to identify underground utilities on the property. In addition, WPC conducted underground utility locating activities at the site.

WPC subcontracted South Atlantic Environmental Drilling and construction Co. (SAEDACCO) to install nine subsurface soil sampling borings locations by direct push method using a Geoprobe. The soil borings were installed in close proximity to the areas of interest described above and located on Figure 3. Soil samples (B-1, -2, -3, -4, -5, -6, -7, -8, and -9) were collected in accordance with Environmental Protection Agency (EPA) sampling methods from the nine (9) borings continuously for visual description and field screening for the presence of volatile organic compounds (VOCs) vapors utilizing a photo-ionization detector (PID). Soil samples were collected in laboratory provided containers and placed on ice to be sent to Pace Analytical (Pace) a North Carolina certified laboratory for analysis if residual staining or odors were observed or field screening revealed PID detections. The laboratory would analyze the soil samples for volatile organic compounds (VOCs) by EPA methods 8260 plus Target Identifying Compounds (TICs), semi-volatile organic compounds (SVOCs) by EPA method 8270 plus TICs, Resource Conservation and Recovery Act (RCRA) metals, sulfate and nitrate by EPA method 300 and formaldehyde. The soil borings extended to a depth that encounter groundwater, anticipated to be between 20 and 30 feet below grade surface (bgs). The soil from the soil boring was spread out in the immediate vicinity of the boring. See Appendix B for soil boring logs.

WPC installed temporary groundwater monitoring well (TMW-1, -2, -3, -4, -5, -6, -7, -8, and -9) locations in the nine soil borings locations. The TMWs were allowed to equilibrate for 24 hours before sampled. TMW water levels were measured before purging began to determine the volume of water in each well casing and the groundwater flow direction across the site. See Table 1. See Figure 5. The TMWs were purged by means of a low flow bladder pump with disposable poly tubing connected to a flow cell. The purged water would gather in the flow cell to collect field-screening parameters. Groundwater field-screening parameters included temperature in degrees Celsius (°C); specific conductivity; pH; dissolved oxygen (DO); turbidity; oxidation reduction potential (ORP); odor; color; and PID to delineate potential contamination. The TMWs were purged until field-screening parameters were stable or the well went dry. **WPC** collected a groundwater sample in laboratory provided containers and placed on ice from each of the nine (9) TMWs installed by Geoprobe. Two (2) of the nine (9) groundwater samples were sent to PACE for analyses for VOCs by EPA methods 8260 plus TICs, SVOCs by EPA method 8270 plus TICs, RCRA Metals analysis, sulfate and nitrate by EPA method 300 and formaldehyde. The local water table is approximately 25-feet bgs. Groundwater sample locations that were selected for analyses provides an overall assessment of site groundwater and flow direction. See Appendix B for Well Purging Data.

WPC sampled the surface water (SW-1) in the drainage area at the rear of the facility. The sample (SW-1) collected was laboratory analyzed for VOCs by EPA methods 8260 plus TICs, SVOCs by EPA method 8270 plus TICs, RCRA Metals analysis, sulfate and nitrate by EPA method 300 and formaldehyde. See Appendix B for field screening.

3.0 Sampling Results

The sampling results from Pace and AmeriSci are located in the Appendix A.

Soil Sampling

The soil borings were installed in close proximity to the areas of concern described above and located on Figure 3. Soil samples were collected in accordance with EPA sampling methods from the nine (9) borings continuously for visual description and field screening for the presence of volatile organic compounds (VOCs) vapors utilizing a photo-ionization detector (PID). Soil samples were collected in laboratory provided containers and placed on ice to be sent to Pace Analytical (Pace) a North Carolina certified laboratory for analysis if residual staining or odors were observed or field screening revealed PID detections. From the field screening, no evidence of residual staining, odors, or PID detections were observed. Therefore, the soil samples were placed on ice to be held until the analytical results were received for the groundwater and surface water samples. Analytical Analyses was not preformed on the soil.

Groundwater/ Surface Water Sampling

WPC collect levels of the groundwater from each TMW. The direction of flow appears to be to the east. **WPC** collected a groundwater samples from each of the nine (9) TMWs installed by Geoprobe. Two (2) (TMW-8 and -4) of the nine (9) groundwater samples collected were sent to Pace for analyses for VOCs by EPA methods 8260 plus TICs, SVOCs by EPA method 8270 plus TICs, RCRA Metals analysis, sulfate and nitrate by EPA method 300 and formaldehyde. An elevated concentration of tetrachloroethene (PCE) that exceed The North Carolina Department of Environment and Natural Resources (NCDENR) Division of Water Quality (DWQ) groundwater quality standard 15A NCAC 02L.0201 (2L standards) was reported in the laboratory analyses of groundwater sample TMW-4 at concentration of 1.4 micro-grams per liter (µg/L). In groundwater samples TMW-8 and TMW-4, levels below 2L standards of nitrate as N (0.88, 0.39 µg/L, respectively); nitrate-nitrite as N (0.88, 0.39 µg/L, respectively) ; and sulfate (50, 15 µg/L, respectively). RCRA Metals detected in groundwater samples TMW-8 and TMW-4 at levels below 2L Standards of barium (0.076, 1.1, µg/L, respectively); chromium (0.0080, 0.042, µg/L, respectively) and arsenic at 0.0052 µg/L in TMW-4. A concentration of lead (0.028 µg/L) in TMW-4 was detected at a level slightly

above 2L Standards. The local water table is approximately 25-feet bgs. Barium was detected in SW-1 at levels below 2L Standards of 0.037 μg/L. The locations selected for analyses provide an overall assessment of site groundwater. See Table 2 for a summary of results. See Figure 6.

WPC sampled the surface water in the drainage area at the rear of the facility. The sample (SW-1) collected and sent to Pace for analyses for VOCs by EPA methods 8260 plus TICs, SVOCs by EPA method 8270 plus TICs, RCRA Metals analysis, sulfate and nitrate by EPA method 300, and formaldehyde. Laboratory analyses detected no VOCs or SVOCs. Laboratory analyses reported detections of sulfate and RCRA Metal barium at levels below NCDENR-DWQ surface water quality 15A NCAC 02B.0100 Standards (2B Standards) of 6.1 and 0.037 μg/L, respectively. See Table 2 for a summary of results. See Figure 6.

4.0 Conclusion / Recommendations

In conclusion, the soil samples collected were not suspected to have contamination based on field-screening and the sampling of groundwater and surface water laboratory analyses. Groundwater samples collected from both TMW-4 and TMW-8 contained concentrations of nitrates, sulfate, barium, chromium and a concentration of arsenic in TMW-4 below NCDENR-DWQ 2L Standards. Groundwater sample collected from TMW-4 contained concentrations of tetrachloroethene and lead that exceed NCDENR-DWQ 2L Standards and is believed to have migrated from sites surrounding Virkler. Surface water (SW-1) sample collected contained concentrations of sulfate and barium below NCDENR-DWQ 2B Standards.

In discussion with Virkler Associates, **WPC** learned of remedial sites that surrounded Virkler. **WPC** perform a file review at the NCDENR Mooresville Regional Office in Mooresville, North Carolina to identify constitutes release at each of these site. These sites include Unocal (located to the east), Air Products (located northeast), SNL Corporation/Aquair Co. (located north and east), and Valmet (located north) of which all have had reported releases.

The Unocal facility located directly east of Virkler at 12040 Goodrich Dr., Charlotte, North Carolina. The Unocal facility owned and operated specialty fuels and petroleum products, The constitutes of concern were tetracloroethene, trichloroethene, 1,1 dichloroethene, 1.2 dichloroethane, 1,2 dichloroethene, vinyle chloride, benzene, ethylbenzene, toluene, total xylenes, acetone, and 2 butanone. Groundwater flow direction was north, northeast towards Aquair Co. and Air Products, respectively. This is an on-going project.

The Air Products Facility is located northeast of Virkler at 11900Goodrich Dr., Charlotte, North Carolina. Air Products is a worldwide supplier of industrial gases and equipment, specialty and intermediate chemicals, and environmental and energy systems. The facility reported a release from a UST May 3, 1991. Constitutes of concern were Total Petroleum Hydrocarbons (TPH), benzene, toluene, ethylbenzene, and total xylenes. There were no evidence of migration of tetrachloroethene and lead. This site was closed in 1991.

The Aqua-Air Co. Facility is located north, northeast of Virkler at 13300 Sam Neely Rd., Charlotte, North Carolina. The facility reported a release from a UST. Constitutes of concern are carbon tetrachloride and tetrachloroethene that exceeded NCDENR standards. Groundwater flow direction is south, southwest toward Virkler. This is an on-going project.

The Valmet Facility is located north of Virkler at 12933 Sam Neely Road, Charlotte, North Carolina. The facility removed a UST in 1990. Constitute of concern after the removal of the UST was Total Petroleum Hydrocarbons (TPH) Diesel Range Organics (DRO) that exceed state standards. Remedial action was induced. The soil was thermally treated on-site to levels less than 10ppm and three groundwater monitoring wells were installed. Constitutes of concern in the groundwater that exceed state standards were lead and bis (2 ethylhexal) phthalate. Groundwater flow direction is south towards Virkler. This site was closed in 2002.

Based on our review of the sites surrounding Virkler and in **WPC's** professional opinion the migration of groundwater from Aqua-Air is the cause for the elevated level of tetracholoethene in the groundwater sample TMW-4. It is also our opinion the migration of groundwater from Valmet is the cause of the elevated level of lead found in the groundwater sample TMW-4. **WPC** recommends no further action is needed for the soil or the groundwater.

5.0 Additional Information

This report has been prepared to assist The Virkler Company in evaluating the soil, groundwater, surface water, and microbiological impact of the facility located at 12345 Steele Creek Road, Charlotte, North Carolina. **WPC** provides these services consistent with the level and skill ordinarily exercised by members of the profession currently practicing under similar conditions. This report is intended for the sole use of The Virkler Company. The intent is to aid the property owner, general contractor, abatement contractor, or demolition contractor in any remedial activities that may be needed. This report is not intended to serve as a bidding document nor as a project specification document, and actual site conditions and quantities must be field-verified, and may be different than those found at the time of this report. The scope of services performed in the execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or reuse of this document, the findings, conclusions, or recommendations is at the risk of said user. A reasonable attempt has been made to locate suspect soil, groundwater, or surface water in the areas of concern. Additionally, other possible building hazard materials, such as asbestos and lead-based paint were not included in this evaluation and may require proper sampling for identification prior to disturbance.

The passage of time may result in a change in the environmental characteristics of this site. This report does not warrant against future operations or conditions that could affect the recommendations made. The results or findings, and conclusions are expressed in this report are based only on the conditions that were observed during **WPC**'s observation and testing of the site.

Tables

Table 1
Well Construction Data
The Virkler Company
Charlotte, NC
February 2006

Well ID	Date Installed	Date Water Level Measured	Well Casing Depth (ft.)	Screened Interval (ft.)	Bottom of Well (ft.)	Top of Casing Elevation (ft.)	Depth to Water from TOC (ft.)	Ground Water Elevation (ft.)	Comments
TMW-1	02/03/06	02/07/06	20	10 to 20	19	651.00	Dry	Dry	1-inch Dia.PVC well
TMW-2	02/03/06	02/07/06	24	14 to 24	23.5	650.00	18.53	631.47	1-inch Dia.PVC well
TMW-3	02/03/06	02/07/06	26	16 to 26	25.1	651.00	18.0	633	1-inch Dia.PVC well
TMW-4	02/03/06	02/07/06	20	10 to 20	19.65	647.00	12.8	634.2	1-inch Dia.PVC well
TMW-5	02/03/06	02/07/06	21	11 to 21	20.1	648.00	14.3	633.70	1-inch Dia.PVC well
TMW-6	02/03/06	02/06/06	20	10 to 20	Dry	642.00	Dry	Dry	1-inch Dia.PVC well
TMW-7	02/02/06	02/03/06	26	16 to 26	25.01	650.00	19.01	630.99	1-inch Dia.PVC well
TMW-8	02/02/06	02/03/06	26	16 to 26	25.2	650.00	19.23	630.77	1-inch Dia.PVC well
TMW-9	02/02/06	02/03/06	26	16 to 26	25.2	649.00	19.12	629.88	1-inch Dia.PVC well

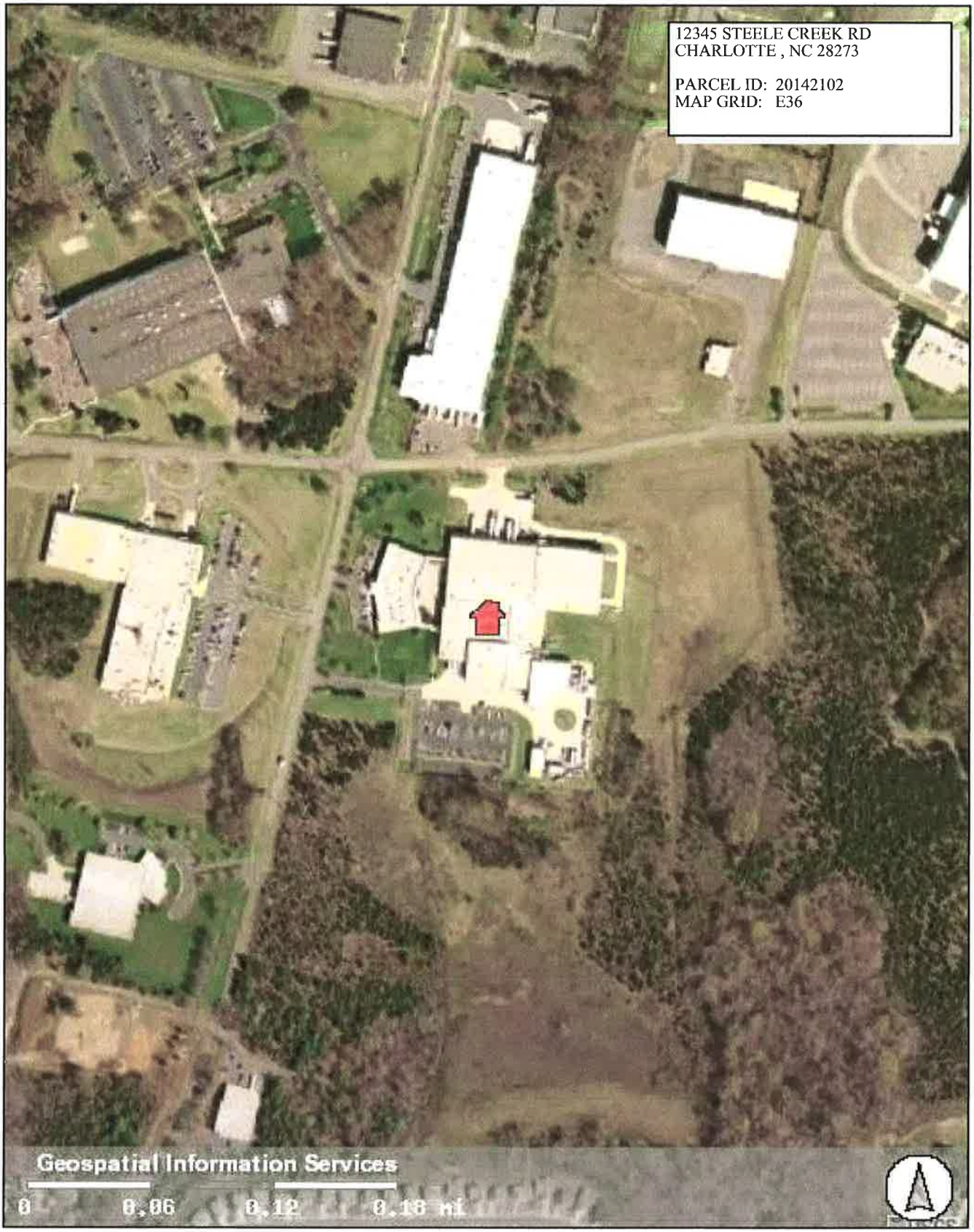
Table 2
Groundwater and Surface Water Sampling Results
The Virkler Company
Charlotte, NC
February 6, 2006

Analytical Test Method	EPA Method 353.2			EPA Method 353.2	EPA Method 353.2	EPA Method 8260 for VOCs	EPA Method 6010
Analyte	**Nitrate as N (µg/L)**	**Nitrate-Nitrite (as N) (µg/L)**	**Nitrite as N (µg/L)**	**Sulfate (µg/L)**	**Formaldehyde (µg/L)**	**Tetrachloroethene (µg/L)**	**Lead (mg/L)**
15A NCAC 02L .0201 Groundwater Standards	***1.0***	***1.0***	***1.0***	***250.0***	***NE***	***0.0007***	***0.015***
15A NCAC 02B .0100 Surface Water Standards	***10000 MCL***	***10000 MCL***	***10000 MCL***	***250,000.0***	***NE***	***0.8***	***25N***
Sample I.D.	**Results**						
SW-1	BQL (0.10)	BQL (0.10)	BQL (0.10)	6.1	BQL (0.125)	BQL (1.0)	BQL (0.0050)
TMW-8	0.88	0.88	BQL (0.10)	50.	BQL (0.125)	BQL (1.0)	BQL (0.0050)
TMW-4	0.39	0.39	BQL (0.10)	15.	BQL (0.125)	**1.4**	**0.028**

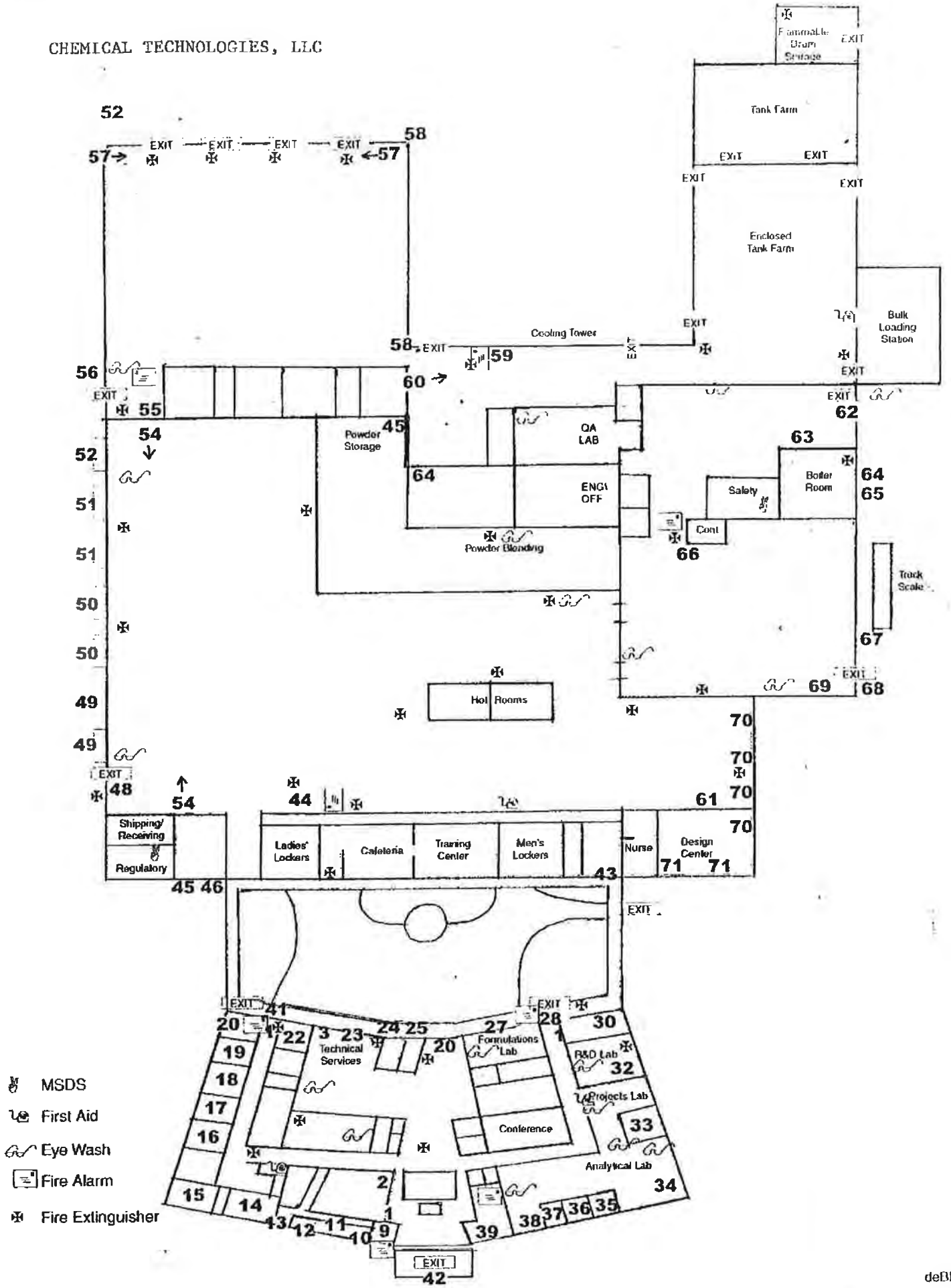
Notes:
SW-1 = Surface Water Sample
TMW = Temporary groundwater Monitoring Well
µg/l = microgram per liter
mg/l = milligrams per liter
NE = Water quality Standard Not Established
MCL = Maximum contaminant level used in drinking water and groundwater
BQL = Below laboratory Quantitive Level
N = Narrative decription of limits or additional narrative language applicable to the standard.
Constitutes **bolded** represent exceedances of the standard.

