BrightFields, Inc.

Appendix 7

CITISTEEL AREA A

CLAYMONT, DELAWARE

SIRS ID: DE-0046

GENERAL SITE INFORMATION

Site Name: CitiSteel Area A

SIRS ID Number: DE-0046

Site Location and Description:

The CitiSteel Area A Property (Site) is located between the intersection of Naamans Road and Philadelphia Pike and the Delaware River in Claymont, Delaware. The total CitiSteel property is approximately 425 acres in size and Area A is about 46.3 acres (Figure 1). The site is comprised of a portion of Lot 3 and a portion of Lot 4-A of tax parcel # 0604800041.

The property is bounded to the north and east by Naaman's Road, to the south by the CitiSteel manufacturing facility and residential dwellings, and to the west by I-95. Naaman's Creek runs along the southern boundary of the eastern portion of the Site and through the western portion of the Site. There is an unnamed tributary south of the active scrapyard. The Delaware River is located approximately 0.7 mile southeast of the Site. According to the 2001 Site Inspection, surface water from the Site is expected to flow into Naaman's Creek, the unnamed tributary, and the Delaware River.

The Site is currently owned by Evraz Claymont Steel and approximately 20 acres of the Site consists of an active scrap yard for the steel manufacturing facility.

Previous Site Uses:

The Site has been used for steel production since 1917. The Site was first used by the Worth Steel Company. The Site was later used by Phoenix Steel from at least the 1950s until 1988. Phoenix Steel manufactured steel plates used in ship building and also manufactured steel tanks. In addition, rolled pipe, high strength steel, carbon steel, alloy steel, and clad stainless steel were also manufactured at the Site. In 1988, Phoenix Steel declared bankruptcy and the property was acquired by CitiSteel. Since 1988, CitiSteel has used the Site mainly for manufacturing carbon steel plates.

Site Regulatory Status:

This section briefly summarizes previous investigations performed on the site through the SIRS program. A current SIRS regulatory status is also included.

Non-Sampling Site Reconnaissance Summary Report (NUS Corporation, 1987)

NUS Corporation was tasked by the USEPA to conduct a non-sampling site reconnaissance of the Phoenix Steel property, which included the Site as well as the property now known as CitiSteel Area B. The report indicates that Ecology and Environment conducted a Preliminary Assessment (PA) at the Phoenix Steel property in 1981 and a Site Investigation (SI) in 1982. The PA and SI were conducted on the portion of the Phoenix Steel property now known as CitiSteel Area B and were not conducted on any other portions of the Site. Analytical results for samples collected during the SI indicated high levels of metals in landfill leachate on the Phoenix Steel property.

Site Inspection (NUS Corporation, 1987)

On behalf of the EPA, NUS Corporation identified 18 areas of concern during the Site Inspection (SI). It stated that the 28 acre parcel was a reclamation storage area in the past but was being used as a scrap yard. The report also mentioned three or four transformers that had been drained but not cleaned. According to the report, Phoenix Steel had not kept records of the transformers but they were contaminated with PCBs. In the melt shop area there had also been a PCB spill in 1985 but the exact location was unknown.

Soil Assessment and Remediation Event (Guardian Environmental Services, Inc., 1989)

In 1988, DNREC issued a consent order with a proposed remedy as a follow-up to the SI. In August 1988, Ecology and Environment, Inc. collected surface soil samples from the Site, which had previously been referred to as the 28 acre parcel. Ecology and Environment stated that the area was actually closer to 20 acres. Analysis of the composite samples showed that 16 of the 38 grid areas had surface soil PCB concentrations greater than 2 parts per million (ppm). The composite sample for grid area 20 had a concentration of 32 ppm. In 1990, 50 cubic yards of PCB contaminated soil were removed from the Site and properly disposed.

Site Inspection (DNREC, 2001)

In 2001, DNREC conducted a Site Inspection (SI) of the Site (CitiSteel Area A). As a part of the SI, a total of 60 soil and sediment samples were collected and screened, and select samples were submitted for confirmatory analysis. Significant levels of PCBs were not detected in the sediment samples so they were not submitted for confirmatory analysis. However, six soil samples were submitted for confirmatory analysis of organic parameters. PCBs were detected

above the risk-based concentrations (RBCs) for residential use in all six samples and above the RBCs for industrial use in four samples. The shallow soil samples from the scrap sorting area had PCB concentrations above the federal TSCA indication of hazardous waste criteria of 50 ppm. Two groundwater samples were collected from monitoring wells installed for the SI and submitted for confirmatory analysis of chemicals of concern. PCBs were not detected in either groundwater sample.

As a result of the SI, DNREC required CitiSteel to enter into the Voluntary Cleanup Program (VCP) to further examine the scrap yard.

Toxicological Evaluation (DNREC, 2002)

The Toxicological Evaluation determined that the site posed increased cancer risks for on-site workers and theoretical future residents from the inadvertent ingestion of contaminated surface soils. Shallow groundwater consumption would also result in a slight increase in cancer risk. The non-cancer effects of metals and PCBs had the largest impact on the hazard index (HI), which was greater than 1.0.

Facility Evaluation (Duffield Associates, 2007)

In 2007, CitiSteel entered the Site into the VCP and a Facility Evaluation (FE) was performed as the Site by Duffield. Surface soil and groundwater samples were collected from the Scrap Yard. During a sampling event in January 2007, 36 surface soil samples were collected and analyzed for PCBs and PAHs. PCBs were detected in 34 of the 36 samples. The PCB compounds detected consisted of Arocolors 1242, 1248, 1260, and 1262 and the maximum detections for each Aroclor were 18 mg/kg, 13 mg/kg, 45 mg/kg, 3.1 mg/kg, and 4.2 mg/kg, respectively.

Groundwater samples were also collected from the two monitoring wells at the Site as part of the FE. Analytical results for the groundwater samples were similar to the analytical results for the groundwater samples collected from the monitoring wells during DNREC's 2001 SI. Therefore, monitoring wells MW-1 and MW-2 were proposed to be abandoned.

As part of the FE, Duffield conducted a risk assessment using the data collected during the FE. To evaluate the risk, reasonable maximum exposure (RME) concentrations were calculated for the PCB and PAH compounds detected. As stated in the FE, the Risk Assessment Guidance for Superfund (RAGS) states that the 95% upper confidence limit (UCL) of the arithmetic mean of each compound should be used to calculate RMEs. The FE states that a significant amount of

non-detectable concentrations were reported in the laboratory analyses for dibenz(a,h)anthracene (a PAH) and for PCB Aroclors 1248, 1260, and 1262. The amount of "non-detected" values reported for these compounds ranged from 61% to 97%, which exceeded the 50% recommended guidline outlined in the EPA's Guidance for Data Quality Assessment-Practical Methods for Data Analysis published in January 1998. Therefore, the 75% UCL of the arithmetic mean concentrations for these compounds was used instead of the 95% UCL in the risk assessment calculations. Based on the risk assessment described above, Duffield concluded that the Site met regulatory standards for cumulative cancer risk and the Hazard Index and recommended no further action at the Site.

