

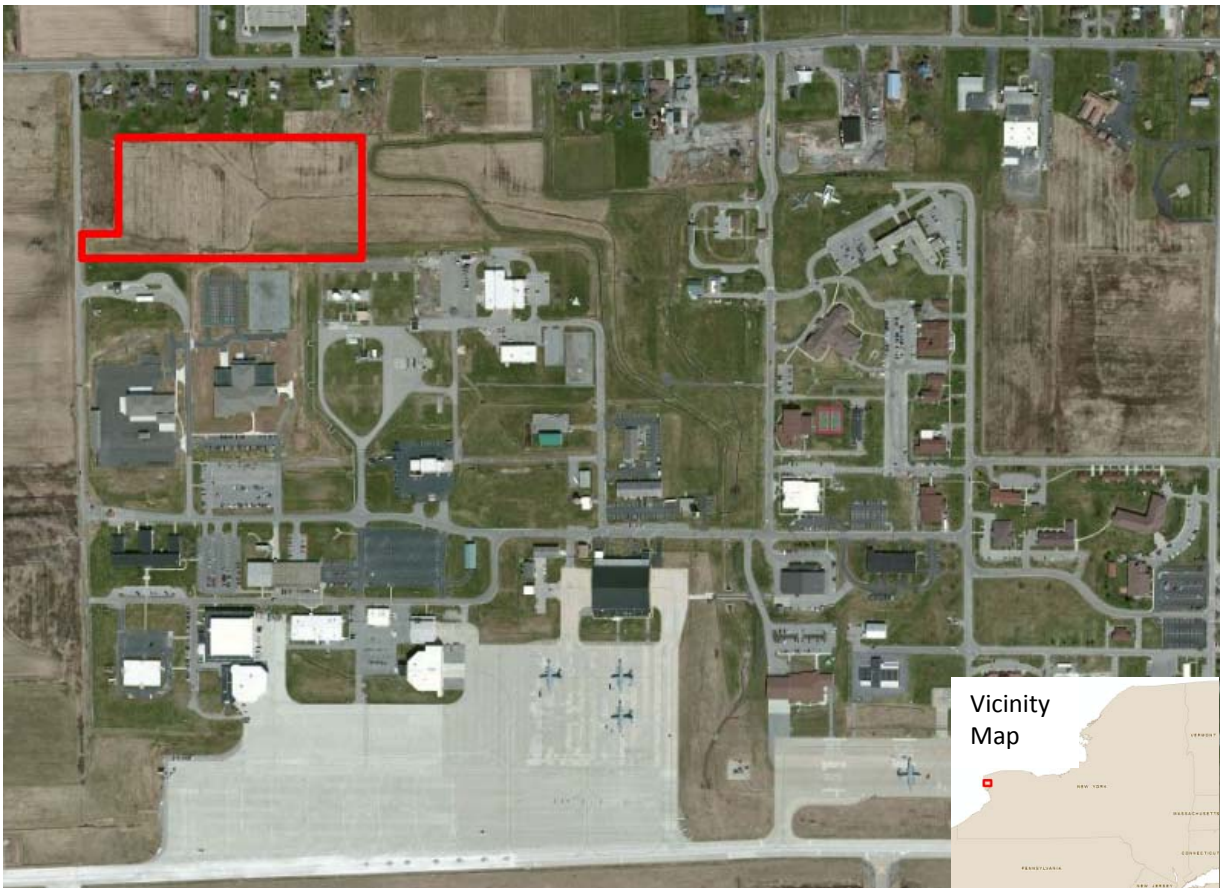
Appendix E
FEMA Application for a Letter of Map Revision
Niagara County, New York

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Application - Letter of Map Revision (LOMR)

Niagara County, New York

Niagara Falls Air Reserve Station



Border Patrol Site Proposal



**US Army Corps
of Engineers®**
Buffalo District
BUILDING STRONG®

June 2013



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

10 June 2013

LOMC Clearinghouse
847 South Pickett Street
Alexandria, VA 22304

Re: The Unnamed Tributary to Cayuga Creek at the Niagara Falls Air Reserve Station in Niagara Falls New York

To Whom It May Concern:

1. The attached package contains the required information for a Letter of Map Revision (LOMR) for the remapping of the Unnamed Tributary to Cayuga Creek at the Niagara Falls Air Reserve Station in Niagara Falls New York. The following is a list of submitted information:
 - a) Narrative for the project proposal
 - b) MT-2 Form 1 and MT-2 Form 2 along with supporting explanations
 - c) Hydrology and Hydraulic Report for Cayuga Creek and Unnamed Tributary for Cayuga Creek Niagara Falls, Niagara County New York
 - d) HEC-RAS Report for the Unnamed Tributary and Related Profiles
 - e) FEMA cHECK – RAS Report
 - f) Topographic Map and Survey used for computer models
 - g) Individual and Public Notification Letters
 - h) FEMA Form 81-107 Payment Information
2. As a government agency, the U.S. Army Corps of Engineers does not sign documents as Registered Professional Engineers; therefore signature block three (3) on MT-2 Form 1, "Certification by Registered Engineer and/or Land Surveyor" will remain unsigned.
3. The point of contact for this LOMR is Keith Koralewski. Keith can be reached at (716) 879-4358 or through email at Keith.R.Koralewski@usace.army.mil if further information is required.

Thank you,

Keith R. Koralewski, P.E.
Chief, Hydrology and Hydraulics Engineering Section

Narrative for Project Submittal

This Letter of Map Revision (LOMR) request is being submitted for an unnamed tributary, known as Outfall Number 5 on the Niagara Falls New York Air Reserve Station. This unnamed tributary outlets into the Cayuga Creek shortly before the Cayuga meets the Niagara River. The unnamed tributary flows through the Niagara Falls New York Air Reserve Station located approximately four miles east of the central business district of Niagara Falls, in Niagara County, New York. This LOMR request is limited to the unnamed tributary identified as Outfall Number 5 on the Air Reserve Station only; it is not meant to change the AE designated portion of the Cayuga Creek.

The United States Customs Border Protection (CBP) is in need of a new U.S. Border Patrol (USBP) station in Niagara Falls, New York that meets security requirements. CBP is investigating a parcel of property that is currently part of the Niagara Falls Air Reserve Station as a location for a new USBP station. The current (2011) flood Insurance Study and associated Digital FIRM map (September 17 2010) show this parcel is within the approximate Zone A floodplain of the unnamed tributary, also identified as Outfall Number 5 by the Air Reserve Station, which flows into Cayuga Creek. The floodplain mapping that exists for this area was developed using the approximate method, meaning no base flood elevation (BFE) has been determined.

In 2005, the Niagara Falls Air Reserve Station requested the US Army Corps of Engineers (USACE) Buffalo District to determine the 1.0% annual chance exceedance rate for the Cayuga Creek and related unnamed tributary (Outfall#5) as they affect the base. At the time of this request the Air Reserve Station was investigating the feasibility of constructing a new Fire and Crash Rescue Station within the approximate Zone A floodplain (Figure One - The Niagara Falls AFRS 100-YR Floodplain and Floodway Boundary Map). In order to determine more accurately what the 1.0% floodplain is comprised of within this area of interest (i.e. The Air Reserve Station), the Buffalo District developed a detailed floodplain map for the reach of Cayuga Creek from the downstream property limit of the Air Reserve Station to Outfall #5, and proceeding upstream on Outfall #5 to the property limits. This floodplain mapping was developed for the 1.0% (100 year) and 0.2% (500 year) rainfall exceedance using the detailed method.

The runoff and peak discharges for the Cayuga Creek and Unnamed Tributary watershed were calculated using the Corps' computer program Hydraulic Engineering Center – Hydrologic Modeling System (HEC-HMS). Parameters included in this model were: watershed size, rainfall (total and temporal pattern), loss rate parameters, and unit hydrograph parameters. All parameters are explained and defined in the methodology section of the Hydrology and Hydraulic Report for the Cayuga Creek and Unnamed Tributary to Cayuga Creek Niagara Falls, New York 2005 report included with this submittal package.

Analyses of the hydraulic characteristics of flooding from sources studied were carried out using the Corps' computer program Hydraulic Engineering Center – River Analysis System (HEC-RAS) to

provide estimates of the elevations of floods for the 10%, 2%, 1.0% and 0.2% occurrences. Known water surface elevations were used for the downstream boundary conditions. The water surface elevations were taken from the 1983 Town of Niagara, Niagara County New York Flood Insurance Study (FIS). All parameters used are explained in the Hydraulic Analysis section of the Hydrology and Hydraulic Report for the Cayuga Creek and Unnamed Tributary to Cayuga Creek Niagara Falls, New York 2005 report included.

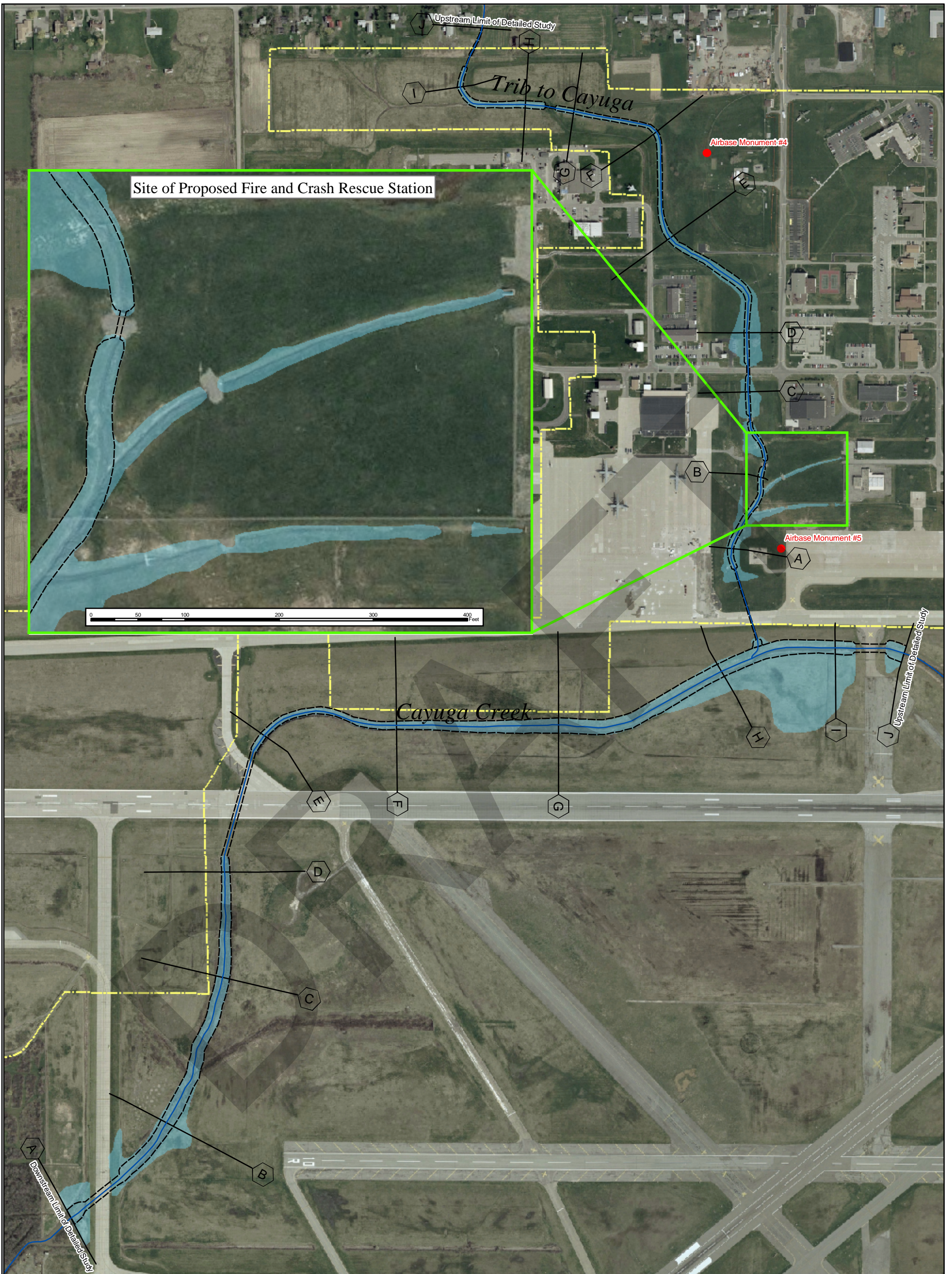
The results of the 2005 study concluded little to no flooding within the parcel of property CBP is investigating (Figure Two – Border Patrol Site Proposal). The 1.0% year flow is contained within the channel banks, for the most part. The floodway was determined with a surcharge of no more than one foot. The floodway creeks did not extend outside of the channel banks.

As a result of this analysis, this request for a Letter of Map Revision is being submitted to update the current floodplain maps along the Unnamed Tributary (Outfall #5) to Cayuga Creek to represent the findings for the unnamed tributary. This LOMR is not intended to include the Cayuga Creek, and is limited to the unnamed tributary identified as Outfall Number 5 on the air reserve station only.






Figure One

Niagara Falls AFRS

100-YR Floodplain and floodway Boundary Map



Legend

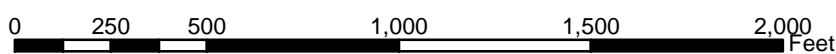
-  Cross Sections
-  Airbase Boundary
-  Stream Centerline
-  Floodway
-  100-yr Floodplain

Niagara Falls AFRS 100-YR Floodplain and Floodway Boundary Map



US Army Corps of Engineers
Buffalo District

Scale



Vicinity Map

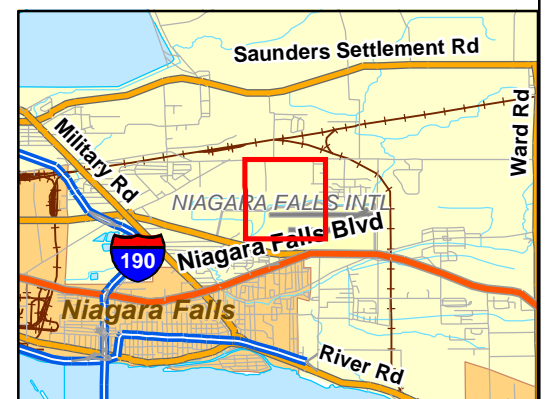


Figure 1

Figure Two
Niagara Falls AFRS
Border Patrol Site Proposal

Niagara Falls AFRS

Border Patrol Site Proposal Sub Basins

US Army Corps of Engineers
Buffalo District





Map Date: June 21, 2013

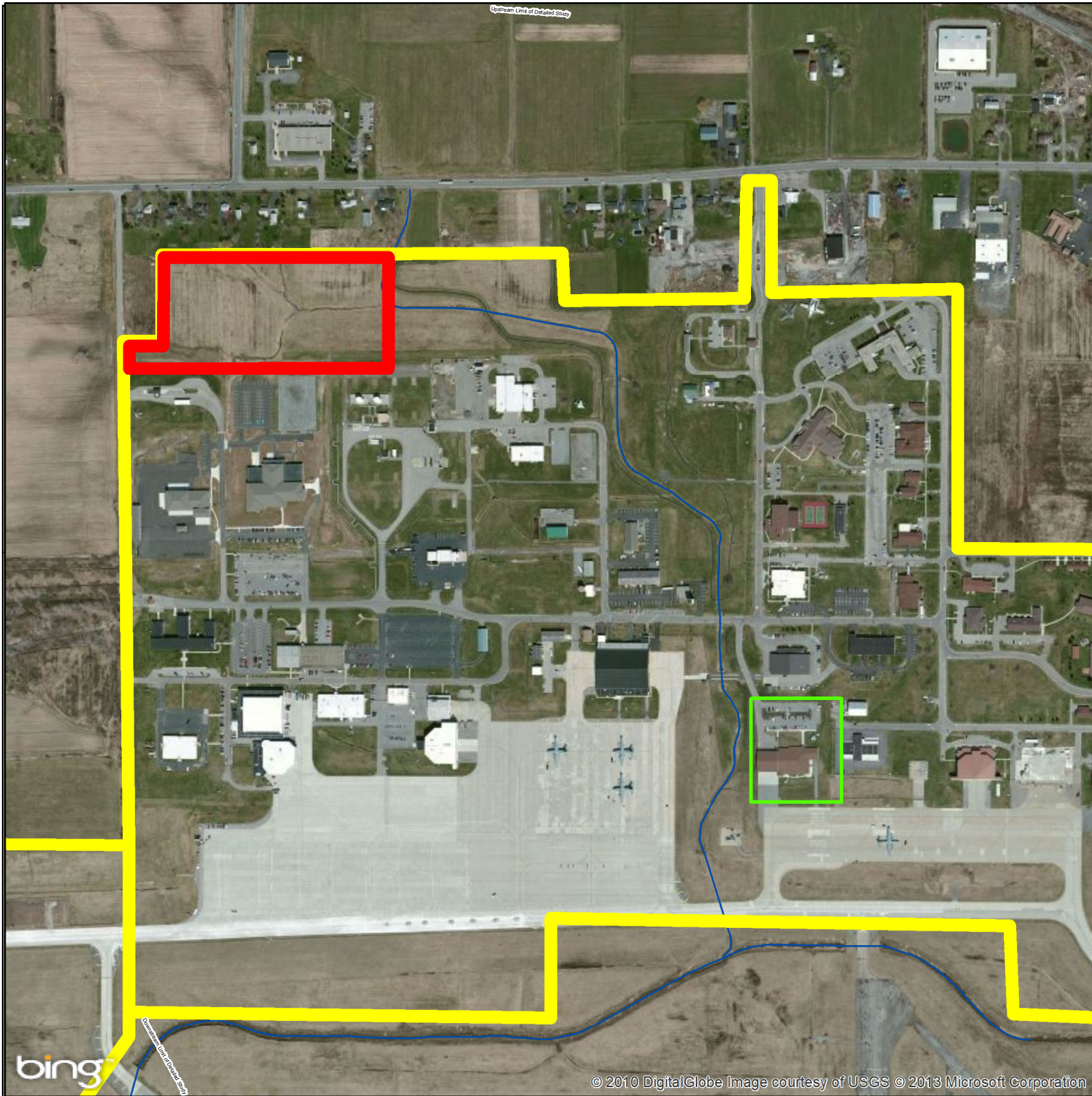
Scale

0 250 500 1,000
Feet



Legend

-  Border Patrol Parcel
-  NFARS-Property
-  Fire and Crash Station
-  Stream Centerline



U.S. DEPARTMENT OF HOMELAND SECURITY
 FEDERAL EMERGENCY MANAGEMENT AGENCY
OVERVIEW & CONCURRENCE FORM

*O.M.B No. 1660-0016
 Expires February 28, 2014*

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless it displays a valid OMB control number. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 1800 South Bell Street, Arlington, VA 20958-3005, Paperwork Reduction Project (1660-0016). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

PRIVACY ACT STATEMENT

AUTHORITY: The National Flood Insurance Act of 1968, Public Law 90-448, as amended by the Flood Disaster Protection Act of 1973, Public Law 93-234.

PRINCIPAL PURPOSE(S): This information is being collected for the purpose of determining an applicant's eligibility to request changes to National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRM).

ROUTINE USE(S): The information on this form may be disclosed as generally permitted under 5 U.S.C § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA/NFIP/LOMA-1 National Flood Insurance Program (NFIP); Letter of Map Amendment (LOMA) February 15, 2006, 71 FR 7990.

DISCLOSURE: The disclosure of information on this form is voluntary; however, failure to provide the information requested may delay or prevent FEMA from processing a determination regarding a requested change to a (NFIP) Flood Insurance Rate Maps (FIRM).