Address Information Center

Friday 10th of March 2006 08:12 AM



CHEMICAL TECHNOLOGIES, LLC



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WPC ENGINEERING, ENVIRONMENTAL & CONSTRUCTION SERVICES

CHEMICAL TECHNOLOGIES, LLC

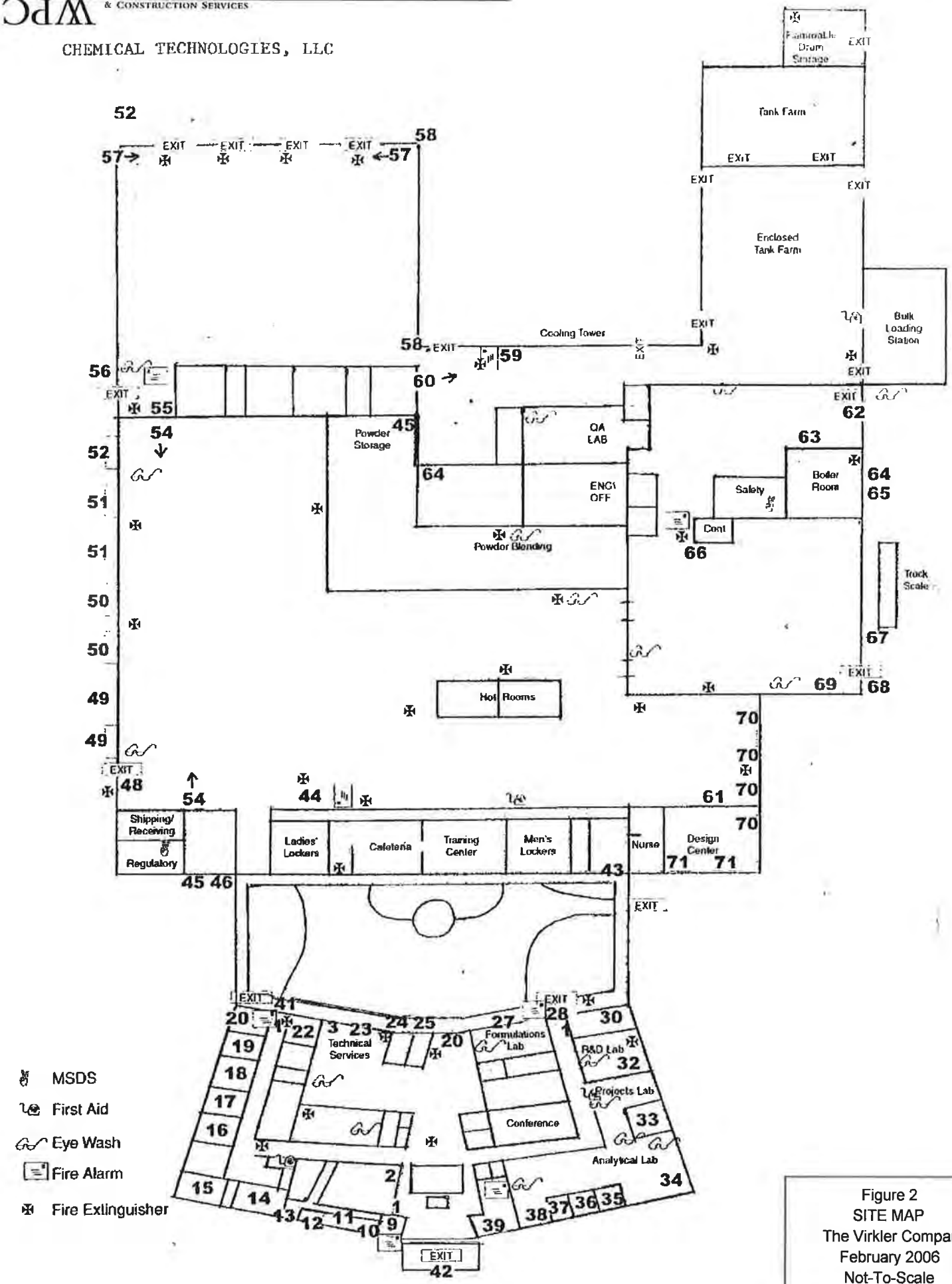

Figure 2
SITE MAP
The Virkler Company
February 2006
Not-To-Scale

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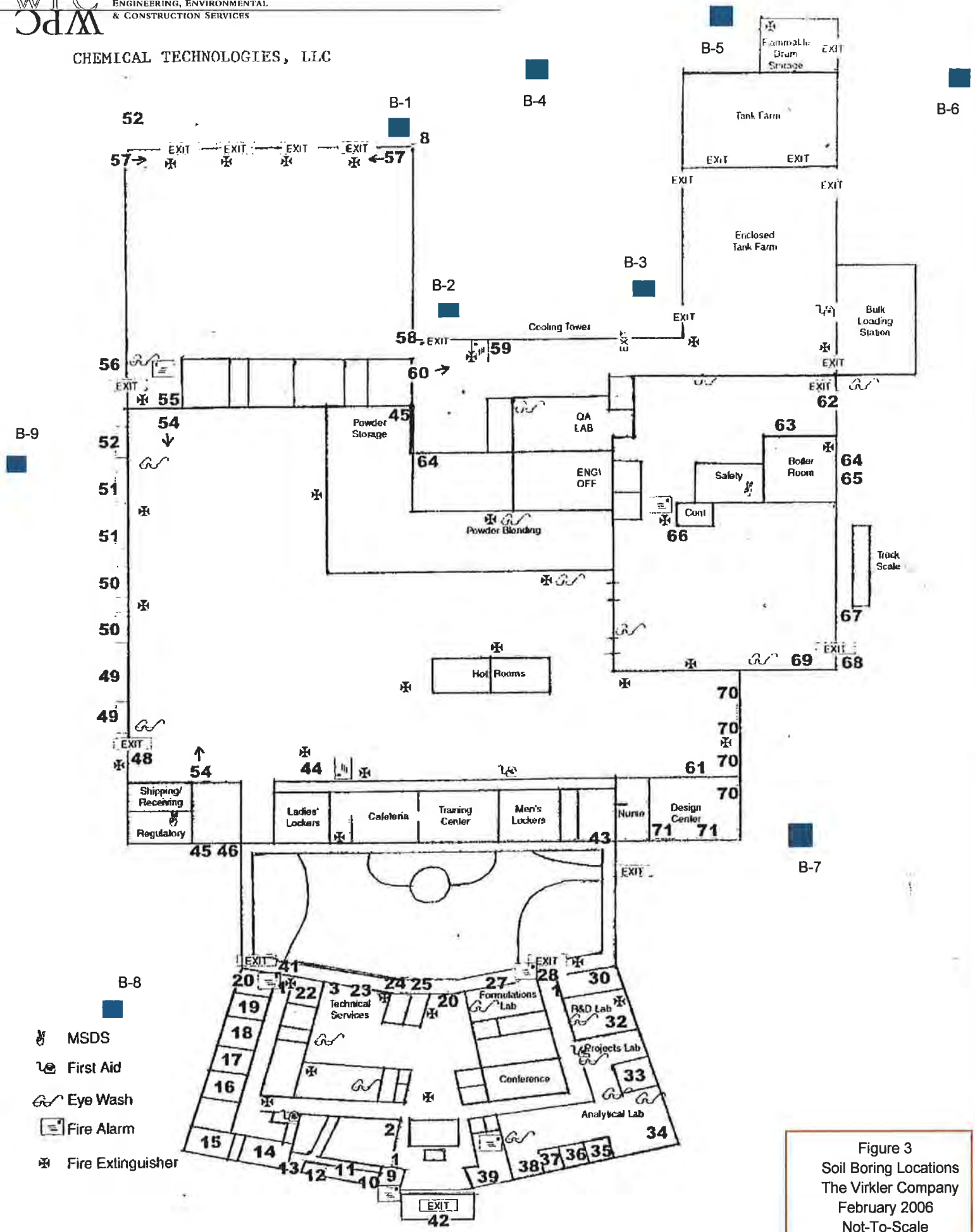

Figure 3
Soil Boring Locations
The Virkler Company
February 2006
Not-To-Scale

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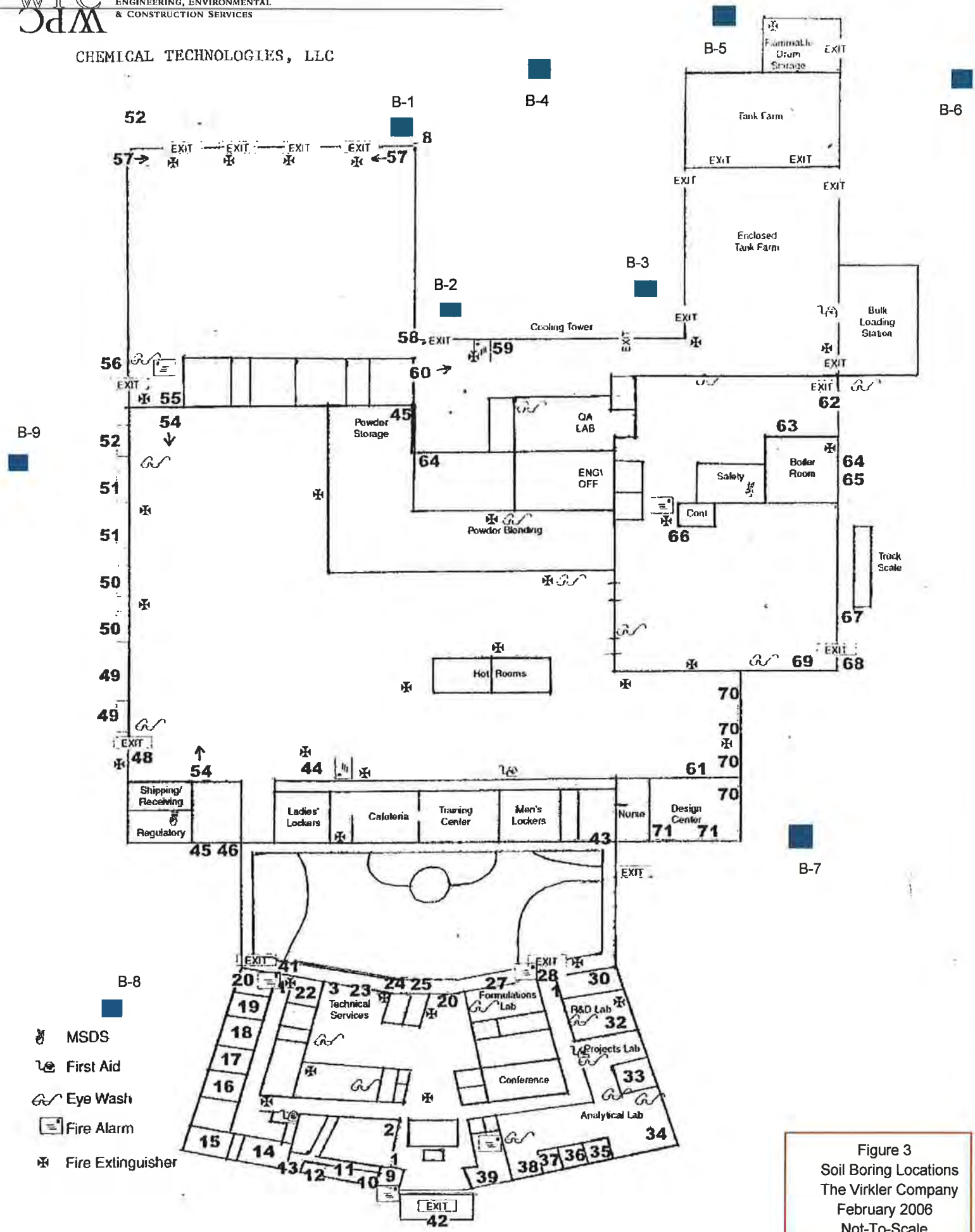

Figure 3
Soil Boring Locations
The Virkler Company
February 2006
Not-To-Scale

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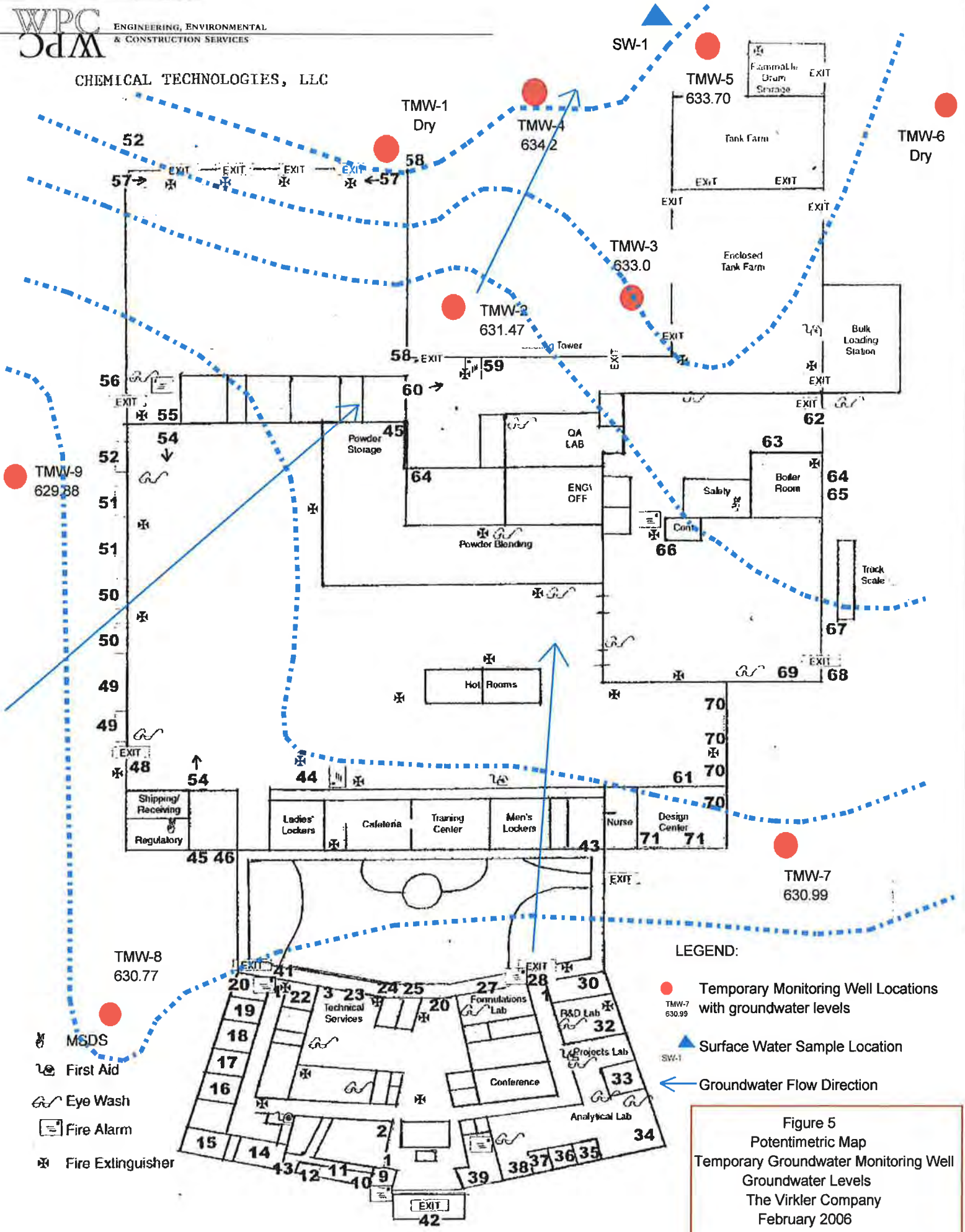

Figure 5
Potentimetric Map
Temporary Groundwater Monitoring Well
Groundwater Levels
The Virkler Company
February 2006
Not-To-Scale

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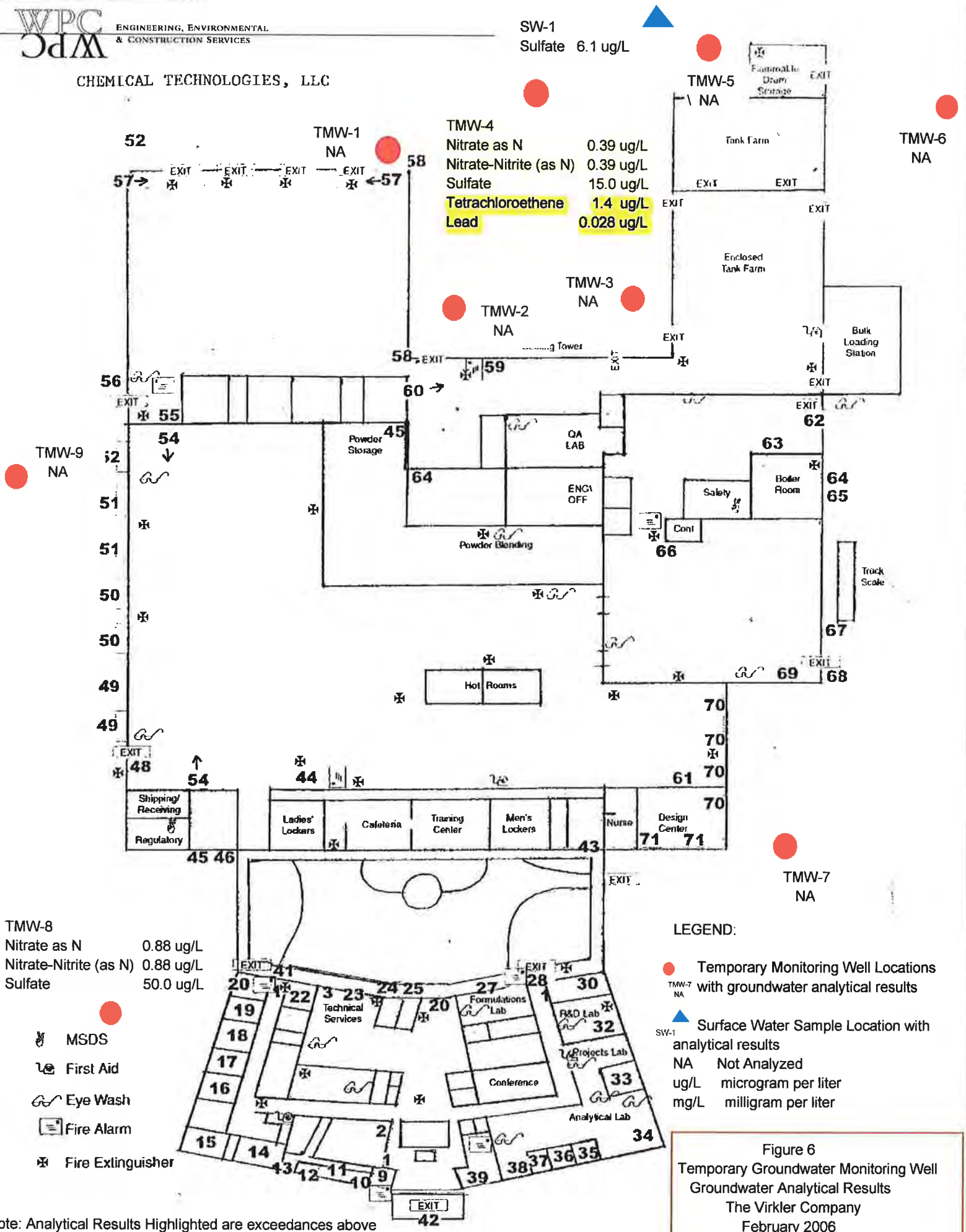

Note: Analytical Results Highlighted are exceedances above 15A NCAC 02L .0201 Groundwater Standards.

Figure 6
Temporary Groundwater Monitoring Well
Groundwater Analytical Results
The Virkler Company
February 2006
Not-To-Scale

ARCADIS
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Phase I Environmental Site Assessment

12345 Steele Creek Road
Charlotte, Mecklenburg County, North Carolina

Date of Site Visit: February 18, 2011

ARCADIS

Jennifer Ditzler
Project Engineer

Thomas J. Marr, P.G.
Principal Hydrogeologist

Phase I Environmental Site Assessment

12345 Steele Creek Road
Charlotte, Mecklenburg County,
North Carolina

Prepared by:
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Fax 704-799-0643

Our Ref.:
TL011514.0001

Date:
April 20, 2011

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Figures

Appendices

Executive Summary

ARCADIS-U.S., Inc (ARCADIS) was retained by Bluestar Silicones USA Corp (Bluestar) to conduct a Phase I Environmental Site Assessment (ESA) of the Industrial facility located at 12345 Steele Creek Road, Charlotte, Mecklenburg County, North Carolina ("the Site").

The Phase I ESA was conducted in general accordance with the American Society for Testing and Materials (ASTM) E 1527-05 *Standard Practice for Site Assessments: Phase I Environmental Site Assessment Process*. The goal of the Phase I ESA was to identify recognized environmental conditions (RECs) and historical recognized environmental conditions (HRECs) associated with the property in conformance with ASTM E 1527-05.

A REC is defined as the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or an observable or obvious threat of a release of hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the *property*, excluding de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

A HREC is defined as an environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently.

The ASTM practice requires environmental professionals to identify data gaps following reasonable inquiry of Site personnel and ARCADIS' search for "reasonably ascertainable" resources. ASTM E 1527-05 defines a data gap as "*a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information.*"

The Phase I ESA included a visual inspection of the property completed on February 18, 2011, observation of adjacent properties, reviews of environmental regulatory agency records, available historical documents and facility records, and interviews with personnel represented to be familiar with the Site as indicated elsewhere in the report.

The Site consists of an approximately 19.1 acre parcel of land located in an industrial setting approximately 7 miles southwest of downtown Charlotte, North Carolina and approximately 2.5 miles northwest of the North Carolina and South Carolina border.

Current operations at the Site include the manufacturing of approximately seven products for outside companies. These products are used in the paper, textile, and asphalt paving industries. Historically the Site produced over 400 products, typically for the textile industry. This included products for washing and drying textiles as well as fixing agents and antistatic products. The Environmental Data Resources (EDR) Radius Map report indicated that the Site manufactured insecticides and fungicides between 2004 and 2008.

The findings identified by ARCADIS are summarized below and discussed in greater detail in the body of the report.

Recognized Environmental Conditions (RECs)

Three RECs have been identified in connection with the Site:

1) Groundwater contamination: A file review at the North Carolina Department of Environment and Natural Resources (NCDENR) office in Charlotte indicated that soil and groundwater investigations had been conducted on the Site, the property to the east of the Site, and the Valmet and Thypin Steel properties during the late 1980s and 1990s. Chlorinated solvents, including PCE, were found to be in groundwater underneath the property to the east of the subject Site and appeared to originate from the Valmet and Thypin Steel properties north of Sam Neely Road. Further investigations did not find any affected groundwater and the State provided a No Further Action letter in March 1994.

   WPC conducted a site assessment in early 2006 and reported their results in a document titled *Preliminary Site Assessment Report; The Virkler Company* dated February 23, 2006. The report states that "…The Virkler Company is concerned that releases from previous operations may have environmentally impacted the soil and groundwater at the site". WPC identified ten areas of potential impact and installed nine soil borings and temporary monitoring wells to investigate the areas of concern. No soil samples and only two groundwater samples were analyzed from the samples collected. One of the groundwater samples, collected from northeast of the tank farms, indicated the presence of tetrachloroethylene (PCE) and lead at levels exceeding their appropriate regulatory limits. Groundwater flow was determined by WPC to be from the

west to the east and Aqua Air was implicated as the alleged source of the PCE in groundwater on the Virkler site.

Given the uncertainty as to the source of the PCE in groundwater and the groundwater flow direction, and the fact that Virkler and WPC did not report the results of this investigation to the NCDENR, the Historical REC was considered a current REC by ARCADIS.

2) A cooling tower and buried sanitary sewer lines and cleanouts are located in a grass court yard area on the east side of the Site building. It appears that liquids have leaked from both the tower and sewer pipe cleanouts. Dead vegetation was observed around both: the area around the cooling tower is approximately 100 feet and as much as 10 feet wide; and the area around the sanitary sewer cleanout is approximately five feet long and as much as three feet wide. The apparent leaks and dead vegetation indicate a REC.

3) A spill of an asphalt additive material was observed at the site. According to Mr. Virkler, approximately 350 gallons of material was spilled from the unloading/loading area adjacent to the tank farm. The approximate date of the spill was April 8, 2011. A heavy rain event occurred that weekend (4-9-11), causing the spill residual liquids to run south along the curb into the storm drain on the southeast corner of the site between the maintenance building and the retention pond. This spill indicates a REC.

No other RECs were identified during this Phase I ESA.

Historical Recognized Environmental Conditions (HRECs)

The historical presence of PCE and lead in groundwater at levels exceeding their respective regulatory limits indicates an HREC.

No other HRECs were identified during this Phase I ESA.

Other Findings

Other findings noted in connection with the site, but are not considered RECs or HRECs, include the following:

- Three sumps are utilized at the facility to collect wash waters at the Site. The sump drains and the concrete around the sumps was heavily soiled. The

structural integrity of the sumps was not able to be inspected as pipes and covers prevented access.

- A parts washer is utilized in the maintenance building. No information was available as to the chemical utilized in the parts washer or the frequency of maintenance for the parts washer.

- Oil stained soil and stressed vegetation was observed adjacent and north of the flammable storage building where several air compressors are located on a concrete pad. Air compressor blow-down and small maintenance spills have caused some localized impact to surface soils. Stressed vegetation and oil stains on the soil are evident in the immediate area around the compressors (see photo log in Appendix A).

- Four 5-gallon metal containers of what appears to be roofing tar were found open and receiving rain water on the exterior south wall of the site building in the loading ramp area next to the truck scales. A small stain of oil is accumulating on the concrete surface as each successive rain event spills additional liquids to the ground. The residual does not appear to have reached soil or the storm drain however this could become a REC if not managed properly.

No other findings were noted in connection with the Site.

Data Gaps

Mr. Virkler stated that Phase I ESA and Phase II soil and groundwater investigations were conducted prior to Virkler Realty Company purchasing the property in 1986 or 1987; and also stated that he was aware of a pH problem with his industrial wastewater discharge however was not able to produce those records during the course of this Phase I ESA. While ARCADIS was able to research and identify some of these records through a file review at the NCDENR Mooresville, office and through the Mecklenburg County wastewater permit section; the uncertainty regarding full documentation of the historical records is a data gap.

1. Introduction

ARCADIS was retained to conduct a Phase I ESA of an approximately 19.1 acre tract located at 12345 Steele Creek Road, Charlotte, Mecklenburg County, North Carolina (Site).