Current Regulatory Status:

In April 2008 the two monitoring wells (MW-1 and MW-2) were officially abandoned. DNREC issued a No Further Action (NFA) letter for the CitiSteel Area A Scrap Yard in August 2008 as long as the property remains an industrial site in the future. According to documents on the DNREC Environmental Navigator, EA Engineering, Science and Technology was approved in April 2014 to conduct an FE at the site.

SUMMARY OF SITE PCB INFORMATION

Site Investigation PCB Findings:

PCBs were detected in surface soil at 63 locations, with concentrations ranging from 0.13 mg/kg to 110 mg/kg, and in an additional 15 samples that were only screened and had concentrations less than 1 mg/kg. PCBs were detected in two unsaturated subsurface soil samples, CSATP10 (5 feet to 6 feet below ground surface (bgs)) and CSATP8 (3 feet to 4 feet bgs), however the samples were only screened and no detection limit was provided. PCBs were not detected in saturated subsurface soil samples.

The calculated 95% upper confidence limit (UCL) of the mean of the concentration of total PCBs observed in the surface soil (for overland flow calculations) is 15.9 mg/kg. There were no PCBs detected in groundwater or in the subsurface saturated zone based on the data available and reviewed by BrightFields.

Concentrations of PCBs on Site			
Sample Matrix	**Corresponding Figure**	**Analytical Methods**	**Range of Total PCBs**
Surface Soil	Figure 2	Method 8082 and Screening Data	Not detected to 110 mg/kg
Subsurface Soil (unsaturated)	Figure 3	Screening Data	Not detected to PCBs present
Subsurface Soil (saturated)	Figure 4	Screening Data	Not Detected
Groundwater	Figure 5	Method 8082	Not Detected

A summary of all samples collected for PCB analyses are presented in Tables 1 through 3.

Acreage where PCBs detected:

The estimated surface soil area impacted by PCBs is 18.3 acres (Figure 2). For subsurface unsaturated soil the estimated impacted area is 2.1 acres (Figure 3). Based on the data available and reviewed by BrightFields, subsurface saturated soil and groundwater are not impacted by PCBs.

PCB Remediation Status:

In 1990, 50 cubic yards of PCB contaminated soil were removed from the scrap yard. Additional PCB remediation is not required at this time.

PCB MASS LOADING SUMMARY

The PCB mass loading rate to surface water via overland flow was estimated for the CitiSteel Area A Property. There were no reported concentrations of PCBs in the subsurface saturated zone or in the groundwater; therefore, groundwater transport cannot be evaluated as a mechanism of transport for PCBs at the Property. A summary of the results is included below and the details of the calculations are included as attachments to this Appendix.

Overland Flow:

Overland flow has been determined on this site by using the Revised Universal Soil Loss Equation (RUSLE). The RUSLE predicts the long term average annual rate of erosion on an area based on rainfall patterns, soil type, topography, cover/canopy factors and support management practices. These specific factors are site specific and rely on local information of the site. A breakdown of the individual factors is presented below with a brief explanation of their choice.

Ground Cover and Canopy:

The surface cover and flow paths were assessed through aerial photography and available contour mapping (Delaware Data Mil, 2013). The cover/management factors (C) assigned to the erodible area and associated flow paths were 0.003 and 1, corresponding to areas utilizing a vegetative cover primarily consisting of trees and high vegetation covering greater than 95% of the land and areas that are completely bare, respectively.

Site Sediment and Erosion Control Practices:

Based on the aerial photography evaluation and review of site documents it does not appear that any sediment and erosion control practices are being implemented on Site.

Input Factors and Results:

A breakdown of the individual factors is presented below with a brief explanation of their choice.

CitiSteel Area A

RUSLE Factors	Values Provided	Explanation of choice
R = rainfall-runoff erosivity index (10^2 ft-tonf-in/ac-hr-yr)	175	An appropriate value for R for the Site was determined using the Isoerodent Map of the Eastern U.S. from the Stormwater Phase II Final Rule Construction Rainfall Erosivity Waiver (USEPA, 2012).
K = soil erodibility (0.01 ton-ac-hr/ ac-ft-tonf-in)	0.37	The soil erodibility factor was selected from the National Resource Conservation Soil Survey Geographic Database (SSURGO).
ls = topographic factor (dimensionless)	0.47	The topographic factor was derived based on the slope and flow accumulation grids created in ArcGIS. An output LS grid was created and the average value for the grid is provided.
C = cover/management factor (dimensionless)	0.35	The cover/management factor C assigned to the erodible area was 0.35. Two individual C factors of 0.003 and 1 were assigned to areas of the site utilizing a vegetative cover primarily consisting of trees and high vegetation covering greater than 95% of the land and areas that are completely bare, respectively. A raster was created using these values to generate a weighted average of 0.35.
P = support practice factor (dimensionless)	1	No documentation was provided indicating that any sediment and erosion controls are in place.
A = average annual soil loss estimate (ton/ac-yr)	10.6	The average soil loss estimate was generated by ArcGIS using the input factors listed above.
Erodible Area (acres)	18.3	The erodible area was calculated based on the pervious surfaces within the area of concern polygon for surface soil (Figure 6).

For factors that were not consistent across the site, rasters were used to characterize the variations. Due to the methodology utilized to derive the soil loss estimate, the numbers listed above cannot simply be multiplied.

The total estimated PCB loading via overland flow for the CitiSteel Area A Property is **2,800 grams per year**. Please see attached table for specific variables.

Uncertainty Analysis Associated with Overland Flow:

Specific Areas and Degree of Uncertainty for the CitiSteel Area A

	Samples Per Acre (site)	**Chemical Data Quality***	**Soil Type**	**Site Coverage**	**Map Quality**	**Average Distance to Discharge Point**
Site Specific Information	2.7	Lab Data and Screening Data	Soil Database	Based on aerial	Mostly Scaled Maps	Approximately 267 feet
Degree of Uncertainty	Moderate to High	Moderate to High	Low	High	Moderate	Low to Moderate

* Primary analysis used in the historical samples

Sources of uncertainty for the CitiSteel Area A site include: The data consisted of a mix of Aroclor lab results, Total PCBs lab results, and Immunassay screening results. For the screening data, some of the results did not include a detection limit, and only listed if PCBs were present. There was no access to the site, so site coverage was evaluated from the aerial. Based on this evaluation the level of uncertainty associated with overland flow PCB mass loading from the CitiSteel Area A site is **Moderate to High.**

Groundwater Discharge Analysis:

No groundwater discharge analysis was performed for this site.