A. REQUESTED RESPONSE FROM DHS-FEMA

This request is for a (check one):

- CLOMR: A letter from DHS-FEMA commenting on whether a proposed project, if built as proposed, would justify a map revision, or proposed hydrology changes (See 44 CFR Ch. 1, Parts 60, 65 & 72).
- LOMR: A letter from DHS-FEMA officially revising the current NFIP map to show the changes to floodplains, regulatory floodway or flood elevations. (See 44 CFR Ch. 1, Parts 60, 65 & 72)

B. OVERVIEW

1. The NFIP map panel(s) affected for all impacted communities is (are):

Community No.	Community Name	State	Map No.	Panel No.	Effective Date
Example: 480301 480287	City of Katy Harris County	TX TX	48473C 48201C	0005D 0220G	02/08/83 09/28/90
360507	Niagara, Town of	NY	36063C	0327E	09/17/10

2. a. Flooding Source: Unnamed Tributary to Cayuga Creek

- b. Types of Flooding: Riverine Coastal Shallow Flooding (e.g., Zones AO and AH)
 Alluvial fan Lakes Other (Attach Description)

3. Project Name/Identifier: Updating Flood Plain Mapping Unnamed Tributary to Cayuga Creeek within the Niagara Falls Air Reserve Station

4. FEMA zone designations affected: A (choices: A, AH, AO, A1-A30, A99, AE, AR, V, V1-V30, VE, B, C, D, X)

5. Basis for Request and Type of Revision:

a. The basis for this revision request is (check all that apply)

- Physical Change Improved Methodology/Data Regulatory Floodway Revision Base Map Changes
 Coastal Analysis Hydraulic Analysis Hydrologic Analysis Corrections
 Weir-Dam Changes Levee Certification Alluvial Fan Analysis Natural Changes
 New Topographic Data Other (Attach Description)

Note: A photograph and narrative description of the area of concern is not required, but is very helpful during review.

b. The area of revision encompasses the following structures (check all that apply)

Structures: Channelization Levee/Floodwall Bridge/Culvert
 Dam Fill Other (Attach Description)

6. Documentation of ESA compliance is submitted (required to initiate CLOMR review). Please refer to the instructions for more information.

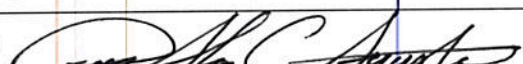
C. REVIEW FEE

Has the review fee for the appropriate request category been included? Yes Fee amount: \$5,300.00
 No, Attach Explanation


Please see the DHS-FEMA Web site at http://www.fema.gov/plan/prevent/fhm/frm_fees.shtm for Fee Amounts and Exemptions.

D. SIGNATURE

All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Name: Col Roy-Alan C. Agustin	Company: HQ AFRC/A7	
Mailing Address: 255 Richard Ray Blvd Robins AFB GA 31098-1637	Daytime Telephone No.: 4783271100	Fax No.:
Signature of Requester (required): 	E-Mail Address: roy_alan.agustin.1@us.af.mil	
	Date: 12 FEBRUARY 2014	

The community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this Letter of Map Revision (LMR) or conditional LOMR request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirements for when fill is placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a conditional LOMR, will be obtained. For Conditional LOMR requests, the applicant has documented Endangered Species Act (ESA) compliance to FEMA prior to FEMA's review of the Conditional LOMR application. For LOMR requests, I acknowledge that compliance with Sections 9 and 10 of the ESA has been achieved independently of FEMA's process. For actions authorized, funded, or being carried out by Federal or State agencies, documentation from the agency showing its compliance with Section 7(a)(2) of the ESA will be submitted. In addition, we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44CFR 65.2(c), and that we have available upon request by FEMA, all analyses and documentation used to make this determination.

Community Official's Name and Title: Joseph Caturia Flood Admin / Bldg. Insp.	Community Name: Town of Wheatfield	
Mailing Address: 2800 Church Rd. North Tonawanda, NY 14120	Daytime Telephone No.: 716 694-1026	Fax No.: 694-1800
Community Official's Signature (required): 	E-Mail Address: inspector@wheatfield.ny.us	
	Date: 6/17/13	

CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR

This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information data, hydrologic and hydraulic analysis, and any other supporting information as per NFIP regulations paragraph 65.2(b) and as described in the MT-2 Forms Instructions. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Certifier's Name:	License No.:	Expiration Date:
Company Name:	Telephone No.:	Fax No.:
Signature:	Date:	E-Mail Address:

b. The area of revision encompasses the following structures (check all that apply)

Structures: Channelization Levee/Floodwall Bridge/Culvert
 Dam Fill Other (Attach Description)

6. Documentation of ESA compliance is submitted (required to initiate CLOMR review). Please refer to the instructions for more information.

C. REVIEW FEE

Has the review fee for the appropriate request category been included? Yes Fee amount: \$0.00
 No, Attach Explanation

Please see the DHS-FEMA Web site at http://www.fema.gov/plan/prevent/fhm/frm_fees.shtml for Fee Amounts and Exemptions.

D. SIGNATURE

All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Name:	Company:	
Mailing Address:	Daytime Telephone No.:	Fax No.:
	E-Mail Address:	
Signature of Requester (required):		Date:

As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this Letter of Map Revision (LOMR) or conditional LOMR request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirements for when fill is placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a conditional LOMR, will be obtained. For Conditional LOMR requests, the applicant has documented Endangered Species Act (ESA) compliance to FEMA prior to FEMA's review of the Conditional LOMR application. For LOMR requests, I acknowledge that compliance with Sections 9 and 10 of the ESA has been achieved independently of FEMA's process. For actions authorized, funded, or being carried out by Federal or State agencies, documentation from the agency showing its compliance with Section 7(a)(2) of the ESA will be submitted. In addition, we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44CFR 65.2(c), and that we have available upon request by FEMA, all analyses and documentation used to make this determination.

Community Official's Name and Title: <i>Bimilay Engineer / Edward P. Adon</i>	Community Name: <i>Town of Niagara</i>	
Mailing Address: <i>7105 Lockport RD Niagara Falls, NY 14304</i>	Daytime Telephone No.: <i>(716) 297-2130</i>	Fax No.: <i>(716) 257-9262</i>
Community Official's Signature (required): <i>[Signature]</i>		Date: <i>2/19/14</i>

CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR

This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information data, hydrologic and hydraulic analysis, and any other supporting information as per NFIP regulations paragraph 65.2(b) and as described in the MT-2 Forms Instructions. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

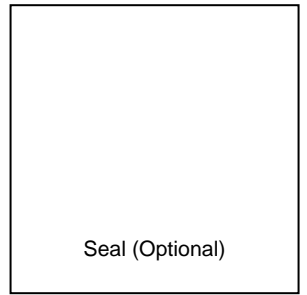
Certifier's Name:	License No.:	Expiration Date:
Company Name:	Telephone No.:	Fax No.:
Signature:	Date:	E-Mail Address:

Ensure the forms that are appropriate to your revision request are included in your submittal.

Form Name and (Number)

Required if ...

- | | |
|---|---|
| <input checked="" type="checkbox"/> Riverine Hydrology and Hydraulics Form (Form 2) | New or revised discharges or water-surface elevations |
| <input type="checkbox"/> Riverine Structures Form (Form 3) | Channel is modified, addition/revision of bridge/culverts, addition/revision of levee/floodwall, addition/revision of dam |
| <input type="checkbox"/> Coastal Analysis Form (Form 4) | New or revised coastal elevations |
| <input type="checkbox"/> Coastal Structures Form (Form 5) | Addition/revision of coastal structure |
| <input type="checkbox"/> Alluvial Fan Flooding Form (Form 6) | Flood control measures on alluvial fans |



Form One Section C:

In accordance with Section 72.5 of the NFIP regulations, review and processing fees are not required for:

1. Map changes based on mapping or study analysis errors
2. Map changes based on the effects of natural changes within the Special Flood Hazard Area
3. Requests for LOMAs
4. Federally sponsored flood-control projects where 50 percent or more of the projects costs are federally funded
5. Map changes based on detailed hydrologic and hydraulic studies conducted by Federal, State or local agencies to replace approximate studies conducted by FEMA and shown on the effective Flood Insurance Rate Map (FIRM)
6. Map changes based on the flood hazard information meant to improve upon that shown on the flood map or within the flood study

This Letter of Map Revision request complies with number 5 below, and therefore is fee exempt.

5. Map changes based on detailed hydrologic and hydraulic studies conducted by Federal, state or local agencies to replace approximate studies conducted by FEMA and shown on the effective flood Insurance Rate Map.



MAP SCALE 1" = 500'



NFIP

FIRM

FLOOD INSURANCE RATE MAP
for NIAGARA COUNTY, NEW YORK
(ALL JURISDICTIONS)

CONTAINS:	NUMBER
COMMUNITY	360507
NIAGARA, TOWN OF	360506
OF	
WHEATFIELD, TOWN OF	360513

PANEL 327 OF 430
MAP SUFFIX: E
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

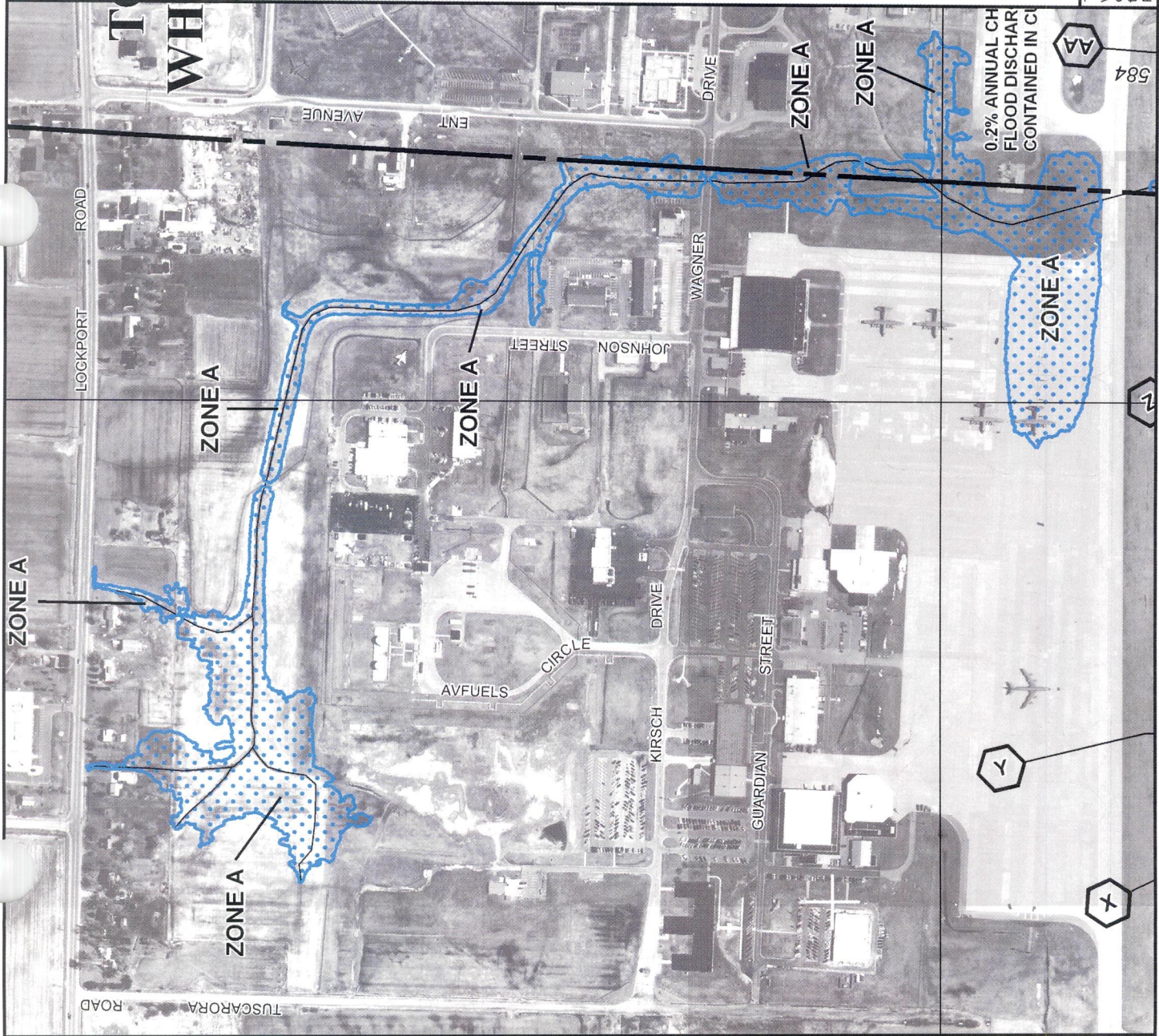


MAP NUMBER
36063C0327E

EFFECTIVE DATE
SEPTEMBER 17, 2010

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM



This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

U.S. DEPARTMENT OF HOMELAND SECURITY
 FEDERAL EMERGENCY MANAGEMENT AGENCY
RIVERINE HYDROLOGY & HYDRAULICS FORM

*O.M.B No. 1660-0016
 Expires February 28, 2014*

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 3.5 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 1800 South Bell Street, Arlington VA 20958-3005, Paperwork Reduction Project (1660-0016). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

PRIVACY ACT STATEMENT

AUTHORITY: The National Flood Insurance Act of 1968, Public Law 90-448, as amended by the Flood Disaster Protection Act of 1973, Public Law 93-234.

PRINCIPAL PURPOSE(S): This information is being collected for the purpose of determining an applicant's eligibility to request changes to National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRM).

ROUTINE USE(S): The information on this form may be disclosed as generally permitted under 5 U.S.C § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA/NFIP/LOMA-1 National Flood Insurance Program (NFIP); Letter of Map Amendment (LOMA) February 15, 2006, 71 FR 7990.

DISCLOSURE: The disclosure of information on this form is voluntary; however, failure to provide the information requested may delay or prevent FEMA from processing a determination regarding a requested change to a NFIP Flood Insurance Rate Maps (FIRM).

Flooding Source: Unnamed Tributary (Outfall#5) to Cayuga Creek

Note: Fill out one form for each flooding source studied

A. HYDROLOGY

1. Reason for New Hydrologic Analysis (check all that apply)

- Not revised (skip to section B)
 No existing analysis
 Improved data
 Alternative methodology
 Proposed Conditions (CLOMR)
 Changed physical condition of watershed

2. Comparison of Representative 1%-Annual-Chance Discharges

Location	Drainage Area (Sq. Mi.)	Effective/FIS (cfs)	Revised (cfs)
Outfall #5	0.8944	N/A	160

3. Methodology for New Hydrologic Analysis (check all that apply)

- Statistical Analysis of Gage Records
 Precipitation/Runoff Model → Specify Model: HEC-HMS
 Regional Regression Equations
 Other (please attach description)

Please enclose all relevant models in digital format, maps, computations (including computation of parameters), and documentation to support the new analysis.

4. Review/Approval of Analysis

If your community requires a regional, state, or federal agency to review the hydrologic analysis, please attach evidence of approval/review.

5. Impacts of Sediment Transport on Hydrology

Is the hydrology for the revised flooding source(s) affected by sediment transport? Yes No

If yes, then fill out Section F (Sediment Transport) of Form 3. If No, then attach your explanation..

B. HYDRAULICS

1. Reach to be Revised

	Description	Cross Section	Water-Surface Elevations (ft.)	
			Effective	Proposed/Revised
Downstream Limit*	<u>River Station 85.2877</u>	<u> </u>	<u>NA</u>	<u>580.39</u>
Upstream Limit*	<u>River Station 4572.864</u>	<u>J</u>	<u>NA</u>	<u>596.48</u>

*Proposed/Revised elevations must tie-into the Effective elevations within 0.5 foot at the downstream and upstream limits of revision.

2. Hydraulic Method/Model Used: HEC-RAS

3. Pre-Submittal Review of Hydraulic Models*

DHS-FEMA has developed two review programs, CHECK-2 and CHECK-RAS, to aid in the review of HEC-2 and HEC-RAS hydraulic models, respectively. We recommend that you review your HEC-2 and HEC-RAS models with CHECK-2 and CHECK-RAS.

4.

<u>Models Submitted</u>	<u>Natural Run</u>	<u>Floodway Run</u>	<u>Datum</u>
Duplicate Effective Model*	File Name: _____ Plan Name: _____	File Name: _____ Plan Name: _____	_____
Corrected Effective Model*	File Name: _____ Plan Name: _____	File Name: _____ Plan Name: _____	_____
Existing or Pre-Project Conditions Model	File Name: <u>NFARS_RAS_trib2</u> Plan Name: <u>Current Conditions</u>	File Name: _____ Plan Name: _____	_____
Revised or Post-Project Conditions Model	File Name: _____ Plan Name: _____	File Name: _____ Plan Name: _____	_____
Other - (attach description)	File Name: _____ Plan Name: _____	File Name: _____ Plan Name: _____	_____

* For details, refer to the corresponding section of the instructions.

Digital Models Submitted? (Required)

C. MAPPING REQUIREMENTS

A **certified topographic work map** must be submitted showing the following information (where applicable): the boundaries of the effective, existing, and proposed conditions 1%-annual-chance floodplain (for approximate Zone A revisions) or the boundaries of the 1%- and 0.2%-annual-chance floodplains and regulatory floodway (for detailed Zone AE, AO, and AH revisions); location and alignment of all cross sections with stationing control indicated; stream, road, and other alignments (e.g., dams, levees, etc.); current community easements and boundaries; boundaries of the requester's property; certification of a registered professional engineer registered in the subject State; location and description of reference marks; and the referenced vertical datum (NGVD, NAVD, etc.).

Digital Mapping (GIS/CADD) Data Submitted (preferred)

Topographic Information: _____

Source: _____ Date: _____

Accuracy: _____

Note that the boundaries of the existing or proposed conditions floodplains and regulatory floodway to be shown on the revised FIRM and/or FBFM must tie-in with the effective floodplain and regulatory floodway boundaries. Please attach **a copy of the effective FIRM and/or FBFM**, at the same scale as the original, annotated to show the boundaries of the revised 1%-and 0.2%-annual-chance floodplains and regulatory floodway that tie-in with the boundaries of the effective 1%-and 0.2%-annual-chance floodplain and regulatory floodway at the upstream and downstream limits of the area on revision.

Annotated FIRM and/or FBFM (Required)

D. COMMON REGULATORY REQUIREMENTS*

1. For LOMR/CLOMR requests, do Base Flood Elevations (BFEs) increase? Yes No
- a. For CLOMR requests, if either of the following is true, please submit **evidence of compliance with Section 65.12 of the NFIP regulations**:
- The proposed project encroaches upon a regulatory floodway and would result in increases above 0.00 foot compared to pre-project conditions.
 - The proposed project encroaches upon a SFHA with or without BFEs established and would result in increases above 1.00 foot compared to pre-project conditions.
- b. Does this LOMR request cause increase in the BFE and/or SFHA compared with the effective BFEs and/or SFHA? Yes No
If Yes, please attach **proof of property owner notification and acceptance (if available)**. Elements of and examples of property owner notifications can be found in the MT-2 Form 2 Instructions.
2. Does the request involve the placement or proposed placement of fill? Yes No
If Yes, the community must be able to certify that the area to be removed from the special flood hazard area, to include any structures or proposed structures, meets all of the standards of the local floodplain ordinances, and is reasonably safe from flooding in accordance with the NFIP regulations set forth at 44 CFR 60.3(A)(3), 65.5(a)(4), and 65.6(a)(14). Please see the MT-2 instructions for more information.
3. For LOMR requests, is the regulatory floodway being revised? Yes No
If Yes, attach **evidence of regulatory floodway revision notification**. As per Paragraph 65.7(b)(1) of the NFIP Regulations, notification is required for requests involving revisions to the regulatory floodway. (Not required for revisions to approximate 1%-annual-chance floodplains [studied Zone A designation] unless a regulatory floodway is being established. Elements and examples of regulatory floodway revision notification can be found in the MT-2 Form 2 Instructions.)
4. For CLOMR requests, please submit documentation to FEMA and the community to show that you have complied with Sections 9 and 10 of the Endangered Species Act (ESA).

For actions authorized, funded, or being carried out by Federal or State agencies, please submit documentation from the agency showing its compliance with Section 7(a)(2) of the ESA. Please see the MT-2 instructions for more detail.

* Not inclusive of all applicable regulatory requirements. For details, see 44 CFR parts 60 and 65.