1.1 Purpose

ARCADIS understands that the goal for conducting this Phase I ESA is to assess and document the current status of environmental conditions at the Site. The Scope of Services is based on the assumption that the Site will continue to be used for industrial purposes.

1.2 Detailed Scope of Services

The Phase I ESA was conducted in general accordance with the American Society for Testing and Materials (ASTM) E 1527-05 *Standard Practice for Site Assessments: Phase I Environmental Site Assessment Process*. The goal of the Phase I ESA was to identify recognized environmental conditions (RECs) and historical recognized environmental conditions (HRECs) associated with the property in conformance with ASTM E 1527-05.

A REC is defined as the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or an observable or obvious threat of a release of hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the *property*, excluding de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

A HREC is defined as an environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently.

The ASTM practice requires environmental professionals to identify data gaps following reasonable inquiry of Site personnel and ARCADIS' search for "reasonably ascertainable" resources. ASTM E 1527-05 defines a data gap as "*a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information.*"

ARCADIS' scope of work included:

- on-site inspection of the Site to identify environmental conditions issues as defined above;
- review of available environmental documents for the Site, including previous site assessments and investigations;
- interviews with persons represented to be familiar with the operation and history of the Site (Mr. Howard Virkler and his long time environmental consultant Mr. Ivan Cooper);
- review of property history through interviews, aerial photographs, ownership records, and historical mapping (as available);
- observation of adjacent properties and the local area to evaluate the potential for adverse environmental impact to the Site;
- contracting of Environmental Data Resources, Inc. (EDR) to identify sites of concern as required in the regulatory records review section of the ASTM practice for a Phase I ESA;
- contracting of Environmental Data Resources, Inc. (EDR) to identify any environmental liens; and
- visual assessment of the potential presence of certain asbestos-containing building materials (ACMs), from which, based on age of the structures and appearance, an opinion is rendered as to the presence, condition, and amount of materials suspected to contain asbestos.

Photographs of the Site and surrounding areas were taken to document current conditions and are included in Appendix A.

The Phase I ESA did not include the collection or analysis of soil, air, water, groundwater, or other samples, nor did it include a title search.

ARCADIS performed a visual assessment for certain presumed ACMs by evaluating only readily accessible areas. Material that may be inaccessible, such as behind walls or ceilings, was not evaluated. The visual assessment was not performed in accordance with United States Environmental Protection Agency (EPA) regulations implementing the Asbestos Hazard Emergency Response Act (40 Code of Federal Regulations (CFR)

763.80 et seq.) or with the U.S. Occupational Safety and Health Administration (OSHA) *General Industry Standard: Occupational Exposure to Asbestos* (29 CFR 1910.1001).

1.3 Significant Assumptions

ARCADIS has assumed that the information sources utilized for this investigation provided accurate information. Evaluations presented in this report are based exclusively on information provided by Process Innovation personnel, and observations made during the Site visit. No invasive field activities were conducted and no laboratory analyses were performed.

The boundaries of the Site were described in documents provided by Process Innovation Site personnel and by interviews with Site personnel. ARCADIS assumed this information was accurate.

1.4 Limitations and Exceptions

It is understood that the services performed and any opinions expressed by ARCADIS in the report are based upon the limits of the investigation as described above. It is understood that ARCADIS has relied upon the accuracy of documents, oral information, and other material and information provided by Client and others, and ARCADIS assumes no liability for the accuracy of such data. Similarly, past and present activities on the Site indicating the potential for the existence of environmental concerns may not be discovered by ARCADIS' inquiries. ARCADIS can offer no assurances and assumes no responsibility for Site conditions or Site activities that are outside the scope of the services as described above, or for changes to Site conditions or regulatory requirements which may apply after completion of the services by ARCADIS. It is understood that such changes can lead to liability in connection with the Site which will not be identified in the report. ARCADIS will review the information obtained in connection with the performance of the services as described above, in keeping with existing applicable environmental consulting standards and enforcement practices, but cannot predict what actions any given agency may take or what standards and practices may apply in the future.

1.5 Special Terms and Conditions

No special terms and conditions were imposed on this Phase I ESA.

1.6 Reliance

It is understood that this report was prepared for the sole use of the Client, and the contents thereof may not be used or relied upon by any other person without the express written consent and authorization of ARCADIS.

1.7 Deviations

No significant deviations from the referenced ASTM Standard occurred except the absence of a title search which was authorized by the Client.

1.8 Additional Services

ARCADIS completed a visual assessment for the potential presence of presumed ACMs as defined above.

2. Site Location/Land Use

2.1 Site Ownership/Occupancy

According to information presented by Process Innovation and confirmed with the Mecklenburg County Board of Tax Assessors, as well as an EDR Lien Search Report, the Site property is owned by Virkler Realty LLC. The property title was transferred from the Virkler Realty Company in April 1994. Based on interviews with Mr. Howard Virkler, Virkler Realty Company purchased the property from a real estate broker in either 1986 or 1987, constructed the office building in 1989, and constructed the manufacturing building in 1990. Operations began as The Virkler Company in 1990. The Virkler Company merged with Chemical Technologies for an approximate two year period between 2004 and 2006 when the operations reverted back to The Virkler Company. In 2008, Process Innovation was formed and began operations at the Site. According to historical records, a company called Coatings by Virkler operated at the Site.

2.2 Location and Legal Description

The Site is located in an industrial and commercial setting in the southwestern portion of Charlotte, Mecklenburg County, North Carolina. The 1994 deed is provided as part of the EDR Lien Search Report provided in Appendix B. No environmental liens or activity use limitations were discovered for the Site.

The office building is located at Latitude 35.125400 north and Longitude 80.980100 west and is located at an elevation of approximately 649 ft above mean sea level (amsl). The general location of the Site and physiographic features of the surrounding area are shown on Figure 1, developed from the United States Geological Survey (USGS) topographic maps for Charlotte West and Fort Mill, North Carolina.

The Site consists of an approximately 19.1 acre parcel of land located in an industrial setting approximately 7 miles southwest of downtown Charlotte, North Carolina and approximately 2.5 miles northwest of the North Carolina and South Carolina border.

2.3 Site Vicinity Characteristics

Properties surrounding the Site mainly consist of industrial, vacant industrial, and vacant properties. The abutting properties include:

- North: Sam Neely Road, Atlantic Corporation (12201 Steele Creek Road; Packaging Supplies). Northeast is Southern Steel (12933 Sam Neely Road;

formerly New South Fabricators; site appears to be mostly vacant) and northwest is Steele Creek Road and Toyota Industrial Equipment (12200 Steele Creek Road; formerly Okuma).

- East: Vacant property covered with vegetation and trees.
- South: Comer Industries (12730 Virkler Drive; designs and produces engineering and mechanical systems for power transmissions), 12810 Virkler Drive (what appears to be a newly constructed building with no tenants noted). Southwest is Gita (12500 Steele Creek Road).
- West: Steele Creek Road, Aplix (12300 Steele Creek Road; designs and produces fastener systems for numerous applications).

Based on ARCADIS' observations, the closest residence is approximately 1,000 feet south of the Site. No visual evidence of environmental concerns on the properties abutting the Site was identified by ARCADIS during the Site visit.

3. Site History

3.1 General Information

Based on interviews with Mr. Howard Virkler, documents provided by Process Innovation, and a review of historical aerial photographs, the Site was vacant and/or used for agricultural purposes until the Site was developed for use in 1989. Mr. Howard Virkler oversaw construction activities at the Site beginning in 1989 and has worked at the Site since The Virkler Company began operations in 1990.

3.2 Historical Information Provided During Interviews

Mr. Howard Virkler, Manager of Process Innovation was interviewed to obtain historical information pertaining to the Site. Mr. Virkler, along with his brother Craig Virkler, purchased the Site property and approximately 80 additional acres, in 1986 or 1987. The brothers purchased the property as Virkler Realty Company. The Site property was transferred to Virkler Realty LLC in April 1994.

Previously described general historic information and Site ownership and occupancy information were obtained from Mr. Virkler.

3.3 Previous Environmental Reports

3.3.1 NCDENR File Review

Mr. Thomas Marr with ARCADIS conducted a file review of the Valmet site and surrounding properties (including the subject Site) at the Mooresville office of the North Carolina Department of Environment and Natural Resources (NCDENR) on April 14, 2010. The file contained information on investigations that were conducted in the late 1980's and early 1990's on the Valmet and Typhin Steel properties north of Sam Neely Road and the tract of land to the southeast of the intersection of Sam Neely Road and Steele Creek Road (the Burroughs property – part of which now contains the Virkler Subject Site).

Summary of file data:

1) *Contamination Survey Data Analysis; Sam Neely Road*; Universal Engineering Sciences; September 2, 1988. Universal provided a review of two previous investigations conducted by Law Engineering. In addition, Universal contacted the North Carolina Department of Natural Resources and Community Development (NCDNRCD) to discuss the findings of the previous

investigations. The report states that solid waste disposal was observed on the property; however, none of the wastes appeared to be hazardous or toxic in nature. The reports states that, based on soil and groundwater data, an offsite source is likely. Four possible sources of contamination were mentioned: Aplix; Aquair Corporation; Thypin Steel; and Valmet-KMW.

2) *Report of Ground-Water Analytical Testing; Sam Neely Road;* Law Engineering, September 8, 1988. Table indicates chlorinated VOCs detected in six of the seven monitoring wells, including the well located on the subject Site (MW-6). MW-1 through MW-5 and MW-7 are located on the property to the east of the subject Site.

3) Letter from The Virkler Company to the NCDNRCD; December 6, 1988. The letter states Virkler's understanding that both Virkler and the State are conducted investigations and that the State would not require Virkler to clean up the property it planned to purchase if the existing contamination was found to originate from an offsite property.

4) Letter from NCDNRCD to The Virkler Company; February 24, 1989. The letter states that after reviewing reports from the property to the south of Sam Neely Road and their own investigation results, they do not believe that further investigation is warranted south of Sam Neely Road.

5) *Ground-Water Sampling and Chemical Analysis Report; Burroughs Property, Eastern Tract;* September 7, 1989. This report provides details about a groundwater investigation that was conducted on the larger tract of land, including the subject Site property. Details regarding the waste that was discovered during the initial site assessment were included and the report states that the sawdust found on the Valmet property in a "Land Scar Area" contained trichloroethane, trichloroethene, and toluene. The report also states that four additional wells (MW-8 through MW-12) were installed on the subject Site and sampled, along with the existing wells (MW-1 through MW-7 [east of the subject]) and the wells installed by the NCDNRCD on the Valmet property. Groundwater flow direction was measured to be towards the southeast. Acetone was detected in monitoring wells MW-1, MW-2, and MW-4 and also in the laboratory method blank. The report concluded that these concentrations are likely a laboratory contaminant and not an actual groundwater contaminant. Methylene chloride was detected in well NC-4, located to the north of the Thypin Steel Company building, and the report concluded that the constituent could not have come from the subject Site or the property to the east (the properties south of Sam Neely Road). No chlorinated solvents were

detected in groundwater and the report concluded that no further hydrogeologic investigation activities were warranted.

6) Letter from Commonwealth Engineering Associates to the NCDNRCD; September 15, 1989. The letter states that earlier results indicating contamination at the property south of Sam Neely Road were either collected without a trip, laboratory, or field blank or the samples were out of hold time, and therefore the results could not be used to validate contamination on the property. Additionally, the letter indicates that Westinghouse found no concentrations in the groundwater at levels above the individual constituent quantitation limits and asks that the site be removed from the NCDNRCD site investigation priority list.

7) Letter from Priester & Associates to the North Carolina Department of Environment, Health, and Natural Resources (NCDEHNR); February 11, 1994. The letter indicates that NCDEHNR required that monitoring wells be resampled using an updated EPA Method. Three sets of groundwater monitoring data were collected from wells MW-1 through MW-4 on the Valmet property in November 1992, August 1993, and January 1994 and results indicated no detections of constituents of concern. The letter closes by requesting that the site be removed from the Groundwater Incidents List and permission to abandon the monitoring wells.

8) Letter from the NCDEHNR to Priester & Associates; March 9, 1994. The letter states that after a review of the February 11, 1994 and data, no further action is required at the site and that the wells may be abandoned.

3.3.2 Virkler Provided Documents

A previous environmental investigation report pertaining to the Site was provided to ARCADIS by Mr. Howard Virkler (Appendix C). Mr. Virkler stated that a Phase I ESA was conducted prior to Virkler Realty Company purchasing the property; however, this report was not available for review.

Preliminary Site Assessment Report; The Virkler Company; WPC; February 23, 2006.

The report states that "…The Virkler Company is concerned that releases from previous operations may have environmentally impacted the soil and groundwater at the site". WPC identified ten areas of potential impact and installed nine soil borings and temporary monitoring wells to investigate the areas of concern. No soil samples and only two groundwater samples were analyzed from the samples collected. One of

the groundwater samples, collected from northeast of the tank farms, indicated the presence of tetrachloroethylene (PCE) and lead at levels exceeding their appropriate regulatory limits. The WPC report indicated an easterly direction with arrows on their water table contour maps however their elevations on the maps reveal a westerly flow direction. While this is a clear technical problem in the report, it appears that WPC determined that groundwater flow was in a westerly direction as they were implicating Aquair as the site with PCE contamination they were alleging was responsible for PCE in groundwater at the subject Site.

WPC indicated that they performed a file review of surrounding properties at the North Carolina Department of Natural and Environmental Resources (NCDENR). The report provides a brief discussion of the file review as summarized below:

- Unocal (12040 Goodrich Drive): east of the Site, several constituents of concern (COCs) including PCE, flow direction to the northeast. Ongoing work is being conducted at the facility.

- Aqua Air Company (13300 Sam Neely Road): northeast of the Site, with COCs including PCE, flow direction to the south-southwest. Ongoing work is being conducted at the facility.

- Air Products (11900 Goodrich Drive): northeast of Site, site closed as of 1991.

- Valmet (12933 Sam Neely Road): northeast of the Site, site closed as of 2002.

WPC concluded that the PCE and lead in groundwater at the Site were from the Aqua Air and Valmet facilities, respectively.

Mr. Virkler stated during the interview that no correspondence had ever been received from off-site property owners indicating releases to the subject Site property. Mr. Virkler also stated that the NCDENR was not made aware of the findings from the 2006 Preliminary Site Assessment conducted by WPC.

No other environmental documents were reviewed for the Site.

3.4 Evaluation of Historic Information Sources

To determine past uses of the Site and surrounding properties, ARCADIS interviewed Mr. Howard Virkler of Process Innovation and reviewed previous environmental documents provided by Process Innovation, historical sources of information drawn

from historical aerial photographs (Appendix D), historical topographic maps (Appendix E), and City Directories (Appendix F). Historic Sanborn Fire Insurance Maps (Appendix G) were not available for the Site.

Table 1 Summary of Historical Records Reviewed

	Years Reviewed	
Source of Information	***Subject Site***	***Adjacent Properties***
Interview(s)	Mr. Howard Virkler, Manager, Process Innovation	None
Historical Insurance Mapping	No coverage	No coverage
Topographic Map(s)	1905, 1942, 1949, 1968, 1980, 1993	1905, 1942, 1949, 1968, 1980, 1993
City Directories (organized by address)	1921-2005	1921-2005
Aerial Photograph(s)*	1968, 1973, 1983, 1988, 1993, 1996, 2006	1968, 1973, 1983, 1988, 1993, 1996, 2006
Other:	Document review	Not readily available

3.4.1 Site

The Site property appears to be used for agricultural purposes and/or vacant on the 1968, 1973, 1983, and 1988 aerial photographs. The current building footprint and Site features are shown on the 1993, 1996, and 2006 aerial photographs. Site features visible on the photographs include the office building, the manufacturing/warehouse building, paved parking and driveway areas, and the outside tank farm.

The 1905 and 1942 topographic maps have a large scale; therefore, no Site details can be discerned. The northern portion of the Site property is shown on the 1949 topographic map and it is not indicated to be developed with buildings and is not wooded. The property is split between two topographic maps for the years 1968, 1980, and 1993. The property is not shown to be developed with buildings or wooded on the 1968 and 1980 topographic maps. The 1993 topographic maps shows the site to be in a “built-up area” as designated by the topographic map symbol legend.

The EDR City Directory Abstract indicates the Site property occupied by The Virkler Company in the 1999 city directory and both Chemical Technologies and Coating Concepts by Virkler in the 2005 city directory.

Sanborn Fire Insurance Map coverage was not available for the Site.

3.4.2 Adjacent Properties and Surrounding Area

The adjacent properties appear to be utilized for agricultural and residential purposes on the 1968 aerial photograph. In addition, portions of the surrounding properties are wooded. The 1973 aerial photograph shows that the facility located at 11900 Steele Creek Road has been constructed. Additional facilities along Steele Creek Road (north, northeast, northwest, and west of the Site property) have been constructed on the 1983 aerial photograph. The 1988 and 1993 aerial photograph depicts additional facilities in the area surrounding the Site property have been constructed. Residential development is observed on the 1988 photograph to the south and west of the Site. The 1996 and 2006 aerial photographs appear similar to the 1993 aerial photograph with the exception of additional residences being added to the west and south of the Site property.

The 1905 and 1942 topographic maps have a large scale; therefore, no Site details can be discerned. Steele Creek is observed on the 1949 topographic map and Sam Neely Road is shown to be an unimproved road directly north of the Site property. Some small buildings are also noted directly north of the Site in sporadically in the general area of the Site. The 1968 topographic map appears similar to the 1949 topographic map with the exception of the addition of Carpenter Airport. The 1980 topographic map indicates construction of several industrial facilities to the north and northwest of the subject Site property. A railroad line is observed to the east and north of the Site. The area along Steele Creek Road is depicted as a “built up area” on the 1993 topographic map.

No surrounding properties were located in the City Directory Abstract provided by EDR.

Sanborn Fire Insurance Maps were not available for adjacent properties.

4. Environmental Setting

4.1 Topography

The EDR Radius Report indicates that the Site office building is located at an approximate Latitude 35.125400 north and Longitude 80.980100 west. From the USGS Charlotte West and Fort Mill, North Carolina Quadrangles, the elevation for the Site is approximately 649 ft amsl (above mean sea level). The topography at the Site is relatively flat with a slight slope towards the east and the adjacent property. A large berm was constructed in the southeastern portion of the Site, as stated by Mr. Virkler, to provide an area for storm water collection. Figure 1 depicts the location of the Site on the topographic map.

Several mounded soil areas covered with grass, notably between Sam Neely Road and the building on the north side of the Site, and also east of the parking area and fence across from the maintenance building. These areas of mounded dirt are from site grading work completed during construction activities. Mr. Virkler stated that no soil samples were collected and analyzed prior to the soil being placed in these new locations.

4.2 Geology

The Site soils are classified as the Iredell soil type consisting of fine sandy loam which is moderately well-drained. The geology underlying fine sandy loam is depicted as clay and clay loam.

4.3 Groundwater

Groundwater flow direction is reported in the EDR Radius Report to be to the southwest at property that is located approximately one mile east of the subject Site. Documentation from the NCDENR Regional Office in Mooresville, North Carolina regarding soil and groundwater investigations conducted at the Valmet, Thypin Steel, Site, and property to the east of the Site indicate that groundwater flow is to the southeast.

4.4 Wetlands and Flood Zones

No formal wetland evaluation was conducted by ARCADIS as part of this assessment. The National Wetlands Inventory (NWI) data coverage from the EDR Radius Report depicted one small wetland area on the Site property, Virkler Drive, and the Comer Industries property adjacent to the south. This wetland was not observed during the

Site reconnaissance and the general area illustrated in the report is mostly paved. Additional small wetland areas are shown sporadically in all directions from the Site.

The EDR Radius Report indicated that the Site is not located within either a 100-year or 500-year flood zone area. Areas along Lake Wylie, to the northwest of the Site are located in 100-year and 500-year flood zones.

5. Site Reconnaissance and Records Review

5.1 Methodologies and Limiting Conditions

The Site reconnaissance was conducted on February 18, 2010 by Ms. Jennifer Ditzler of ARCADIS. The ARCADIS representative was accompanied on the Site visit by Mr. Howard Virkler, for Process Innovation. Mr. Virkler purchased the subject Site property with his brother Mr. Craig Virkler in 1986 or 1987. Mr. Howard Virkler oversaw construction activities at the Site and has worked at the Site since The Virkler Company started operations in 1990.

The Site boundaries and general operations at the Site were defined based on the information provided by Mr. Virkler. Weather conditions during the Site visit were partly sunny with a temperature of 70 degrees Fahrenheit (ºF). The ground was visible (i.e. no snow or ice cover).

5.2 General Site Description

The Site consists of an approximately 19.1 acre parcel of land located in an industrial setting approximately 7 miles southwest of downtown Charlotte, North Carolina and approximately 2.5 miles northwest of the North Carolina and South Carolina border.

The Site includes paved parking and driveway areas surrounding the Site buildings. Grass and trees were noted between the paved areas of the Site and the property boundaries. There are four Site buildings: 1) a building for office and laboratory space (approximately 22,000 square feet); 2) a building for manufacturing and warehouse space; 3) a building for flammable material storage; and 4) a building for maintenance activities and storage. According to the Mecklenburg County Tax Assessor records, the Site has total building area of 154,215 square feet.

5.2.1 Office Building

The building used for offices and laboratory space includes: miscellaneous offices, meeting spaces, and four main laboratory areas. One of the laboratories is not in use, one laboratory is used by Process Innovation and the other two laboratories are leased out to Physician Choice Lab Services (PCLS) and Tens Tech Inc. (Dr. Thomas Theyson). According to Mr. Virkler, both of the leased laboratories perform laboratory analyses associated with drug testing for individuals and Mr. Virkler stated that he approves all chemicals the leased laboratories bring onsite. A small janitorial room was observed with cleaning supplies, a wash sink, two transformers, and an old steam regulating device. An additional transformer was noted in an electrical room with fuse

panels. Another small room was historically utilized for storing gas canisters with piping between this room and the different laboratories. Only one canister was observed in the room (Argon). A hot water heater, run with natural gas was observed in another room. The two leased laboratory spaces were not entered during the Site reconnaissance. Small amounts of numerous chemicals were observed in the two laboratories not leased. Physical testing equipment as well as washing machines and other machines for testing fabrics were observed in the building. Only two of the approximately 20 office spaces in the building were occupied at the time of the Site reconnaissance.

A courtyard area is located between the office building and the manufacturing and warehouse building. The courtyard is enclosed on the sides, but has no roof. The courtyard is also paved.

5.2.2 Manufacturing and Warehouse Building

Loading docks are located along the north and northeast sides of the warehouse building. Warehouse space was observed in the northern, northeastern, and western portions of the building. Mr. Virkler stated that a portion of the warehouse space in the northeastern portion of the building is leased to a company for use as storage. Miscellaneous parts, metal pieces, and tool boxes (no chemicals) were observed. Locker rooms, a training center, a nurse's office, a cafeteria, and a few small office spaces are located along the western side of the building. Two hot rooms (ovens) are located in the west-central portion of the building and powder blending equipment is located in the central portion of the building. Four clean rooms, utilized when making food-grade products, were observed in the northeastern portion of the building. Manufacturing of products takes place in the southern portion of the building. Several batch tanks and mixing/blending tanks were observed in this portion of the building. Three sumps are used in this portion of the building to collect the wash water from the washing of these batch and mixing/blending tanks. The wash water is pumped from the sumps to the holding tank at the sewer inlet (discussed in Section 5.7). A solvent still was observed in the manufacturing area. Several drums of PCE were observed adjacent to the still.

A covered unloading/loading area is located adjacent to the inside tank farm. The outside tank farm is to the east of the inside tank farm. According to Mr. Virkler, all piping between the unloading/loading area and the tanks farms is above ground. Some staining was observed on the building wall and concrete floor in the piping connection area. A spill of approximately 350 gallons of asphalt additive material occurred around April 8, 2011. The spill appeared to originate in the unloading/loading area and traveled southeast across the pavement. A heavy rain event occurred that

weekend (April 9, 2011), causing the spill residual liquids to run south along the curb into the storm drain on the southeast corner of the site between the maintenance building and the retention pond.