Site References:

Delaware Department of Natural Resources and Environmental Control (DNREC), 2001, CitiSteel A (Phoenix Steel) Site Inspection, September 2001.

DNREC, 2002, Toxicological Evaluation for the CitiSteel "A" Site, May 2002.

DNREC to Claymont Steel Company, No Further Action ("NFA") for Citi-Steel "Area A" Scrap Yard – (DE-0046), August 2008.

Delaware Geological Survey, 2013, Delaware Data Mil, <http://datamil.delaware.gov/geonetwork/srv/en/main.home>, May 2013.

Duffield Associates, Inc., 2007, Facility Evaluation, CitiSteel Area "A" Scrap Yard, April 2007.

Ecology and Environment, Inc. to CitiSteel, Inc., Soil Sampling at the CitiSteel, Inc. Facility in Claymont, DE, August 1988.

NUS Corporation, 1987(a), Phoenix Steel Site Investigation Report, June 1987.

NUS Corporation, 1987(b), Non-Sampling Site Reconnaissance Summary Report, Phoenix Steel- Claymont, August 1987.

Figures

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Historic Sample Locations
and Aerial Photograph (2012)
CitiSteel Area A
Claymont, Delaware

	By	Date	Scale:	File Name:
Drawn	ADS	6/19/2014	1:2,400	Fig1SiteLoc.mxd
Checked	JPR	6/19/2014	Fig. No.	
Project #	0985.69.51		Figure 1	