MT-2 Form 2 - Continued

A. Hydrology

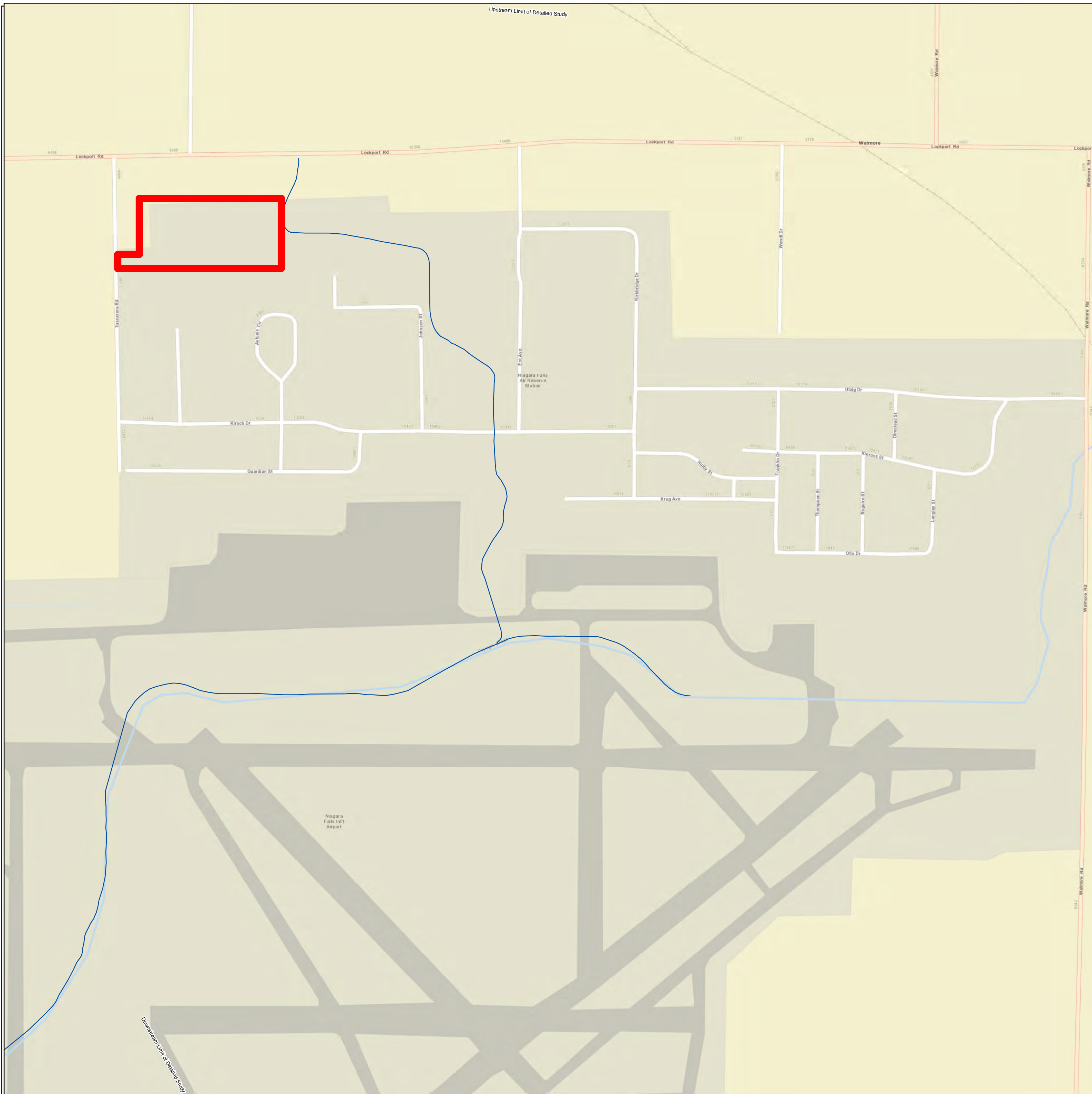
5. The area in question is at the headwaters of the Unnamed Tributary with stable vegetative cover. There are no signs of erosion or pitting in this area, banks appear to be shallow and stable; therefore it is assumed the current sediment transport would not be affected.

Niagara Falls AFRS

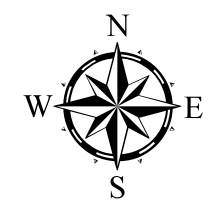
Border Patrol Site Proposal Sub Basins

US Army Corps of Engineers
Buffalo District



Map Date: February 5, 2013



Scale



Legend

-  Border Patrol Parcel
-  Stream Centerline



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

22 April 2013

Hydrology and Hydraulics Engineering Section

LOMC Clearinghouse
847 South Pickett Street
Alexandria, VA 22304

Re: The Hydrologic and Hydraulic Report for Cayuga Creek and Unnamed Tributary to Cayuga Creek, Niagara Falls, New York

To Whom It May Concern:

In 2005, the Niagara Falls Air Reserve Station requested the US Army Corps of Engineers (USACE) Buffalo District to determine the 1.0% annual chance exceedance rate for the Cayuga Creek and related Unnamed Tributary identified on the Air Reserve Station as Outfall Number 5 as they affect the base. At the time of this request the Air Reserve Station was investigating the feasibility of constructing a new Fire and Crash Rescue Station within the approximate Zone A, which is what the included Hydrologic and Hydraulic was intended to address.

In order to determine more accurately what the 1.0% floodplain is comprised of within this area of interest (i.e. The Air Reserve Station), the Buffalo District developed a detailed floodplain map for the reach of Cayuga Creek from the downstream property limit of the Air Reserve Station to Outfall #5, and proceeding upstream on Outfall Number 5 to the property limits. This floodplain mapping was developed for the 1.0% (100 year) and 0.2% (500 year) rainfall exceedance using the detailed method.

Although this report includes both the Cayuga Creek and the Unnamed Tributary identified as Outfall Number 5, only the unnamed tributary is being considered for the submitted Letter of Map Revision (LOMR). The current AE Zone on Cayuga Creek is not addressed as part of this LOMR application.

Sincerely,

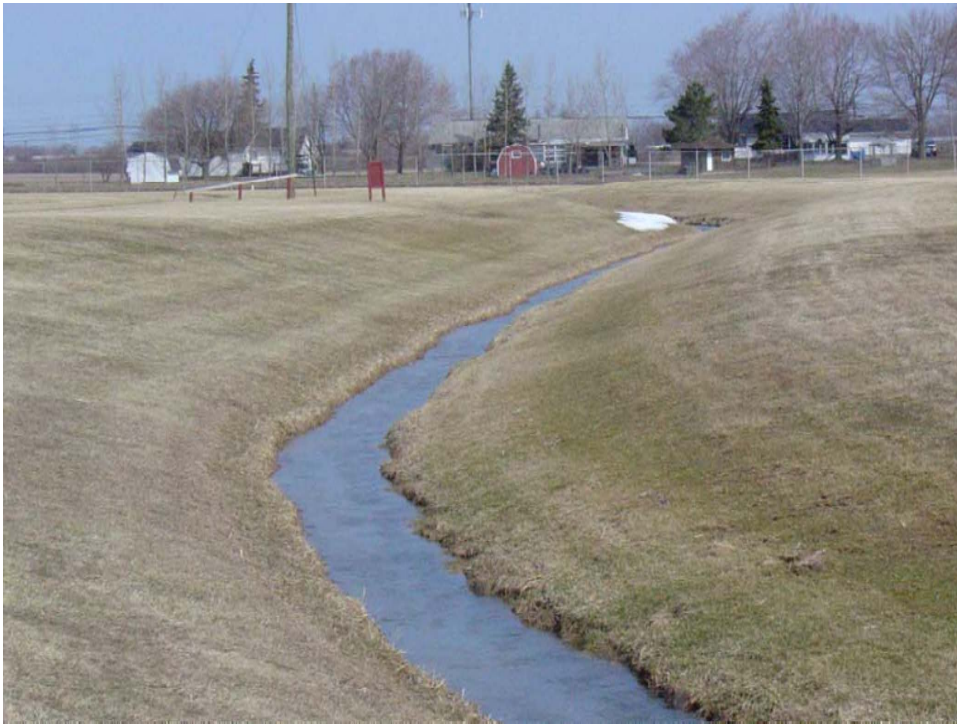
Keith R. Koralewski, P.E.
Chief, Hydrology and Hydraulics Engineering Section

Hydrology and Hydraulic Report for Cayuga Creek and Unnamed Tributary to Cayuga Creek Niagara Falls, New York

US Army Corps of Engineers - Buffalo District

Prepared for the Niagara Falls Air Reserve Station, Niagara Falls, NY

June 2005



Summary of Hydrology for
Updating the Flood Plain Mapping, Cayuga Creek
within the
Niagara Falls Air Reserve Station,
Niagara Falls, New York

INTRODUCTION:

In 2005, the Niagara Falls Air Reserve Station (ARS) considered constructing a new fire station on a previously undisturbed portion of the ARS. At that time it was not clear whether the proposed fire station was within the floodplain or what the 1.0 % (100-year) stream elevation was at that time. The existing floodplain mapping was developed using the approximate method, i.e., no base elevation (water surface profile). The Buffalo District was asked to develop a detailed floodplain map for the reach of Cayuga Creek from the downstream property limit to the tributary identified on the airbase as Outfall #5, then proceeding upstream on Outfall #5. Floodplain mapping was developed for the 1.0% (100-year) and 0.2% (500-year) rainfall events.

Hydrology:

In March 1999, the Buffalo District was asked to help determine whether the airbase contributes to downstream flooding on Cayuga Creek. The Buffalo District developed runoff parameters and hypothetical rainfall for that study. The results of that study were completed in October 1999, indicating that the air base had very little impact on downstream peak flows. Since then, the district has had many discussions on that method for determining the rainfall pattern for hypothetical rainfall and even provided an update of the original study in May 2001. Additional discussions after May 2001 reach the conclusion that it wasn't as much the rainfall temporal pattern as much as the source of the rainfall that was not giving good results.

Although a new source of rainfall was used for this study, the runoff parameters from the previous studies were used. A new sub-basin, Upper West Branch is within the HEC-HMS model, but was not used in the study.

Hypothetical Rainfall:

Originally, the 24 hour rainfall amounts for the 50% (2-year), 20% (5-year), 10% (10-year), 4% (25-year), 2% (50-year) and 1% (100-year) events were determined using the Northeast Regional Climate Center's (@ Cornell University) Publication # RR 93-5: "Atlas of Precipitation Extremes for the Northeastern United States and Southeastern Canada," September 1993. The rainfall amounts for the 200- and 500-year events were extrapolated from the RR 93-5 data. Since there was a close match of the mass rainfall curve of the June 1987 rainfall (total rainfall of 5.01 inches) at the Buffalo Airport with the mass rainfall curve from HEC-HMS for an event of similar magnitude, the default rainfall temporal pattern of HEC-HMS was used for this study.

Due to the poor results using Publication # RR 93-5, the district switched to developing rainfall using the guidance found in the National Weather Services' (NWS) publications Technical Memorandum NWS Hydro 35 (Hydro 35), *"Five to 60-minutes Precipitation Frequency for Eastern and Central United States"*, (1977) and Technical Paper 40 (TP-40), *"Rainfall Frequency Atlas of the United States for Duration from 30 minutes to 24 Hours and Return Periods from 1 to 100 Years,"* (1961). These are the 2 publications that the NWS recommends to use in New York State.

Rainfall amounts for this area were developed for an unpublished study on Ellicott Creek and are valid over the Cayuga Creek watershed. Rainfall amounts were determined for the following 24 hour events: 50% (2-year), 20% (5-year), 10% (10-year), 4% (25-year), 2% (50-year) and 1% (100-year). The rainfall amounts for the 0.5% (200-year) and 0.2% (500-year) events were extrapolated using this rainfall data. Rainfall for these events can be found on the following table. Only the 1.0% (100-year) and 0.2% (500-year) 24 hour storm events were used in this study.

Table 1: Rainfall Amounts

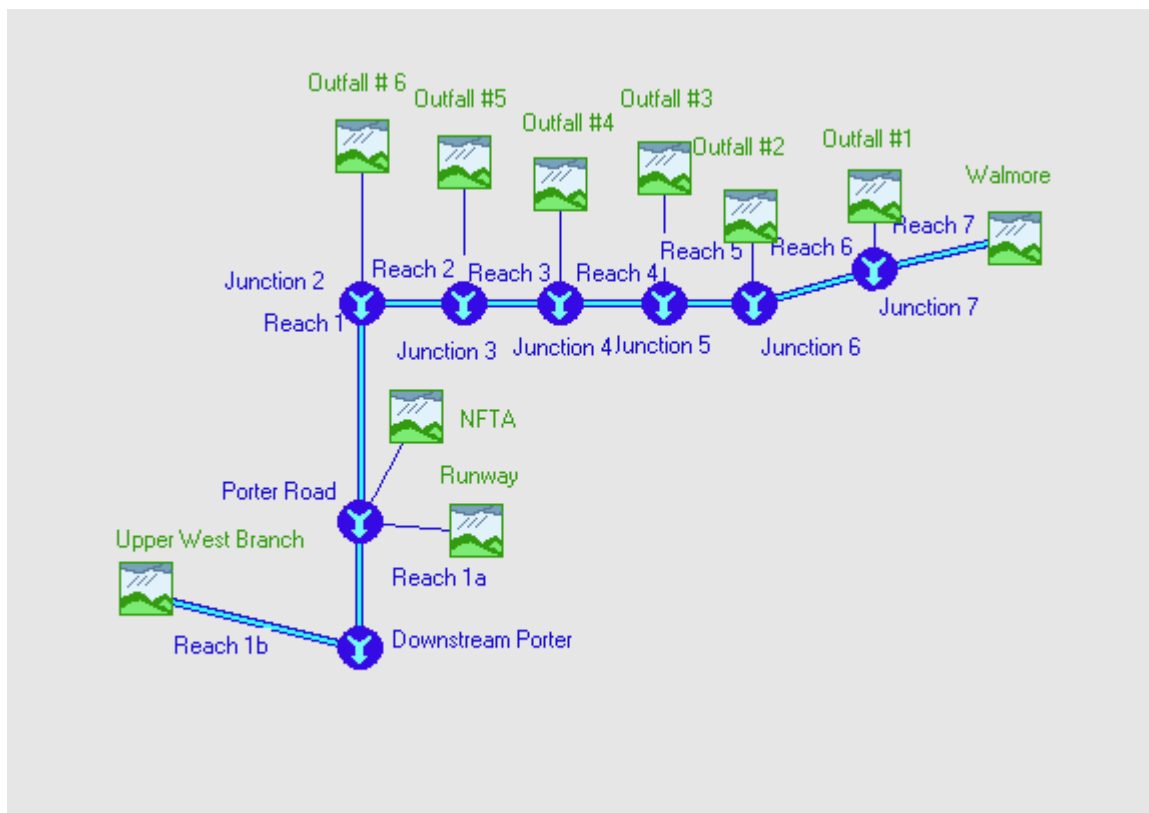
DURATION	FREQUENCY OF RAINFALL EVENT IN %							
	50	20	10	4	2	1	0.5	0.2
	RAINFALL IN INCHES							
5 MINUTES	0.40	0.45	0.50	0.55	0.65	0.80	0.90	1.10
15 MINUTES	0.65	0.80	0.90	1.10	1.20	1.30	1.40	1.50
1 HOUR	1.00	1.30	1.50	1.80	2.00	2.30	2.40	2.70
2 HOURS	1.15	1.60	1.80	2.10	2.40	2.70	3.00	3.40
3 HOURS	1.40	1.80	2.10	2.40	2.70	3.00	3.20	3.50
6 HOURS	1.55	2.00	2.30	2.80	3.10	3.50	3.90	4.40
12 HOURS	2.10	2.60	2.90	3.30	3.60	3.90	4.10	4.50
24 HOURS (a)	2.40	2.90	3.30	3.90	4.30	4.70	5.20	5.80

Note: 50%, 20%, 10%, 4%, 2%, AND 1% rainfall was developed using Hydro 35 and TP-40. 0.5% and 0.2% rainfall was extrapolated from that data.

METHODOLOGY:

The runoff and peak discharges for the Cayuga watershed were calculated using the Corps's computer program HEC-HMS (Hydrologic Modeling System). This computer model has the capability of calculating runoff for the different land uses.

The Niagara Falls Air Reserve Station (air base) occupies 624 acres within the fence line of the air base. The air base has permanent easements on an additional 361 acres, for a total of 985 acres. The Cayuga Creek watershed was broken into 10 sub-basins as shown on following schematic. The air base within the fenced area is presented by 6 of the 10 sub-basins. The total drainage area of these 6 sub-basins is 706 acres. This sum of the drainage areas (of the 6 sub-basins that represent the air base) is greater than the fenced area of the air base because some of the sub-basins drain lands that are outside of the air base. This will account for the difference between the acreage of the fenced areas and the sub-basins. The schematic of the HEC-HMS model is shown below:



Watershed size, rainfall (total and temporal pattern), loss rate parameters, and unit hydrograph parameters are all needed to calculate runoff. The assumptions and methods used to develop these parameters for use in the HEC- HMS computer model are discussed below.

The Cayuga Creek watershed to Porter Road was delineated on the U. S. Geological Survey's Ransomville and Tonawanda West Quadrangle maps. This study calculated the drainage area of Cayuga Creek at Porter Road to be 10.7 square miles. This is the same value as used by the 15 December 1983 Flood Insurance Study for the Town of Niagara.

The ten sub-basins of the Cayuga Creek watershed are:

- ⇒Cayuga Creek to Walmore Road;
- ⇒Air Reserve Station, drainage to Outfall #1;
- ⇒Air Reserve Station, drainage to Outfall #2;
- ⇒Air Reserve Station, drainage to Outfall #3;
- ⇒Air Reserve Station, drainage to Outfall #4;
- ⇒Air Reserve Station, drainage to Outfall #5;
- ⇒Air Reserve Station, drainage to Outfall #6;
- ⇒The drainage to the ditch south of the western portion of the runway; and
- ⇒The NFTA property (includes some of the air base property along the runways)
- ⇒The Upper West Branch that was diverted to Cayuga creek just downstream of Porter Road.

The Natural Resources Conservation Service's (of the U. S. Department of Agriculture, formerly the Soil Conservation Service) soil curve number Cn was used to determine rainfall losses. The rainfall losses represent the water loss to land surface interception, depression storage and infiltration. Interception and depression storage represent the surface storage of water by trees and grass, local depressions in the ground surfaces (puddles), or in cracks and crevices in parking lots or roof. Infiltration is water soaking into the ground. The Cn value is determined using both the soil type and land use. The soil types for the sub- basins were determined using the Natural Resources Conservation Service's Soil Survey of Niagara County, New York issued October 1972. The land use was determined from the quadrangle maps and a field survey of the watershed. For the Cayuga Creek watershed to Walmore Road, the Cn value was calculated using the soil type, land use and development. For the remaining watersheds, the Cn value represents the soil type with an open space land use. The buildings and roadways for these sub-basins are represented by a percent impervious value. For the six sub-basins that make up the air base, the drainage areas and percent impervious values were taken from the draft publication dated May 1997: "Integrated Natural Resources Management Plan, Niagara Falls Air Reserve Station, New York," the Environmental Division, Headquarters, Air Force Reserve Command, Robins Air Force Base, Georgia. The Cn value for each sub-basin is shown on Table 2: Sub-Basin Parameters.

Unit hydrograph parameters are needed to convert the excess rainfall (rainfall – losses) to flows. The Natural Resources Conservation Service’s dimensionless unit hydrograph method was used to model the Cayuga Creek to Walmore Road and Upper West Branch sub-basins. The dimensionless unit hydrograph method consists of a single parameter, TLAG, which is equal to the lag (hours) between the center of mass of the rainfall excess and the peak of the unit hydrograph, which is equal to 0.6 * the time of concentration (Tc). The values of Tc and Cn were calculated using the guidelines and procedures of the Natural Resources Conservation Service’s publication dated June 1986: “Urban Hydrology for Small Watersheds, “Technical Release 55 (TR-55). The kinematic wave method was used to model the remaining 8 sub-basins. The kinematic wave method uses the slope, roughness and shape of the sub-basin to calculate runoff. Since a ditch runs down the middle of the Outfall #5 sub-basin, this watershed was divided into two separate areas (Plane 1 and 2) that drain to the ditch. Plane 1 is the area east of the ditch and Plane 2 is the area west of the ditch. The unit hydrograph parameters are shown on the second table. The runoff model assumed that all runoff would be surface runoff. This study did not attempt to quantify the division of water between surface and storm sewer runoff. The peak discharges for the 1% (100-year) and 0.2% (500-year) events for the sub-basins are shown on the following Table. The discharges just upstream and downstream of Porter Road are also shown.