A cooling tower and a sanitary sewer cleanout area located on the east side of the manufacturing building. It appears that the cooling tower overflows often. Water from the cooling tower flows to the east towards the property boundary and dead vegetation was observed along the flow path. Leaks from the sanitary sewer cleanout also appear to have occurred with dead vegetation observed in the area.

5.2.3 Flammable Storage Building

The flammable drum storage building is located to the east of the outside tank farm. Approximately 11 drums of flammable materials were observed in the building as well as two pieces of old equipment and some furniture. Adjacent and north of the flammable storage building is a covered air compressor equipment area. Air compressor blow-down and small maintenance spills have caused some localized impact to surface soils. Stressed vegetation and oil stains on the soil are evident in the immediate area around the compressors (see photo log in Appendix A).

5.2.4 Maintenance Building

The maintenance building is located to the south of the manufacturing building. Miscellaneous parts, chemicals, and tools were noted in the maintenance building as well as a 20-gallon parts washing machine. There was no signage on the parts washer machine indicating the chemical used and Mr. Virkler did not have any information on the washer. Two semi-truck trailers were observed outside the maintenance building and store miscellaneous parts for site machinery.

A layout of the Site is presented on Figure 2, and photographs from the Site visit are presented in Appendix A.

5.3 Utilities

The facility is provided with the following utilities:

- Water – City of Charlotte;
- Sanitary Sewerage – City of Charlotte;

- Storm Sewerage - storm water is discharged offsite through a series of drainage ditches and a collection pond in the southeasternmost corner of the property;
- Electric – Duke Energy;
- Natural Gas – Piedmont; and
- Trash Collection – All Points Waste.

5.4 Processes and Material Use

5.4.1 Current Operations

Current operations at the Site include the manufacturing of approximately seven products for outside companies. These products are used in the paper industry, asphalt paving products, textile industry. Mr. Virkler stated that they may begin production of materials for the paint industry and for adhesion products. Historically, according to Mr. Virkler, the Site produced over 400 products, typically for the textile industry. This included products for washing and drying textiles as well as fixing agents and antistatic products. Mr. Virkler commented that manufacturing of these products ceased approximately when Chemical Technologies and The Virkler Company split apart in 2006.

A list of both current and historical chemicals present at the Site is included in Appendix H. The list was compiled by Mr. Warren Roberts, manufacturing manager, for the Site. Mr. Roberts stated that the historical list of chemicals was compiled from information dated 2005, 2009, and 2011 and that he believes that the historical list may be incomplete.

Batch tanks are used to gather the specific amounts of each material for a chemical product to be manufactured. The materials are moved to the manufacturing area where the chemical products are created. Tanks are cleaned, according to Mr. Virkler, by using air to spray out the tank. The tank is then washed with water. The wash water is transferred to a holding tank (discussed in Section 5.7).

5.4.2 Discontinued Operations

Manufacturing of chemical products has always been conducted at the Site; however, the products manufactured have changed over time and have included products for the

textile industry and animal supplements. Mr. Virkler stated that the powder blending equipment observed during the Site reconnaissance is no longer utilized.

5.5 Material Handling and Storage Practices

5.5.1 Container Storage

Chemical use and/or storage observed at the Site includes the following:

- Aboveground storage tanks (ASTs) in the inside tank farm store various chemicals and range in volume between 3,300 gallons to 8,000 gallons;
- ASTs at the outside tank farm store various chemicals and range in volume between 3,300 gallons to 8,000 gallons;
- 55-gallon drums of various chemicals located in warehouse portions of the building;
- Small amounts of various chemicals associated with laboratory work were observed in the laboratory spaces in the office building. A few containers were noted without labels; and
- Small amounts of various chemicals associated with maintenance activities. These products were observed in the maintenance building.

ARCADIS did not observe any areas of significant staining in association the chemical use and storage summarized above.

5.5.2 Underground Storage Tanks (USTs)

According to Mr. Virkler, no USTs are present at the Site. ARCADIS did not observe indicators of USTs such as fill or vent pipes during the Site visit. The EDR report did not identify the presence of USTs at the Site.

5.5.3 Aboveground Storage Tanks (ASTs)

Based on observations made at the Site and information provided by Mr. Virkler Process Innovation, the Site has two ASTs in operation, three inactive ASTs, one former AST, and hydraulic equipment, including the following:

- 16 ASTs located in the outside tank farm. One ASTs stores fuel oil, while the remaining in-use ASTs store materials for the manufacturing of chemical products. According to a tank summary provided by Mr. Virkler, three ASTs have been removed from the outside tank farm.

- 45 ASTs located in the inside tank farm. All contain materials for the manufacturing of chemical products.

With the exception of these ASTs, ARCADIS did not observe evidence of any other ASTs during the Site visit. Furthermore, the EDR report did not identify the presence of registered ASTs at the Site.

5.6 Hazardous and Non-Hazardous Waste Management

5.6.1 Hazardous Waste

Mr. Virkler stated that the Site operations do not currently involve generation, storage, treatment, or disposal of hazardous waste. Mr. Virkler was not aware if the Site has or has historically had a hazardous waste generator status. The Site was not listed in the EDR report as a generator of hazardous wastes. Mr. Virkler believed that at the time that Chemical Technologies left the Site property, that some lab materials may have been sent offsite for hazardous wastes disposal.

During the Site reconnaissance, ARCADIS did not observe any wastes onsite other than non-hazardous solid wastes.

5.6.2 Non-Hazardous Waste

Non-hazardous wastes generated at the Site includes packaging products such as cardboard, wooden pallets, and plastics as well as conventional office-type wastes.

5.7 Water, Wastewater and Storm Water

5.7.1 Water

The City of Charlotte provides water to the Site property. The Site utilizes water in restrooms and for washing out of batch and manufacturing tanks. No visual evidence of wells, such as water wells or groundwater monitoring wells, were observed at the Site by ARCADIS personnel.

5.7.2 Wastewater

Wastewater currently generated at the Site includes sanitary wastewater and water from the washing out of batch and manufacturing tanks. The wash water is pumped to a holding tank where the pH is checked and adjusted as necessary. The water is then released to the sanitary sewer system. According to Mr. Virkler, the Site has a permit with the Charlotte-Mecklenburg Utility District (CMUD). This permit requires periodic sampling of the wastewater prior to release to the sewer system. Mr. Virkler commented that the facility has occasionally received Notice of Violations (NOVs) for reporting results past the deadline. In addition, NOVs have been received for exceedance of permit limits. Mr. Virkler stated one constituent in particular, xylene, but said that the exceedance was later attributed to laboratory error. No paperwork was provided for review on these NOVs.

ARCADIS received an e-mail from an environmental Compliance Specialist with the Charlotte Mecklenburg Utilities regarding recent non-compliance with the wastewater permit. Charlotte Mecklenburg Utilities described "Significant Non-Compliance last year during the July through December 2010 reporting period for submitting the August 2010 Self-Monitoring Report more than 30 days late and failure to complete the Self-Monitoring event required in November 2010". "They were assessed a total of $675.00 in civil penalties, which have been paid." "They also had a lab reporting violation which occurred in February 2011."

5.7.3 Storm Water

Storm water from all of the paved areas on the Site flow into a retention pond located in the southeastern corner of the property. Mr. Virkler stated that he constructed this pond as part of a plan for storm water containment under a storm water permit. Mr. Virkler stated that a storm water permit is not required for the Site. The surface spill which occurred on or about April 8, 2011 appears to have reached this retention pond as a heavy rain event on April 9, 2011 would have carried spill residual liquids into the storm water catch basin located between the maintenance building and the pond.

5.7.4 Ponds and Sumps

Three sumps were observed in the manufacturing portion of the building. Any liquids from these sumps, according to Mr. Virkler are pumped via aboveground piping to a holding tank at the inlet to the sanitary sewer. The contents of the tank are checked for pH and adjusted as necessary prior to release to the sewer system. As stated in Section 5.7.2 above, the Site has a permit with CMUD.

One storm water retention pond is discussed in Section 5.7.3 above.

5.8 Air Emissions

The Site was granted a construct/operate permit from NCDENR for a batch chemical manufacturing process. The permit is dated March 24, 2009 and was granted to Process Innovation LLC. The application or contents of the permit were not reviewed during the course of this Phase I ESA.

5.9 Polychlorinated Biphenyls (PCBs)

In 1979, USEPA banned the commercial manufacture of polychlorinated biphenyls (PCBs) in the United States; however, PCBs may still be present in materials and equipment produced before 1979. The Site was built in 1989 and 1990; therefore, it is highly unlikely that the site contains equipment historically associated with PCBs. Three dry transformers were observed inside the building and pole-mounted transformers were noted along Steele Creek Road. The transformer appeared to be in good condition; however, no labels regarding PCB content were observed.

5.10 Asbestos-Containing Materials

Asbestos was banned in most friable building materials (spray-applied surfacing materials and thermal system insulation) in 1978, but OSHA deems spray applied surfacing materials, thermal system insulation materials, and vinyl flooring materials as presumed asbestos-containing materials (PACMs) if they are present in pre-1980 buildings (Title 29 of CFR, Parts 1910.1001 and 1926.1101). Based on information provided by Mr. Virkler and historical records, the buildings were constructed in 1989 and 1990. Mr. Virkler stated that he is not aware of any ACMs at the Site.

ARCADIS did not observe evidence of accessible PACMs during the Site reconnaissance however an inspection and laboratory analysis of suspect ACM would be required to verify that ACM is not present. The boilers and associated emissions stack would be a suspect location requiring testing for ACM in the refractory brick, liner and in door and stack gaskets.

6. Review of Environmental Records

ARCADIS contracted EDR to conduct a database search for agency records. The report, presented in Appendix I, defines and summarizes the ASTM databases reviewed in the EDR report and notes if any sites (including the subject Site) were identified in the specified radius.

It should be noted that the computerized geocoding technology used in the database search is based on available census data and is only accurate to approximately ±300 feet. The EDR report provides a list of unmapped sites for which inadequate location information was provided. ARCADIS has reviewed the list of "unmapped" sites to determine if these sites are within the study radius. If the "unmapped" sites appeared likely to be within the search radius for a specific database, they are discussed in the sections that follow.

Sites identified within the study radii were evaluated to determine if they are likely to have adversely impacted the subject Site. The criteria used to evaluate the potential for adverse impact to the subject Site include:

- distance from the subject Site
- expected depth and direction of groundwater and surface-water flow
- expected storm-water flow direction
- presence/absence of documented contaminant releases at the identified sites not identified as remediated

The identification of a site as potentially upgradient or downgradient is based on the expected direction of groundwater flow to the east.

6.1 Subject Site

The Site was identified on three federal databases searched within the EDR Report, including TSCA, SSTS, and FTTS.

- TSCA: provides information on facilities that manufacturer and/or import chemical substances listed on the Toxic Substances Control Act Inventory List.
- SSTS: 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

- FFTS: 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).

The TSCA record provides a listing of chemicals utilized by the facility and includes acetic acids (potassium and magnesium salts), phosphoric acid (potassium salt), fatty acids, and various amides.

The SSTS record lists two products that are classified as insecticides/fungicides for the year 2004, and one product for years 2005, 2007, and 2008.

The FTTS record states that an EPCRA related inspection was conducted in March 1997. No results of the inspection are provided.

6.2 Surrounding Properties

Surrounding properties were identified in the EDR Radius Report and include:

The former Aqua-Air/SNL Corporation (13300 Sam Neely Road; east of the Site and now a demolished facility) is listed in several databases. According to records, the site has groundwater contamination and is currently in the Brownfields program. Numerous waste codes are listed for the property. According to the Preliminary Site Assessment report (WPC, 2006), the site had a release from a UST and groundwater results indicated carbon tetrachloride and PCE at levels exceeding their regulatory limits.

New South Fabricators, the former Valmet facility, (12933 Sam Neely Road; northeast of Site) is listed in several databases which indicate that three USTs were formerly present onsite. When removed, soil contamination was discovered. The site, as well as the Thypin Steel property to the west of Valmet, was the subject of soil and groundwater investigations in the late 1980s and 1990s. These investigations indicated that chlorinated solvents in the groundwater flowed southeast onto the properties south of Sam Neely Road. The southwestern portion of the groundwater

plume appeared to be located on the subject Site. Additional information regarding these investigations can be found in Section 3.3.1 of this report.

Unocal (12040 Goodrich Drive; northeast of Site) is listed in several databases which indicate that 32 USTs were formerly present onsite. When removed, soil and groundwater contamination with chlorinated solvents was detected.

7. Findings, Opinions and Conclusions

ARCADIS has performed a Phase I ESA in general accordance with the American Society for Testing and Materials (ASTM) E 1527-05 *Standard Practice for Site Assessments: Phase I Environmental Site Assessment Process*. Exceptions to, or deviations from, this practice are described in Section 1.7 of this report.

PCE has been historically detected in groundwater at the Site. It appears from information gathered during this Phase I ESA on investigations conducted during the late 1980s and 1990s that PCE originated from offsite sources, namely the Valmet and Thypin Steel Company properties north and northeast of the subject Site.

The findings identified by ARCADIS are summarized below and discussed in greater detail in the body of the report.

7.1 Recognized Environmental Conditions (RECs)

Three RECs have been identified in connection with the Site:

1) Groundwater contamination: A file review at the North Carolina Department of Environment and Natural Resources (NCDENR) office in Charlotte indicated that soil and groundwater investigations had been conducted on the Site, the property to the east of the Site, and the Valmet and Thypin Steel properties during the late 1980s and 1990s. Chlorinated solvents, including PCE, were found to be in groundwater underneath the property to the east of the subject Site and appeared to originate from the Valmet and Thypin Steel properties north of Sam Neely Road. Further investigations did not find any affected groundwater and the State provided a No Further Action letter in March 1994.

   WPC conducted a site assessment in early 2006 and reported their results in a document titled *Preliminary Site Assessment Report; The Virkler Company* dated February 23, 2006. The report states that "…The Virkler Company is concerned that releases from previous operations may have environmentally impacted the soil and groundwater at the site". WPC identified ten areas of potential impact and installed nine soil borings and temporary monitoring wells to investigate the areas of concern. No soil samples and only two groundwater samples were analyzed from the samples collected. One of the groundwater samples, collected from northeast of the tank farms, indicated the presence of tetrachloroethylene (PCE) and lead at levels exceeding their appropriate regulatory limits. Groundwater flow was determined by WPC to be from the

west to the east and Aqua Air was implicated as the alleged source of the PCE in groundwater on the Virkler site.

Given the uncertainty as to the source of the PCE in groundwater and the groundwater flow direction, and the fact that Virkler and WPC did not report the results of this investigation to the NCDENR, the Historical REC was considered a current REC by ARCADIS.

2) A cooling tower and buried sanitary sewer lines and cleanouts are located in a grass court yard area on the east side of the Site building. It appears that liquids have leaked from both the tower and sewer pipe cleanouts. Dead vegetation was observed around both: the area around the cooling tower is approximately 100 feet and as much as 10 feet wide; and the area around the sanitary sewer cleanout is approximately five feet long and as much as three feet wide. The apparent leaks and dead vegetation indicate a REC.

3) A spill of an asphalt additive material was observed at the site. According to Mr. Virkler, approximately 350 gallons of material was spilled from the unloading/loading area adjacent to the tank farm. The approximate date of the spill was April 8, 2011. A heavy rain event occurred that weekend (4-9-11), causing the spill residual liquids to run south along the curb into the storm drain on the southeast corner of the site between the maintenance building and the retention pond. This spill indicates a REC.

No other RECs were identified during this Phase I ESA.

7.2 Historical Recognized Environmental Conditions (HRECs)

The historical presence of PCE and lead in groundwater at levels exceeding their respective regulatory limits indicates an HREC.

No other HRECs were identified during this Phase I ESA.

7.3 Other Findings

Other findings noted in connection with the site, but are not considered RECs or HRECs, include the following:

- Three sumps are utilized at the facility to collect wash waters at the Site. The sump drains and the concrete around the sumps was heavily soiled. The

structural integrity of the sumps was not able to be inspected as pipes and covers prevented access.

- A parts washer is utilized in the maintenance building. No information was available as to the chemical utilized in the parts washer or the frequency of maintenance for the parts washer.

- Oil stained soil and stressed vegetation was observed adjacent and north of the flammable storage building where several air compressors are located on a concrete pad. Air compressor blow-down and small maintenance spills have caused some localized impact to surface soils. Stressed vegetation and oil stains on the soil are evident in the immediate area around the compressors (see photo log in Appendix A).

- Four 5-gallon metal containers of what appears to be roofing tar were found open and receiving rain water on the exterior south wall of the site building in the loading ramp area next to the truck scales. A small stain of oil is accumulating on the concrete surface as each successive rain event spills additional liquids to the ground. The residual does not appear to have reached soil or the storm drain however this could become a REC if not managed properly.

No other findings were noted in connection with the Site.

7.4 Data Gaps

Mr. Virkler stated that Phase I ESA and Phase II soil and groundwater investigations were conducted prior to Virkler Realty Company purchasing the property in 1986 or 1987; and also stated that he was aware of a pH problem with his industrial wastewater discharge however was not able to produce those records during the course of this Phase I ESA. While ARCADIS was able to research and identify some of these records through a file review at the NCDENR Mooresville, office and through the Mecklenburg County wastewater permit section; the uncertainty regarding full documentation of the historical records is a data gap.

8. Qualifications of Environmental Professionals

The work was completed by personnel who meet the definition of an environmental professional, as defined in ASTM E-1527-05. These personnel have the specific qualifications based on experience to assess a property of the nature, history, and setting of the subject property. All appropriate inquiries was developed and

performed in accordance with the standards and practices set forth in 40CFR Part 312.

The site inspection and report preparation was performed by Ms. Jennifer Ditzler, Project Engineer. Ms. Ditzler's work and report was managed and reviewed under the supervision of Mr. Thomas Marr, North Carolina licensed professional Geologist. Resumes for Jennifer Ditzler and Thomas Marr will be provided on request.

9. References

ASTM. 2005. Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E 1527-05.

EDR. October 29, 2010. EDR Radius Map. 12345 Steele Creek, Charlotte, NC. Inquiry Number 2908126.10s.

EDR. November 2, 2010. EDR LienSearch Report. 12345 Steele Creek, Charlotte, NC. Inquiry Number 2908126.15.

EDR. November 1, 2010. EDR Aerial Photographs. 12345 Steele Creek, Charlotte, NC. Inquiry Number 2908126.13

EDR. October 29, 2010. EDR City Directory Abstract. 12345 Steele Creek, Charlotte, NC. Inquiry Number 2908126.14.

EDR. November 1, 2010. EDR Topographic Maps. 12345 Steele Creek, Charlotte, NC. Inquiry Number 2908126.12.

EDR. October 29, 2010. EDR Sanborn Fire Insurance Maps. 12345 Steele Creek, Charlotte, NC. Inquiry Number 2908126.11.

Mecklenburg County, North Carolina Tax Assessor's website: http://charmeck.org/mecklenburg/county/assessorsoffice/Pages/default.aspx

North Carolina Department of Environment and Natural Resources; Mooresville Regional Office, 610 East Center Avenue, Mooresville, North Carolina. Various documents from file search regarding soil/groundwater investigations in area of subject site.

WPC, 2006. *Preliminary Site Assessment; The Virkler Company*; February 23, 2006.

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DRAFT - Phase II Environmental Site Assessment Report

12345 Steele Creek Road
Charlotte, Mecklenburg County, North Carolina

April XX, 2011

Phase II Environmental Site Assessment Report

12345 Steele Creek Road
Charlotte, Mecklenburg County,
North Carolina

Draft

Jennifer Ditzler
Project Engineer

Draft

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Our Ref.:
TL011514.0001

Date:
April 21, 2011

ARCADIS

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1. Introduction

ARCADIS U.S., Inc. (ARCADIS) was retained by Bluestar Silicones USA Corp (Bluestar) to conduct a Phase II Environmental Site Assessment (ESA) for the Process Innovations (formerly The Virkler Company) facility located at 12345 Steele Creek Road, Charlotte, North Carolina (the "Site"). This report describes the Phase II ESA activities that were conducted at the Site (Figure 1) in March and April 2011. This report is a follow-up investigation to be used in conjunction with the Phase I ESA Report dated April 20, 2011. Both reports are intended for the private business use of Bluestar for due diligence evaluation of the Site. The contents thereof may not be used or distributed outside of Bluestar and its' business partners assisting with this real estate transaction without the express written consent and authorization of ARCADIS.

The Site consists of an approximately 19.1 acre parcel of land located in an industrial setting approximately 7 miles southwest of downtown Charlotte, North Carolina and approximately 2.5 miles northwest of the North Carolina and South Carolina border.

Current operations at the Site include the manufacturing of approximately seven products for outside companies. These products are used in the paper, textile, and asphalt paving industries. Historically the Site produced over 400 products, typically for the textile industry. This included products for washing and drying textiles as well as fixing agents and antistatic products.

The purpose of this Phase II ESA was to investigate Recognized Environmental Conditions (RECs) identified during the Phase 1 ESA. The REC's include: 1) the presence of perchloroethylene (PCE) that was detected in groundwater during historical investigations on the property; 2) the sewer line and chiller area dead vegetation which may have affected groundwater quality; 3) the asphalt additive spill that occurred on or about April 8, 2011 from the unloading/loading area and it's possible impact top the retention pond water and sediment.

Other areas of environmental concern not directly investigated due to facility access limitations or perceived low risk include; three sumps and floor trenches inside the facility; the use of a parts washer in the maintenance building; oil-stained and stressed vegetation adjacent to air compressors located to the north of the flammable materials building; four open-topped 5-gallon metal containers of what appear to be roofing tar observed adjacent to the south wall of the building and the truck scales. While access limitations or perceived low risk may have limited our investigations of these areas,

clean up (industrial cleaning, excavation and waste removal) should occur before the real estate transaction occurs.

The following activities were performed during the March and April 2011 assessment events:

- Marking the location of the ten proposed boring/monitoring well locations;
- Marking the location of the existing utilities;
- Installing, logging, and sampling the ten soil borings;
- Installing ten permanent groundwater monitoring wells;
- Sampling groundwater from the permanent monitoring wells;
- Surveying the monitoring well locations (Bluestar subcontractor) ;
- Measuring groundwater elevations and preparing flow direction maps;
- Sampling of pond sediments and surface water;
- Preparation of this report.

Analytical results for each media were compared to the appropriate regulatory levels as follows:

- Soil analytical data were compared to the Preliminary Health Based and Groundwater Protection Based Soil Remediation Goal (SRG) provided by the Inactive Hazardous Site Branch of the North Carolina Department of Environment and Natural Resources (NCDENR);

- Groundwater analytical data were compared to the standards provided in the North Carolina Administrative Code (NCAC) Title 15A, Subchapter 2L;

- Surface water analytical results were compared to North Carolina Surface Water Standards; and

- Sediment analytical results were compared to EPA Region 4 Waste Management Division sediment screening values for Hazardous Waste Sites.

2. Soil Assessment Activities

2.1 Soil Boring Installation

Eight monitoring wells were installed by South Atlantic Environmental Drilling and Construction Company (SAEDACCO) on March 23 and 24, 2011 and an additional two monitoring wells were installed by SAEDACCO on April 15, 2011. Borings SB-1 through SB-8 were installed using hollow stem augers and were continuously sampled using split spoon samplers. Borings SB-9 and SB-10 were installed utilized a direct push rig with macro-core sampling followed by the use of hollow stem augers to enlarge the borehole and install the wells. All borings were installed to a depth sufficient for measuring the groundwater elevation and for collection of representative groundwater samples.

ARCADIS recorded lithologic descriptions of the subsurface sediments and scanned the samples for the presence of organic vapors with a photoionization detector (PID). Soil boring records and well construction logs are included in Appendix A.

One soil sample was collected from each boring at a depth with the highest observed PID reading or from an interval just above the apparent level of groundwater saturation.