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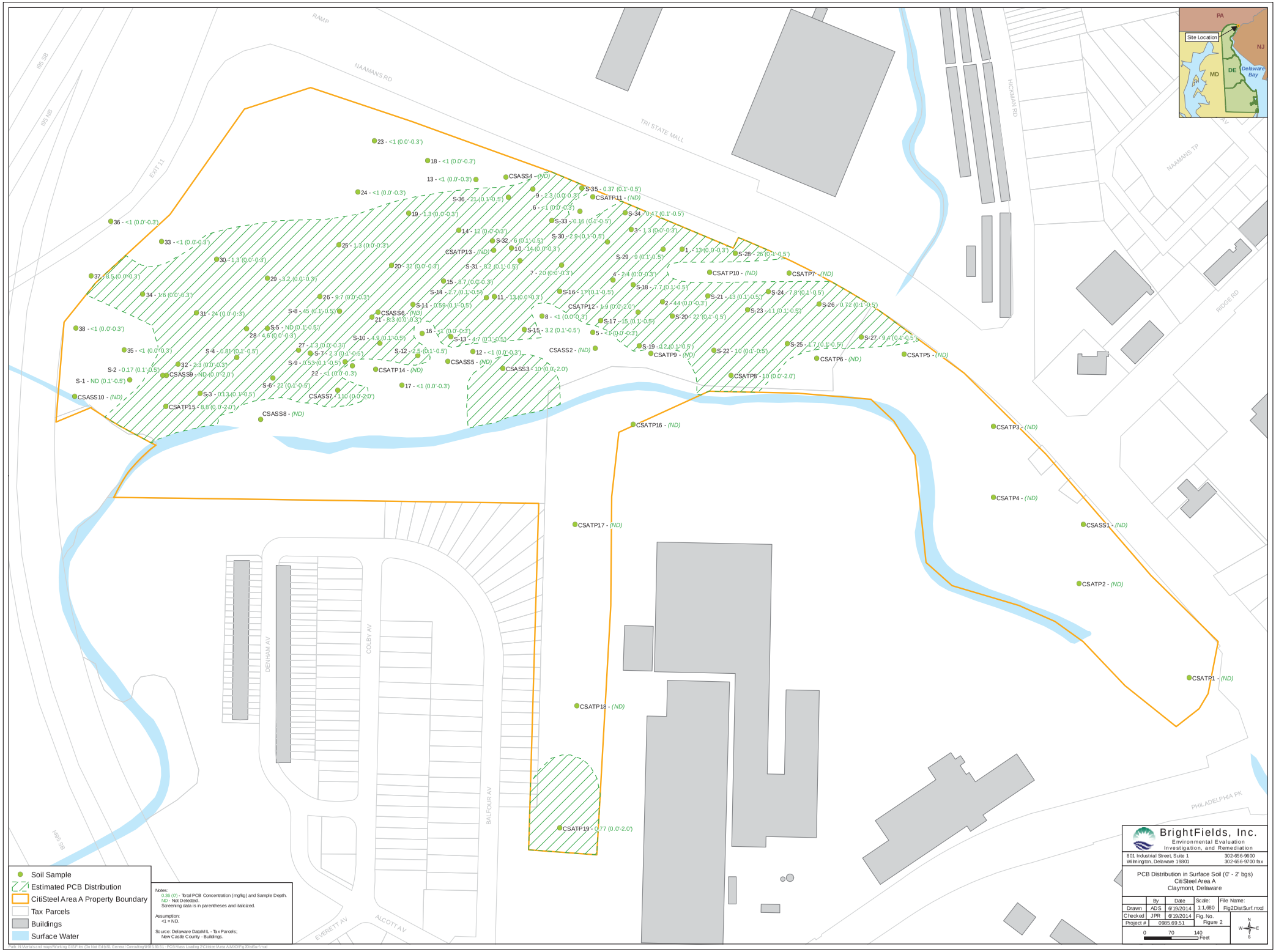
PA
NJ
MD
DE
Delaware Bay
Site Location
RAMP
NAAMANS RD
TRI STATE MALL
HICKMAN RD
NAAMANS TP
RIDGE RD
EXIT 11
I95 SB
I95 NB
DENHAM AV
COLBY AV
BALFOUR AV
EVERETT AV
ALCOTT AV
PHILADELPHIA PK
23 - <1 (0.0'-0.3')
18 - <1 (0.0'-0.3')
13 - <1 (0.0'-0.3')
CSASS4 - (ND)
S-35 - 0.37 (0.1'-0.5')
24 - <1 (0.0'-0.3')
S-36 - 21 (0.1'-0.5')
9 - 2.3 (0.0'-0.3')
CSATP11 - (ND)
6 - <1 (0.0'-0.3')
19 - 1.3 (0.0'-0.3')
S-34 - 0.47 (0.1'-0.5')
36 - <1 (0.0'-0.3')
S-33 - 0.16 (0.1'-0.5')
14 - 12 (0.0'-0.3')
3 - 1.3 (0.0'-0.3')
33 - <1 (0.0'-0.3')
S-32 - 6 (0.1'-0.5')
S-30 - 2.9 (0.1'-0.5')
25 - 1.3 (0.0'-0.3')
CSATP13 - (ND)
10 - 14 (0.0'-0.3')
1 - 13 (0.0'-0.3')
S-28 - 26 (0.1'-0.5')
30 - 1.3 (0.0'-0.3')
S-29 - 9 (0.1'-0.5')
20 - 32 (0.0'-0.3')
S-31 - 8.2 (0.1'-0.5')
37 - 8.5 (0.0'-0.3')
7 - 20 (0.0'-0.3')
CSATP10 - (ND)
CSATP7 - (ND)
29 - 3.2 (0.0'-0.3')
4 - 2.4 (0.0'-0.3')
15 - 8.7 (0.0'-0.3')
S-18 - 7.7 (0.1'-0.5')
34 - 1.6 (0.0'-0.3')
S-14 - 2.7 (0.1'-0.5')
11 - 13 (0.0'-0.3')
S-16 - 17 (0.1'-0.5')
S-21 - 13 (0.1'-0.5')
S-24 - 7.8 (0.1'-0.5')
26 - 9.7 (0.0'-0.3')
2 - 44 (0.0'-0.3')
S-26 - 0.72 (0.1'-0.5')
S-11 - 0.59 (0.1'-0.5')
CSATP12 - 1.9 (0.0'-2.0')
S-23 - 11 (0.1'-0.5')
31 - 24 (0.0'-0.3')
S-8 - 45 (0.1'-0.5')
CSASS6 - (ND)
8 - <1 (0.0'-0.3')
S-20 - 22 (0.1'-0.5')
21 - 8.3 (0.0'-0.3')
S-17 - 15 (0.1'-0.5')
38 - <1 (0.0'-0.3')
S-5 - ND (0.1'-0.5')
16 - <1 (0.0'-0.3')
S-15 - 3.2 (0.1'-0.5')
5 - <1 (0.0'-0.3')
28 - 4.6 (0.0'-0.3')
S-10 - 4.9 (0.1'-0.5')
S-13 - 4.7 (0.1'-0.5')
S-27 - 9.4 (0.1'-0.5')
27 - 1.3 (0.0'-0.3')
S-19 - 12 (0.1'-0.5')
S-25 - 1.7 (0.1'-0.5')
35 - <1 (0.0'-0.3')
S-4 - 0.81 (0.1'-0.5')
S-7 - 2.3 (0.1'-0.5')
S-12 - 2.5 (0.1'-0.5')
12 - <1 (0.0'-0.3')
CSASS2 - (ND)
CSATP9 - (ND)
S-22 - 10 (0.1'-0.5')
CSATP6 - (ND)
CSATP5 - (ND)
S-2 - 0.17 (0.1'-0.5')
32 - 2.3 (0.0'-0.3')
S-9 - 0.53 (0.1'-0.5')
CSASS5 - (ND)
CSASS3 - 10 (0.0'-2.0')
CSASS9 - ND (0.0'-2.0')
22 - <1 (0.0'-0.3')
CSATP14 - (ND)
S-1 - ND (0.1'-0.5')
S-6 - 22 (0.1'-0.5')
17 - <1 (0.0'-0.3')
CSATP8 - 10 (0.0'-2.0')
CSASS10 - (ND)
S-3 - 0.13 (0.1'-0.5')
CSASS7 - 110 (0.0'-2.0')
CSATP15 - 8.8 (0.0'-2.0')
CSASS8 - (ND)
CSATP16 - (ND)
CSATP3 - (ND)
CSATP4 - (ND)
CSATP17 - (ND)
CSASS1 - (ND)
CSATP2 - (ND)
CSATP1 - (ND)
CSATP18 - (ND)
CSATP19 - 0.77 (0.0'-2.0')
Soil Sample
Estimated PCB Distribution
CitiSteel Area A Property Boundary
Tax Parcels
Buildings
Surface Water
Notes:
0.36 (0) - Total PCB Concentration (mg/kg) and Sample Depth.
ND - Not Detected.
Screening data is in parentheses and italicized.
Assumption:
<1 = ND.
Source: Delaware DataMIL - Tax Parcels;
New Castle County - Buildings.
BrightFields, Inc.
Environmental Evaluation
Investigation, and Remediation
801 Industrial Street, Suite 1
Wilmington, Delaware 19801
302-656-9600
302-656-9700 fax
PCB Distribution in Surface Soil (0' - 2' bgs)
CitiSteel Area A
Claymont, Delaware
Drawn ADS 6/19/2014
Checked JPR 6/19/2014
Project # 0985.69.51
Scale: 1:1,680
Fig. No. Figure 2
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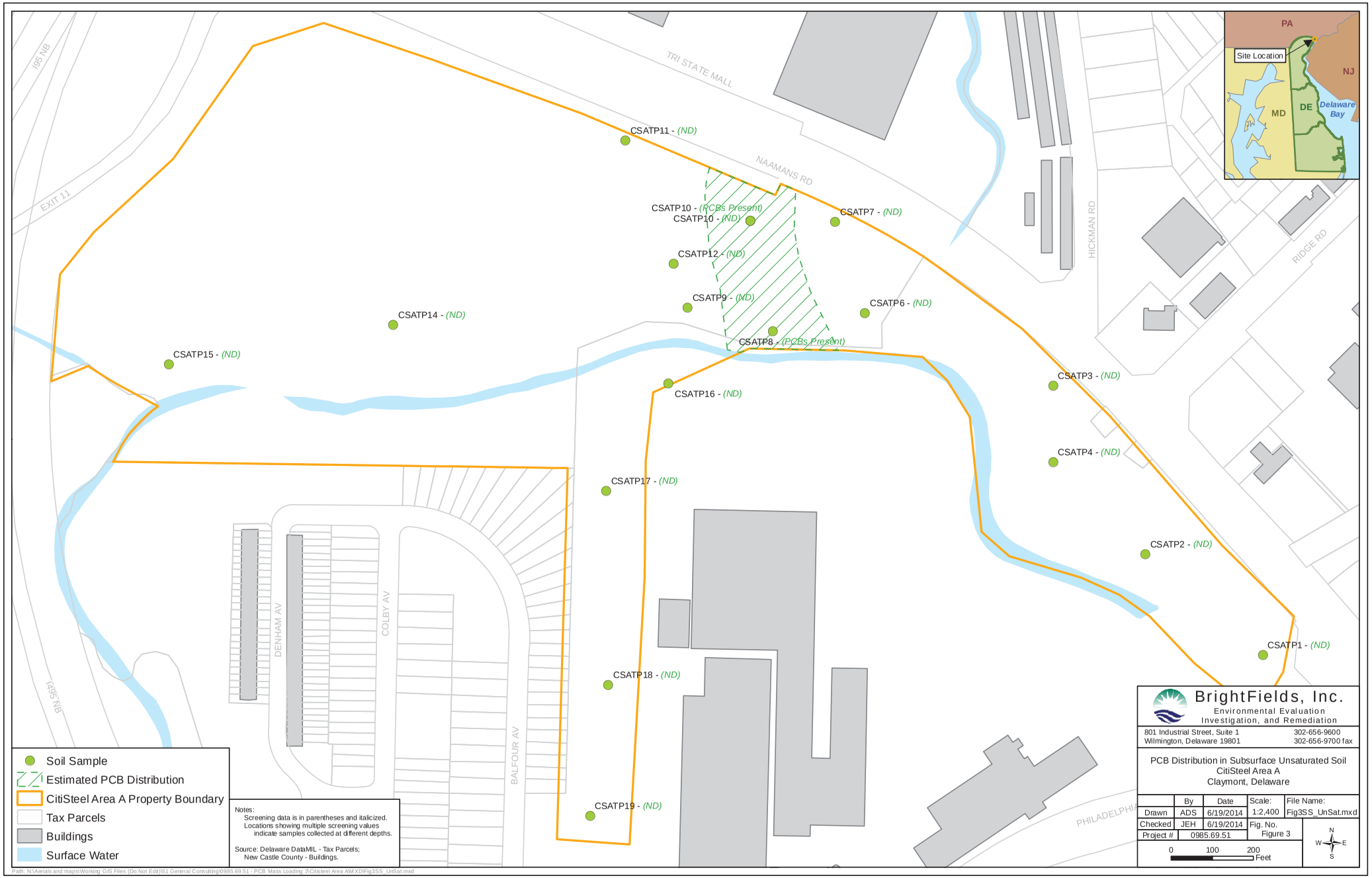
I95 NB
EXIT 11
TRI STATE MALL
NAAMANS RD
HICKMAN RD
RIDGE RD
DENHAM AV
COLBY AV
BALFOUR AV
PHILADELPHIA
CSATP11 - (ND)
CSATP10 - (PCBs Present)
CSATP10 - (ND)
CSATP7 - (ND)
CSATP12 - (ND)
CSATP9 - (ND)
CSATP6 - (ND)
CSATP14 - (ND)
CSATP8 - (PCBs Present)
CSATP15 - (ND)
CSATP16 - (ND)
CSATP3 - (ND)
CSATP4 - (ND)
CSATP17 - (ND)
CSATP2 - (ND)
CSATP1 - (ND)
CSATP18 - (ND)
CSATP19 - (ND)
PA
NJ
MD
DE
Delaware Bay
Site Location
Soil Sample
Estimated PCB Distribution
CitiSteel Area A Property Boundary
Tax Parcels
Buildings
Surface Water
Notes:
Screening data is in parentheses and italicized.
Locations showing multiple screening values indicate samples collected at different depths.
Source: Delaware DataMIL - Tax Parcels;
New Castle County - Buildings.
BrightFields, Inc.
Environmental Evaluation Investigation, and Remediation
801 Industrial Street, Suite 1
Wilmington, Delaware 19801
302-656-9600
302-656-9700 fax
PCB Distribution in Subsurface Unsaturated Soil
CitiSteel Area A
Claymont, Delaware
By
Date
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File Name:
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ADS
6/19/2014
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JEH
6/19/2014
Fig. No.
Project #
0985.69.51
Figure 3
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100
200
Feet
N
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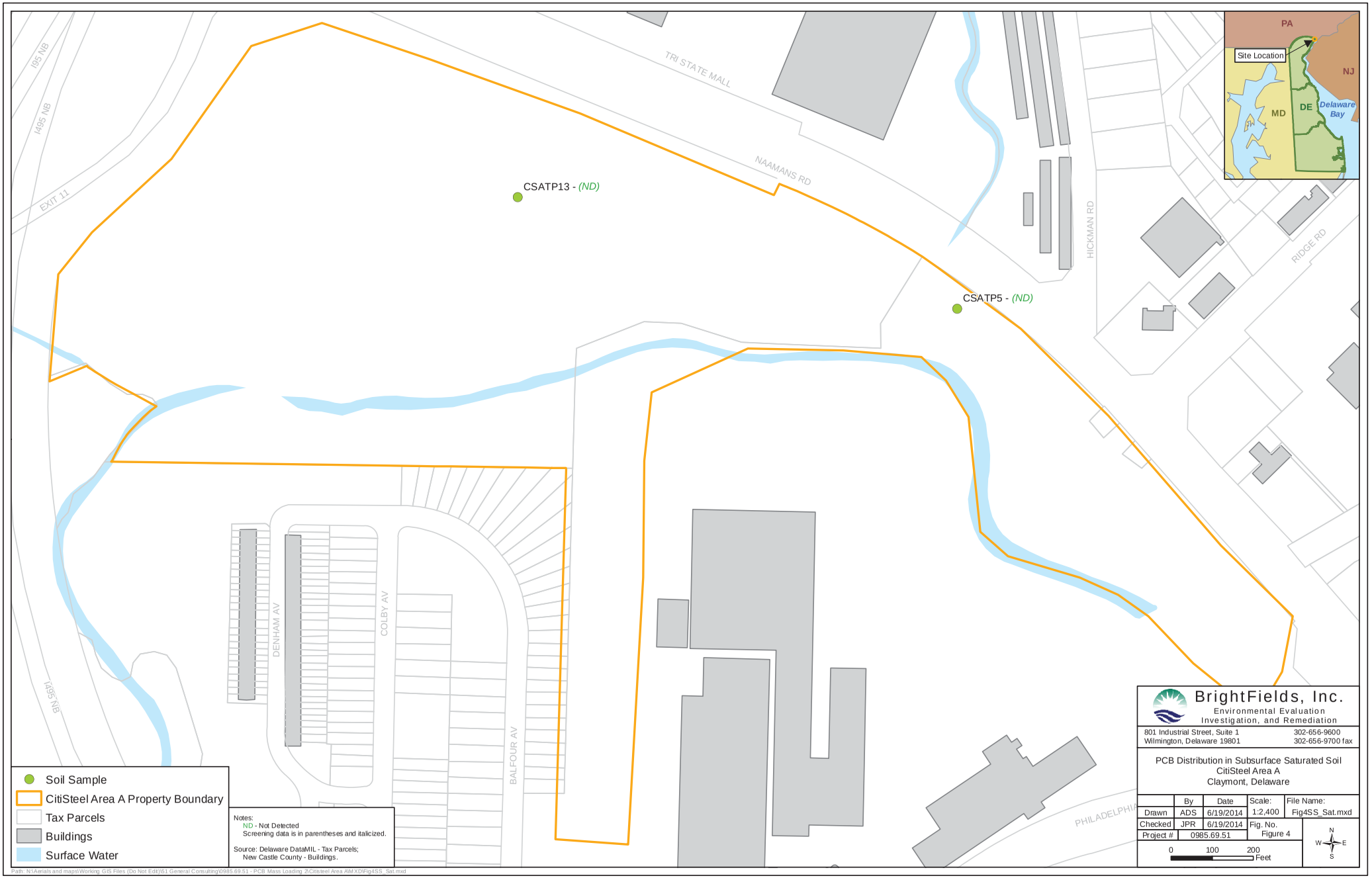