The Muskingum Cunge Routing (8-point cross section) method was used for routing the Cayuga Creek runoff hydrograph between junctions.

Peak Discharges

Watershed	Peak Discharges in cfs	
	1.0%(100-year)	0.2% (500-year)
Cayuga Creek @ Walmore Road	1,350	1,930
Outfall #1	3	5
Outfall #2	21	27
Outfall #3	17	23
Outfall #4	100	134
Outfall #5	160	260
Outfall #6	76	104
Runway	160	240
NFTA	620	870
Upper West Branch	900	1,160
Cayuga Creek, u.s. Porter Road	1,780	2,500
Cayuga Creek, d.s., Porter	2,250	3,030

Sub-basin Parameters

Watershed	Drainage Area (square miles)	Cn	Imperviousness (%)	TLAG (hours)	Kinematic Wave Parameters		
					Sub-basin slope (feet/feet)	Width (feet)	Surface Roughness
Walmore Road	7.8	67	5	3.62			
Outfall #1	0.0064	80	22		0.004	714	0.4
Outfall #2	0.014	80	40		0.007	800	0.1
Outfall #3	0.0075	80	50		0.01	375	0.1
Outfall #4	0.0983	80	63		0.0074	2000	0.1
Outfall #5	0.8944						
Plane 1	0.6261	80	14		0.0038	2520	0.4
Plane 2	0.2683	80	14		0.0038	2120	0.4
Outfall #6	0.0834	80	46		0.0045	1530	0.1
Runway	0.3768	80	30		0.01	2920	0.2
NFTA	1.42	80	50		0.0014	2720	0.1
Upper West Branch	1.79	77	15	1.650			

HYDRAULIC ANALYSES NIAGARA FALLS ARS, NEW YORK

Analyses of the hydraulic characteristics of flooding from sources studied were carried out to provide estimates of the elevations of floods for the 1% and 0.2% occurrences. The 1% and 0.2% chance flows have a one chance in 100 and 500 of being exceeded in any given year, respectively.

Data Collection:

Cross-section data for the backwater analyses on Cayuga Creek and the unnamed Tributary to Cayuga Creek were obtained from field survey performed by Buffalo District personnel in April of 2005. Structural data for all the culverts were also collected during the field survey. The survey data is referenced to the National Geodetic Vertical Datum (NGVD) of 1929. Additional data was obtained from the Louisville District that included detailed 1-foot interval contours in the vicinity of the proposed Fire and Crash Rescue Station. The contours are referenced to the North American Vertical Datum (NAVD) of 1988. A vertical datum shift at the Niagara Falls ARS was developed to convert from NAVD 88 to NGVD 29 using nine vertical control monuments within a five-mile radius from the project location. The average shift from NAVD 88 to NGVD 29 among the nine vertical monuments is +0.54 feet (Appendix A).

Stream Conditions:

The downstream study limit for Cayuga Creek is 1,128 feet upstream of Porter Road. The reach is 6,441 feet long with the upstream limit approximately 820 feet upstream of the confluence with the unnamed Tributary to Cayuga Creek. The channel is well defined throughout the entire reach, but also shows some signs of heavy shoaling and vegetative growth. The overbanks consist mainly of short grass with some scattered brush and weeds. The unnamed Tributary to Cayuga Creek was studied in detail from the confluence with Cayuga Creek to approximately 150 feet downstream of Lockport Rd. The reach is 4,573 feet in length. The lower two-thirds of the channel is well defined and clean, while the upper third has some vegetative growth. There is little to no shoaling in this reach. The overbanks are well maintained and consist mostly of short grass. See Appendix B for project photos.

Hydraulic Analysis:

Known water surface elevations were used for the downstream boundary conditions for Cayuga Creek. The water surface elevations were taken from the 1983 Town of Niagara, NY, Niagara County, Flood Insurance Study (FIS). The furthest most upstream cross section from the FIS (Cross Section "O") coincides with the first cross section of this study. The water surface elevations at Cross Section "O" for the 100- year and 500-year peak discharges are 578.8 and 579.3 feet, respectively. A Normal Depth Slope of 0.003 was used for the downstream boundary conditions for the Tributary to Cayuga Creek. The slope was determined by calculating the slope of the two furthest downstream surveyed sections. The channel and overbank roughness factors (Manning's "n") used in the hydraulic computations were selected using engineering judgment and were based on field observations of the stream and flood

plain areas. The values for Manning's "n" and the contraction and expansion coefficients are shown in Table 1.

TABLE 1: MANNING'S "N" AND CONTRACTION & EXPANSION COEFFICIENTS

Flooding Source	Channel	Overbank	Contraction	Expansion
Cayuga Creek	0.038	0.04-0.06	0.1-0.3	0.3-0.5
Tributary to Cayuga Creek	0.036-0.038	0.04	0.1-0.3	0.3-0.5

All elevations are referenced to the National Geodetic Vertical Datum of 1929. Descriptions of the marks are presented in Table 2.

TABLE 2: ELEVATION REFERENCE MARKS

Reference Mark	Elevation	Description
Airbase Monument #4	595.78	Survey Monument near the left field fence on the northern most baseball diamond adjacent to Ent Ave.
Airbase Monument #5	589.57	Survey Monument approximately 900 feet due south of the intersection of Wagner Dr. and Ent Ave.

Results:

The 100-yr event resulted in little to no flooding within the project limits. The 100-yr flow was contained within the channel banks for most of both reaches with the most significant flooding occurring on the left overbank of Cayuga Creek just upstream of the confluence with the unnamed Tributary to Cayuga Creek. The backwater effect from Cayuga Creek, with a 100-yr elevation of 586.3 feet, on the unnamed tributary increased some of the minor flooding just downstream of the proposed Fire and Crash Rescue Station. The Floodway was also determined for both creeks with a surcharge of no more than one foot. The floodway for both creeks did not extend outside of the channel banks. See Table 3 for the Floodway Data Table.

Flood profiles (Plates 1 and 2) were drawn showing the computed water surface elevations for the 100-year event. The 100-year floodplain boundary (Figure 1) was delineated using the flood elevations determined at each cross section with the exception of the downstream portion of the unnamed Tributary, which encountered backwater effects from Cayuga Creek. The floodplain boundaries were interpolated between cross sections using the one-foot contour data from the Louisville District. The contour elevations were adjusted from NAVD 88 to NGVD 29 for mapping purposes. The remaining floodplain was delineated using contours created from the surveyed cross sections.

A HEC-RAS report summary can be found in Appendix C.

The hydraulic analyses for this study were based on unobstructed flow. The flood elevations shown on the profile are considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FT)	SECTION AREA (FT ²)	MEAN VELOCITY (FT/SEC)	REGULATORY (FEET) ⁴	WITHOUT FLOODWAY (FEET) ⁴	WITH FLOODWAY (FEET) ⁴	INCREASE (FEET) ⁴
Cayuga Creek								
A	1128 ¹	62	667	3.3	578.8	578.8	579.8	1.0
B	1852 ¹	72	528	2.8	579.7	579.7	580.6	0.9
C	2690 ¹	79	429	3.5	580.3	580.3	581.1	0.8
D	3252 ¹	46	259	5.8	581.2	581.2	581.6	0.4
E	4017 ¹	38	243	6.2	582.4	582.4	582.7	0.3
F	4770 ¹	44	288	5.2	584.4	584.4	584.5	0.1
G	5631 ¹	81	481	3.1	585.5	585.5	585.6	0.1
H	6569 ¹	72	444	3.4	586.1	586.1	586.2	0.1
I	7199 ¹	70	476	2.8	586.5	586.5	586.5	0.0
J	7569 ¹	91	530	2.5	587.1	587.1	587.2	0.1
Unnamed Tributary to Cayuga Creek								
A	617 ²	20	47	3.4	586.3 ³	582.0	582.6	0.6
B	1037 ²	25	59	2.7	586.3 ³	584.7	584.7	0.0
C	1515 ²	23	92	1.7	587.3	587.3	587.8	0.5
D	1830 ²	26	104	1.5	590.5	590.5	591.3	0.8
E	2552 ²	52	100	1.6	590.9	590.9	591.6	0.7
F	3127 ²	21	27	4.0	592.4	592.4	592.4	0.0
G	3586 ²	29	48	2.3	593.7	593.7	593.8	0.1
H	3846 ²	39	93	1.2	596.1	596.1	596.1	0.0
I	4237 ²	29	45	0.2	596.2	596.2	596.2	0.0
J	4573 ²	10	6	1.6	596.5	596.5	596.5	0.0

¹ Feet above Porter Road

² Feet above the Confluence with Cayuga Creek

³ Backwater from Cayuga Creek

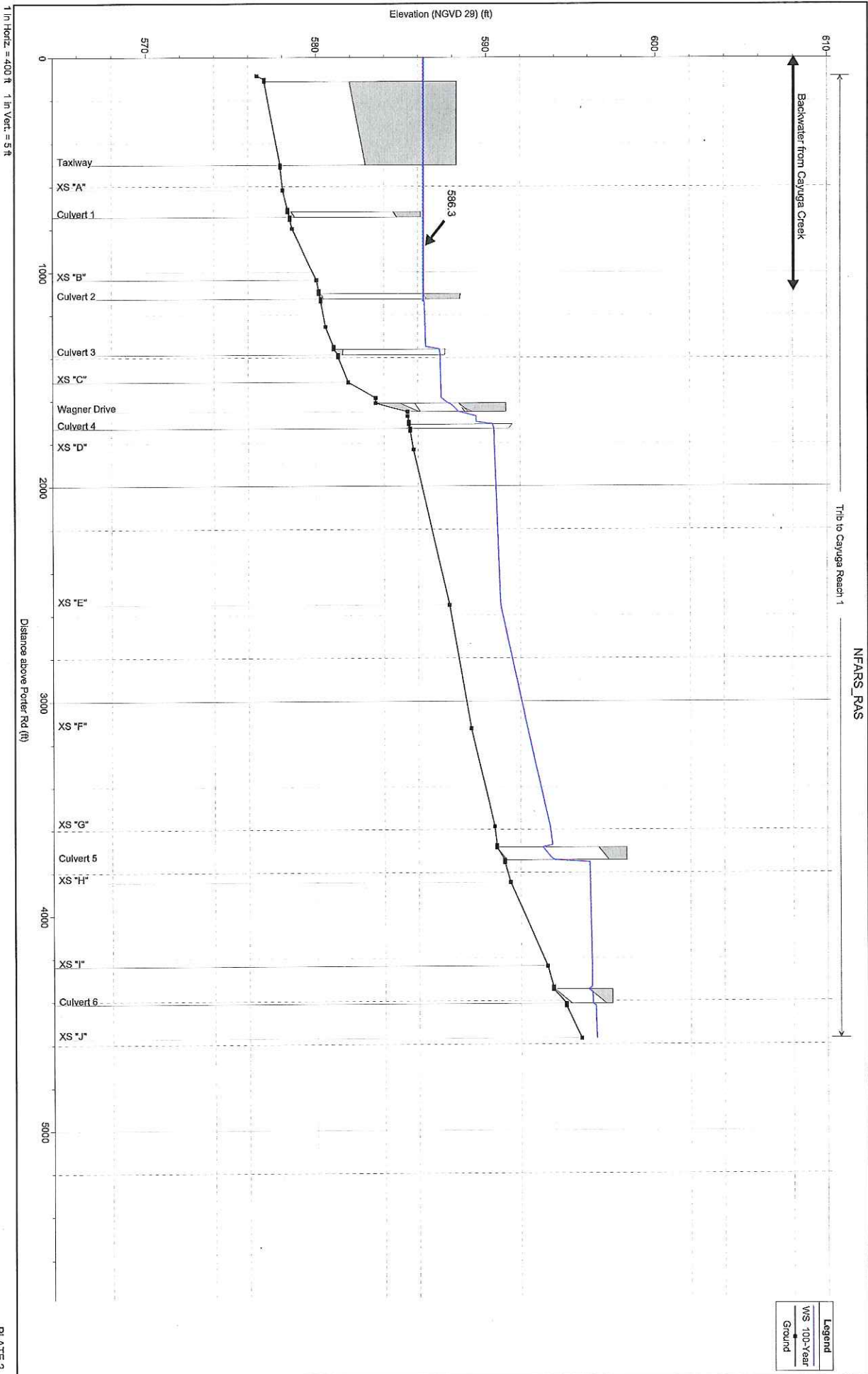
⁴ Feet in NGVD 29

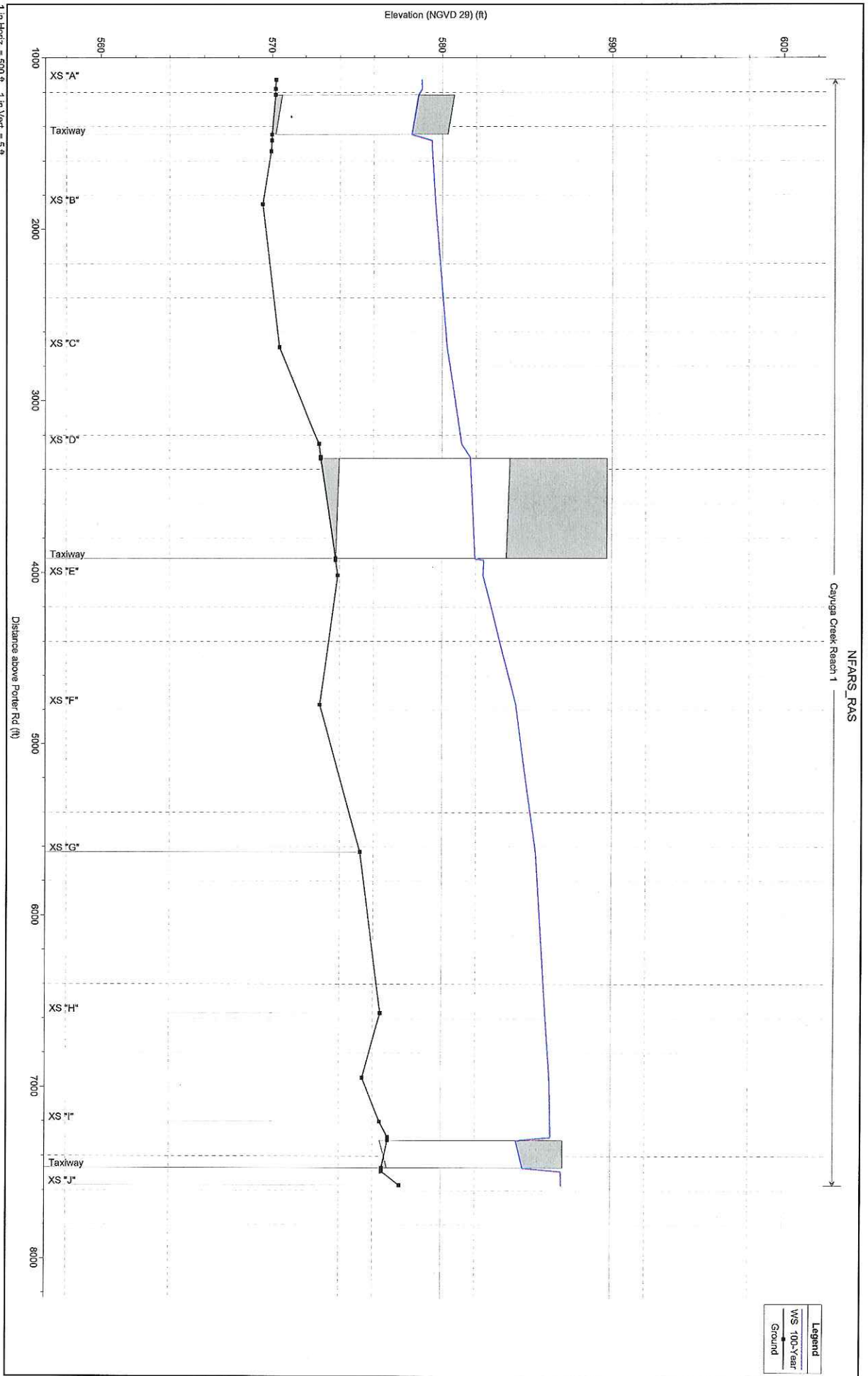
TABLE 3

**NIAGARA FALLS ARS
(NIAGARA FALLS, NY)**

FLOODWAY DATA

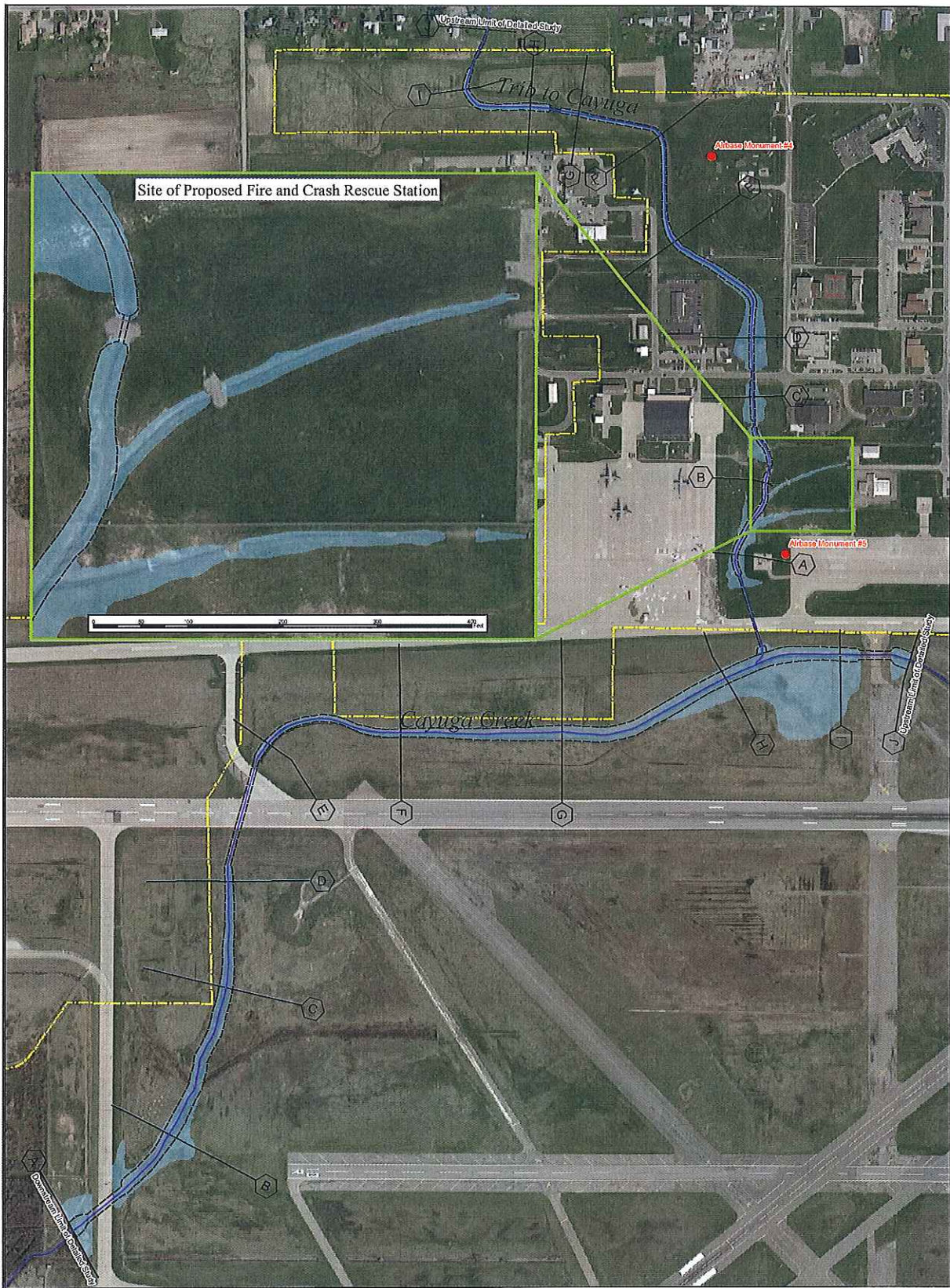
**CAYUGA CREEK AND
UNNAMED TRIBUTARY TO CAYUGA CREEK**