2.2 Soil Sample Laboratory Analysis

Soil samples from the 10 boreholes were packed in laboratory provided and preserved jars. The samples were hand-delivered to Prism Laboratories, Charlotte, North Carolina in sealed, ice-filled coolers under appropriate chain-of-custody procedures. All samples were analyzed on a two to five-day turnaround time and were analyzed for some or all of the following:

- Volatile organic compounds (VOCs) by USEPA (United States Environmental Protection Agency) Method 8260;
- Semi-volatile organic compounds (SVOCs) by USEPA Method 8270;
- Resource Conservation and Recovery Act (RCRA) Metals by USEPA Method 6010; and
- Organochlorine pesticides by US EPA Method 8081.

The full laboratory analytical reports are provided in Appendix B and detections above the laboratory reporting limits are illustrated in the tables and figures in this report.

3. Groundwater Assessment Activities

3.1 Groundwater Monitoring Well Installation

All ten monitoring wells were constructed with two-inch diameter schedule 40 PVC materials with 10 feet of 0.010 inch slotted screen. Installation of the wells included: a sand pack placed to two feet above the top of the screen; two foot bentonite seal placed above the sand; and neat cement grout placed on top of the bentonite to the ground surface. All wells were completed with lockable well plugs inside a water tight and flush-mounted well cover in a two-foot square concrete pad.

The wells were developed by pumping and surging and were later purged and sampled after stabilization readings were obtained indicating representative samples would be obtained.

All wells were gauged for depth to water with measurements made from a point on the top of each well casing where the surveyor recorded the ground surface elevation.

3.2 Groundwater Sample Laboratory Analysis

All groundwater samples were placed in jars provided by the laboratory and were hand-delivered to Prism Laboratories, Charlotte, North Carolina in sealed, ice-filled coolers under appropriate chain-of-custody procedures. The samples were analyzed on a two to five-day turnaround time and were analyzed for some or all of the following:

- VOCs by US EPA Method 8260;
- SVOCs by US EPA Method 8270;
- RCRA Metals by US EPA Method 6010; and
- Organochlorine pesticides by US EPA Method 8081.

The full laboratory analytical reports are provided in Appendix B and detections above the laboratory reporting limits are illustrated in the tables and figures in this report.

4. Surface Water and Sediment Assessment

On or about April 8, 2011, approximately 350 gallons of an asphalt additive was spilled at the unloading/loading area on the south side of the manufacturing building. The spilled material flowed to the east over the concrete to a curb which then runs south to a storm water catch basin between the maintenance building and the retention pond. Heavy rains fell on Saturday April 9, 2011, which appeared on our April 11 site visit to have washed residual spilled materials into the storm water retention pond.

After discussing the spill, reviewing photographs and receiving authorization from Bluestar, ARCADIS collected one sediment sample and one surface water sample from the storm water retention pond on April 12, 2011. The surface water sample was collected with a new polyethylene “dipper” which consists of a 500 milliliter (mL) beaker attached to a six foot long road. The sample was collected at the storm water outfall where it enters the retention pond as shown on the figures in this report.

The samples were placed in laboratory provided jars and were hand-delivered to Prism Laboratories, Charlotte, North Carolina in sealed, ice-filled coolers under appropriate chain-of-custody procedures. The samples were analyzed 2-3 day turnaround time and were analyzed for the following:

- VOCs by US EPA Method 8260;
- SVOCs by US EPA Method 8270;
- RCRA Metals by US EPA Method 6010 and 7471; and
- pH by US EPA Method 9045.

The full laboratory analytical reports are provided in Appendix B and detections above the laboratory reporting limits are illustrated in the tables and figures in this report.

5. Investigation Derived Waste

The soil cuttings were clean and were spread around each well or on nearby grass areas of the site. Well development and purge water was placed into four 55-gallon drums and are being stored near the maintenance building awaiting proper disposal using the groundwater sampling results for non hazardous waste characterization.

6. Summary of Results

6.1 Groundwater Elevation Data

Groundwater elevations were measured on March 29, April 11, and April 18, 2011 and are summarized in Table 1. A potentiometric surface map for data collected on April 18, 2011 (after wells MW-9 and MW-10 were installed) is provided as Figure 2. Groundwater flow is from the north to the south with a slight southeasterly component on the extreme eastern side of the Site. This flow direction conforms with prior mapping performed by the NCDENR for the Site and surrounding area as described in our Phase 1 ESA report.

6.2 Soil Analytical Results

Soil analytical data were compared to the Preliminary Health Based and Groundwater Protection Based Soil Remediation Goal (SRG) provided by the Inactive Hazardous Site Branch of the North Carolina Department of Environment and Natural Resources (NCDENR). A summary of the soil analytical results is provided as Table 2.

Concentrations of arsenic, barium, chromium, lead, and selenium were detected in each of the soil samples with the exception of MW-10 which had no detectable concentration of selenium. Selenium was the only constituent that exceeded the applicable Groundwater Protection Based SRGs. The Preliminary Health Based SRGs were not exceeded in any soil samples analyzed.

6.3 Groundwater Analytical Results

Groundwater analytical data were compared to the standards provided in the North Carolina Administrative Code (NCAC) Title 15A, Subchapter 2L. A summary of groundwater analytical data is provided as Table 3.

Chloroform: Chloroform was detected in one sample (MW-4) at a concentration of 0.86 micrograms per liter (ug/L) which is below the 2L standard of 70 ug/L.

Barium: Barium was detected in all ten of the monitoring wells; however, none of the concentrations exceeded the 2L standard.

Chromium: Chromium was detected in seven of the ten monitoring well samples. The concentrations of chromium in monitoring well MW-5 and MW-8 (210 ug/L and 23 ug/L, respectively) exceeded the applicable 2L standard of 10 ug/L. A second groundwater sample from MW-5 was collected to confirm the elevated concentration and the results was much lower (5.6 ug/L) which is below the applicable 2L standard.

Perchlorethlyene (PCE): PCE was detected in six of the ten monitoring wells (MW-3 through MW-7). Concentrations in monitoring wells MW-4 (1.8 ug/L), MW-5 (1.6 ug/L), MW-6 (1.3 ug/L), and MW-10 (1.3 ug/L) exceed the 2L standard of 0.7 ug/L.

6.4 Surface Water and Sediment Analytical Results

Surface water analytical results were compared to North Carolina Surface Water Standards. A summary of the surface water analytical results is presented as Table 4.

Barium, acetone, and diethylphthalate were detected in the surface water sample. Acetone and diethylphthalate were below their respective regulatory levels while a regulatory standard does not currently exist for barium.

Sediment analytical results were compared to EPA Region 4 Waste Management Division sediment screening values for Hazardous Waste Sites from November 2006. Several Poly Cyclic Aromatic Hydrocarbon compounds (PAHs) and chromium were detected above the regulatory limits. A summary of the sediment analytical results is presented as Table 4.

7. Conclusions

7.1 Soil

Selenium was detected at concentrations above the Groundwater Protection Based SRG in eight of the 10 soil borings. Although selenium is detected at concentrations above the Groundwater Protection SRGs in soil, selenium was not detected in the groundwater. Additionally, soil was detected at concentrations far below the health-based SRG of 78 mg/kg.

Selenium is known to accumulate in organic rich materials and which can commonly range from 1 mg/kg to 20 mg/kg with higher concentrations typically associated with

the clay fraction of sediments and an abundance of free iron oxides and other strong sorbents. Clays and silty clays were typically encountered in the unsaturated soils at the site observed with iron oxide granules and visible iron oxide staining.

It should be pointed out that selenium is also a component of phosphate fertilizers, an essential part of animal nutrition and is a component used in textile manufacturing processes. While the Site has historically manufactured fertilizers, products for the textile industry, and animal supplements, selenium in soil was found at fairly consistently elevated concentrations across the site as opposed to specific areas of elevated concentrations one would expect would be caused by point source releases.

While further area background research on selenium may be necessary to clarify the source of selenium, it is ARCADI's opinion that the concentrations represent natural background values for the metal. Furthermore, as selenium was not detected in the groundwater samples above the regulatory standards, the issue is considered low risk.

7.2 Groundwater

PCE was detected in monitoring wells MW-4, MW-5, MW-6, and MW-10 at concentrations above the applicable 2L standard. PCE was also detected in monitoring wells MW-3 and MW-7 at concentrations that were below the applicable 2L standard.

The Site currently utilizes a solvent still and PCE is currently and has historically been present at the Site. The historic location and storage practices of the PCE onsite are not known. Wastewater is generated at the Site from the washing of batch and manufacturing tanks. Wash water is pumped to a holding tank where according to Mr. Virkler, the pH is checked and adjusted as necessary. The water is then released to the sanitary sewer system. The holding tank is located at the terminus of the sanitary sewer line shown on the figures to the west of MW-6. A cooling tower located adjacent to MW-6 and a sanitary sewer cleanout to the east of the cooling tower have obvious signs of overflowing water onto the ground with stressed and dead vegetation in the immediate area.

While possible onsite sources of PCE were identified at the Site, there was no direct evidence in the soil or groundwater sampling results of an onsite release of this chemical to the environment.

An ARCADIS file review at the North Carolina Department of Environment and Natural Resources (NCDENR) office in Mooresville, North Carolina, revealed that soil and

groundwater investigations had been conducted on the Site, the property to the east of the Site, and the Valmet and Thypin Steel properties north of Sam Neely Road during the late 1980s and early 1990s. The groundwater flow direction was determined to be moving from the Valmet and Thypin Steel sites across Sam Neely Road and onto then Burroughs tracks in a general southeasterly direction. Chlorinated solvents, including PCE, were found to be in groundwater beneath the property to the east of the subject Site and in groundwater samples collected from former monitoring wells on the Site at concentrations almost identical to the concentrations observed during this Phase 2 ESA.

The conclusion one might draw from the investigations in the late 1980's was that PCE and other chemicals of concern originated from the Valmet and Thypin Steel properties. Further investigations were not performed and the NCDENR subsequently provided the Valmet case with a No Further Action letter in March 1994.

In summary, PCE detected in groundwater at the Site appears to have originated from offsite sources which historically migrated onto the Burroughs Track of land (now a portion of which includes the subject Site). The historical source of PCE and other chemicals of concern were identified by environmental consultants and the NCDENR as being the Valmet and Thypin Steel properties to the northeast.

An elevated chromium concentration exceeding the NCAC 2L groundwater standard was detected in MW-5 and MW-8, however a second groundwater sample collected to confirm the elevated concentration in MW-5 revealed a much lower value in compliance with the 2L standard. Sampling error (turbid water) and/or lab error is the likely cause however further sampling results would be required to confirm full compliance for chromium in groundwater.

7.3 Sediment and Surface Water Sampling

Surface water and sediments in the storm water retention pond appear to have been affected from the April 2011 spill of asphalt additive material that occurred at the unloading/loading area on or about April 8, 2011. The constituents detected in the surface water and the sediments are consistent with chemical compounds expected to be present in the asphalt additive product. Other possible means for affected surface water and sediment may include: previous spills in the unloading/loading area; runoff from the tar roof; runoff from the parking areas.

Several PAH compounds were found to exceed EPA Region 4 Waste Management Division sediment screening values for Hazardous Waste Sites. Based on the sampling

results and regulatory exceedances observed in the sediments, further retention pond investigation and regulatory reporting of the incident may be required along with Remediation action as required.

8. References

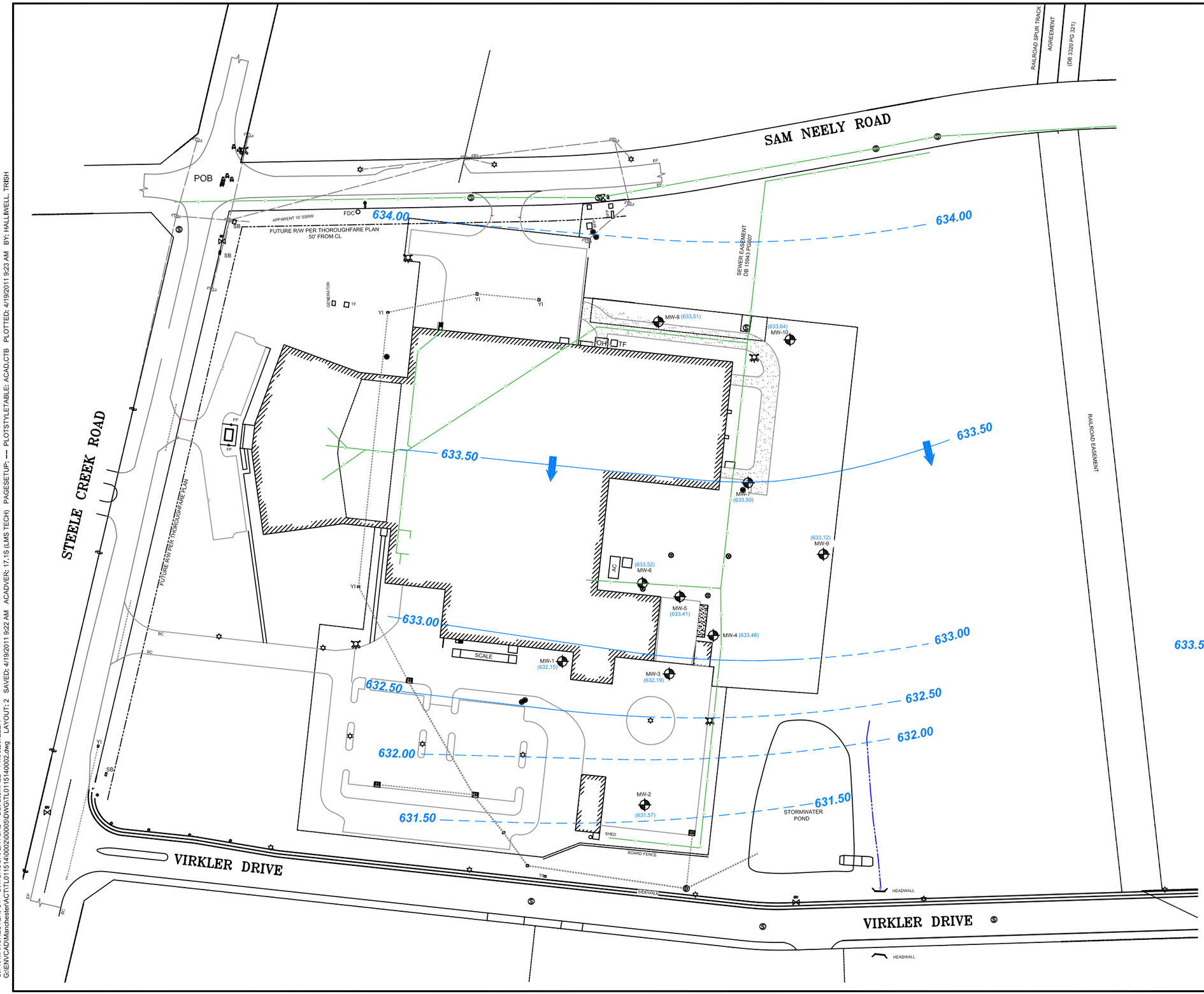
ARCADIS U.S., Inc., 2011. *Phase I Environmental Site Assessment*.

North Carolina Department of Agriculture and Consumer Service; revised September 2008. *Heavy Metals in North Carolina Soils; Occurrence and Significance.*

Numerous authors, H.D. Holland and K.K. Turekian (Executive Editors); Reprinted 2007. *Environmental Geochemistry*.

ARCADIS

Figures



LEGEND

○	PROPERTY CORNER
4b/5b	1/2" / 5/8" REBAR
— — —	LINES NOT SURVEYED
N/F	NOW OR FORMERLY
TP	TX PARCEL
OH	OVERHANG
EP	EDGE OF PAVEMENT
ℙ	PROPERTY LINE
TF	TRANSFORMER
NMFS	NO MONUMENT FOUND OR SET
OU	OVERHEAD UTILITIES
℄	CENTERLINE
YI/DI	YARD INLET/DROP INLET
RCP	REINFORCED CONCRETE PIPE
FP	FLAG POLE
☼	LIGHT POLE
SB	SOUTHERN BELL
FDC	FIRE DEPT. CONNECTION
F	FOUND
S	SET
R/W	RIGHT-OF-WAY
-x-	FENCE LINE
PS	PARKING SPACES
■ CB	CATCH BASIN
CO	SEWER CLEANOUT
Ⓢ	SANITARY SEWER MANHOLE
-S-	SANITARY SEWER LINE
	UTILITY POLE
	FIRE HYDRANT
◉	POST INDICATOR VALVE
FES	FLARED END SECTION
GV	GAS VALVE
WV	WATER VALVE
AC	AIR CONDITIONING
SSRW	SANITARY SEWER R/W
Ⓓ	STORM DRAINAGE MANHOLE
	SEWER LINE
(633.64)	GROUNDWATER ELEVATION (FEET)
633.50	GROUNDWATER CONTOUR LINE (FEET) - DASHED WHERE INFERRED
	GROUNDWATER FLOW DIRECTION

NOTES:

1. THIS DRAWING IS REFERENCED FROM THE FOLLOWING:
   A. MONITOR WELL LOCATIONS MAP OF 12345 STEELE CREEK ROAD, BY LFI, DATED: 3/31/2011, SCALE: 1"=60'.

0 60' 120'
GRAPHIC SCALE

12345 STEELE CREEK ROAD
CHARLOTTE, NORTH CAROLINA

WATER TABLE CONTOUR MAP
APRIL 18, 2011

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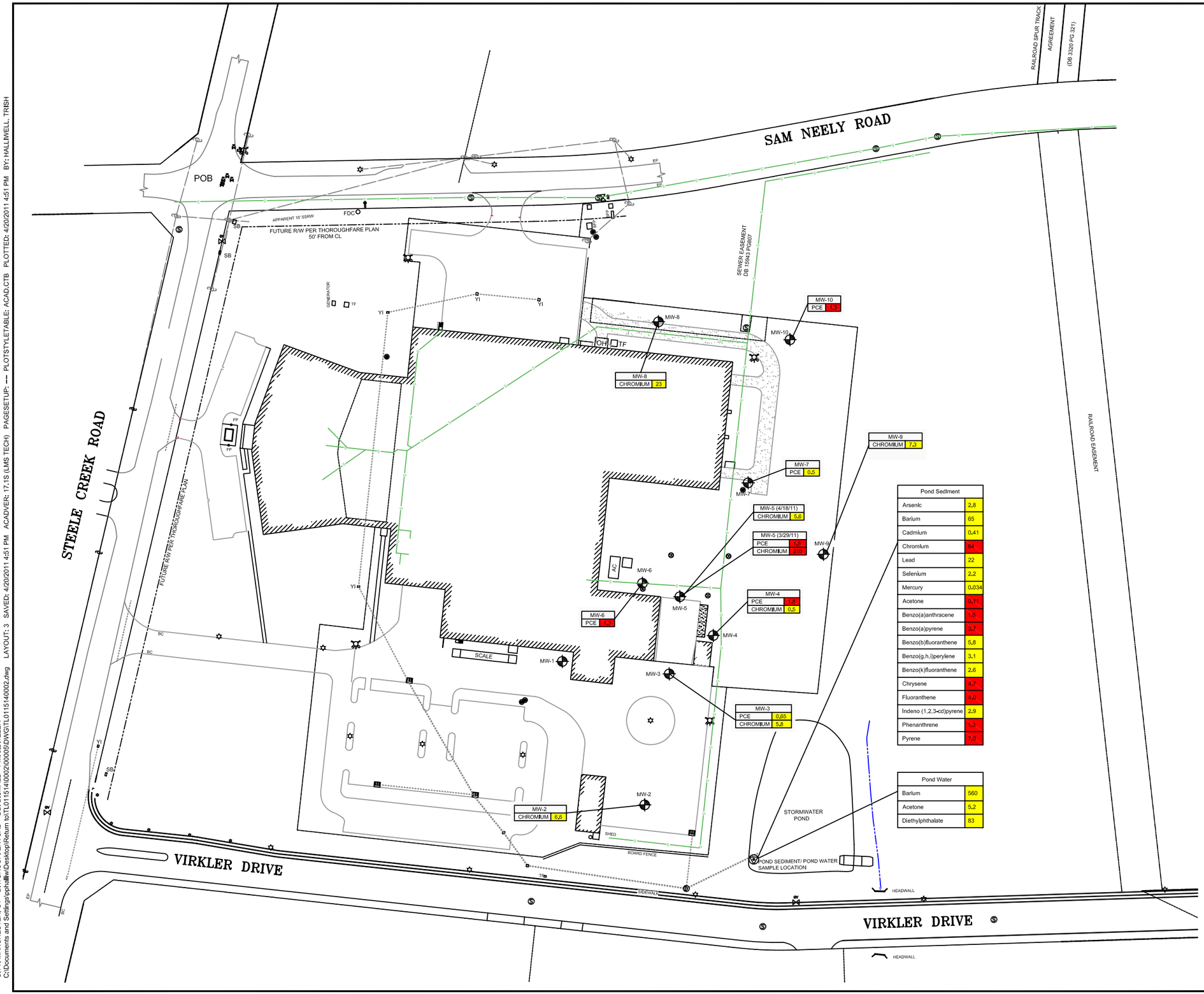
FIGURE
2

CITY: MANCHESTER, CT DIV/GROUP: ENVCAD DB: B.SMALL PM: J.DITZLER
G:\ENVCAD\Manchester\ACT\TL0115140\00020000\5\DWG\TL0115140002.dwg LAYOUT: 2 SAVED: 4/19/2011 9:22 AM ACADVER: 17.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: ACAD.CTB PLOTTED: 4/19/2011 9:23 AM BY: HALLIWELL, TRISH



Pond Sedlment	
Arsenic	2.8
Barium	65
Cadmium	0.41
Chromium	64
Lead	22
Selenium	2.2
Mercury	0.034
Acetone	0.11
Benzo(a)anthracene	1.8
Benzo(a)pyrene	2.7
Benzo(b)fluoranthene	5.8
Benzo(g,h,i)perylene	3.1
Benzo(k)fluoranthene	2.6
Chrysene	4.7
Fluoranthene	4.0
Indeno (1,2,3-cd)pyrene	2.9
Phenanthrene	1.3
Pyrene	7.0

Pond Water	
Barium	560
Acetone	5.2
Diethylphthalate	83

LEGEND

	PROPERTY CORNER
4b/5b	1/2" / 5/8" REBAR
	LINES NOT SURVEYED
N/F	NOW OR FORMERLY
TP	TX PARCEL
OH	OVERHANG
EP	EDGE OF PAVEMENT
	PROPERTY LINE
TF	TRANSFORMER
NMFS	NO MONUMENT FOUND OR SET
OU	OVERHEAD UTILITIES
	CENTERLINE
YI/DI	YARD INLET/DROP INLET
RCP	REINFORCED CONCRETE PIPE
FP	FLAG POLE
	LIGHT POLE
SB	SOUTHERN BELL
FDC	FIRE DEPT. CONNECTION
F	FOUND
S	SET
R/W	RIGHT-OF-WAY
-x-	FENCE LINE
PS	PARKING SPACES
CB	CATCH BASIN
	SEWER CLEANOUT
	SANITARY SEWER MANHOLE
-S-	SANITARY SEWER LINE
	UTILITY POLE
	FIRE HYDRANT
	POST INDICATOR VALVE
FES	FLARED END SECTION
GV	GAS VALVE
WV	WATER VALVE
AC	AIR CONDITIONING
SSRW	SANITARY SEWER R/W
	STORM DRAINAGE MANHOLE
	SEWER LINE
0.65	CONSTITUENT DETECTIONS BELOW THE REGULATORY STANDARDS
1.56	CONSTITUENT DETECTION ABOVE THE REGULATORY STANDARD

NOTES:

1. THIS DRAWING IS REFERENCED FROM THE FOLLOWING:
   A. MONITOR WELL LOCATIONS MAP OF 12345 STEELE CREEK ROAD, BY LFI, DATED: 3/31/2011, SCALE: 1"=60'.
2. GROUNDWATER ANALYTICAL DATA HAS BEEN COMPARED TO 2L STANDARDS FROM NORTH CAROLINA ADMINISTRATIVE COD (NCAC) TITLE 15A, SUBCHAPTER.
3. ALL VALUES ARE IN MICROGRAMS PER LITER (µg/L).