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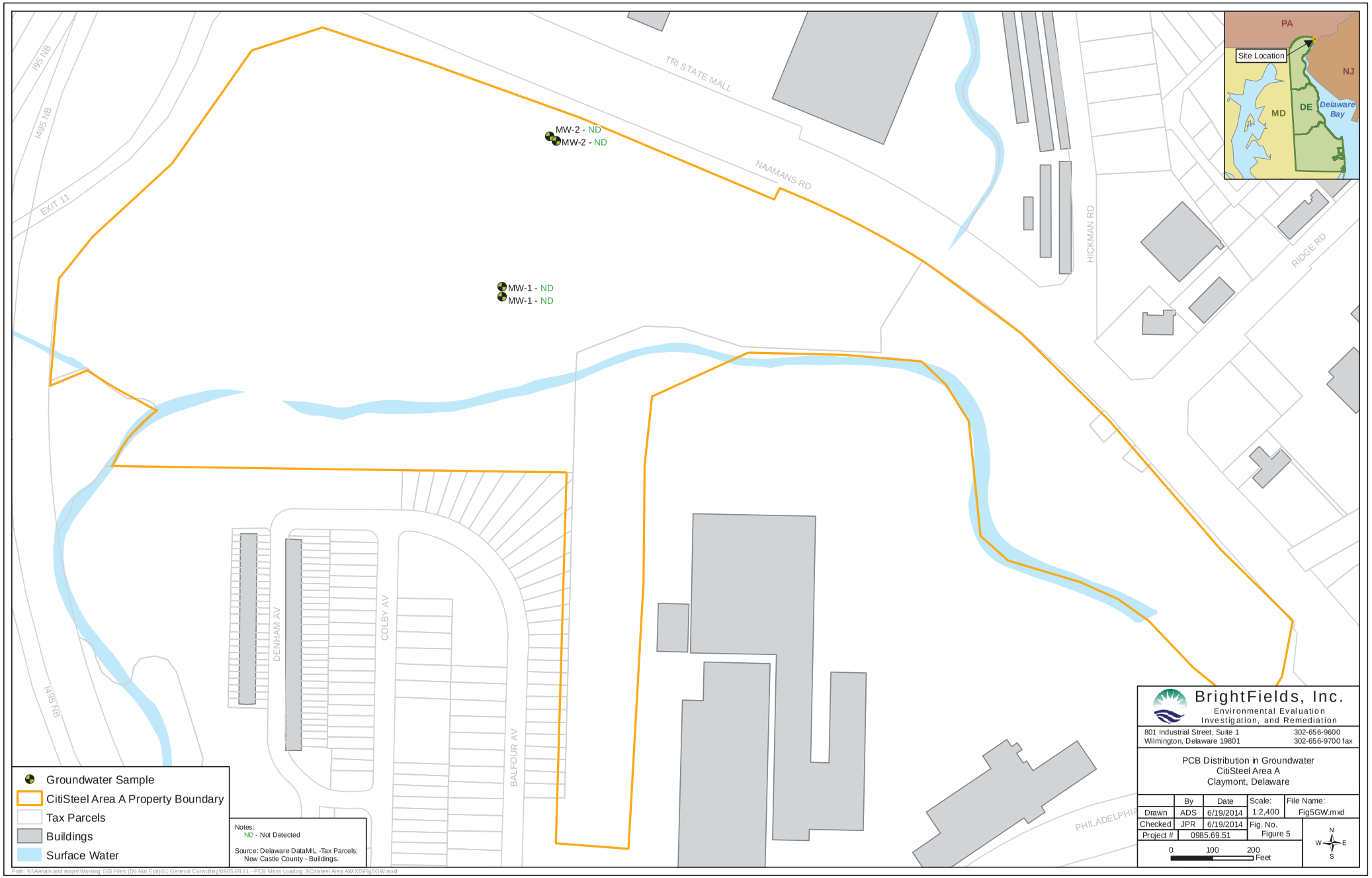