1 in Horiz. = 500 ft 1 in Vert. = 5 ft

Appendix A



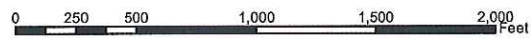
Legend

- Cross Sections
- Airbase Boundary
- Stream Centerline
- Floodway
- 100-yr Floodplain

**Niagara Falls AFRS
100-YR Floodplain and Floodway
Boundary Map**

US Army Corps of Engineers
Buffalo District

Scale



Vicinity Map



Figure 1

Datum Conversion for Niagara Falls Air Force Reserve Base

PID	NAME	STATE	COUNTY	LATITUDE	LONGITUDE	NAVD 88	NGVD29	88 to 29
NC0688	906 3016 HUM	NY	ERIE	42 58 07. (N)	078 55 51. (W)	573.49	574.05	0.56
NC0689	906 3016 TRACT	NY	ERIE	42 58 06. (N)	078 55 50. (W)	572.11	572.67	0.56
NC0676	J 412	NY	ERIE	42 59 41. (N)	078 55 45. (W)	599.67	600.24	0.57
NC0677	M 412	NY	ERIE	42 59 45. (N)	078 57 15. (W)	598.73	599.29	0.56
NC0679	P 412	NY	ERIE	42 58 18. (N)	078 57 29. (W)	583.73	584.29	0.56
OG0364	D 410	NY	NIAGARA	43 04 41. (N)	078 57 37. (W)	578.48	579.04	0.56
OG0196	ECHOTA	NY	NIAGARA	43 04 56. (N)	079 01 03. (W)	572.08	572.60	0.52
OG0369	F 412	NY	NIAGARA	43 01 36. (N)	078 52 47. (W)	583.05	583.61	0.56
OG0370	G 412	NY	NIAGARA	43 01 36. (N)	078 53 11. (W)	576.37	576.93	0.56
OG0126	I20	NY	NIAGARA	43 04 43. (N)	078 57 38. (W)	570.99	571.51	0.52
OG0366	K 410	NY	NIAGARA	43 03 34. (N)	078 54 39. (W)	573.94	574.50	0.56
OG0373	K 412	NY	ERIE	43 00 04. (N)	078 56 26. (W)	623.05	623.62	0.57
OG0361	L 410	NY	NIAGARA	43 04 26. (N)	078 59 08. (W)	569.37	569.92	0.55
OG0205	N 20	NY	NIAGARA	43 09 28. (N)	079 02 32. (W)	568.03	568.55	0.52
OG0155	N 20 USLS	NY	NIAGARA	43 02 12. (N)	078 53 08. (W)	576.84	577.38	0.54
OG0157	N 21 USLS	NY	NIAGARA	43 03 58. (N)	078 55 20. (W)	575.82	576.36	0.54
OG0206	N 24 USLS	NY	NIAGARA	43 04 38. (N)	079 00 10. (W)	574.89	575.43	0.54
OG0263	N 31 USLS	NY	NIAGARA	43 10 25. (N)	079 02 40. (W)	374.42	374.97	0.55
OG0177	N 55	NY	NIAGARA	43 01 20. (N)	078 52 32. (W)	576.21	576.84	0.63
OG0200	NIAGARA FALLS 2	NY	NIAGARA	43 04 57. (N)	079 02 28. (W)	570.98	571.49	0.51
OG0123	NORTH TONAWANDA 2 USDWC	NY	NIAGARA	43 02 12. (N)	078 53 08. (W)	577.89	578.44	0.55
OG0131	PBM RANSOMVILLE	NY	NIAGARA	43 14 19. (N)	078 54 35. (W)	326.36	326.91	0.55
Average =								0.55
Average =								0.54

A 10 mile search radius was used to locate the above monuments. The conversion factor (NAVD 88 to NGVD 29) utilizing all 22 monuments is +0.55 feet. The conversion factor utilizing the 9 monuments which fall within a 5 mile radius is +0.54 feet.

Use +0.54 feet to convert from NAVD 88 to NGVD 29 for the Niagara Falls Air Force Reserve Base.

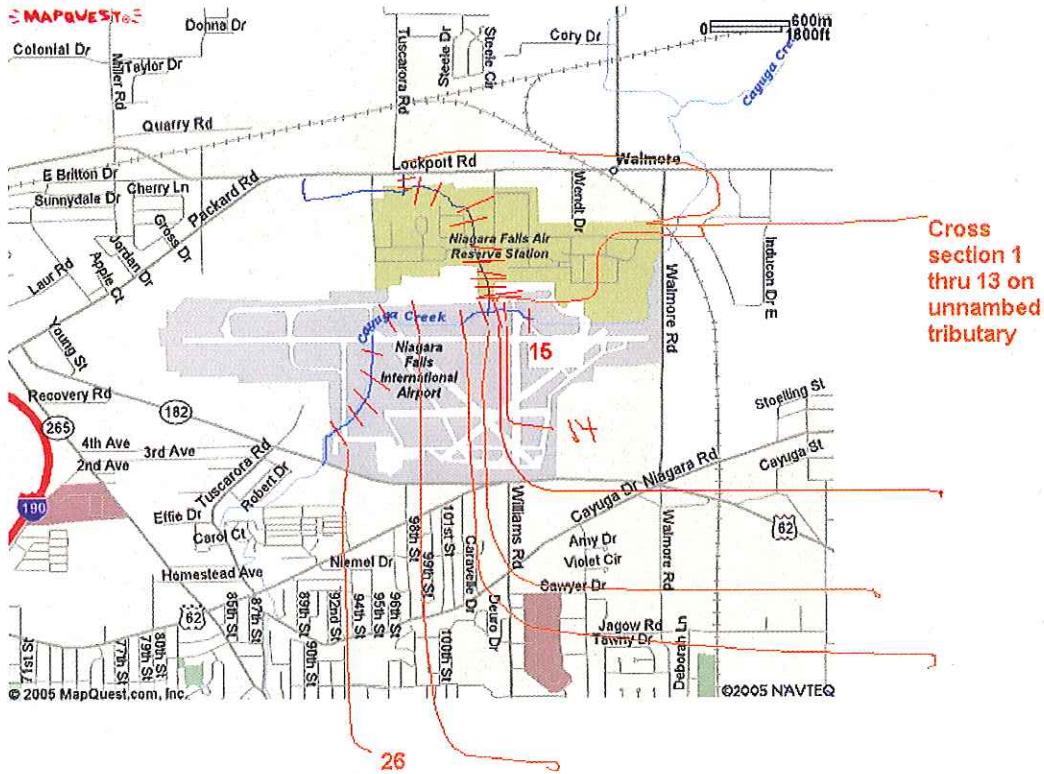
Source: <http://www.ngs.noaa.gov/cgi-bin/datasheet.pr1>

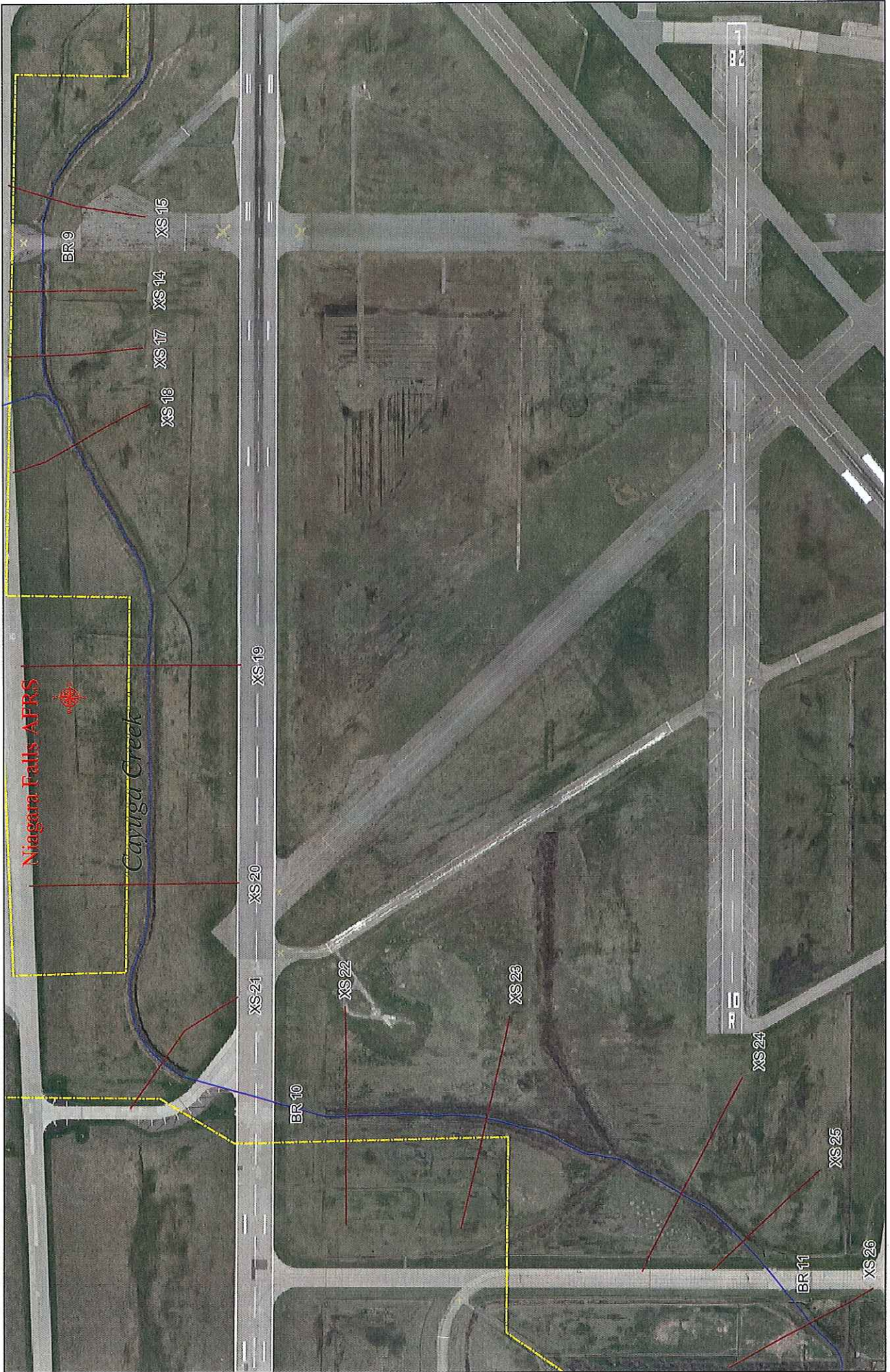
Appendix B

Description of photographs taken during surveys, 30 March thru 26 April 2005. Cross sectional data and bridge data was survey for the floodplain mapping effort for the Niagara Falls Air Reserve Base – Cayuga Creek and one of its unnamed tributaries.

The descriptions of the locations of the photos follows the nomenclature set up and provided by Keith Koralewski.

The approximate location of the cross sections and bridges are shown on the following map.





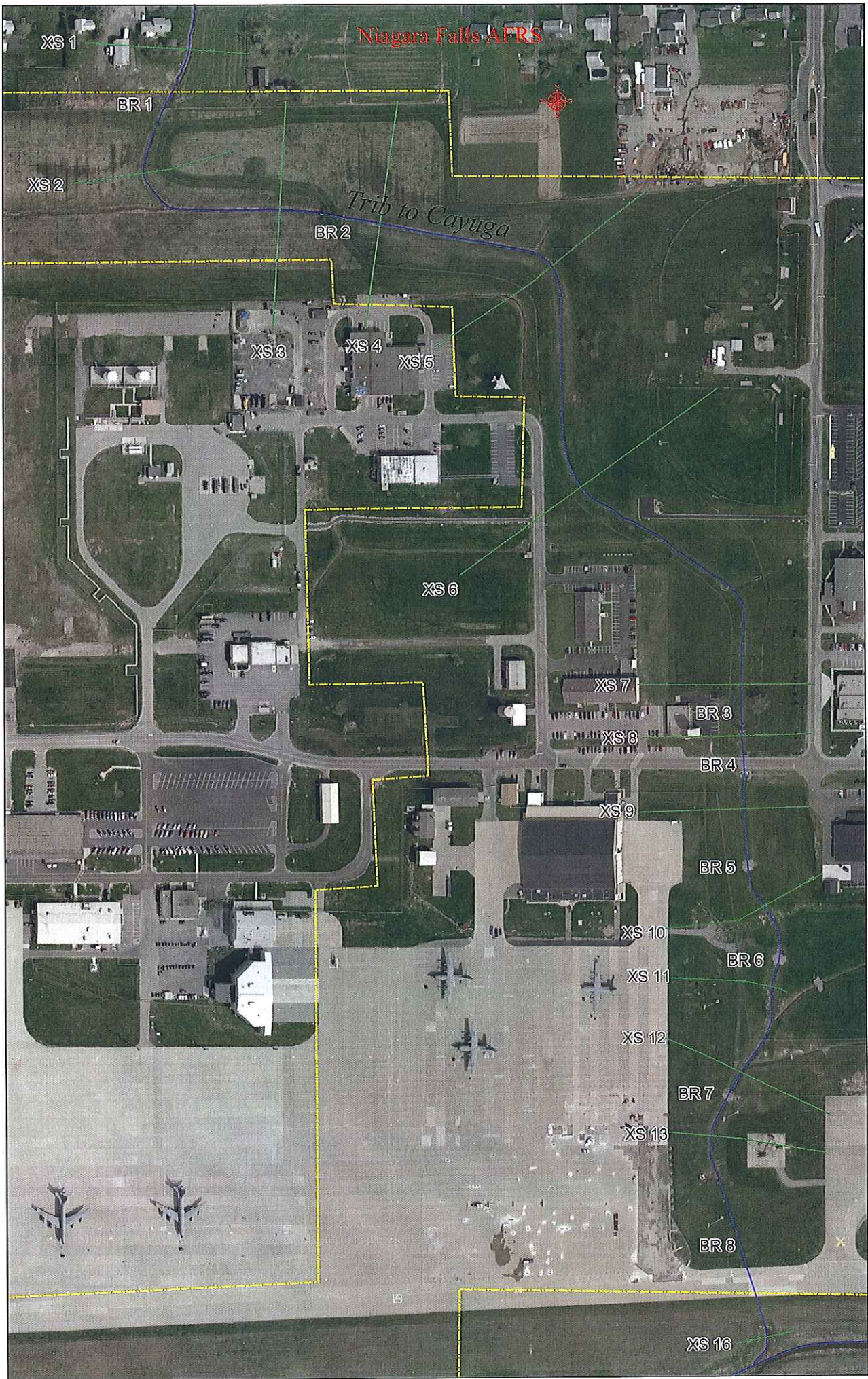


Photo Set #1 (Cross Section #1)



Culvert under Lockport Road (downstream side)



Reach of drainage ditch – looking downstream from Lockport Road

Photo Set #1 (Cross Section #1) – cont.



Photo Set #2 (Bridge #1)



Upstream side of bridge #1

Photo Set #2 (Bridge #1) – cont.



Downstream side of culvert



Culvert extends from fence
Photo Set #3 (cross section #2)

Photo Set #4 (Bridge #2 and cross section #3) – cont.



Location of temporary bench mark, downstream side of culvert



Stream downstream of bridge #2

Photo Set #4 (Bridge #2 and cross section #3) – cont.



Downstream face of bridge #2
Photo Set #5 (Cross section #4)



cross section #4 – looking downstream



View of ditch from bridge #1 – looking downstream



Confluence of smaller ditch with larger ditch flowing west to east

Photo Set #4 (Bridge #2 and cross section #3)



Upstream side of culvert identified as bridge #2



looking upstream from bridge #2 – cross section #3 is located upstream

Photo Set #6 (Cross section #5 & #6)



Looking downstream through cross section #5



Looking downstream through cross section #6

Photo Set #7 (Cross sections #7 & 8, bridges # 3 & #4)



Looking downstream through cross section # 7



Upstream face of bridge #3

Photo Set #7 (Cross sections #7 & 8, bridges # 3 & #4) – cont.



Looking upstream through cross section #7 from bridge #3



Looking downstream from bridge #3 at upstream face of bridge #4 and through cross section #9

Photo Set #7 (Cross sections #7 & 8, bridges # 3 & #4) – cont.



Downstream face of bridge #3



Upstream face of bridge #4

Photo Set #7 (Cross sections #7 & 8, bridges # 3 & #4) – cont.



Closer view of upstream face of bridge #4



Closer view of upstream face of bridge #4

Photo Set #7 (Cross sections #7 & 8, bridges # 3 & #4) – cont.



upstream face of bridge #4

Photo Set #8 (Cross section #9 & #10, bridges # 5 & 6)



Looking downstream from bridge #4 through cross section #9 and upstream face of bridge #5

Photo Set #8 (Cross section #9 & #10, bridges # 5 & 6) – cont.



Channel section between Bridges #4 & #5 – location of cross section #9



Looking upstream from Bridge #5

Photo Set #8 (Cross section #9 & #10, bridges # 5 & 6) – cont.



Looking downstream from bridge #5 – cross section # 10 is located downstream of the bridge



Downstream face of Bridge #5

Photo Set #8 (Cross section #9 & #10, bridges # 5 & 6) – cont.



Upstream face of bridge #6



Looking upstream from Bridge #6

Photo Set #8 (Cross section #9 & #10, bridges # 5 & 6) – cont.



Downstream face of Bridge #6

Photo Set #9 (Cross section #11, #12 & #13, bridges # 7 & 8)



Looking downstream from Bridge #6 – Cross section #11 is location in this reach

Photo Set #9 (Cross section #11, #12 & #13, bridges # 7 & 8) – cont.



Upstream face of bridge #7



Looking upstream from bridge #7 – cross section #12 is location in this reach

Photo Set #9 (Cross section #11, #12 & #13, bridges # 7 & 8)



Downstream face of Bridge # 7



Looking downstream from bridge #7 cross section #13 is located in this reach

Photo Set #9 (Cross section #11, #12 & #13, bridges # 7 & 8)



Upstream face of Bridge #8



Looking Upstream from Bridge #8

Photo Set #9 (Cross section #11, #12 & #13, bridges # 7 & 8)



Downstream face of Bridge #8



Looking upstream thru bridge # 8

Photo Set #10 (Cross section #16)



Looking downstream from bridge #8 – location of cross section #16
Photo Set #11 (Cross section #14, #15 & #17, bridges # 9)



Looking upstream from confluence of unnamed trib. with Cayuga Creek. Cross sections
14 and #17 are located in this reach

Photo Set #11 (Cross section #14, #15 & #17, bridges # 9) – cont.



Upstream face of bridge # 9



Looking upstream from bridge #9 – cross section #15 is located in this reach

Photo Set #11 (Cross section #14, #15 & #17, bridges # 9) – cont.



Downstream face of Bridge # 9



Looking downstream of Bridge #9 – confluence is on right bank – cross section # 17 is in this reach

Photo Set #12 (Cross section #18, #19 & #20)



Looking downstream from confluence – Cross section #18 is located in this reach



Looking downstream from \approx location of cross section #18

Photo Set #12 (Cross section #18, #19 & #20) – cont.



Looking upstream \approx location of cross section #19



Looking downstream from \approx location of cross section #19

Photo Set #13 (Cross section #21, #22 & #23 & bridge #10) – cont.



Looking upstream from \approx location of cross section #20



Looking downstream from \approx location of cross section #20

Photo Set #13 (Cross section #21, #22 & #23 & bridge #10)



Looking upstream from \approx location cross section #21



Looking downstream from \approx location of cross section 21

Photo Set #13 (Cross section #21, #22 & #23 & bridge #10) – cont.