0 60' 120'
GRAPHIC SCALE

12345 STEELE CREEK ROAD
CHARLOTTE, NORTH CAROLINA

GROUNDWATER ANALYTICAL MAP APRIL 2011

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FIGURE
3

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Via E-Mail

May 2, 2011

Whiteside Industrial Properties
1300 S. Mint Street, Ste 400
Charlotte, NC 28203

Attn: Mr. Jim Whiteside

Re: Process Innovators Facility
12345 Steele Creek Rd.
Charlotte, North Carolina
H&H Job No. WIP-001

Dear Jim:

Per your request, Hart & Hickman, PC (H&H) is pleased to present this evaluation of the Draft Phase II Environmental Site Assessment (ESA) report prepared by Arcadis for the Process Innovators facility located at 12345 Steele Creek Rd. in Charlotte. The Phase II ESA was conducted in March 2011 and consisted of the collection of soil and ground water samples from the site and the collection of a water and soil sample from the stormwater retention pond at the site. Our evaluation of the Phase II ESA results is provided below:

Soil Analytical Data

Arcadis collected soil samples from 10 boreholes at the site, and sample depths ranged from 12 to 21 ft below ground level. The samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), RCRA metals, and organochlorine pesticides (OCPs). The results of the soil sample analyses indicated that no VOCs, SVOCs, or OCPs were detected in any of the samples. Concentrations of several metals (arsenic, barium, chromium, lead, and selenium) were detected in the soil samples. Because metals are naturally occurring, sample results are typically compared to site-specific background levels as an initial screening. However, no site-specific background soil samples were collected for analysis by Arcadis. Nevertheless, the detected metals

concentrations are within the range of typical regional background levels. As such, we concur with Arcadis' conclusion that the metals concentrations are consistent with background levels.

Based upon our review of the collected data, there is no evidence of soil impact at the site.

Ground Water Data

Ten ground water monitor wells were installed at the site. The ground water samples were analyzed for VOCs, SVOCs, RCRA metals, and OCPs. The results of analysis of the samples indicated that no SVOCs or OCPs were detected in the samples. Chromium was detected in two of the ground water samples (MW-5 and MW-8) above the North Carolina ground water standard of 10 µg/l (ppb). Because metals are naturally occurring, ground water analytical results for metals can be affected by suspended sediment (i.e., turbidity) in the wells. It appears that the initial ground water samples from these two wells contained elevated levels of suspended sediment. A second sample was collected from MW-5 (the well with the highest chromium concentration) apparently using sampling methods to reduce turbidity. The results of the second sampling indicated that chromium was not detected above the ground water standard. As such, we conclude that ground water is not impacted with chromium above the North Carolina ground water standard and the initial elevated chromium concentrations were the result of suspended sediment.

The VOC tetrachloroethene (PCE) was detected slightly above its ground water standard of 0.7 µg/l in four of the ground water samples. The concentrations ranged from 1.3 µg/l to 1.8 µg/l. Based upon the ground water flow direction, the distribution of the compound in ground water, and information provided in the Arcadis report about documented off-site sources of ground water impact, we agree with Arcadis' conclusion that the PCE appears to have originated off-site.

Responsibility for assessment and remediation of ground water impacts lies with the entity that caused the contamination. As such, unless there is some imminent threat to human health and the environment, the North Carolina Department of Environment and Natural Resources (DENR) would not require a property owner to conduct further assessment or remediation of contamination to a

property from an off-site source. The detected PCE concentrations are very low and city water is supplied to the area. Therefore, there is no imminent threat posed by the PCE in ground water. Further, the detected PCE concentrations are well below the DENR screening levels for consideration of structural vapor intrusion from the ground water impacts. Therefore, vapor intrusion is also not a concern for the identified ground water impacts.

Low concentration ground water impacts from off-site sources are very common in industrial properties in the Charlotte region. Based upon our considerable experience, these impacts are not a significant concern in a real estate transactions because they do not pose a threat to human health or the environment and because DENR does not require property owners to conduct further assessment or remediation of contamination from off-site sources. This is especially the case for very low concentration impacts that have been detected at the site.

Retention Pond Data

A surface water and a soil sample were collected from the stormwater retention pond at the site. It appears that the samples were collected at the discharge of the stormwater sewer system outfall to the retention pond. The samples were analyzed for VOCs, SVOCs, RCRA metals, and pH.

The results of the surface water sample analysis did not indicate concentrations of compounds at levels of concern. Therefore, there is no evidence of impact to water in the retention pond.

The results of analysis of the soil sample collected at the outfall of the stormwater sewer system indicated the presence of several polynuclear aromatic hydrocarbons (PAHs) above screening levels. Please note that because the retention pond is a manmade structure, we believe that the appropriate screening levels are the cleanup goals of the DENR Underground Storage Tank (UST) Section (which handles releases of petroleum products from underground and above ground sources) and not the sediment screening levels used by Arcadis. Nevertheless, the detected concentrations are above screening levels.

PAHs are associated with heavy end petroleum products. As noted in the Arcadis report, the detected PAHs could be associated with the recent asphalt additive release (although we have been informed this is a not a petroleum-based product) or runoff from asphalt parking lots. PAHs are very common in parking lot runoff both from the asphalt surfaces as well as minor drips of automotive fluid carried by stormwater runoff.

Based upon our review, it is very likely that the PAHs detected in the retention can be easily managed by removing a limited amount of soil at the outfall of the stormwater system.

Summary

In summary, the results of the Phase II ESA indicate that the only area that warrants further evaluation is the soil at the outfall to the stormwater retention pond. In this area, PAHs were detected in soil at concentrations above DENR screening levels. The detected PAHs are consistent with parking lot runoff to soil. This could be easily managed by removing soil at the outfall to the stormwater pond at a low cost.

Please contact me if you have any questions or require additional information concerning our evaluation.

Very truly yours,
Hart & Hickman, PC

Steve Hart, PG
Principal

Virkler Property Environmental Site Investigation Summary
12345 Steele Creek Road
Charlotte, NC

On April 15 and 19, 2011, Golder conducted file reviews for the Virkler Chemical property (site) and select surrounding facilities at the request of Mr. Howard Virkler, owner of Virkler Chemical company. The site is located at 12345 Steele Creek Road in Charlotte, NC. File reviews were conducted at the Inactive Hazardous Sites Branch (IHSB) of the North Carolina Department of Environment and Natural Resources (NCDENR) Mooresville and Raleigh Regional Offices. Additional recent site documents provided by the client not available at the NCDENR offices were also reviewed. Additional surrounding facilities reviewed were: the former Aquair facility at 13300 Sam Neely Road (current open IHSB incident), the former Unocal facility at 12040 Goodrich Drive, Brenntag Southeast facility at 11750 Fruehauf Drive, the former Valmet facility at 12933 Sam Neely Drive, the Air Products facility at 11900 Goodrich Drive, and the Thonit A. Simmons Company at 11900 Steele Creek Road. File reviews were conducted to determine the history of environmental investigations at the site and potential impact of surrounding sites as offsite environmental concerns. The following information presents a chronological history of environmental documentation related to the site. Information gathered from file reviews and NCDENR correspondence for nearby facilities is presented as a separate document. A figure showing historical and current well locations and site features is presented as Figure 1.

Date	**Document Reviewed and Summary**
7-6-1988	**Law Engineering: *Report of Preliminary Environmental Site Assessment – 46-Acre Site- Sam Neely Road, Mecklenburg County, NC* to Mr. Howard Virkler, The Virkler Company.**

This Report summarized the review of the site for evidence of environmental contamination caused by past onsite or nearby offsite waste management activities. Virkler planned to construct a chemical company on the site. The site was described as 46 acres, no structures, and partially wooded with a dirt road that crosses the site from north to south. Previous land use was farming. Site conditions were determined to be similar back to 1974 based on historical topographic maps. Site reconnaissance included a walk-through with two NCDENR waste management representatives and offsite reconnaissance to attempt to identif potential impacts from offsite source(s). Observations along property boundaries did not identify visual evidence of waste management activities. Evidence of solid waste dumping (household type), including two items found along the dirt road (a 55-gallon drum and a 10' x 15' vegetation scar) were observed. The drum was observed to have a label reading "Puritan Churchill Chemical Company, Division of the Dexter Corporation of Atlanta, GA" (Dexter operated a facility at this time approximately 2,000 feet northeast and upgradient of the site). No noticeable quantities of liquid were observed near the drum and the drum was full of empty cans. The vegetation scar consisted of saw dust underlain by black vinyl plastic sheets. No odor or staining was noted. The NCDENR representatives did not consider the drum to be a potential environmental concern. However, the vegetation scar was considered a potential environmental concern and that soil sampling would be necessary to determine the presence of potential contamination.

Four of 12 nearby facilities (Aplix, Aquair, Valmet, and Thypin Steel) were determined to be upgradient and/or cross-gradient from the site. During the site reconnaissance, it was observed that Aquair contained several 55-gallon drums on their property, similar to the one found on the Virkler site. Chlorinated solvents were reportedly used at the Aquair facility based on an inquiry to an Aquair representative during this investigation. Of the 4 sites, Aplix and Aquair were determined to be RCRA generators of hazardous wastes. Unocal and Aquair were identified during this site review to have reported potential contamination. A summary of Aquair, Valmet, and Unocal incidents is included later in

this document. The Report stated that groundwater from the Aquair location would not be expected to move toward and impact the site, but should a release of contaminants occur along Aquair's western property boundary line (adjoining the eastern site boundary), it may be possible for contamination to migrate onto the site.

The Report included a figure showing nearby site locations, monitoring wells and potential onsite items of environmental concern, and a site ownership history.

During the current file review, there was no record of incidents located for Aplix.

7-6-1988 **Law Engineering: *Report of Preliminary Site Contamination Assessment – Sam Neely Road Site, Mecklenburg County, NC* to Mr. Howard Virkler, The Virkler Company.**

This Report summarized the installation of groundwater monitoring wells and chemical analyses of groundwater samples collected at the site. Seven (7) monitoring wells (MW-1 through MW-7) were installed onsite at depths ranging from 19 to 25 feet below ground surface (bgs). Soil sampling was conducted with and boring logs constructed, but no soil samples were analyzed. Groundwater levels ranged from 9 to 14 feet bgs in MW-1 through MW-5. Monitoring wells MW-6 and MW-7 were not gauged or sampled at the request of Mr. Virkler. Samples from wells MW-1 through MW-5 were combined to form one composite groundwater sample. Analysis indicated the presence of eight (8) chlorinated VOCs, including Tetrachloroethylene (PCE) at 67 parts-per-billion (ppb), above State regulatory drinking water standards.

The Report indicated that the source of the VOCs was uncertain based on the site-specific information collected to date and may originate onsite or may have migrated in the groundwater from adjacent facilities. Based on groundwater elevations for 5 monitoring wells, groundwater flow at the site was south-southeast toward a small offsite stream identified as Polk Ditch, which drains into Steele Creek.

The Report recommended sampling each well individually and analyzing for VOCs since the composite sample may represent a diluted concentration and individual wells may actually contain higher concentrations of constituents.

The Report provided well locations, groundwater elevations, groundwater analytical results table, groundwater sampling parameters, boring logs and well construction records.

9-2-1988 **Universal Engineering Sciences: *Contamination Survey Data Analysis – Engineering Project No. 101-26-201, Sam Neely Road, Mecklenburg County, NC* to Commonwealth Engineering Associates, Michael L. Sturm**

This Report provided third-party analysis and summary of the site contamination assessment reports by Law. The Report stated that based on the assessment data in the Law reports and onsite observations, it was Universal's opinion that the hazardous wastes detected in the site's groundwater were not generated or disposed of onsite, but are the result of an offsite, upgradient release of solvent wastes into the shallow aquifer that has migrated onto the site.

9-8-1988 **Law Engineering: *Report of Groundwater Analytical Testing, Sam Neely Road, Mecklenburg County, NC* to Steele Creek Associates, Ltd. c/o Commonwealth Engineering Associates, Mr. John D. Froscher, P.E., Agent for Steele Creek Assoc.**

This Report summarized groundwater analytical testing conducted at the site conducted for MW-1 through MW-7 during July and August 1988 following the report of analytical results of Law's Preliminary Site Contamination Assessment to NCDENR. The NCDENR elected to re-sample and analyze individual

monitoring wells to more clearly identify potential contamination sources. MW's 1 through 6 contained several VOCs exceeding the NC 2L Groundwater Standard. No VOCs were detected in MW-7. MW's 2, 3, and 4 exhibited the highest concentrations of VOCs, including PCE. MW-2 along the northeastern edge of the site along Sam Neely Road contained the most number of detectable VOCs. MW-2, 3, and 6 were located in upgradient areas of the site. MW-1, 5, and 7 were located near the lower elevations of the property. Groundwater flows south-southeast. The analytical results indicated that upgradient MW-2 and MW-3 contained VOCs that apparently have originated from areas along Sam Neely Road or possibly from areas north of Sam Neely Road. MW-4 was also found to have high concentrations of similar constituents detected in wells MW-2 and MW-3, indicating that the groundwater contaminant plume migrated a considerable distance downgradient from the source(s). The analytical results also indicated that MW-6 was located near the edge of the contaminant plume and that MW-7 was located beyond the downgradient extent of groundwater contamination. Based on site-specific information obtained to date at the time of the Report, it appeared likely that groundwater contamination existed on the adjacent properties to the north, south, and east of the site.

The Report recommended the installation of additional monitoring wells on adjoining properties and more extensive research of offsite facilities.

The Report included groundwater elevation data, analytical data, and map with well locations.

10-18-1988 Westinghouse Environmental Services: *Proposed Hydrogeologic Assessment – Burroughs Site, Charlotte, NC* to Steele Creek Associates, Inc. c/o Commonwealth Engineering Associates, Inc., Mr. Michael Sturm

This document proposed a Hydrogeologic Assessment for the Burroughs property (includes current Virkler site) which included performing a preliminary environmental evaluation of the western portion of the Burroughs property (current location of Virkler facility). The assessment activities were proposed to determine the extent that the contamination identified in the eastern portion of the site, has migrated into the western portion of the site and to delineate an area within the western portions of the site which was not contaminated at that time. It was Westinghouse's understanding that the area determined to be free of contamination, would be subdivided and sold. This western portion is the current Virkler site. Westinghouse proposed a site walk-through, installation of monitoring wells, groundwater sampling, and a report documenting the extent of groundwater contamination in the western portion of the Burroughs property.

11-9-1988 NCDENR Pollution Incident Reporting Form – Incident #3807

This reporting form was completed by Law Engineering on 11-9-88 and submitted to the NCDENR which documented the discovery of "low level solvent" groundwater contamination onsite as a result of an environmental site assessment conducted by Law in July 1988. Incident #3807 was assigned to the site. Recommended action included the installation of four monitoring wells. The reporting form indicated that soil samples were collected and analyzed by the Solid and Hazardous Waste Branch shortly after the incident was reported with the intent to determine whether groundwater contamination on the site was a result of surface dumping. The results indicated "very low level contamination by gasoline constituents." Soil samples collected and analyzed by Law along a sewer line parallel to Sam Neely Road on the northern edge of the site indicated only "very low levels of methylene chloride", which was just one of the 14 different compounds detected in the groundwater onsite. The reporting form stated that a plume map constructed over the area "indicates that the source is likely to be from the Valmet Corporation or Thypin Steel, Inc. properties located directly across Sam Neely Road.

During the NCDENR file review, Thypin Steel was not found to be listed as having any incidents. Both Thypin Steel and Valmet were not listed as RCRA generators of hazardous wastes. Valmet was listed on the Underground Storage Tank (UST) incident database which will be covered later in this summary.

11-30-1988 Westinghouse Environmental Services: *Hydrogeologic Assessment – Burroughs Property, Charlotte, NC* to Steele Creek Associates, Inc. c/o Commonwealth Engineering Associates, Inc., Mr. Michael Sturm

This Report summarized the Hydrogeologic Assessment for the Burroughs property (includes current Virkler site) and included a preliminary environmental evaluation of the western portion of the Burroughs property (current location of Virkler facility) as indicated in Westinghouse's proposal dated 11-9-88. The assessment evaluated the possibility and potential of contamination within the shallow groundwater aquifer beneath the western portion of the site, determined and confirmed the groundwater flow to the south-southeast on the site, and delineated potential portions of the western site area that were free of contamination in the groundwater and were potentially available for sale.

At the time of the Report, the site was bordered by Steele Creek Road, Aplix, Inc., and Gita Sporting Goods to the west. Diagonally across the intersection of Steele Creek Road and Sam Neely Road was Okuma Machine Tools (no incidents) and Simmons Healthcare (RCRA generator – no incidents). To the north was Sam Neely Road and Dexter Corporation (no incidents), Bottlers Machinery (no incidents), Thypin Steel (no incidents), and Valmet (UST incident). To the east approximately 1,000 feet was Aquair (RCRA generator-open IHSB incident). To the south was wooded and undeveloped property.

Five additional wells were installed by Westinghouse (MW-8 through MW-12) along the western portion of the property. Groundwater samples were collected from MW-3 (eastern portion of site) and MW's 6-12 (western portion of the site). MW's 1, 2, 4, and 5 were not sampled as the investigation did not include the eastern portion of the property where contamination was already identified. Sampling results indicated the presence of PCE in MW-3 @ 7 ppb along Sam Neely Road and low levels of methylene chloride in MW-7 and MW-8, along the southern portion of the western parcel. There were no detections of any VOCs in MW-6, 9, 10, 11, or 12. MW-3 was located on the eastern parcel.

2-24-1989 Letter from NCDENR – Mooresville Regional Office to Mr. Howard Virkler, Virkler Company RE: Steele Creek and Sam Neely Road Property, Incident #3807, Mecklenburg County, NC

This letter indicated that NCDENR reviewed the reports by Law Engineering, dated September 8, 1988, and Westinghouse Environmental Services, dated November 30, 1988, and the groundwater analyses conducted by NCDENR on October 4, 1988. The NCDENR stated "our findings at this time show no reason to continue the investigation of the portion of the Steele Creek – Sam Neely Road property as outlined on the attached document."

During the current NCDENR file review, no documents were attached to this letter. However, the portion of the property the NCDENR is referring to is the western portion, where the Virkler facility is currently located.

9-7-1989 Westinghouse Environmental and Geotechnical Services, Inc.: *Ground-Water Sampling and Chemical Analysis Report – Burroughs Property, Eastern Tract, Charlotte, NC* to Steele Creek Associates, Ltd. c/o Commonwealth Engineering Associates, Inc., Ms. Tamara Putz

This Report summarized previous site investigations to date and presented the results of Westinghouse's recent groundwater sampling and chemical analyses of 9 wells, 5 located onsite (MW-1 through MW-5) and 4 located in the vicinity of the site (NC-1 through NC-4) located north of Sam Neely Road on the Thypin Steel and Valmet properties. The Report also indicated that Mr. Michael Sturm of Steele Creek Associates was reported via fax on 1-12-89, the chemical analytical testing results of the saw dust found on the property originally by Law near the vegetation scar. Analysis indicated the saw dust contained trichloroethane at 13 ppb, trichloroethylene (TCE) at 480 ppb, and toluene at 26 ppb.

The sampling activities were split between Westinghouse and the NCDENR. Analysis for the offsite wells indicated the presence of low levels of acetone in NC-1 east of Valmet building and methylene chloride in NC-4, north of Thypin Steel building. NC-2 (north of Valmet building) and NC-3 (south of Thypin Steel building) did not contain any detectable VOCs. Onsite wells MW-1, 2, and 4 contained low levels of acetone. MW-3 and MW-5 did not contain any detectable VOCs. Both the laboratory blank and field blank QA/QC samples also contained acetone, which the Report indicated that both acetone and methylene chloride are more likely lab contaminants than groundwater contaminants.

The Report also documented the groundwater flow direction onsite as toward the southeast as indicated in previous reports. Based on the results of the groundwater sampling and analysis activities at the time of the Report, no further hydrogeologic investigation activities were warranted.

9-15-1989 Letter from Commonwealth Engineering Associates, Inc. to Mr. Jeff Lautier-NCDENR Mooresville Regional Office RE: Steele Creek Associates (Former Burroughs) Property, Charlotte, NC

The letter summarized the previous site investigations and sampling results for the site. The letter indicated that Westinghouse's investigation and report accurately reflected the conditions of the Steele Creek Associates' property (site) and concluded that there "is no evidence that the groundwater on this site is contaminated." Based on the data presented in Westinghouse's 9-7-89 report, Commonwealth requested that NCDENR confirm and acknowledge that the Steele Creek Associates' site "does not appear contaminated and is being removed from your site investigation priority list."

11-3-1989 Letter from Mr. Jeff Lautier, NCDENR Mooresville Regional Office to Commonwealth Engineering Associates, Ms. Tamara Putz RE: Westinghouse Environmental Report – Steele Creek Associates Property, Charlotte, NC, Incident #3807, Mecklenburg County

In response to the 9-15-89 Commonwealth letter, the NCDENR letter indicated that all monitoring wells on the site should be resampled using EPA Method 601. The letter indicated that the Law groundwater sampling activities used EPA Methods 601 and 602. The Westinghouse report presented results for the same monitoring wells using EPA Method 624. The letter stated that since the detection limits for EPA Method 624 are higher than for EPA Method 601, many of the compounds detected during the Law investigation may have not been detected by Westinghouse in their subsequent investigations. The letter stated that if the EPA Method 601 results indicated no contaminants in the groundwater above the NC 2L Groundwater Classification Standards (2L Standards), the incident would be closed out.

1990 Construction began for the present-day Virkler facility.

1-16-1990 Letter from Westinghouse Environmental and Geotechnical Services, Inc. to Mr. Jeff Lautier, NCDENR Mooresville Regional Office RE: Steele Creek Associates Property, Charlotte, NC, Incident #3807, Mecklenburg County

In response to the 11-3-89 NCDENR letter, Westinghouse submitted this letter on behalf of their client, Commonwealth Engineering Associates. The letter contended that the reliability of data presented by Law was of "questionable value." Westinghouse stated that the NCDENR's reasons for requesting additional sampling and analyses at the site were not warranted considering the available data presented to date.

7-6-1990 Letter from Ms. Chris DeRoller, NCDENR Mooresville Regional Office to Commonwealth Engineering Associates, Inc., Ms. Tamara Putz RE: Closure Request, Steele Road and Neely Road, Incident #3807, Mecklenburg County

In response to the 1-16-90 Westinghouse letter, NCDENR submitted this letter to Commonwealth. The NCDENR reconfirmed that the incident cannot be closed out due to two sets of contradictory lab data (Law and Westinghouse investigations). The letter indicated that the wells should be resampled using EPA Method 601 and the published method detection limits for that analysis. The NCDENR would not allow the use of EPA Method 624 to determine groundwater quality at the site.

7-13-1993 Letter from Priester & Associates to Chris DeRoller, NCDENR Mooresville Regional Office RE: Steele Creek Associates Property, Charlotte, NC, Mecklenburg County

No correspondence was found in the NCDENR files between 7-6-90 and 7-13-93. This letter indicated the monitoring wells MW-1 through MW-4 located at the site would be resampled once in July and again in December as previously discussed with the NCDENR using EPA Method 601. The letter requested that the NCDENR consider removing the site from the incident list if no presence of groundwater contaminants were indicated by the laboratory results.

2-14-1994 Letter from Priester & Associates to Ms. Chris DeRoller, NCDENR Mooresville Regional Office RE: Steele Creek Associates Property, Charlotte, NC, Mecklenburg County

The letter report described three sampling events where the samples from MW's 1-4 were analyzed by EPA Method 601 and 602 instead of 624: November 25, 1992 sampling by Cooper Environmental, and Priester & Associates sampling dated August 25, 1993, and January 28, 1994. The three sampling events indicated no presence of VOCs above the detection limits for EPA Method 601 and 602. The letter requested that based on these three consecutive events below detection limits, that NCDENR consider removing the site from the incident list and allow for the abandonment of the monitoring wells.