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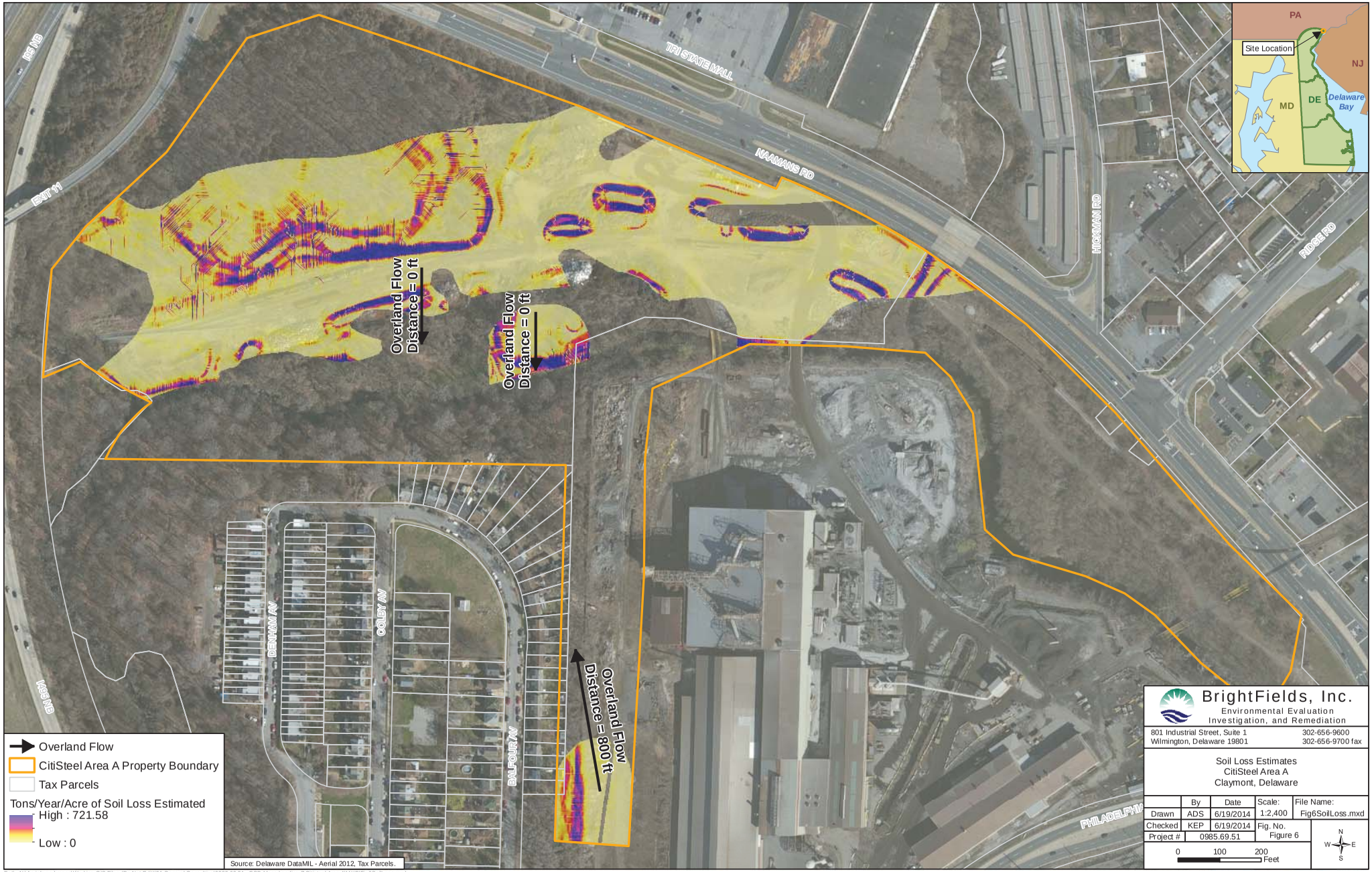