Upstream face of Bridge #10 – right half



Upstream face of bridge #10 – left half

Photo Set #13 (Cross section #21, #22 & #23 & bridge #10) – cont



Looking upstream from bridge #10



Photo Set #13 (Cross section #21, #22 & #23 & bridge #10) – cont



Downstream face of bridge #10



Looking downstream from bridge #10

Photo Set #13 (Cross section #21, #22 & #23 & bridge #10) – cont



Looking upstream from \approx location of cross section #22



Looking downstream from \approx location of cross section #22

Photo Set #13 (Cross section #21, #22 & #23 & bridge #10) – cont



Looking upstream of \approx location of cross section #23



Looking downstream from \approx location of cross section #23

Photo Set #14 (Cross section #24, #25 & #26 & bridge #11)



Looking upstream from \approx location of cross section #24. This section is located upstream of a beaver dam and the creek is wider and deeper than other sections.



Looking downstream from \approx location of cross section #24

Photo Set #13 (Cross section #24, #25 & #26 & bridge #11) – cont.



Looking upstream from \approx location of cross section #25



Looking downstream from \approx location of cross section #25

Photo Set #13 (Cross section #24, #25 & #26 & bridge #11) – cont.



Upstream face of Bridge #11



Closer look at upstream face of bridge #11



Downstream face of bridge #18



Looking upstream from bridge #11

Photo Set #13 (Cross section #24, #25 & #26 & bridge #11) – cont.



Looking downstream from bridge #11



Looking downstream from bridge 311 at security fence

Photo Set #13 (Cross section #24, #25 & #26 & bridge #11) – cont.



Looking upstream from \approx location of cross section #26



Looking downstream from \approx cross section #26

NFARS_RAS_trib_2.rep

HEC-RAS Version 4.1.0 Jan 2010
U. S. Army Corps of Engineers
Hydrologic Engineering Center
609 Second Street
Davis, California

```
X      X  XXXXXX      XXXX      XXXX      XX      XXXX
X      X  X          X      X      X      X      X
X      X  X          X          X      X      X      X
XXXXXXXX XXXX      X          XXX XXXX      XXXXXX      XXXX
X      X  X          X          X      X      X          X
X      X  X          X          X      X      X      X
X      X  XXXXXX      XXXX      X      X      X      X      XXXXX
```

PROJECT DATA

Project Title: NFARS_RAS_trib_2
Project File : NFARS_RAS_trib_2.prj
Run Date and Time: 5/24/2013 3:59:15 PM

Project in English units

PLAN DATA

Plan Title: Current Conditions
Plan File : C:\Users\H5TDHAMJ\Documents\LOMR\Airforce Base - FEMA
Submittal s\CHECKRAS_TRIAL\NFARS_RAS_trib_2.p01

Geometry Title: Current Conditions
Geometry File : C:\Users\H5TDHAMJ\Documents\LOMR\Airforce Base - FEMA
Submittal s\CHECKRAS_TRIAL\NFARS_RAS_trib_2.g01

Flow Title : Current Conditions
Flow File : C:\Users\H5TDHAMJ\Documents\LOMR\Airforce Base - FEMA
Submittal s\CHECKRAS_TRIAL\NFARS_RAS_trib_2.f01

Plan Description:
100-yr and 500-yr Conditions

Plan Summary Information:

Number of:	Cross Sections =	29	Multiple Openings =	0
	Culverts =	8	Inline Structures =	0
	Bridges =	0	Lateral Structures =	0

Computational Information

Water surface calculation tolerance	=	0.01
Critical depth calculation tolerance	=	0.01
Maximum number of iterations	=	20
Maximum difference tolerance	=	0.3
Flow tolerance factor	=	0.001

Computation Options

Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

NFARS_RAS_trib_2.rep

FLOW DATA

Flow Title: Current Conditions
 Flow File : C:\Users\H5TDHAMJ\Documents\LOMR\Airforce Base - FEMA
 Submittals\CHECKRAS_TRIAL\NFARS_RAS_trib_2.f01

Flow Data (cfs)

River	Reach	RS	10-Year	50-Year
100-Year	500-Year			
Trib to Cayuga	Reach 1	4572.864	17	32
39	62			
Trib to Cayuga	Reach 1	3845.845	49	90
112	175			

Boundary Conditions

River	Reach	Profile	Upstream
Downstream			
Trib to Cayuga	Reach 1	10-Year	
Normal S = 0.003			
Trib to Cayuga	Reach 1	50-Year	
Normal S = 0.003			

GEOMETRY DATA

Geometry Title: Current Conditions
 Geometry File : C:\Users\H5TDHAMJ\Documents\LOMR\Airforce Base - FEMA
 Submittals\CHECKRAS_TRIAL\NFARS_RAS_trib_2.g01

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 4572.864

INPUT

Description: Surveyed Section 1

Station Elevation Data num= 13

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	600.39	63	598.52	108	598.54	138	598.97	147	598.43
151	595.97	157	595.58	158	595.68	163	597.56	172	598.09
363	600.39	399.245	600.39	416.175	600.39				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.04	147	.038	163	.04

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	596.94	Element	Left OB	Channel
Right OB Vel Head (ft)	0.04	Wt. n-Val.		0.038
W. S. Elev (ft)	596.90	Reach Len. (ft)	158.31	149.49
144.36 Crit W. S. (ft)		Flow Area (sq ft)		10.70
E. G. Slope (ft/ft)	0.001976	Area (sq ft)		10.70
Q Total (cfs)	17.00	Flow (cfs)		17.00
Top Width (ft)	11.76	Top Width (ft)		11.76
Vel Total (ft/s)	1.59	Avg. Vel. (ft/s)		1.59
Max Chl Dpth (ft)	1.32	Hydr. Depth (ft)		0.91
Conv. Total (cfs)	382.4	Conv. (cfs)		382.4
Length Wtd. (ft)	149.49	Wetted Per. (ft)		12.26
Min Ch El (ft)	595.58	Shear (lb/sq ft)		0.11
Alpha 0.00	1.00	Stream Power (lb/ft s)	416.18	0.00
Frctn Loss (ft)	0.08	Cum Volume (acre-ft)	0.01	2.25
0.01 C & E Loss (ft)	0.01	Cum SA (acres)	0.02	1.80
0.03				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
 This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	597.66	Element	Left OB	Channel
Right OB Vel Head (ft)	0.04	Wt. n-Val.		0.038
0.040 W. S. Elev (ft)	597.62	Reach Len. (ft)	158.31	149.49
144.36 Crit W. S. (ft)		Flow Area (sq ft)		20.31
0.03 E. G. Slope (ft/ft)	0.001133	Area (sq ft)		20.31
0.03 Q Total (cfs)	32.00	Flow (cfs)		32.00
0.00 Top Width (ft)	15.75	Top Width (ft)		14.69
1.06 Vel Total (ft/s)	1.57	Avg. Vel. (ft/s)		1.58
0.12 Max Chl Dpth (ft)	2.04	Hydr. Depth (ft)		1.38
0.03				

NFARS_RAS_trib_2.rep				
Conv. Total (cfs)	950.8	Conv. (cfs)		950.6
0.1				
Length Wtd. (ft)	149.35	Wetted Per. (ft)		15.51
1.07				
Min Ch El (ft)	595.58	Shear (lb/sq ft)		0.09
0.00				
Alpha	1.00	Stream Power (lb/ft s)	416.18	0.00
0.00				
Frctn Loss (ft)	0.06	Cum Volume (acre-ft)	0.03	3.95
0.14				
C & E Loss (ft)	0.01	Cum SA (acres)	0.25	2.41
0.40				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
 This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	597.76	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.038
0.040				
W. S. Elev (ft)	597.71	Reach Len. (ft)	158.31	149.49
144.36				
Crit W. S. (ft)		Flow Area (sq ft)		21.65
0.20				
E. G. Slope (ft/ft)	0.001378	Area (sq ft)		21.65
0.20				
Q Total (cfs)	39.00	Flow (cfs)		38.95
0.05				
Top Width (ft)	17.43	Top Width (ft)		14.83
2.60				
Vel Total (ft/s)	1.79	Avg. Vel. (ft/s)		1.80
0.25				
Max Chl Dpth (ft)	2.13	Hydr. Depth (ft)		1.46
0.08				
Conv. Total (cfs)	1050.5	Conv. (cfs)		1049.2
1.3				
Length Wtd. (ft)	149.24	Wetted Per. (ft)		15.69
2.60				
Min Ch El (ft)	595.58	Shear (lb/sq ft)		0.12
0.01				
Alpha	1.01	Stream Power (lb/ft s)	416.18	0.00
0.00				
Frctn Loss (ft)	0.08	Cum Volume (acre-ft)	0.25	4.87
0.36				
C & E Loss (ft)	0.02	Cum SA (acres)	0.76	2.64
0.82				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
 This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	598.06	Element	Left OB	Channel
		Page 4		

NFARS_RAS_trib_2.rep

Right OB				
Vel Head (ft)	0.09	Wt. n-Val.		0.038
0.040				
W. S. Elev (ft)	597.98	Reach Len. (ft)	158.31	149.49
144.36				
Crit W. S. (ft)		Flow Area (sq ft)		25.61
1.47				
E. G. Slope (ft/ft)	0.002021	Area (sq ft)		25.61
1.47				
Q Total (cfs)	62.00	Flow (cfs)		61.14
0.86				
Top Width (ft)	22.34	Top Width (ft)		15.26
7.07				
Vel Total (ft/s)	2.29	Avg. Vel. (ft/s)		2.39
0.59				
Max Chl Dpth (ft)	2.40	Hydr. Depth (ft)		1.68
0.21				
Conv. Total (cfs)	1379.0	Conv. (cfs)		1359.8
19.2				
Length Wtd. (ft)	149.36	Wetted Per. (ft)		16.19
7.09				
Min Ch El (ft)	595.58	Shear (lb/sq ft)		0.20
0.03				
Alpha	1.07	Stream Power (lb/ft s)	416.18	0.00
0.00				
Frctn Loss (ft)	0.10	Cum Volume (acre-ft)	0.78	7.29
1.45				
C & E Loss (ft)	0.03	Cum SA (acres)	1.59	3.07
2.72				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
 This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 4423.391

INPUT

Description: U/S BR1
 Station Elevation Data num= 12

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	600.39	88	597.62	133	597.64	163	598.07	172	597.53
176	595.07	182	594.68	183	594.78	188	596.66	197	597.19
388	600.39	442.224	600.39						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.04	172	.038	188	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	172	188		91.4	88.92	88.18	.3
							.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	168	597.6	F
193	442.224	597.6	F

CROSS SECTION OUTPUT Profile #10-Year

NFARS_RAS_trib_2.rep

E. G. Elev (ft)	596.84	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.01	Wt. n-Val.		0.038
0.040				
W. S. Elev (ft)	596.83	Reach Len. (ft)	91.40	88.92
88.18				
Crit W. S. (ft)	595.40	Flow Area (sq ft)		21.95
0.26				
E. G. Slope (ft/ft)	0.000250	Area (sq ft)		21.95
0.26				
Q Total (cfs)	17.00	Flow (cfs)		16.97
0.03				
Top Width (ft)	17.82	Top Width (ft)		14.87
2.95				
Vel Total (ft/s)	0.77	Avg. Vel. (ft/s)		0.77
0.12				
Max Chl Dpth (ft)	2.15	Hydr. Depth (ft)		1.48
0.09				
Conv. Total (cfs)	1074.2	Conv. (cfs)		1072.3
1.9				
Length Wtd. (ft)	88.92	Wetted Per. (ft)		15.73
2.96				
Min Ch El (ft)	594.68	Shear (lb/sq ft)		0.02
0.00				
Alpha	1.02	Stream Power (lb/ft s)	442.22	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.01	2.19
0.01				
C & E Loss (ft)		Cum SA (acres)	0.02	1.75
0.03				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	597.58	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.01	Wt. n-Val.	0.040	0.038
0.040				
W. S. Elev (ft)	597.57	Reach Len. (ft)	91.40	88.92
88.18				
Crit W. S. (ft)	595.66	Flow Area (sq ft)	0.02	33.38
3.83				
E. G. Slope (ft/ft)	0.000219	Area (sq ft)	0.02	33.38
10.20				
Q Total (cfs)	32.00	Flow (cfs)	0.00	30.24
1.76				
Top Width (ft)	48.55	Top Width (ft)	0.71	16.00
31.84				
Vel Total (ft/s)	0.86	Avg. Vel. (ft/s)	0.04	0.91
0.46				
Max Chl Dpth (ft)	2.89	Hydr. Depth (ft)	0.02	2.09
0.77				
Conv. Total (cfs)	2161.5	Conv. (cfs)	0.0	2042.6
118.8				
Length Wtd. (ft)	88.92	Wetted Per. (ft)	0.71	17.06
5.01				
Min Ch El (ft)	594.68	Shear (lb/sq ft)	0.00	0.03
		Page 6		

NFARS_RAS_trib_2.rep

0.01				
Alpha	1.07	Stream Power (lb/ft s)	442.22	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.03	3.86
0.12				
C & E Loss (ft)		Cum SA (acres)	0.24	2.35
0.35				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	597.67	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.01	Wt. n-Val.	0.040	0.038
0.040				
W. S. Elev (ft)	597.66	Reach Len. (ft)	91.40	88.92
88.18				
Crit W. S. (ft)	595.76	Flow Area (sq ft)	1.33	34.72
13.06				
E. G. Slope (ft/ft)	0.000258	Area (sq ft)	1.33	34.72
13.06				
Q Total (cfs)	39.00	Flow (cfs)	0.07	35.02
3.90				
Top Width (ft)	102.17	Top Width (ft)	49.36	16.00
36.81				
Vel Total (ft/s)	0.79	Avg. Vel. (ft/s)	0.06	1.01
0.30				
Max Chl Dpth (ft)	2.98	Hydr. Depth (ft)	0.03	2.17
0.35				
Conv. Total (cfs)	2428.0	Conv. (cfs)	4.6	2180.3
243.0				
Length Wtd. (ft)	88.92	Wetted Per. (ft)	49.36	17.06
36.83				
Min Ch El (ft)	594.68	Shear (lb/sq ft)	0.00	0.03
0.01				
Alpha	1.46	Stream Power (lb/ft s)	442.22	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.25	4.78
0.33				
C & E Loss (ft)		Cum SA (acres)	0.67	2.58
0.76				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	597.93	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.040	0.038
0.040				
W. S. Elev (ft)	597.91	Reach Len. (ft)	91.40	88.92
88.18				
Crit W. S. (ft)	596.04	Flow Area (sq ft)	17.76	38.80
24.39				

NFARS_RAS_trib_2.rep

E. G. Slope (ft/ft)	0.000330	Area (sq ft)	17.76	38.80
24.39				
Q Total (cfs)	62.00	Flow (cfs)	4.42	47.66
9.93				
Top Width (ft)	147.53	Top Width (ft)	79.49	16.00
52.03				
Vel Total (ft/s)	0.77	Avg. Vel. (ft/s)	0.25	1.23
0.41				
Max Chl Dpth (ft)	3.23	Hydr. Depth (ft)	0.22	2.42
0.47				
Conv. Total (cfs)	3413.3	Conv. (cfs)	243.1	2623.8
546.4				
Length Wtd. (ft)	88.92	Wetted Per. (ft)	79.51	17.06
52.05				
Min Ch El (ft)	594.68	Shear (lb/sq ft)	0.00	0.05
0.01				
Alpha	2.03	Stream Power (lb/ft s)	442.22	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.75	7.17
1.41				
C & E Loss (ft)		Cum SA (acres)	1.45	3.02
2.63				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CULVERT

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 4410

INPUT

Description: Culvert 6
 Distance from Upstream XS = 11
 Deck/Roadway Width = 66
 Weir Coefficient = 2.6
 Upstream Deck/Roadway Coordinates

num=	4													
Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
150	597.83		580		180	597.4		580		210	597.73		580	
300	597.73		580											

Upstream Bridge Cross Section Data

Station	Elevation	Data	num=	12							
Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev
0	600.39	88	597.62	133	597.64	163	598.07	172	597.53		
176	595.07	182	594.68	183	594.78	188	596.66	197	597.19		
388	600.39	442.224	600.39								

Manning's n Values

num=	3				
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	172	.038	188	.04

Bank Sta: Left 172 Right 188 Coeff Contr. .3 Expan. .5

Ineffective Flow	num=	2	
Sta L	Sta R	El ev	Permanent
0	168	597.6	F
193	442.224	597.6	F

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Downstream Deck/Roadway Coordinates

num= 4														
Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
175	597.83		580		205	597.4		580		235	597.73		580	
300	597.73		580											

Downstream Bridge Cross Section Data

Station Elevation Data num= 13									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	600.39	31	599.44	167	598.35	187	597.27	193.26	595.98
203	593.98	207	593.92	210	594.24	217.9	596.52	221	597.3
287	598.21	421	600.39	448.163	600.39				

Manning's n Values

num= 3					
Sta	n	Sta	n	Sta	n
0	.04	193.26	.038	217.9	.04

Bank Sta: Left Right Coeff Contr. Expan.
 193.26 217.9 .3 .5

Ineffective Flow num= 2			
Sta L	Sta R	Elev	Permanent
0	193	597.6	F
218	448.163	597.6	F

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
 Downstream Embankment side slope = 0 horiz. to 1.0 vertical
 Maximum allowable submergence for weir flow = .95
 Elevation at which weir flow begins =
 Energy head used in spillway design =
 Spillway height used in design =
 Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name	Shape	Rise	Span				
Culvert #1	Circular	2					
FHWA Chart # 2 - Corrugated Metal Pipe Culvert							
FHWA Scale # 3 - Pipe projecting from fill							
Solution Criteria = Highest U.S. EG							
Culvert	Upstrm Dist	Length	Top n	Bottom n	Depth Blocked	Entrance Loss Coef	Exit Loss Coef
1	11	66	.021	.021	0		.9

Number of Barrels = 2
 Upstream Elevation = 595.02

Centerline Stations

Sta.	Sta.
179	182

Downstream Elevation = 594.01

Centerline Stations

Sta.	Sta.
204	207

CULVERT OUTPUT Profile #10-Year Culv Group: Culvert #1

Q Culv Group (cfs)	17.00	Culv Full Len (ft)	
# Barrels	2	Culv Vel US (ft/s)	5.15
Q Barrel (cfs)	8.50	Culv Vel DS (ft/s)	5.51
E.G. US. (ft)	596.84	Culv Inv El Up (ft)	595.02
W.S. US. (ft)	596.83	Culv Inv El Dn (ft)	594.01
E.G. DS (ft)	594.99	Culv Frctn Ls (ft)	1.00
W.S. DS (ft)	594.94	Culv Exit Loss (ft)	0.48
Delta EG (ft)	1.85	Culv Entr Loss (ft)	0.37

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Delta WS (ft)	1.89	Q Weir (cfs)	
E. G. IC (ft)	596.64	Weir Sta Lft (ft)	
E. G. OC (ft)	596.84	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	596.06	Weir Max Depth (ft)	
Culv WS Outlet (ft)	595.00	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	0.99	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.04	Min El Weir Flow (ft)	597.41

Note: During supercritical analysis, the culvert direct step method went to normal depth. The program then assumed normal depth at the outlet.

Note: The flow in the culvert is entirely supercritical.

CULVERT OUTPUT Profile #50-Year Culv Group: Culvert #1

Q Culv Group (cfs)	29.84	Culv Full Len (ft)	
# Barrels	2	Culv Vel US (ft/s)	6.20
Q Barrel (cfs)	14.92	Culv Vel DS (ft/s)	5.05
E. G. US. (ft)	597.59	Culv Inv El Up (ft)	595.02
W. S. US. (ft)	597.57	Culv Inv El Dn (ft)	594.01
E. G. DS (ft)	595.82	Culv Frctn Ls (ft)	0.86
W. S. DS (ft)	595.79	Culv Exit Loss (ft)	0.37
Delta EG (ft)	1.77	Culv Entr Loss (ft)	0.54
Delta WS (ft)	1.78	Q Weir (cfs)	2.16
E. G. IC (ft)	597.53	Weir Sta Lft (ft)	171.14
E. G. OC (ft)	597.59	Weir Sta Rgt (ft)	193.00
Culvert Control	Outlet	Weir Submerg	0.00
Culv WS Inlet (ft)	596.45	Weir Max Depth (ft)	0.18
Culv WS Outlet (ft)	595.79	Weir Avg Depth (ft)	0.11
Culv Nml Depth (ft)	1.43	Weir Flow Area (sq ft)	2.45
Culv Crt Depth (ft)	1.39	Min El Weir Flow (ft)	597.41

Note: During subcritical analysis, the culvert direct step method, the solution went to normal depth.