2-28-1994 Letter from Priester & Associates to Ms. Chris DeRoller, NCDENR Mooresville Regional Office RE: Steele Creek Associates Property, Charlotte, NC, Mecklenburg County

This letter essentially provided the same information as the previous 2-14-94 Priester & Associates letter, and included the North Carolina Lab Certifications for the laboratories used.

3-9-1994 Site Closure Letter from Ms. Chris DeRoller, NCDENR Mooresville Regional Office to Priester & Associates RE: Steele Creek Associates Property, Incident #3807, Mecklenburg County

This No Further Action letter indicated that Ms. DeRoller reviewed the results of the last three groundwater sampling events for the site received by NCDENR on 3-8-94 and "based on these results, no further action is required at the subject site at this time."

The NCDENR files did not contain any information for the Virkler site following the 3-9-94 NFA letter. All documents following this date were provided by the client.

2-14-2002 Cooper Environmental, Inc.: *Report for Phase I ESA, Virkler, 12345 Steele Creek Road, Charlotte, NC* to Mr. Ralph Adams, The Virkler Company

Cooper Environmental, Inc. conducted a Phase I Environmental Site Assessment (ESA) for the Virkler site as reported in the 2-14-02 Phase I ESA Report. No figures or attachments were located by the client. The ESA indicated that the property was undeveloped from at least 1938 to 1990, when the current facility was constructed. Cooper Environmental reviewed the Groundwater Incident File #3807 for the site at the NCDENR – Mooresville Regional Office and provided a brief summary of the historical site investigation. The ESA indicated that "uncontrolled disposal of solid waste" was discovered by Law Engineering on the site and that no evidence of hazardous waste was discovered. The ESA did not discuss the type or concentrations of contaminants discovered onsite. The ESA reiterated that the

previous investigations suggested an offsite source for the contamination and stated that the site received closure on 3-9-94.

According to the ESA, the site consists of 12.42 acres out of a total of 51 acres owned by Virkler Realty, LLC. The ESA stated that a wide variety of chemicals are used at the site. A list of raw materials was presented as Appendix C, but could not be located. The ESA also reported that the facility has three layers of impermeable membrane under the concrete floors in the plant. The ESA did not reveal evidence of recognized environmental conditions in connection with the property that would warrant further investigations.

The environmental database search indicated the presence of the following federal and state environmental database sites:

Aquair – adjacent east of the site, CERCLIS list (Comprehensive Environmental Response, Compensation and Liability Index System, RCRA Generators List, State Equivalent CERCLIS List (SCL), and State Priority List (SPL). SCL and SPL are sites that identified as potential hazardous substances and waste disposal sites.

Thonit A. Simmons Company – located ¼ to ½ mile northeast of the site was listed as an SPL site.

Steele Creek & Sam Neely Roads – subject site listed on the leaking UST (LUST) database for Incident #3807. The LUST database is derived from the Groundwater Incident database.

Valmet-Charlotte – approximately ¼ to ½ mile northeast of the site, is listed as a LUST site.

Golder conducted recent NCDENR file reviews in April 2011 for the Aquair, Thonit A. Simmons Company, and Valmet facilities and the findings of the reviews are covered later in this summary.

No registered USTs were identified on the site or adjacent properties.

2-23-2006 WPC: *Preliminary Site Assessment Report, The Virkler Company, 12345 Steele Creek Road, Charlotte, NC* to The Virkler Company

This Report of Preliminary Site Assessment was conducted by WPC due to Virkler's concerns that releases from previous operations may have environmentally impacted the soil and groundwater at the site and that the presence of contamination at the site may pose a financial impact to the property value until the site is fully remediated. WPC identified numerous areas of potential impact and at the request of Virkler, conducted a limited sampling program. Nine (9) soil borings were installed in the vicinity of areas of concern to reported depths of 20-30 feet bgs. Soil samples were field screened using a Photoionization Detector (PID). The Report stated that laboratory analysis would only be conducted if residual staining or odors were observed or if field screening indicated PID readings. Based on information provided in the report, no evidence of staining/odors/PID readings was observed, and therefore, no soil samples analyzed. However, no soil borings were located for this Report.

Groundwater elevations and samples were collected from each of the nine temporary monitoring wells. Only 2 of the 9 groundwater samples collected (TMW-4 and TMW-8) were analyzed for VOCs by EPA Method 8260 plus tentatively identified compounds (tic's), semi-VOCs by EPA Method 8270 plus tic's, RCRA metals, sulfate and nitrate and formaldehyde. A PCE concentration of 1.4 ppb was detected in the sample from TMW-4 located north of the aboveground tank farm, above the NC 2L Standard. The concentration of lead in TMW-4 was also detected at a level above the 2L Standard. No groundwater development forms were located for the wells. A sample was also collected and analyzed from the surface water drainage along the southeastern portion of the site. All detections were below the 2L Standards.

The Report indicated that WPC performed file reviews for Unocal, Air Products, Aquair, and Valmet.

The Report indicated that the Unocal facility owned and operated specialty fuels and petroleum products. Constituents of concern were chlorinated solvents, and the incident was ongoing at the time.

Air Products supplied industrial gases and equipment, special and intermediate chemicals, and environmental and energy systems. The facility reported a UST release on 5-3-91. Constituents of were total petroleum hydrocarbons (BTEX compounds), with no evidence of PCE or lead. According to the Report, the incident was closed in 1991.

Valmet reported a UST removed in 1990 and contained total petroleum hydrocarbons and diesel range organics exceeding state regulatory standards. Soil was thermally treated onsite to less than 10 ppm and three groundwater monitoring wells installed. Constituents of concern in groundwater were lead and bis2-ethylhexylphthalate. This incident was closed in 2002.

Golder conducted recent NCDENR file reviews in April 2011 for the Aquair, Air Products, and Valmet facilities and the findings of the reviews are covered later in this summary.

Based on WPC's review of the sites surrounding Virkler, the migration of groundwater from Aquair was the cause of the elevated level of PCE in the sample from TMW-4. It was also WPC's professional opinion that the migration of groundwater from Valmet was the cause of the elevated level of lead found in the groundwater from sample TMW-4. WPC recommended no further action for the soil or groundwater. Analytical results were not reported to NCDENR.

??-??-???? **Arcadis: *Phase I Environmental Site Assessment, The Virkler Company, 12345 Steele Creek Road, Charlotte, NC* to The Virkler Company**

In _____ 2011, a Phase I ESA was conducted by Arcadis as due diligence for Bluestar Silicones (prospective buyer). The Phase I ESA indicated recognized environmental concerns based on the previous Preliminary Site Investigation performed by WPC.

??-??-???? **Arcadis: *Phase II Environmental Site Assessment, The Virkler Company, 12345 Steele Creek Road, Charlotte, NC* to The Virkler Company**

As a result of the recognized environmental concerns identified in the Arcadis Phase I ESA, Arcadis installed 8 soil borings/monitoring wells on the site in March 2011 to investigate and assess soil and groundwater onsite including the installation of soil borings/monitoring wells in previous WPC locations. Wells were installed to depths ranging from _____ to _____ feet bgs. Soil analytical results indicated the only the presence of selenium above the IHSB Groundwater Protection Based Soil Remediation Goals (SRGs) in the soil samples from borings SB-1 through SB-8. Groundwater analytical results indicated the presence of PCE in MW-4, MW-5, MW-6 at 1.8 ppb, 1.6 ppb, and 1.3 ppb, respectively, above the NC 2L Standard of 0.7 ppb. PCE was detected in MW-3 and MW-7 below the NC 2L Standard. No PCE was detected in the additional site wells. Chromium was also detected in MW-5 at 210 ppb, above the NC 2L Standard of 10 ppb. Groundwater flow was determined to be toward the _____.

To further address the potential for offsite environmental impacts, Arcadis installed two additional soil borings/wells at the site in April 2011 (MW-9 and MW-10).

hart hickman

SMARTER ENVIRONMENTAL SOLUTIONS

Via E-Mail

January 30, 2013

Process Innovations
12345 Steele Creek Rd
Charlotte, NC

Attn: Mr. Howard Virkler

Re: Summary of Environmental Conditions
Process Innovators Facility
12345 Steele Creek Rd.
Charlotte, North Carolina
H&H Job No. VCC-002

Dear Howard:

Per your request, Hart & Hickman, PC (H&H) is pleased to present this summary of environmental conditions at the Process Innovations facility located at 12345 Steele Creek Rd. in Charlotte. This summary is based upon a review of prior environmental reports obtained for the site including previous Phase I Environmental Site Assessments (ESAs) and soil and groundwater sampling data.

1.0 Groundwater Conditions

Late 1980s Early 1990s Sampling

Groundwater investigations were conducted in the late 1980's and early 1990's on the Valmet and Typhin Steel properties north of Sam Neely Road and the tract of land to the southeast of the intersection of Sam Neely Road and Steele Creek Road part of which now contains the Process Innovations facility (which is referred to in these reports as the Burroughs property). The initial investigations were conducted before the site building was constructed in 1989/1990. Groundwater sampling initially conducted in 1988 indicated the presence of low concentrations of chlorinated solvents on the subject site including tetrachloroethene (PCE), trichloroethene (TCE), 1,1,1-

trichloroethane, 1,2-dichloroehane, and carbon tetrachloride. The highest concentrations were detected in samples in the upgradient portion of the site and groundwater flow was determined to be to the southeast. As such, it appeared that groundwater was migrating from an off-site source located north of Sam Neely Rd.

Additional investigation was conducted by the North Carolina Department of Environment and Natural Resources (DENR) and on behalf of private parties. The results of the additional groundwater investigations did not confirm the presence of the chlorinated solvents. A letter dated February 24,1989 from DENR to Howard Virkler indicated that based upon the sampling conducted, DENR did not see reason to continue the investigation of the site.

Additional sampling was conducted in 1989 through 1994 which confirmed the lack of groundwater impact at the site. In a letter dated March 9, 1994, DENR indicated that no further action was required and the wells could be abandoned.

Recent Assessment Activities

In 2006, WPC installed nine temporary groundwater monitor wells at the site. Groundwater samples were collected from two of the temporary wells. Results of analysis of a sample collected in the eastern portion of the site indicated the presence of PCE at 1.4 µg/l which is slightly above the DENR groundwater standard of 0.7 µg/l. No volatile organic compounds were detected in the groundwater sample collected from the western portion of the site.

In March 2011, Arcadis conducted a Phase II ESA at the site. Ten groundwater monitor wells were installed at the site. The ground water samples were analyzed for VOCs, semi-VOCs (SVOCs), RCRA metals, and organochlorine pesticides (OCPs). The results of analysis of the samples indicated that no SVOCs or OCPs were detected in the samples. Chromium was detected in two of the ground water samples (MW-5 and MW-8) above the North Carolina ground water standard of 10 µg/l (ppb). Because metals are naturally occurring, ground water analytical results for metals can be

affected by suspended sediment (i.e., turbidity) in the wells. It appears that the initial ground water samples from these two wells contained elevated levels of suspended sediment. A second sample was collected from MW-5 (the well with the highest chromium concentration) apparently using sampling methods to reduce turbidity. The results of the second sampling indicated that chromium was not detected above the ground water standard. As such, we conclude that groundwater is not impacted with chromium above the North Carolina ground water standard and the initial elevated chromium concentrations were the result of suspended sediment.

PCE was detected slightly above its ground water standard of 0.7 µg/l in four of the ground water samples located in the eastern and northeastern portion of the site. The concentrations ranged from 1.3 µg/l to 1.8 µg/l which are just slightly above the North Carolina groundwater standard of 0.7 µg/l. Groundwater flow direction was determined to be to the south. Based upon the groundwater flow direction, the distribution of the compound in ground water, and information provided in the Arcadis report about documented off-site sources of ground water impact, we agree with Arcadis' conclusion that the PCE appears to have originated off-site. The compounds and concentrations detected are consistent with the groundwater impacts identified in the late 1980s to early 1990s for which DENR issued a no further action in 1994.

Responsibility for assessment and remediation of ground water impacts lies with the entity that caused the contamination. As such, unless there is some imminent threat to human health and the environment, DENR would not require a property owner to conduct further assessment or remediation of contamination to a property from an off-site source. The detected PCE concentrations are very low and city water is supplied to the area. Therefore, there is no imminent threat posed by the PCE in ground water. Further, the detected PCE concentrations are well below the DENR screening levels for consideration of structural vapor intrusion from the ground water impacts. Therefore, vapor intrusion is also not a concern for the identified ground water impacts. In addition, as noted previously, DENR previously issued a no further action for compounds previously detected in groundwater at the site.

2.0 Soil Analytical Data

In 2006, WPC advanced nine soil borings at the site. Soil samples were screened for potential evidence of impact such as organic vapors, staining or odors. No field evidence of impact was identified in the soil samples; therefore, no samples were submitted for laboratory analysis.

In March 2012, Arcadis collected soil samples from 10 boreholes at the site, and sample depths ranged from 12 to 21 ft below ground level. The samples were analyzed for VOCs, SVOCs, RCRA metals, and OCPs. The results of the soil sample analyses indicated that no VOCs, SVOCs, or OCPs were detected in any of the samples. Concentrations of several metals (arsenic, barium, chromium, lead, and selenium) were detected in the soil samples. Because metals are naturally occurring, sample results are typically compared to site-specific background levels as an initial screening. However, no site-specific background soil samples were collected for analysis by Arcadis. Nevertheless, the detected metals concentrations are within the range of typical regional background levels. As such, we concur with Arcadis' conclusion that the metals concentrations are consistent with background levels.

Based upon our review of the collected data, there is no evidence of soil impact at the site.

3.0 Retention Pond Data

As part of the March 2011 Phase II ESA, a surface water and a soil sample were collected from the stormwater retention pond at the site. The samples were collected to assess the potential for impact of a surface release of an asphalt additive. It appears that the samples were collected at the discharge of the stormwater sewer system outfall to the retention pond. The samples were analyzed for VOCs, SVOCs, RCRA metals, and pH.

The results of the surface water sample analysis did not indicate concentrations of compounds at levels of concern. Therefore, there is no evidence of impact to water in the retention pond.

The results of analysis of the soil sample collected at the outfall of the stormwater sewer system indicated the presence of several polynuclear aromatic hydrocarbons (PAHs) above DENR screening levels. H&H understand that PAHs are not present in the asphalt additive. PAHs are associated with heavy end petroleum products and are ubiquitous in runoff from asphalt parking lots as a result of leaching from asphalt and also minor drips of automotive fluid carried by stormwater runoff.

Because PAHs are associated with typical parking lot runoff, their detection in the pond at low levels do not appear significant and it is unlikely that DENR would request further assessment or remediation.

4.0 Summary

In summary, a review of previous assessment activities conducted at the site indicates the following:

- Very low levels of PCE were detected in groundwater in the eastern and northeastern portion of the site which appear to be from an off-site source and for which DENR previously issued a no further action in 1994. As such, the detected groundwater impacts do not appear to present a significant concern.
- There is no evidence of soil impact at the site.
- Low levels of PAHs were detected in soil at the outfall to the stormwater retention pond at the site. The detected PAHs are consistent with parking lot runoff and, as such, it is unlikely that DENR would require further evaluation of the impacts.

Please contact me if you have any questions or comments concerning this summary.

Very truly yours,
Hart & Hickman, PC

Steve Hart, PG
Principal

APPENDIX F

OTHER SUPPORTING DOCUMENTATION

Bulk Storage Tanks and Products Stored

All Tanks are 304 SS unless noted as Carbon Steel or Plastic in Column D

Row	Tank	Gallons	Insulated	Coil	Product	Density (lb/gal)	Level (inches)	Tank Mass (lbs)	Cone Mass (lbs)	Total (lbs)
1	1	6,029	Yes	Full	Hot Water					
1	2	6,029		Half	POLYACID	8.236	134	48,768	1,456	**50,224**
1	3	6,029		Half*	AMINE HEADS IV	7.582	7	2,345	1,340	**3,685**
1	4	6,029		Half*	AS 110	8.236	40.5	14,740	1,456	**16,195**
1	5	6,000		No	TOFA	7.564	50	14,999		**14,999**
1	6	6,000		No	E/A 300	8.509	132.5	44,714		**44,714**
1	7	6,000		No	Soybean Oil	7.636	133	54,823		**54,823**
2	1	3303	Yes	Full	Corsamul 4100	8.255	0	0	0	**0**
2	2	3303	Yes	Full	Polyacid (no I)	8.255	76.5	17,393	909	**18,302**
2	3	3303		Half	Corsamul 4375	8.596	106.5	25,214	947	**26,161**
2	4	3303		Half	AS 110	8.236	116.5	26,426	907	**27,333**
2	5	3303		Half	*Corsamul 4375*	8.596	69.5	16,454	947	**17,401**
2	6	3303		Half	CORSATERIC 300	8.818	81	19,672	971	**20,643**
2	7	1500	Yes	Half	Soybean Oil	7.636	0	0	0	**0**
2	8	3000		No	CORSATERIC 300	8.818	118.5	28,777	971	**29,749**
2	9	2000		No	Clean					
2	10	3000		No	Clean					
2	11	1700		No	Clean					

3	1	3303	Yes	Full	Corsamul 4100	8.255	0	0	0	**0**
3	2	3303	Yes	Full	Corsamul 4375	8.596	42.5	10,062	947	**11,009**
3	3	3303		Half	Corsamul 4100	8.255	0	0	0	**0**
3	4	3303		No	CORSATERIC 300	8.818	25	6,072	971	**7,043**
3	5	3000		No	Corsamul 391 SL	8.273	73.5	16,747	911	**17,659**
3	6	3000		No	Corsamul 391 SL	8.273	96.5	21,988	911	**22,899**
3	7	3000	Yes	No	Clean	0	0	0	0	**0**
3	8	2400	Yes	No	Corsamul 4100	8.255	0	0	0	**0**
3	9	3303			IPA	6.564	28	5,062	723	**5,785**
3	11	8039			DETA	7.927	2	664	1,328	**1,993**
3	12	8039			TETA	8.182	18	6,170	1,371	**7,541**
4	1	3303	Yes	Full	Clean		0	0	0	
4	2	3303		Half			0	0	0	
4	3	3303		Half	Cors 6204(RW)	9.59	0	0	0	**0**
4	4	3303		Half	*Cors 6204(RW)*	9.59	0	0	0	**0**
4	5	3200	Plastic	No	Soybean Oil	7.636	0	0	0	**0**
4	6	3000		No	TOFA	7.564	0	0	0	**0**
4	7	1700		No	Clean		0	0	0	**0**
4	8	3000	Yes	No	AS 110	8.236	69	15,652	907	**16,559**
4	9	3003			IPA	6.564	108	19,525	723	**20,248**
4	10	3003			Torq Trim II	7.387	0	0	0	**0**
4	11	3003	CS		DETA	7.927	0	0	0	**0**
4	12	6029			DETA	7.927	0	0	0	**0**

5	1	6,029	Yes	Full	Corsamul 4100 (no I)	8.255	89	32,466	1,459	**33,925**
5	2	6,029		Half	TOFA	7.51	0	0	0	**0**
5	3	6,029		Half	Clean	0	0	0	0	**0**
5	4	6,029	Trace	Half	CORS 615-C (RW)	9.59	57	24,155	1,695	**25,850**
5	5	6,000		No	TOFA	7.51	131.5	39,167		**39,167**
5	6	6,000		No	391 SL	8.31	85.5	28,179		**28,179**
5	7	6,000		No	TOFA	7.51	129.5	38,571		**38,571**
5	8	8,039		No	Clean			0	0	**0**
5	9	8,039		No			0	0	0	**0**
5	10	6,000		No	Clean			0		
6	1	6,029	Yes	Full	Cors 6204	9.59	0	0	0	**0**
6	2	6,029	Trace	Half	Corsamul 4100	8.255	0	0	0	**0**
6	3	6,029		Half	POLYACID	8.236	101	36,758	195	**36,953**
6	4	6,029		Half	POLYACID	8.236	111	40,398	195	**40,592**
6	5	8,039		Half	SOYA	8.236	0	0	0	**0**
6	6	6,000	CS	No	Clogged	0	0	0		**0**
6	7	6,000		No	Corsamul 6204(RW)	9.59	120	45,641		**45,641**
6	8	6,029	CS	No	#2 Fuel		0	0	0	
6	9	8,039		No	Corsamul 615-C(RW)	9.59	44.5	18,858	227	**19,085**
6	10	8,039		No	Cors 4100 Distillate	8	58	20,504	189	**20,693**
										763,621

Shaded Tanks are outside

DETA in Stock		
Corsamul 4100		
PolyAcid in Stock		
TETA in Stock		

Row	Tank	Gallons	Product	
1	1	6,029	Hot Water	
1	2	6,029	POLYACID	
1	3	6,029	AMINE HEADS IV	
1	4	6,029	AS 110	
1	5	6,000	TOFA	
1	6	6,000	E/A 300	
1	7	8,000	Soybean Oil	
2	1	3303	Corsamul 4100	
2	2	3303	Corsamul 4100	
2	3	3303	Corsamul 4375	
2	4	3303	AS 110	
2	5	3303	*Corsamul 4375*	
2	6	3303	CORSATERIC 300	
2	7	1500	Clean	
2	8	3000	CORSATERIC 300	
2	9	2000	Clean	
2	10	3000	Clean	
2	11	1700	Clean	
3	1	3303	Corsamul 4100	
3	2	3303	Corsamul 4375	
3	3	3303	Corsamul 4100	
3	4	3303	CORSATERIC 300	
3	5	3000	Corsamul 391 SL	
3	6	3000	Corsamul 391 SL	
3	7	3000	Clean	
3	8	2400	Corsamul 4100	
3	9	3303	IPA	
3	11	8039	DETA	
3	12	8039	TETA	
4	1	3303	Clean	
4	2	3303	BioDiesel	
4	3	3303	Cors 615-C (RW)	
4	4	3303	*Cors 615-C (RW)*	

4	5	3200	*Boil Out Water*	
4	6	3000	TOFA	
4	7	1700	Clean	
4	8	3000	AS 110	
4	9	3003	Clean	
4	10	3003	TETA	
4	11	3003	DETA	
4	12	6029	DETA	
5	1	6,029	Corsamul 4100	
5	2	6,029	TOFA	
5	3	6,029	Clean	
5	4	6,029	CORSAMUL 690	
5	5	6,000	TOFA	
5	6	6,000	391 SL	
5	7	6,000	TOFA	
5	8	8,039	Clean	
5	9	8,039	Clean	
5	10	6,000	Clean	
6	1	6,029	Corsamul 690	
6	2	6,029	Corsamul 4100	
6	3	6,029	POLYACID	
6	4	6,029	POLYACID	
6	5	8,039	SOYA	
6	6	6,000	CADMA	
6	7	6,000	Corsamul 615-C(RW)	
6	8	6,029	#2 Fuel	
6	9	8,039		
6	10	8,039	Cors 4100 Distillate	

PAVCO INVENTORY 2013

Raw Material	Date	Lot #	Used In	Pounds Out	Pounds In	On Hand Pounds
Sodium Bisulfite						4689
IN	3/5/2013	2602			5000	
OUT	3/20/2013	49130785	Merlin Brightener	117		
OUT	4/24/2013	49130954	Merlin Brightener 5x	194		
Sodium Nitrate						2997
IN	3/5/2013	3461227			4000	
OUT	3/21/2013	49130788	Hyprotec	1003		
Ammonium Biflouride						458
IN	3/5/2013	tjcyabf20120618			660	
OUT	3/21/2013	49130788	Hyprotec	202		
Acetic Acid 99.85%						480
IN	3/5/2013	twt1100819			480	
Thiourea						156.5
IN	3/6/2013				220	