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Tables

Table 1
PCB Screening Results For Soil
Citisteel Area A (DE-0046)
Wilmington, DE

Sample Identification	Sample Depth (feet bgs)	Sampling Company	Report Name	Report Date	Total PCBs DNREC-SIRS Screening Level (January 2014) (mg/kg) NCA
1	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	13
2	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	44
3	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	1.3
4	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	2.4
5	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
6	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
7	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	20
8	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
9	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	2.3
10	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	14
11	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	13
12	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
13	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
14	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	12
15	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	8.7
16	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
17	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
18	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
19	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	1.3
20	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	32
21	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	8.3
22	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
23	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
24	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
25	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	1.3
26	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	9.7
27	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	1.3
28	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	4.6
29	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	3.2
30	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	1.3
31	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	24
32	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	2.3
33	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
34	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	1.6
35	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
36	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
37	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	8.5
38	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	<1
CSASS1	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSASS2	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSASS3	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	PCBs Present (>10 ppm)
CSASS4	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSASS5	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSASS6	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSASS7	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	PCBs Present (>10 ppm)

Table 1
PCB Screening Results For Soil
Citisteel Area A (DE-0046)
Wilmington, DE

Sample Identification	Sample Depth (feet bgs)	Sampling Company	Report Name	Report Date	Total PCBs DNREC-SIRS Screening Level (January 2014) (mg/kg) NCA
CSASS8	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	
CSASS9	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSASS10	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP1	0.0'-1.5'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP1	7.0'-9.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP2	0.0'-1.5'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP2	10.0'-12.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP3	0.0'-0.7'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP3	>3.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP4	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP4	>3.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP5	0.0'-1.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP5	>4.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP6	0.0'-1.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP6	>3.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP7	0.0'-1.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP7	>3.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP8	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	PCBs Present
CSATP8	3.0'-4.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	PCBs Present
CSATP9	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP9	3.0'-6.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP10	0.0'-1.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP10	>3.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP10	5.0'-6.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	PCBs Present
CSATP11	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP11	6.5'-8.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP12	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP12	>3.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP13	0.0'-1.5'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP13	7.0'-9.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP14	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP14	13.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP15	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	PCBs Present
CSATP15	2.5'-4.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP16	0.0'-1.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP16	>3.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP17	0.0'-0.7'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP17	3.0'-6.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP18	0.0'-1.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP18	>3.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP19	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND
CSATP19	>3.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	ND

Note: All results reported in mg/kg.

Qualifiers:
bgs - Below ground surface
NCA - No criteria available
ND - Not detected

Table 2
PCB Analytical Results For Soil
Citisteel Area A (DE-0046)
Wilmington, DE

Sample Identification	Sample Depth (feet bgs)	Sampling Company	Report Name	Report Date	Aroclor-1016 DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.39		Aroclor-1221 DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.14		Aroclor-1232 DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.14		Aroclor-1242 DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.22		Aroclor-1248 DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.22		Aroclor-1254 DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.11		Aroclor-1260 DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.22		Aroclor-1262 DNREC-SIRS Screening Level (January 2014) (mg/kg) NCA		Aroclor-1268 DNREC-SIRS Screening Level (January 2014) (mg/kg) NCA		Total PCBs DNREC-SIRS Screening Level (January 2014) (mg/kg) NCA
1	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		13
2	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		44
3	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		1.3
4	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		2.4
5	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
6	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
7	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		20
8	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
9	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		2.3
10	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		14
11	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		13
12	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
13	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
14	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		12
15	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		8.7
16	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
17	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
18	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
19	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		1.3
20	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		32
21	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		8.3
22	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
23	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
24	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
25	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		1.3
26	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		9.7
27	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		1.3
28	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		4.6
29	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		3.2
30	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		1.3
31	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		24
32	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		2.3
33	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
34	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		1.6
35	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
36	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
37	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		8.5
38	0.0'-0.3'	Ecology and Environment, Inc.	Soil Sampling at the CitiSteel, Inc. Facility	Aug-88	NA		NA		NA		NA		NA		NA		NA		NA		NA		<1
CSASS3	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	0.8	U	0.8	U	0.8	U	**6.8**		0.8	U	**13**		0.8	U	0.8	U	**2.3**		22
CSASS7	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	8.4	U	8.4	U	8.4	U	8.4	U	8.4	U	8.4	U	**110**		8.4	U	8.4	U	110
CSASS9	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	NA		NA		NA		NA		NA		NA		NA		NA		NA		ND
CSATP8	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	0.43	U	0.43	U	0.43	U	**4.6**		0.43	U	**5.8**		0.43	U	0.43	U	0.43	U	10
CSATP12	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	0.073	U	0.073	U	0.073	U	**0.84**		0.073	U	1.1	U	0.073	U	0.073	U	0.073	U	1.9
CSATP15	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	0.74	U	0.74	U	0.74	U	**6.3**		0.74	U	0.74	U	**2.5**	**P**	0.74	U	0.74	U	8.8
CSATP19	0.0'-2.0'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	0.077	U	0.077	U	0.077	U	0.077	U	0.077	U	**0.77**		0.077	U	0.077	U	0.077	U	0.77
S-1	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	NA		ND
S-2	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		0.08	U	0.08	U	**0.17**		0.08	U	0.08	U	NA		0.17
S-3	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		0.08	U	0.08	U	**0.13**		0.08	U	0.08	U	NA		0.13
S-4	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		0.08	U	0.08	U	**0.5**		**0.31**		0.08	U	NA		0.81
S-5	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	NA		ND
S-6	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**18**		1.6	U	**4.2**		1.6	U	1.6	U	NA		22
S-7	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**1.2**		0.08	U	**0.7**		**0.38**		0.08	U	NA		2.3
S-8	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		4	U	4	U	**45**		4	U	4	U	NA		45
S-9	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**0.34**		0.08	U	**0.19**		0.08	U	0.08	U	NA		0.53
S-10	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**4.9**		0.38	U	0.38	U	0.38	U	0.38	U	NA		4.9
S-11	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		0.08	U	0.08	U	**0.27**		**0.32**		0.08	U	NA		0.59
S-12	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**1**		0.08	U	**0.91**		**0.56**		0.08	U	NA		2.5
S-13	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**3.1**		0.4	U	**1.6**		0.4	U	0.4	U	NA		4.7
S-14	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**0.56**		0.08	U	**1.4**		**0.72**		0.08	U	NA		2.7
S-15	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**0.98**		0.08	U	**1.5**		**0.72**		0.08	U	NA		3.2
S-16	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		0.78	U	**11**		**5.8**		0.78	U	0.78	U	NA		17