CULVERT OUTPUT Profile #100-Year Culv Group: Culvert #1

Q Culv Group (cfs)	29.36	Culv Full Len (ft)	66.00
# Barrels	2	Culv Vel US (ft/s)	4.67
Q Barrel (cfs)	14.68	Culv Vel DS (ft/s)	4.67
E. G. US. (ft)	597.67	Culv Inv El Up (ft)	595.02
W. S. US. (ft)	597.66	Culv Inv El Dn (ft)	594.01
E. G. DS (ft)	596.32	Culv Frctn Ls (ft)	0.73
W. S. DS (ft)	596.30	Culv Exit Loss (ft)	0.32
Delta EG (ft)	1.35	Culv Entr Loss (ft)	0.31
Delta WS (ft)	1.35	Q Weir (cfs)	9.64
E. G. IC (ft)	597.67	Weir Sta Lft (ft)	85.28
E. G. OC (ft)	597.67	Weir Sta Rgt (ft)	207.77
Culvert Control	Outlet	Weir Submerg	0.00
Culv WS Inlet (ft)	597.02	Weir Max Depth (ft)	0.31
Culv WS Outlet (ft)	596.01	Weir Avg Depth (ft)	0.11
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	10.15
Culv Crt Depth (ft)	1.38	Min El Weir Flow (ft)	597.41

CULVERT OUTPUT Profile #500-Year Culv Group: Culvert #1

Q Culv Group (cfs)	11.05	Culv Full Len (ft)	66.00
# Barrels	2	Culv Vel US (ft/s)	1.76
Q Barrel (cfs)	5.52	Culv Vel DS (ft/s)	1.76

NFARS_RAS_trib_2.rep

E. G. US. (ft)	597.93	Culv Inv El Up (ft)	595.02
W. S. US. (ft)	597.91	Culv Inv El Dn (ft)	594.01
E. G. DS (ft)	597.75	Culv Frctn Ls (ft)	0.10
W. S. DS (ft)	597.74	Culv Exit Loss (ft)	0.04
Delta EG (ft)	0.18	Culv Entr Loss (ft)	0.04
Delta WS (ft)	0.18	Q Weir (cfs)	50.95
E. G. IC (ft)	597.86	Weir Sta Lft (ft)	78.58
E. G. OC (ft)	597.93	Weir Sta Rgt (ft)	240.37
Culvert Control	Outlet	Weir Submerg	0.37
Culv WS Inlet (ft)	597.02	Weir Max Depth (ft)	0.52
Culv WS Outlet (ft)	596.01	Weir Avg Depth (ft)	0.25
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	37.06
Culv Crt Depth (ft)	0.83	Min El Weir Flow (ft)	597.41

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1

RS: 4334.465

INPUT

Description: D/S BR1

Station Elevation Data num= 13

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	600.39	31	599.44	167	598.35	187	597.27	193.26	595.98
203	593.98	207	593.92	210	594.24	217.9	596.52	221	597.3
287	598.21	421	600.39	448.163	600.39				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.04	193.26	.038	217.9	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
193.26	217.9	77.26	97.24	116.66	.3	.5	

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	193	597.6	F
218	448.163	597.6	F

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	594.99	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.038
W. S. Elev (ft)	594.94	Reach Len. (ft)	77.26	97.24
116.66				
Crit W. S. (ft)	594.54	Flow Area (sq ft)		9.64
E. G. Slope (ft/ft)	0.003447	Area (sq ft)		9.64
Q Total (cfs)	17.00	Flow (cfs)		17.00
Top Width (ft)	14.10	Top Width (ft)		14.10
Vel Total (ft/s)	1.76	Avg. Vel. (ft/s)		1.76
Max Chl Dpth (ft)	1.02	Hydr. Depth (ft)		0.68
Conv. Total (cfs)	289.6	Conv. (cfs)		289.6

NFARS_RAS_trib_2.rep				
Length Wtd. (ft)	97.24	Wetted Per. (ft)		14.32
Min Ch El (ft)	593.92	Shear (lb/sq ft)		0.14
Alpha 0.00	1.00	Stream Power (lb/ft s)	448.16	0.00
Frctn Loss (ft) 0.01	0.28	Cum Volume (acre-ft)	0.01	2.19
C & E Loss (ft) 0.02	0.01	Cum SA (acres)	0.02	1.72

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	595.82	Element	Left OB	Channel
Right OB Vel Head (ft)	0.03	Wt. n-Val.		0.038
W. S. Elev (ft)	595.79	Reach Len. (ft)	77.26	97.24
116.66 Crit W. S. (ft)	594.78	Flow Area (sq ft)		24.61
E. G. Slope (ft/ft)	0.000929	Area (sq ft)		24.61
Q Total (cfs)	32.00	Flow (cfs)		32.00
Top Width (ft)	21.18	Top Width (ft)		21.18
Vel Total (ft/s)	1.30	Avg. Vel. (ft/s)		1.30
Max Chl Dpth (ft)	1.87	Hydr. Depth (ft)		1.16
Conv. Total (cfs)	1050.1	Conv. (cfs)		1050.1
Length Wtd. (ft)	97.24	Wetted Per. (ft)		21.60
Min Ch El (ft)	593.92	Shear (lb/sq ft)		0.07
Alpha 0.00	1.00	Stream Power (lb/ft s)	448.16	0.00
Frctn Loss (ft) 0.12	0.06	Cum Volume (acre-ft)	0.03	3.84
C & E Loss (ft) 0.31	0.01	Cum SA (acres)	0.24	2.32

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	596.32	Element	Left OB	Channel
Right OB				

NFARS_RAS_trib_2.rep				
Vel Head (ft)	0.02	Wt. n-Val.	0.040	0.038
W. S. Elev (ft)	596.30	Reach Len. (ft)	77.26	97.24
116.66 Crit W. S. (ft)	594.87	Flow Area (sq ft)	0.08	36.30
E. G. Slope (ft/ft)	0.000444	Area (sq ft)	0.25	36.30
Q Total (cfs)	39.00	Flow (cfs)	0.03	38.97
Top Width (ft)	25.44	Top Width (ft)	1.56	23.88
Vel Total (ft/s)	1.07	Avg. Vel. (ft/s)	0.34	1.07
Max Chl Dpth (ft)	2.38	Hydr. Depth (ft)	0.29	1.52
Conv. Total (cfs)	1851.1	Conv. (cfs)	1.2	1849.8
Length Wtd. (ft)	97.23	Wetted Per. (ft)	0.27	24.39
Min Ch El (ft)	593.92	Shear (lb/sq ft)	0.01	0.04
Alpha	1.00	Stream Power (lb/ft s)	448.16	0.00
0.00 Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	0.25	4.74
0.33 C & E Loss (ft)	0.00	Cum SA (acres)	0.61	2.54
0.72				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

	E. G. Elev (ft)	Element	Left OB	Channel
Right OB	597.75			
Vel Head (ft)	0.01	Wt. n-Val.	0.040	0.038
0.040				
W. S. Elev (ft)	597.74	Reach Len. (ft)	77.26	97.24
116.66 Crit W. S. (ft)	595.12	Flow Area (sq ft)	8.96	71.56
9.44				
E. G. Slope (ft/ft)	0.000107	Area (sq ft)	8.96	71.56
9.44				
Q Total (cfs)	62.00	Flow (cfs)	2.44	58.04
1.52				
Top Width (ft)	74.23	Top Width (ft)	14.88	24.64
34.70				
Vel Total (ft/s)	0.69	Avg. Vel. (ft/s)	0.27	0.81
0.16				
Max Chl Dpth (ft)	3.82	Hydr. Depth (ft)	0.60	2.90
0.27				
Conv. Total (cfs)	5996.8	Conv. (cfs)	235.8	5613.9
147.1				
Length Wtd. (ft)	97.82	Wetted Per. (ft)	15.03	25.18
34.80				
Min Ch El (ft)	593.92	Shear (lb/sq ft)	0.00	0.02
0.00				
Alpha	1.30	Stream Power (lb/ft s)	448.16	0.00
0.00				

	NFARS_RAS_trib_2.rep			
Frctn Loss (ft)	0.01	Cum Volume (acre-ft)	0.75	7.08
1.41				
C & E Loss (ft)	0.00	Cum SA (acres)	1.35	2.98
2.54				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 4237.225

INPUT

Description: Surveyed Section 2

Station Elevation Data	num=	11							
Sta Elev	Sta Elev	Sta Elev	Sta Elev	Sta Elev	Sta Elev	Sta Elev	Sta Elev	Sta Elev	Sta Elev
0 600.39	12 600.39	56 598.86	192 597.77	212 596.69					
228 593.63	232 593.57	235 593.89	246 596.72	312 597.63					
412.894 600.39									

Manning's n Values	num=	3
Sta n Val	Sta n Val	Sta n Val
0 .04	212 .038	246 .04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
212	246	322.8	391.36	453.6	.1	.3

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	594.70	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.04	Wt. n-Val.		0.038
W. S. Elev (ft)	594.66	Reach Len. (ft)	322.80	391.36
453.60				
Crit W. S. (ft)		Flow Area (sq ft)		10.99
E. G. Slope (ft/ft)	0.002501	Area (sq ft)		10.99
Q Total (cfs)	17.00	Flow (cfs)		17.00
Top Width (ft)	15.40	Top Width (ft)		15.40
Vel Total (ft/s)	1.55	Avg. Vel. (ft/s)		1.55
Max Chl Dpth (ft)	1.09	Hydr. Depth (ft)		0.71
Conv. Total (cfs)	340.0	Conv. (cfs)		340.0
Length Wtd. (ft)	391.36	Wetted Per. (ft)		15.61
Min Ch El (ft)	593.57	Shear (lb/sq ft)		0.11
Al pha	1.00	Stream Power (lb/ft s)	412.89	0.00
0.00				

NFARS_RAS_trib_2.rep				
Frctn Loss (ft) 0.01	0.33	Cum Volume (acre-ft)	0.01	2.16
C & E Loss (ft) 0.02	0.00	Cum SA (acres)	0.02	1.69

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft) Right OB	595.75	Element	Left OB	Channel
Vel Head (ft)	0.01	Wt. n-Val.		0.038
W. S. Elev (ft) 453.60	595.73	Reach Len. (ft)	322.80	391.36
Crit W. S. (ft)		Flow Area (sq ft)		32.73
E. G. Slope (ft/ft)	0.000451	Area (sq ft)		32.73
Q Total (cfs)	32.00	Flow (cfs)		32.00
Top Width (ft)	25.17	Top Width (ft)		25.17
Vel Total (ft/s)	0.98	Avg. Vel. (ft/s)		0.98
Max Chl Dpth (ft)	2.16	Hydr. Depth (ft)		1.30
Conv. Total (cfs)	1507.0	Conv. (cfs)		1507.0
Length Wtd. (ft)	391.36	Wetted Per. (ft)		25.62
Min Ch El (ft)	593.57	Shear (lb/sq ft)		0.04
Alpha 0.00	1.00	Stream Power (lb/ft s)	412.89	0.00
Frctn Loss (ft) 0.12	0.15	Cum Volume (acre-ft)	0.03	3.78
C & E Loss (ft) 0.31	0.00	Cum SA (acres)	0.24	2.26

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft) Right OB	596.28	Element	Left OB	Channel
Vel Head (ft)	0.01	Wt. n-Val.		0.038
W. S. Elev (ft) 453.60	596.27	Reach Len. (ft)	322.80	391.36
Crit W. S. (ft)		Flow Area (sq ft)		47.64
E. G. Slope (ft/ft)	0.000244	Area (sq ft)		47.64

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Q Total (cfs)	39.00	Flow (cfs)		39.00
Top Width (ft)	30.09	Top Width (ft)		30.09
Vel Total (ft/s)	0.82	Avg. Vel. (ft/s)		0.82
Max Chl Dpth (ft)	2.70	Hydr. Depth (ft)		1.58
Conv. Total (cfs)	2499.1	Conv. (cfs)		2499.1
Length Wtd. (ft)	391.36	Wetted Per. (ft)		30.66
Min Ch El (ft)	593.57	Shear (lb/sq ft)		0.02
Alpha	1.00	Stream Power (lb/ft s)	412.89	0.00
0.00				
Frctn Loss (ft)	0.11	Cum Volume (acre-ft)	0.25	4.65
0.33				
C & E Loss (ft)	0.00	Cum SA (acres)	0.61	2.48
0.72				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	597.74	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.00	Wt. n-Val.	0.040	0.038
0.040				
W. S. Elev (ft)	597.73	Reach Len. (ft)	322.80	391.36
453.60				
Crit W. S. (ft)		Flow Area (sq ft)	10.04	96.36
36.91				
E. G. Slope (ft/ft)	0.000052	Area (sq ft)	10.04	96.36
36.91				
Q Total (cfs)	62.00	Flow (cfs)	1.74	53.78
6.48				
Top Width (ft)	122.99	Top Width (ft)	19.28	34.00
69.70				
Vel Total (ft/s)	0.43	Avg. Vel. (ft/s)	0.17	0.56
0.18				
Max Chl Dpth (ft)	4.16	Hydr. Depth (ft)	0.52	2.83
0.53				
Conv. Total (cfs)	8587.5	Conv. (cfs)	241.2	7449.1
897.2				
Length Wtd. (ft)	392.56	Wetted Per. (ft)	19.31	34.67
69.71				
Min Ch El (ft)	593.57	Shear (lb/sq ft)	0.00	0.01
0.00				
Alpha	1.47	Stream Power (lb/ft s)	412.89	0.00
0.00				
Frctn Loss (ft)	0.04	Cum Volume (acre-ft)	0.73	6.90
1.35				
C & E Loss (ft)	0.00	Cum SA (acres)	1.32	2.91
2.40				

NFARS_RAS_trib_2.rep

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 3845.845

INPUT

Description: Surveyed Section 3

Station		Elevation Data		num=		15					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	600.39	32	599.43	132	599.96	232	599.71	242	599.01		
267	593.3	271	592.02	274	591.8	279	591.4	279	591.75		
280	592.76	305	598.7	386	599.23	475	599.1	578.74	600.39		

Manning's n Values		num=		3	
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	242	.037	305	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	242	305		94.88	93.28	91.7	.3
							.5

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	594.37	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.		0.037
W. S. Elev (ft)	594.34	Reach Len. (ft)	94.88	93.28
91.70				
Crit W. S. (ft)		Flow Area (sq ft)		37.51
E. G. Slope (ft/ft)	0.000634	Area (sq ft)		37.51
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	24.23	Top Width (ft)		24.23
Vel Total (ft/s)	1.31	Avg. Vel. (ft/s)		1.31
Max Chl Dpth (ft)	2.94	Hydr. Depth (ft)		1.55
Conv. Total (cfs)	1946.3	Conv. (cfs)		1946.3
Length Wtd. (ft)	93.25	Wetted Per. (ft)		25.53
Min Ch El (ft)	591.40	Shear (lb/sq ft)		0.06
Alpha	1.00	Stream Power (lb/ft s)	578.74	0.00
0.00				
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	0.01	1.94
0.01				
C & E Loss (ft)	0.00	Cum SA (acres)	0.02	1.51
0.02				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance)

is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	595.60	Element	Left OB	Channel
Right OB Vel Head (ft)	0.02	Wt. n-Val.		0.037
W. S. Elev (ft)	595.58	Reach Len. (ft)	94.88	93.28
91.70 Crit W. S. (ft)		Flow Area (sq ft)		73.92
E. G. Slope (ft/ft)	0.000358	Area (sq ft)		73.92
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	34.82	Top Width (ft)		34.82
Vel Total (ft/s)	1.22	Avg. Vel. (ft/s)		1.22
Max Chl Dpth (ft)	4.18	Hydr. Depth (ft)		2.12
Conv. Total (cfs)	4759.9	Conv. (cfs)		4759.9
Length Wtd. (ft)	93.23	Wetted Per. (ft)		36.41
Min Ch El (ft)	591.40	Shear (lb/sq ft)		0.05
Alpha 0.00	1.00	Stream Power (lb/ft s)	578.74	0.00
Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	0.03	3.30
0.12 C & E Loss (ft)	0.00	Cum SA (acres)	0.24	1.99
0.31				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	596.18	Element	Left OB	Channel
Right OB Vel Head (ft)	0.02	Wt. n-Val.		0.037
W. S. Elev (ft)	596.16	Reach Len. (ft)	94.88	93.28
91.70 Crit W. S. (ft)		Flow Area (sq ft)		95.52
E. G. Slope (ft/ft)	0.000281	Area (sq ft)		95.52
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	39.80	Top Width (ft)		39.80
Vel Total (ft/s)	1.17	Avg. Vel. (ft/s)		1.17
Max Chl Dpth (ft)	4.76	Hydr. Depth (ft)		2.40

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Conv. Total (cfs)	6686.3	Conv. (cfs)		6686.3
Length Wtd. (ft)	93.22	Wetted Per. (ft)		41.51
Min Ch El (ft)	591.40	Shear (lb/sq ft)		0.04
Alpha 0.00	1.00	Stream Power (lb/ft s)	578.74	0.00
Frctn Loss (ft) 0.33	0.02	Cum Volume (acre-ft)	0.25	4.00
C & E Loss (ft) 0.72	0.00	Cum SA (acres)	0.61	2.17

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	597.69	Element	Left OB	Channel
Right OB Vel Head (ft)	0.02	Wt. n-Val.		0.037
W. S. Elev (ft) 91.70	597.67	Reach Len. (ft)	94.88	93.28
Crit W. S. (ft)		Flow Area (sq ft)		165.81
E. G. Slope (ft/ft)	0.000158	Area (sq ft)		165.81
Q Total (cfs)	175.00	Flow (cfs)		175.00
Top Width (ft)	52.83	Top Width (ft)		52.83
Vel Total (ft/s)	1.06	Avg. Vel. (ft/s)		1.06
Max Chl Dpth (ft)	6.27	Hydr. Depth (ft)		3.14
Conv. Total (cfs)	13914.1	Conv. (cfs)		13914.1
Length Wtd. (ft)	93.21	Wetted Per. (ft)		54.89
Min Ch El (ft)	591.40	Shear (lb/sq ft)		0.03
Alpha 0.00	1.00	Stream Power (lb/ft s)	578.74	0.00
Frctn Loss (ft) 1.16	0.01	Cum Volume (acre-ft)	0.70	5.72
C & E Loss (ft) 2.04	0.00	Cum SA (acres)	1.25	2.52

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 3752.562

INPUT

Description: U/S BR2

Station	Elevation	Data	num=	15	Sta	Elev	Sta	Elev	Sta	Elev
0	600.39		37	599.1	137	599.63	237	599.38	247	598.68

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272	592.97	276	591.07	279	591.07	284	591.07	284	591.42
285	592.43	310	598.37	391	598.9	480	598.77	579.364	600.39

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.04	272	.037	285	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	272	285		81.5	80.02		.3	.5
Ineffective Flow	num=		2					
Sta L	Sta R	Elev	Permanent					
0	267	598	F					
293	579.364	598	F					