OUT	3/20/2013	49130785	Merlin Brightener	10.6		
OUT	4/24/2013	49130954	Merlin Brightener 5x	52.9		
P-Anisic Aldehyde						684.1
IN	3/6/2013	171-9, 171-12			990	
OUT	3/20/2013	49130785	Merlin Brightener	76.5		
OUT	4/24/2013	49130954	Merlin Brightener 5x	229.4		
Benzyl Niacin Solution						426.33
IN	3/6/2013	40635714			1000	
OUT	3/20/2013	49130785	Merlin Brightener	89		
OUT	4/24/2013	49130954	Merlin Brightener 5x	445.4		
OUT	3/19/2013	49130784	Merlin Starter	39.27		
Trisurfin Chrome Sulfate						3262
IN	3/6/2013	3203235024, 5003			4400	
OUT	3/21/2013	49130788	Hyprotec	1138		
Newton						3046
IN	3/6/2013	4064411			3528	
OUT	3/19/2013	49130784	Merlin Starter	482		
Cobalt Sulfate						1009.5
IN	3/6/2013	1000910002177910.00			924	
OUT	3/21/2013	49130788	Hyprotec	265.5		
Empty Plastic Drums						351

IN	3/12/2013				360	
OUT	3/21/2013	49130788	Hyprotec	9		
Plastic Drums (microporus vent)						322
	3/14/2013				345	
OUT	3/19/2013	491430784	Merlin Starter	12		
OUT	3/20/2013	49130785	Merlin Brightener	11		
OUT	4/24/2013					

Warehouse Inventory

Product	Container Type	Num of Containers	lbs per Container	Pounds		Total LBS
Brimopol 90100	Drum	5	485	2425		**2,805**
		1	380	380		
NP-100	Bag	831	50	41550		**41,550**
Stearic Acid	Bag	19	50	1250		**1,530**
		1	20			
TEPA	Drum	11	461	5492		**5,492**
		1	421			
Humate	Bag	160	55	8800		**8,800**
Sodium Lignosulfonate	Supersack	0	Various	0		**0**
Diethanolamine	Drum	15	490	7350		**7,710**
	Drum	1	360	360		
DETA	Drum	0	438	0		**0**
Corsamul 615(tf 6-7)	Tote	12	Various	27581		**27,581**
Corsamul 6200 Exp 3	Tote	16	2200	35200		**38,009**
	Tote	1	2500	2500		
	Tote	1	309	309		
Corsamul 2149	Drum	0	400	0		**0**
Corsamul 4375	Tote	3	2200	6600		**6,805**
	Tote	1	205	205		
Corsapave 5159	Drum	30	403	12090		**12,090**
Ethal NP-506	Barrel	71	470	33370		**36,190**
391SL Condensate	Tote	9	+1792+2210+1960+2251+1190+2395+2062+	Various		**13,930**
2149 Condensate	Tote	10	2160+1850+1837+1120+1880	Various		**18,977**
			2120+1930+1500+2310+2270	Various		
390 Condensate	Tote	5	2391+2105+2397+2140+2025	Various		**11,058**
4375 Condensate	Tote	4	2321+1745+1080+2390	Various		**7,536**
4375 Boilout	Tote	6	2690+2710+2830+2350+2305+2390+750	Various		**16,025**
4100 Condensate	Tote	0				
Sodium Hydroxide (50%)	Tote	2	3405+2061	Various		**5,466**
Torq Trim II	Drums(Palleti	162	408	66096		**66,220**

		1	124	124		
Empty Steel Drums	Drum	145		145		**145**
Empty Totes		0				**0**
E Break Additive 2	Drum	0	455			0
	Tote	4	2192	21920		9224
		1	456	456		
Corsamul 690	Tote	26	Various	55989		
Corsamul 615 (TF 5-4)						
Corsamul 4100	Tote	1	2187	2187		2187
Corsamul 6204 (13031302	Tote	20	Various	44958		44958
Corsamul 6204(13031901)	Tote	20	Various	43862		43862
Marasperse N-22	Bags	20	55	1100		1100
HMD	Drum	1	155	155		155
Corsamul 6003	Tote	34	Various	82,163		82,163
Premix in Vessel						
Corsamul 688	Drum	1	425	425		425

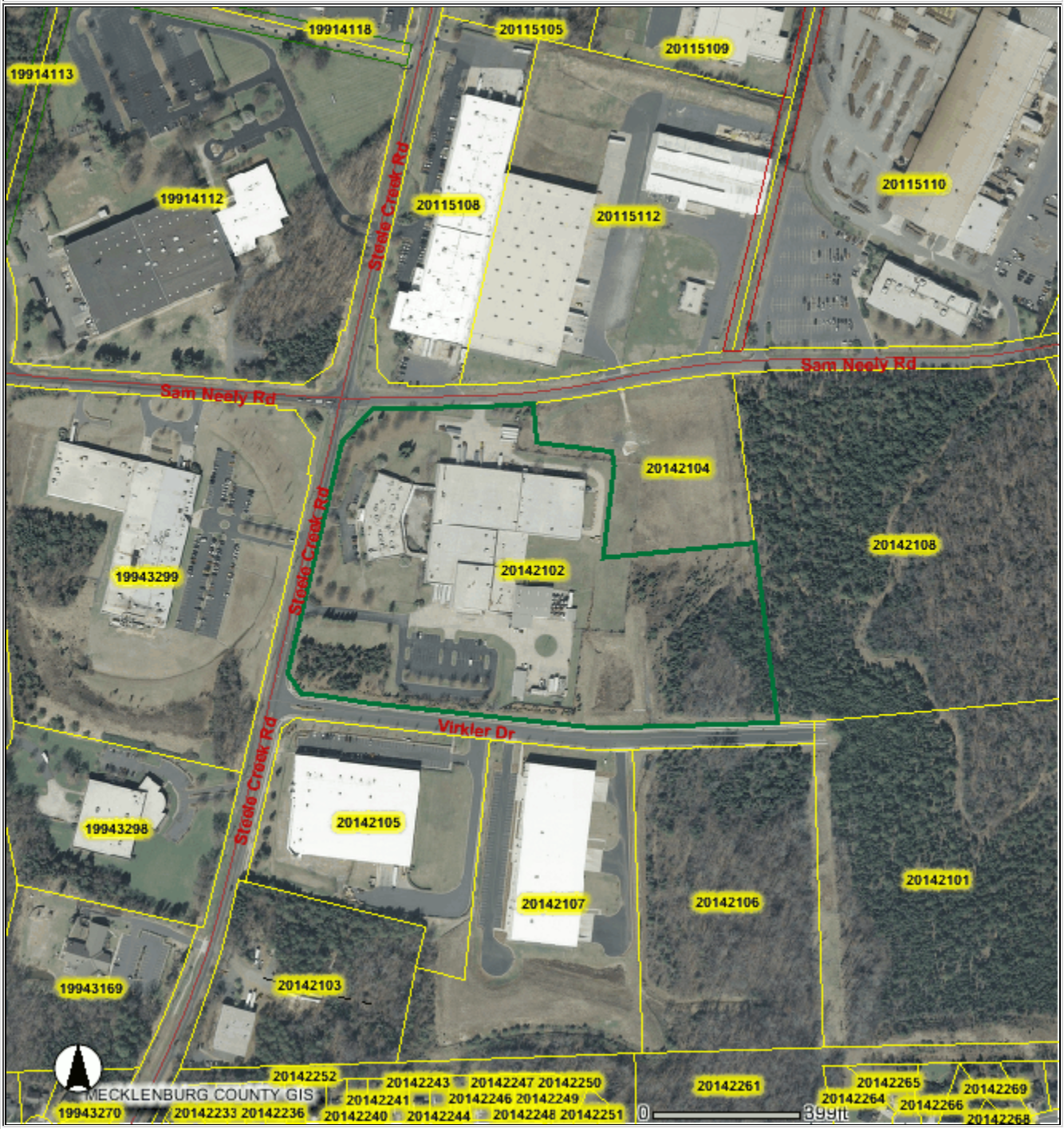
Mecklenburg County, North Carolina

POLARIS

Property Ownership Land Records Information System

Date Printed: Mon Jun 17 2013 21:06:30 GMT-0400 (Eastern Standard Time)

320548



This map is prepared for the inventory of real property within Mecklenburg County and is compiled from recorded deeds, plats, tax maps, surveys, planimetric maps, and other public records and data. Users of this map are hereby notified that the aforementioned public primary information sources should be consulted for verification. Mecklenburg County and its mapping contractors assume no legal responsibility for the information contained herein.

Mecklenburg County, North Carolina
POLARIS
Parcel Ownership and GIS Summary

Date and Time: 6/17/2013 9:08:46 PM

Parcel ID #: 20142102 GIS ID #: 20142102	
Owner Name:	VIRKLER REALTY LLC
Mailing Address:	12345 STEELE CREEK RD PO BOX 38365 CHARLOTTE, NC 28278
Property Characteristics	
Legal Desc.:	NA
Land Area:	19.03AC
Fire District:	00-CITY OF CHARLOTTE
Special District:	N/A
Account Type:	NC CORP
Municipality:	1-CHARLOTTE
Property Use:	WAREHOUSE
Deed Reference(s) and Sales Price	
07748-160 (4/22/1994) $0.00	
Situs Addresses Tied to This Parcel	
12345 STEELE CREEK RD	
Site Location Information	
Zoning Boundaries:	Contact Appropriate Planning Department or See Map.
ETJ Area: CHARLOTTE	
Charlotte Historic Districts: NO	
Within Charlotte 6/30/2011 Annexation Area: NO	
Census Tract #: 59.04	
Parcel Falls Inside a Water Quality Buffer?: NO	
Post Construction District	
Jurisdiction:	Charlotte
District:	Central Catawba

FEMA Flood Information	
FEMA Panel #:	3710450000J
FEMA Flood Zone:	OUT
FEMA Panel Date:	03/02/2009
Community Flood Information	
Community Flood Zone:	OUT
Regulated Watershed Information	
Watershed Name:	STEELE
Watershed Class:	

Building Photography

PHOTO #1
Location: 12345 STEELE CREEK RD

PHOTO #2
Location: 12345 STEELE CREEK RD

PHOTO #3
Location: 12345 STEELE CREEK RD

Information contained within this photo may be used as a visual aid and to generally locate, identify, and inventory parcels in Mecklenburg County, North Carolina. There are inherent errors and limitations associated with this type of electronic medium. Mecklenburg County cannot warrant or guarantee the information contained herein including but not limited to its accuracy or completeness.

Powered by

The information provided by this program is prepared for the inventory of real property within Mecklenburg County and is compiled from recorded deeds, plats, tax maps, surveys, and other public records and data. Users of this map data are hereby notified that the aforementioned public primary information sources should be consulted for verification of the information. Mecklenburg County and its mapping contractors assume no legal responsibility for the information contained herein.

Print
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Parcel Information

Parcel ID	Account	Parent	Previous
20142102	NC CORP		20121158
20142102	NC CORP		20142102

Owner(s)

Owner Name	Mailing Address		City / State
VIRKLER REALTY LLC	12345 STEELE CREEK RD	PO BOX 38365	CHARLOTTE NC 28278

Legal Information

Legal	Municipality	Date Annexed	Special District	Fire District	Acreage
NA	CHARLOTTE	06/30/1997		CITY OF CHARLOTTE	19.03
NA	CHARLOTTE	06/30/1997		CITY OF CHARLOTTE	19.03

Total Parcel Assessment

Building	Land	Features	Total
4170000	828900	148900	5147800

Exemptions

Exemption	Year Approved	Review Date	Amount

Sales Information

Sale	Price	Stamps	Qualify	VI	Type	Legal Ref.	Grantor
Apr 22 1994	0			IMP	DEED STAMPS	07748-160	

Land Use

Use	Units	Type	Neighborhood	Assessment
I600	19.03	AC	IN04	828900
9400	1	LT	IN04	0

Building Information

Bldg	Description	Type	Year	Property Location
1	VIRKLER Warehouse Lg	WHSE-LARGE	1990	12345 STEELE CREEK RD CHARLOTTE
2	Warehouse	PREFAB WHSE	1990	12345 STEELE CREEK RD CHARLOTTE
3	Warehouse	PREFAB WHSE	1990	12345 STEELE CREEK RD CHARLOTTE

Bldg	Story	Units	Total SqFt	Heated SqFt	Foundation	Ext. Wall	Grade	Value
1	1 STORY	1	151515	137613	SLAB-COM	CORR MTL HVY - PRECAST PANL	GOOD 01	4119300
2	1 STORY		600	600	SLAB-COM	MODULAR MTL -	AVERAGE 03	10100
3	1 STORY		2100	2100	SLAB-COM	MODULAR MTL -	AVERAGE 03	40600

Bldg	Heat	Fuel	Fire Place	AC	Fixtures	Bedrooms	Full Baths	3 / 4 Baths	1 / 2 Baths
1	AIR-NO-DUCT	GAS		AC-NONE	42	0	0		0
2	HEAT - NONE	NONE		AC-NONE		0	0		0
3	AIR-NO-DUCT	GAS		AC-NONE	2	0	0		0

Sub Area

Bldg	Description	Size
1	BASE (FIRST FLOOR)	87538
1	OFFICE - FAIR	8822
1	MANUFACTURING- MINIMUM	18260
1	UTILITY - FINISHED	8000
1	OFFICE - GOOD	21968
1	CANOPY	4762
1	LOADING PLATFORM - COVERED	1140
1	PORCH - ENCLOSED - FINISHED (HEAT)	1025
2	BASE (FIRST FLOOR)	600
3	BASE (FIRST FLOOR)	2100

Depreciation

Bldg	Physical	Functional	Economic	Special	Override
1	AV - 37.00%				
2	AV - 37.00%				
3	AV - 37.00%				

Special Features & Yard Items

Bldg	Built	Type	Quantity	Units	Value
1	1990	SPRINKLER	1	136513	103200
1	1990	ASPH PAVING	1	120000	105000

Bldg	Built	Type	Quantity	Units	Value
1	1990	DOCK LEVEL	6	1	24900
1	1990	CH LNK FENCE	1	2500	6000
1	1990	MEZZANINE	1	28X80	14300
1	1990	PATIO	1	15968	23600

Notes

Tax Year	Notes	Note Date

Value Changes

Notice Date	Tax Year	Reason	Changed To	Deferred
Mar 21 2011	2011	Countywide Revaluation	5167100	0
Jul 30 2004	2004	Division of Land and/or New Parcel	5099100	0
Jul 30 2004	2004	Division of Real Estate and/or New Parce	5099100	0
Mar 21 2003	2003	Countywide Revaluation	6421200	0

AEI Consultants

Environmental & Engineering Services

PHASE I ESA PRE-SITE INSPECTION QUESTIONNAIRE

Project Manager: Project No: 320548

PROJECT/SITE INFORMATION

Client Name: Virkler Realty Company

Project Street Address(es): 12345 Steele Creek Road

City: Charlotte County: State: NC Zip: 28273

CONTACT INFORMATION

Contact	*Name*	*Telephone Number*	*Years Associated w/Site*
Owner:	Howard Virkler	704 587 3934	25
Site Contact:	Howard Virkler		
Key Site Mgr:			
Previous Owner(s):	Farm land		

PROPERTY USE AND SPECIFICATIONS

☐ Single-Family Residential	☐ Vacant or undeveloped
☐ Multi-Family Residential	☐ Agricultural *specify type*:
☐ Commercial Office	☐ Industrial *specify type*: Chemical Factory on 20 acres of I-II zoned land
☐ Commercial Retail	☐ Other *specify type*:

Provide a general site description:

150,000 square feet building, architectural precast walls, constructed as a highly protected risk, all parts of the building are non combustible, with fire protection and alarm system with monitoring consisting of two buildings, 22,000 square feet front building with offices and laboratories. A 12,000 square foot internal courtyard that is a fire break between that offices and labs and production. 130,000 square foot building at 22 feet clear with a 10,000 square foot manufacturing space at 33 foot clear. A 2000 sq ft maintenance building. Parking for 18 cars at the front building. Shipping and receiving and back portions of factory fully fenced with parking for 100 cars.

Total Property Size: 20 acres	Original Construction Date:'89 and '90
Total Number of Buildings:3	Was Construction Phased? ☐ Yes ☐ No ☐ Unk
Total Sq. Ft. of Buildings: 150,000	Dates of Renovations/Phases:

Are there any bodies of water on or immediately adjacent to the site? ☐ Yes ☐ No If yes, please describe: NO

Potable Water Source: Charlotte/Mecklenburg	Electricity: Duke Energy	Gas: Piedmont Natural Gas

Any waste water discharge at the site? ☐ Septic Tank/Leachfield ☐ **Sanitary Sewer** ☐ Other

OCCUPANTS/TENANTS

Current Occupant(s)/Tenant(s)	*Length of occupancy*	*Brief description of on-site operations*
Virkler Chemical Company	From construction	Contract chemical factory providing chemical services to customers
Hicks Total Transformations	4 years	Health and beauty aids supplier
Tenstech	5 years	Contract chemical research company

Please email completed questionnaire to: corry.platt@concept2delivery.com

AEI Consultants

Environmental & Engineering Services

Perfect Lithium	3 years	Lithium research and development company

Previous Occupant(s)/Tenant(s)	*Length of occupancy*	*Brief description of on-site operations*

Has the subject site ever been occupied by the following:
☐ Dry Cleaner ☐ Gas Station ☐ Printing Facility ☐ **Manufacturing Facility**
If yes, provide length of occupancy: 23 years

Have any previous investigations been performed at the subject property? ☐ Yes ☐ No If Yes, are copies available? Yes

If Yes, note type and describe: ☐ **Phase I ESA** ☐ Phase II ☐ Asbestos ☐ Lead Paint ☐ Radon

ON-SITE ENVIRONMENTAL CONDITIONS

Are you aware of any of the following environmental conditions, either current or former, on the subject site?
NOTE: If applicable, please provide inventory records, inspection records and material safety data sheets to site inspector during site inspection.

Environmental Condition/Issue	*Response*	*Notes on Yes Responses*
Aboveground Storage Tanks	☐ Yes ☐ No	There are 62 above ground storage tanks are provided with sufficient diking.
Underground Storage Tanks	☐ Yes ☐ No	None
Hazardous/Toxic Substances	☐ Yes ☐ No	Some corrosive and one flammable (IPA) in storage
Stored Chemicals	☐ Yes ☐ No	Yes. That is the business of Virkler Chemical Company
Chemical Spills/Releases	☐ Yes ☐ No	Nothing that has impacted the environment

Please email completed questionnaire to: corry.platt@concept2delivery.com

AEI Consultants

Environmental & Engineering Services

Dump Areas/Landfills	☐ Yes ☐ No	No
Waste Treatment Systems	☐ Yes ☐ No	No
Wastewater Discharges	☐ Yes ☐ No	To city sewers
Floor Drains/Sumps/Clarifiers	☐ Yes ☐ No	No floor drains and no underground lines. 5 sumps that are lines with stainless steel that are neutralized and pumped out to city sewers as required.
Are you aware of any of the following environmental conditions, either current or former, on the subject site?		
Environmental Condition/Issue	*Response*	*Notes on Yes Responses*
Pits, Ponds, Lagoons	☐ Yes ☐ No	Storm water collection area.
Stained Soil/Vegetation	☐ Yes ☐ No	No
Pesticide/Herbicide Use	☐ Yes ☐ No	No
Polychlorinated Biphenyls (PCBs)	☐ Yes ☐ No	No
Electrical Transformers	☐ Yes ☐ No	Yes
Hydraulic Lifts	☐ Yes ☐ No	There are hydraulic lift platform in front of each chemical manufacuring machine
Elevators	☐ Yes ☐ No	No
Asbestos	☐ Yes ☐ No	No
Lead-based paint	☐ Yes ☐ No	No
Oil/Gas Wells	☐ Yes ☐ No	No
Environmental Clean-ups	☐ Yes ☐ No	No
Environmental Permits	☐ Yes ☐ No	Yes, sewer permits and air permits

OTHER ENVIRONMENTAL CONDITIONS

Are you aware of any environmental liens recorded against the property? ☐ Yes ☐ No NO

Are you aware of any pending, past or threatened litigation related to hazardous substances or petroleum products releases at the property? ☐ Yes ☐ No NO

Are you aware of any cases of extreme water damage or mold throughout the building(s)? ☐ Yes ☐ No
If yes, provide brief explanation. NO

Person Completing Questionnaire: Howard Virkler
Title/Affiliation to the subject property: Co Owner of Virkler Realty Company
Number of Years Associated with the subject property: 25

Please email completed questionnaire to: corry.platt@concept2delivery.com

AEI Consultants

Environmental & Engineering Services

Date: June 17, 2013

Please email completed questionnaire to: corry.platt@concept2delivery.com

APPENDIX G

QUALIFICATIONS

Corry Platt, CEP – Associate Consultant

Education:

BS, Biology; Muhlenberg College

Licenses/Registrations:

Certified Environmental Professional #02040406

Summary of Professional Experience:

Mr. Platt has 20 years of experience in the environmental consulting service industry. He has significant experience in due diligence assessments for a variety of property types and the needs and requirements of varied number of reporting standards, including ASTM standards, EPA's All Appropriate Inquiry (AAI), and customized client formats. Specifically, Mr. Platt has performed Phase I Environmental Site Assessments, Environmental Transaction Screens, Phase II and III Subsurface Investigations, Construction Progress Monitoring, Regulatory Compliance Assessments, and multiple media sampling, analysis, and reporting.

Mr. Platt began his career assessing hazardous waste sites for the U.S. Environmental Protection Agency. As his career developed so did his project experience dealing with contaminated properties and various industries. He has assessed through visual observation, interviews, and sampling and analysis hundreds of sites in many US locations. He has assessed sites in the states of Georgia, Florida, Illinois, Michigan, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Tennessee, Virginia, West Virginia as well as the territories of Puerto Rico and US Virgin Islands. Besides self-performing the investigations, he has been Technical Director to teams of investigators. He has performed on both pre-remedial and remedial phase projects as well as worked with local redevelopment interests to identify and rank properties for Brownfield Redevelopment. Mr. Platt has applied his skills on a variety of unique project types including: landfills, drum recyclers, battery crackers (lead recyclers), boatworks and marinas, farm dumps, manufacturing plants, waste lagoons, hydraulics shops, automobile repair, printing shops, tanneries, PCB-oil reconditioning facilities, powerplants, and linear projects such as roadways and railways.

Mr. Platt's experience extends beyond land-based facilities. He has developed and implemented sampling and analysis programs to characterize sediments in support of waterside development and dredging. He applies knowledge of the landside industries, historic spills, and various discharges into a waterway to identify the potential contamination. He has implemented pre-construction and construction-phase sediment dredging in various industrial harbors and waterfront properties along the Atlantic and Gulf coasts as well as the Great Lakes.

Michael Clements – Client Manager

Bachelor of Science – Environmental Science in Marine Biology (Hons.),
University of New South Wales, Sydney, Australia
EPA Accredited Asbestos in Buildings Inspector
EPA Accredited Asbestos in Buildings Supervisor
NIOSH Method 7400 Certified
40-Hour HAZWOPER Certified

Mr. Clements has over six years of experience in the environmental service industry. His project experience includes: Phase I & II Environmental Site Assessments, Environmental Transaction Screen Assessments, AHERA Asbestos Inspections and Project Supervision, Indoor Air Quality Assessments, and Waste Characterizations. Mr. Clements is currently responsible for the project staffing and technical review of environmental assessments and investigations prepared by AEI across the country for local, regional and national clients.

Project experience for Mr. Clements includes:

- Phase I Environmental Site Assessments
- The implementation of Phase II soil and groundwater investigations for several suspected contaminants for due diligence and liability purposes.
- Groundwater monitoring well installation and sampling soil and groundwater.
- Asbestos inspections and project supervision.
- Waste characterization and sampling.

Mr. Clements served as a project manager on hundreds of environmental assessments for environmental due diligence and liability purposes. Clients managed range from private banking institutions to government authorities to legal firms. He has conducted and provided technical review of assessments of numerous complicated and environmentally high risk facilities including gasoline stations, dry cleaning facilities, aircraft parts manufacturers, medical equipment manufacturers, and various industrial sites.