Table 2
PCB Analytical Results For Soil
Citisteel Area A (DE-0046)
Wilmington, DE

Sample Identification	Sample Depth (feet bgs)	Sampling Company	Report Name	Report Date	Aroclor-1016		Aroclor-1221		Aroclor-1232		Aroclor-1242		Aroclor-1248		Aroclor-1254		Aroclor-1260		Aroclor-1262		Aroclor-1268		Total PCBs
					DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.39		DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.14		DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.14		DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.22		DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.22		DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.11		DNREC-SIRS Screening Level (January 2014) (mg/kg) 0.22		DNREC-SIRS Screening Level (January 2014) (mg/kg) NCA		DNREC-SIRS Screening Level (January 2014) (mg/kg) NCA		DNREC-SIRS Screening Level (January 2014) (mg/kg) NCA
S-17	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**3.9**		0.78	U	**6.4**		0.78	U	**4.2**		NA		15
S-18	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**3.9**		0.36	U	**3.8**		0.36	U	0.36	U	NA		7.7
S-19	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**4.4**		0.42	U	**4.4**		**3.1**		0.42	U	NA		12
S-20	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**16**		0.76	U	**6**		0.76	U	0.76	U	NA		22
S-21	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**9.6**		0.78	U	**3**		0.78	U	0.78	U	NA		13
S-22	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**6.5**		0.76	U	**3.5**		0.76	U	0.76	U	NA		10
S-23	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**8.3**		0.76	U	**2.4**		0.76	U	0.76	U	NA		11
S-24	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**4.4**		0.38	U	**3.4**		0.38	U	0.38	U	NA		7.8
S-25	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**0.99**		0.08	U	**0.73**		0.08	U	0.08	U	NA		1.7
S-26	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**0.53**		0.08	U	**0.19**		0.08	U	0.08	U	NA		0.72
S-27	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**6.1**		0.78	U	**3.3**		0.78	U	0.78	U	NA		9.4
S-28	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**12**		0.82	U	**14**		0.82	U	0.82	U	NA		26
S-29	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**4.3**		0.38	U	**4.7**		0.38	U	0.38	U	NA		9
S-30	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**1.7**		0.16	U	**1.2**		0.16	U	0.16	U	NA		2.9
S-31	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**3.7**		0.38	U	**4.5**		0.38	U	0.38	U	NA		8.2
S-32	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		**3.2**		0.38	U	**2.8**		0.38	U	0.38	U	NA		6
S-33	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		0.08	U	0.08	U	**0.16**		0.08	U	0.08	U	NA		0.16
S-34	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		0.08	U	**0.24**		**0.23**		0.08	U	0.08	U	NA		0.47
S-35	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		0.08	U	**0.21**		**0.16**		0.08	U	0.08	U	NA		0.37
S-36	0.1'-0.5'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		0.86	U	**13**		**8.1**		0.86	U	0.86	U	NA		21

Note: All results reported in mg/kg.

Qualifiers:
bgs - Below ground surface
NCA - No criteria available
NA - Not available from reports provided to Brightfields
U - Sample not detected above the laboratory method detection limit
P - % difference between primary and secondary columns outside quality control limits
Bold and shaded - Exceeds DNREC-SIRS January 2014 Screening Levels

Table 3
PCB Analytical Results For Groundwater
Citisteel Area A (DE-0046)
Wilmington, DE

Sample Identification	Screen Depth (feet bgs)	Sampling Company	Report Name	Report Date	Aroclor-1016		Aroclor-1221		Aroclor-1232		Aroclor-1242		Aroclor-1248		Aroclor-1254		Aroclor-1260		Total PCBs
					DNREC-SIRS Screening Level (January 2014) (ug/L)		DNREC-SIRS Screening Level (January 2014) (ug/L)		DNREC-SIRS Screening Level (January 2014) (ug/L)		DNREC-SIRS Screening Level (January 2014) (ug/L)		DNREC-SIRS Screening Level (January 2014) (ug/L)		DNREC-SIRS Screening Level (January 2014) (ug/L)		DNREC-SIRS Screening Level (January 2014) (ug/L)		DNREC-SIRS Screening Level (January 2014) (ug/L)
					0.11		0.004*		0.004*		0.034*		0.034*		0.031*		0.034*		NCA
MW-1	14'-21'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	NA		NA		NA		NA		NA		NA		NA		ND
MW-1	25.0'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		NA		NA		NA		NA		ND
MW-2	10.3'-20.3'	DNREC	CitiSteel A (Phoenix Steel) Site Inspection	Sep-01	NA		NA		NA		NA		NA		NA		NA		ND
MW-2	22.9'	Duffield Associates	Facility Evaluation	Apr-07	NA		NA		NA		NA		NA		NA		NA		ND

Note: All results reported in ug/L.

Qualifiers:
bgs - Below ground surface
* - Screening level likely below the routine method detection limit
NA - Not available from reports provided to Brightfields
ND - Not detected

Site Photographs

The heavily wooded area bordering the northeastern boundary of the site.

Large debris piles, equipment, and vegetation along the northern site boundary.

Additional vegetation and debris piles along the northern site boundary.

BrightFields, Inc.

Overland Flow Calculations

PCB Loading Calculations from the Revised Universal Soil Loss Equation (RUSLE)
CitiSteel Area A (DE-0046)
Claymont, DE

Surface PCB Concentration | 15.9 | mg/kg

Symbol	Factor	Value	Units
R	Rainfall/Runoff Erosivity Index	175	10^2 ft-tonf-in/ac-hr-yr
K	Soil Erodibility	0.37	0.01 ton-ac-hr/ ac-ft-tonf-in
	Erodible Area	18.3	Acres
LS	Topographic Factor	0.47	Dimensionless
C	Cover and Management Factor	0.35	Dimensionless
P	Support Practice Factor	1	Dimensionless
A	Average Annual Soil Loss	10.6	ton/ac-yr

PCB Loading via Overland Flow | 2,800 | **grams/year - PCBs**

BrightFields, Inc.

Groundwater Transport Calculations

(Not Applicable)