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	594.33	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.040	0.037
0.040				
W. S. Elev (ft)	594.31	Reach Len. (ft)	81.50	80.02
78.58				
Crit W. S. (ft)	592.08	Flow Area (sq ft)	3.87	37.52
7.47				
E. G. Slope (ft/ft)	0.000226	Area (sq ft)	3.96	37.52
7.47				
Q Total (cfs)	49.00	Flow (cfs)	1.79	43.28
3.94				
Top Width (ft)	26.82	Top Width (ft)	5.89	13.00
7.93				
Vel Total (ft/s)	1.00	Avg. Vel. (ft/s)	0.46	1.15
0.53				
Max Chl Dpth (ft)	3.24	Hydr. Depth (ft)	0.77	2.89
0.94				
Conv. Total (cfs)	3261.6	Conv. (cfs)	119.0	2880.5
262.0				
Length Wtd. (ft)	80.02	Wetted Per. (ft)	5.13	14.20
8.15				
Min Ch El (ft)	591.07	Shear (lb/sq ft)	0.01	0.04
0.01				
Alpha	1.20	Stream Power (lb/ft s)	579.36	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.00	1.86
0.00				
C & E Loss (ft)		Cum SA (acres)	0.01	1.47
0.02				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	595.58	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.040	0.037
0.040				
W. S. Elev (ft)	595.56	Reach Len. (ft)	81.50	80.02
78.58				
Crit W. S. (ft)	592.53	Flow Area (sq ft)	10.07	53.65

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17.40				
E. G. Slope (ft/ft)	0.000171	Area (sq ft)	14.63	53.65
20.55				
Q Total (cfs)	90.00	Flow (cfs)	7.68	68.39
13.94				
Top Width (ft)	37.47	Top Width (ft)	11.32	13.00
13.15				
Vel Total (ft/s)	1.11	Avg. Vel. (ft/s)	0.76	1.27
0.80				
Max Chl Dpth (ft)	4.49	Hydr. Depth (ft)	2.01	4.13
2.17				
Conv. Total (cfs)	6879.1	Conv. (cfs)	586.7	5227.2
1065.3				
Length Wtd. (ft)	80.02	Wetted Per. (ft)	5.13	14.20
8.22				
Min Ch El (ft)	591.07	Shear (lb/sq ft)	0.02	0.04
0.02				
Alpha	1.12	Stream Power (lb/ft s)	579.36	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.02	3.16
0.10				
C & E Loss (ft)		Cum SA (acres)	0.23	1.94
0.30				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	596.16	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.040	0.037
0.040				
W. S. Elev (ft)	596.13	Reach Len. (ft)	81.50	80.02
78.58				
Crit W. S. (ft)	592.74	Flow Area (sq ft)	12.97	61.18
22.03				
E. G. Slope (ft/ft)	0.000156	Area (sq ft)	21.92	61.18
28.88				
Q Total (cfs)	112.00	Flow (cfs)	11.15	81.15
19.69				
Top Width (ft)	42.45	Top Width (ft)	13.85	13.00
15.59				
Vel Total (ft/s)	1.16	Avg. Vel. (ft/s)	0.86	1.33
0.89				
Max Chl Dpth (ft)	5.06	Hydr. Depth (ft)	2.59	4.71
2.75				
Conv. Total (cfs)	8979.2	Conv. (cfs)	894.0	6506.2
1578.9				
Length Wtd. (ft)	80.02	Wetted Per. (ft)	5.13	14.20
8.22				
Min Ch El (ft)	591.07	Shear (lb/sq ft)	0.02	0.04
0.03				
Alpha	1.10	Stream Power (lb/ft s)	579.36	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.22	3.84
0.30				
C & E Loss (ft)		Cum SA (acres)	0.60	2.11
0.70				

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Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	597.67	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.	0.040	0.037
0.040				
W. S. Elev (ft)	597.65	Reach Len. (ft)	81.50	80.02
78.58				
Crit W. S. (ft)	593.26	Flow Area (sq ft)	20.53	80.85
34.13				
E. G. Slope (ft/ft)	0.000127	Area (sq ft)	47.89	80.85
57.28				
Q Total (cfs)	175.00	Flow (cfs)	21.64	116.50
36.86				
Top Width (ft)	55.44	Top Width (ft)	20.48	13.00
21.96				
Vel Total (ft/s)	1.29	Avg. Vel. (ft/s)	1.05	1.44
1.08				
Max Chl Dpth (ft)	6.58	Hydr. Depth (ft)	4.11	6.22
4.27				
Conv. Total (cfs)	15550.8	Conv. (cfs)	1922.8	10352.8
3275.2				
Length Wtd. (ft)	80.02	Wetted Per. (ft)	5.13	14.20
8.22				
Min Ch El (ft)	591.07	Shear (lb/sq ft)	0.03	0.05
0.03				
Alpha	1.06	Stream Power (lb/ft s)	579.36	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.64	5.45
1.10				
C & E Loss (ft)		Cum SA (acres)	1.23	2.45
2.01				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CULVERT

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 3742

INPUT

Description: Culvert 5
 Distance from Upstream XS = 10
 Deck/Roadway Width = 60
 Weir Coefficient = 2.6
 Upstream Deck/Roadway Coordinates

num=	3								
Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
180	599.16		585		280	598.29		585	
					380	598.58		585	

Upstream Bridge Cross Section Data

Station	Elev	Station	Elev	Station	Elev	Station	Elev

num= 15

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0	600.39	37	599.1	137	599.63	237	599.38	247	598.68
272	592.97	276	591.07	279	591.07	284	591.07	284	591.42
285	592.43	310	598.37	391	598.9	480	598.77	579.364	600.39

Manning's n Values num= 3
 Sta n Val Sta n Val Sta n Val
 0 .04 272 .037 285 .04

Bank Sta: Left Right Coeff Contr. Expan.
 272 285 .3 .5
 Ineffective Flow num= 2
 Sta L Sta R Elev Permanent
 0 267 598 F
 293 579.364 598 F

Downstream Deck/Roadway Coordinates num= 3
 Sta Hi Cord Lo Cord Sta Hi Cord Lo Cord Sta Hi Cord Lo Cord
 195 599.16 585 295 598.29 585 395 598.58 585

Downstream Bridge Cross Section Data Station Elevation Data num= 14
 Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev
 0 600.39 67 599.51 167 599.12 261 598.82 267 598.11
 284 592.7 289 590.81 294 590.6 298 590.81 300 592.33
 331 598.61 424 599.18 531 600.39 587.992 600.39

Manning's n Values num= 3
 Sta n Val Sta n Val Sta n Val
 0 .04 284 .037 300 .04

Bank Sta: Left Right Coeff Contr. Expan.
 284 300 .3 .5
 Ineffective Flow num= 2
 Sta L Sta R Elev Permanent
 0 282 598 F
 308 587.992 598 F

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
 Downstream Embankment side slope = 0 horiz. to 1.0 vertical
 Maximum allowable submergence for weir flow = .95
 Elevation at which weir flow begins =
 Energy head used in spillway design =
 Spillway height used in design =
 Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name Shape Rise Span
 Culvert #1 Circular 6
 FHWA Chart # 2 - Corrugated Metal Pipe Culvert
 FHWA Scale # 3 - Pipe projecting from fill
 Solution Criteria = Highest U.S. EG
 Culvert Upstrm Dist Length Top n Bottom n Depth Blocked Entrance Loss Coef
 Exit Loss Coef
 10 60 .021 .021 0 .9

1
 Upstream Elevation = 591.2
 Centerline Station = 280
 Downstream Elevation = 590.6
 Centerline Station = 295

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Q Culv Group (cfs)	49.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	6.58
Q Barrel (cfs)	49.00	Culv Vel DS (ft/s)	4.72
E. G. US. (ft)	594.33	Culv Inv El Up (ft)	591.20
W. S. US. (ft)	594.31	Culv Inv El Dn (ft)	590.60
E. G. DS (ft)	593.01	Culv Frctn Ls (ft)	0.41
W. S. DS (ft)	592.97	Culv Exit Loss (ft)	0.30
Delta EG (ft)	1.32	Culv Entr Loss (ft)	0.60
Delta WS (ft)	1.34	Q Weir (cfs)	
E. G. IC (ft)	593.82	Weir Sta Lft (ft)	
E. G. OC (ft)	594.33	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	593.06	Weir Max Depth (ft)	
Culv WS Outlet (ft)	592.97	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	1.76	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.86	Min El Weir Flow (ft)	598.30

Note: During supercritical analysis, the culvert direct step method went to normal depth. The program then assumed normal depth at the outlet.

Note: During the supercritical calculations a hydraulic jump occurred inside of the culvert.

CULVERT OUTPUT Profile #50-Year Culv Group: Culvert #1

Q Culv Group (cfs)	90.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	7.88
Q Barrel (cfs)	90.00	Culv Vel DS (ft/s)	6.31
E. G. US. (ft)	595.58	Culv Inv El Up (ft)	591.20
W. S. US. (ft)	595.56	Culv Inv El Dn (ft)	590.60
E. G. DS (ft)	593.69	Culv Frctn Ls (ft)	0.47
W. S. DS (ft)	593.62	Culv Exit Loss (ft)	0.55
Delta EG (ft)	1.89	Culv Entr Loss (ft)	0.87
Delta WS (ft)	1.93	Q Weir (cfs)	
E. G. IC (ft)	594.98	Weir Sta Lft (ft)	
E. G. OC (ft)	595.58	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	593.75	Weir Max Depth (ft)	
Culv WS Outlet (ft)	593.62	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	2.43	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.55	Min El Weir Flow (ft)	598.30

Note: During supercritical analysis, the culvert direct step method went to normal depth. The program then assumed normal depth at the outlet.

Note: During the supercritical calculations a hydraulic jump occurred inside of the culvert.

CULVERT OUTPUT Profile #100-Year Culv Group: Culvert #1

Q Culv Group (cfs)	112.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	8.44
Q Barrel (cfs)	112.00	Culv Vel DS (ft/s)	7.08
E. G. US. (ft)	596.16	Culv Inv El Up (ft)	591.20
W. S. US. (ft)	596.13	Culv Inv El Dn (ft)	590.60
E. G. DS (ft)	593.97	Culv Frctn Ls (ft)	0.50
W. S. DS (ft)	593.88	Culv Exit Loss (ft)	0.69
Delta EG (ft)	2.19	Culv Entr Loss (ft)	1.00
Delta WS (ft)	2.25	Q Weir (cfs)	
E. G. IC (ft)	595.55	Weir Sta Lft (ft)	

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E. G. OC (ft)	596.16	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	594.05	Weir Max Depth (ft)	
Culv WS Outlet (ft)	593.88	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	2.74	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.85	Min El Weir Flow (ft)	598.30

Note: During supercritical analysis, the culvert direct step method went to normal depth. The program then assumed normal depth at the outlet.

Note: During the supercritical calculations a hydraulic jump occurred inside of the culvert.

CULVERT OUTPUT Profile #500-Year Culv Group: Culvert #1

Q Culv Group (cfs)	175.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	9.86
Q Barrel (cfs)	175.00	Culv Vel DS (ft/s)	9.10
E. G. US. (ft)	597.67	Culv Inv El Up (ft)	591.20
W. S. US. (ft)	597.65	Culv Inv El Dn (ft)	590.60
E. G. DS (ft)	594.58	Culv Frctn Ls (ft)	0.57
W. S. DS (ft)	594.46	Culv Exit Loss (ft)	1.16
Delta EG (ft)	3.09	Culv Entr Loss (ft)	1.36
Delta WS (ft)	3.19	Q Weir (cfs)	
E. G. IC (ft)	597.11	Weir Sta Lft (ft)	
E. G. OC (ft)	597.67	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	594.81	Weir Max Depth (ft)	
Culv WS Outlet (ft)	594.46	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	3.59	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	3.61	Min El Weir Flow (ft)	598.30

Note: During supercritical analysis, the culvert direct step method went to normal depth. The program then assumed normal depth at the outlet.

Note: During the supercritical calculations a hydraulic jump occurred inside of the culvert.

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 3672.534

INPUT

Description: D/S BR2

Station Elevation Data num= 14

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	600.39	67	599.51	167	599.12	261	598.82	267	598.11
284	592.7	289	590.81	294	590.6	298	590.81	300	592.33
331	598.61	424	599.18	531	600.39	587.992	600.39		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.04	284	.037	300	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
284	300	88.56	86.94	85.36	.3	.5
Ineffective Flow		num=	2			
Sta L	Sta R	Elev	Permanent			
0	282	598	F			

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	593.01	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.04	Wt. n-Val.	0.040	0.037
0.040				
W. S. Elev (ft)	592.97	Reach Len. (ft)	88.56	86.94
85.36				
Crit W. S. (ft)	591.63	Flow Area (sq ft)	0.11	29.26
1.01				
E. G. Slope (ft/ft)	0.000816	Area (sq ft)	0.11	29.26
1.01				
Q Total (cfs)	49.00	Flow (cfs)	0.03	48.47
0.50				
Top Width (ft)	20.01	Top Width (ft)	0.85	16.00
3.16				
Vel Total (ft/s)	1.61	Avg. Vel. (ft/s)	0.27	1.66
0.49				
Max Chl Dpth (ft)	2.37	Hydr. Depth (ft)	0.14	1.83
0.32				
Conv. Total (cfs)	1715.4	Conv. (cfs)	1.1	1696.9
17.4				
Length Wtd. (ft)	86.93	Wetted Per. (ft)	0.89	16.87
3.22				
Min Ch El (ft)	590.60	Shear (lb/sq ft)	0.01	0.09
0.02				
Alpha	1.05	Stream Power (lb/ft s)	587.99	0.00
0.00				
Frctn Loss (ft)	0.10	Cum Volume (acre-ft)	0.00	1.84
0.00				
C & E Loss (ft)	0.00	Cum SA (acres)	0.00	1.45
0.01				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	593.69	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.	0.040	0.037
0.040				
W. S. Elev (ft)	593.62	Reach Len. (ft)	88.56	86.94
85.36				
Crit W. S. (ft)	592.05	Flow Area (sq ft)	1.21	39.68
4.11				
E. G. Slope (ft/ft)	0.000923	Area (sq ft)	1.33	39.68
4.11				
Q Total (cfs)	90.00	Flow (cfs)	0.94	85.64
3.42				
Top Width (ft)	25.27	Top Width (ft)	2.89	16.00
6.37				
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	0.78	2.16
0.83				

NFARS_RAS_trib_2.rep				
Max Chl Dpth (ft) 0.65	3.02	Hydr. Depth (ft)	0.60	2.48
Conv. Total (cfs) 112.7	2962.3	Conv. (cfs)	31.0	2818.7
Length Wtd. (ft) 6.50	86.92	Wetted Per. (ft)	2.10	16.87
Min Ch El (ft) 0.04	590.60	Shear (lb/sq ft)	0.03	0.14
Alpha 0.00	1.12	Stream Power (lb/ft s)	587.99	0.00
Frctn Loss (ft) 0.10	0.11	Cum Volume (acre-ft)	0.02	3.12
C & E Loss (ft) 0.28	0.00	Cum SA (acres)	0.22	1.92

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft) Right OB	593.97	Element	Left OB	Channel
Vel Head (ft) 0.040	0.08	Wt. n-Val.	0.040	0.037
W. S. Elev (ft) 85.36	593.88	Reach Len. (ft)	88.56	86.94
Crit W. S. (ft) 5.94	592.24	Flow Area (sq ft)	1.73	43.85
E. G. Slope (ft/ft) 5.94	0.000984	Area (sq ft)	2.19	43.85
Q Total (cfs) 5.77	112.00	Flow (cfs)	1.77	104.46
Top Width (ft) 7.66	27.37	Top Width (ft)	3.71	16.00
Vel Total (ft/s) 0.97	2.17	Avg. Vel. (ft/s)	1.02	2.38
Max Chl Dpth (ft) 0.78	3.28	Hydr. Depth (ft)	0.86	2.74
Conv. Total (cfs) 184.0	3570.0	Conv. (cfs)	56.4	3329.7
Length Wtd. (ft) 7.82	86.91	Wetted Per. (ft)	2.10	16.87
Min Ch El (ft) 0.05	590.60	Shear (lb/sq ft)	0.05	0.16
Alpha 0.00	1.13	Stream Power (lb/ft s)	587.99	0.00
Frctn Loss (ft) 0.30	0.11	Cum Volume (acre-ft)	0.22	3.79
C & E Loss (ft) 0.68	0.00	Cum SA (acres)	0.58	2.09

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	594.58	Element	Left OB	Channel
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NFARS_RAS_trib_2.rep

Right OB				
Vel Head (ft)	0.12	Wt. n-Val.	0.040	0.037
0.040				
W. S. Elev (ft)	594.46	Reach Len. (ft)	88.56	86.94
85.36				
Crit W. S. (ft)	592.71	Flow Area (sq ft)	2.89	53.13
10.57				
E. G. Slope (ft/ft)	0.001140	Area (sq ft)	4.88	53.13
11.22				
Q Total (cfs)	175.00	Flow (cfs)	4.48	154.77
15.75				
Top Width (ft)	32.06	Top Width (ft)	5.54	16.00
10.52				
Vel Total (ft/s)	2.63	Avg. Vel. (ft/s)	1.55	2.91
1.49				
Max Chl Dpth (ft)	3.86	Hydr. Depth (ft)	1.44	3.32
1.32				
Conv. Total (cfs)	5183.8	Conv. (cfs)	132.6	4584.6
466.6				
Length Wtd. (ft)	86.89	Wetted Per. (ft)	2.10	16.87
8.16				
Min Ch El (ft)	590.60	Shear (lb/sq ft)	0.10	0.22
0.09				
Alpha	1.12	Stream Power (lb/ft s)	587.99	0.00
0.00				
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)	0.64	5.38
1.10				
C & E Loss (ft)	0.01	Cum SA (acres)	1.20	2.42
1.98				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 3585.583

INPUT

Description: Surveyed Section 4

Station	Elevation	Data	num=	15					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	600.39	86	599.25	186	598.86	280	598.56	286	597.85
303	592.44	308	591.76	311	591.37	313	590.47	317	590.55
319	592.07	350	598.35	443	598.92	550	600.39	583.793	600.39

Manning's n Values	num=	3			
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	286	.037	350	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	286	350		496.3	458.8	421.4	.1
							.3

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	592.91	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.06	Wt. n-Val.		0.037

NFARS_RAS_trib_2.rep				
W. S. Elev (ft)	592.85	Reach Len. (ft)	496.30	458.80
421.40 Crit W. S. (ft)		Flow Area (sq ft)		25.65
E. G. Slope (ft/ft)	0.001850	Area (sq ft)		25.65
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	21.13	Top Width (ft)		21.13
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)		1.91
Max Chl Dpth (ft)	2.38	Hydr. Depth (ft)		1.21
Conv. Total (cfs)	1139.3	Conv. (cfs)		1139.3
Length Wtd. (ft)	458.80	Wetted Per. (ft)		22.05
Min Ch El (ft)	590.47	Shear (lb/sq ft)		0.13
Alpha 0.00	1.00	Stream Power (lb/ft s)	583.79	0.00
Frctn Loss (ft) 0.00	1.11	Cum Volume (acre-ft)	0.00	1.79
C & E Loss (ft) 0.00	0.00	Cum SA (acres)	0.00	1.41

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	593.58	Element	Left OB	Channel
Right OB Vel Head (ft)	0.07	Wt. n-Val.		0.037
W. S. Elev (ft)	593.51	Reach Len. (ft)	496.30	458.80
421.40 Crit W. S. (ft)		Flow Area (sq ft)		41.36
E. G. Slope (ft/ft)	0.001708	Area (sq ft)		41.36
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	26.46	Top Width (ft)		26.46
Vel Total (ft/s)	2.18	Avg. Vel. (ft/s)		2.18
Max Chl Dpth (ft)	3.04	Hydr. Depth (ft)		1.56
Conv. Total (cfs)	2177.7	Conv. (cfs)		2177.7
Length Wtd. (ft)	458.80	Wetted Per. (ft)		27.55
Min Ch El (ft)	590.47	Shear (lb/sq ft)		0.16
Alpha 0.00	1.00	Stream Power (lb/ft s)	583.79	0.00
Frctn Loss (ft)	1.28	Cum Volume (acre-ft)	0.02	3.04

0.09				
C & E Loss (ft)	0.01	Cum SA (acres)	0.21	1.87
0.28				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	593.85	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.08	Wt. n-Val.		0.037
W. S. Elev (ft)	593.77	Reach Len. (ft)	496.30	458.80
421.40				
Crit W. S. (ft)		Flow Area (sq ft)		48.58
E. G. Slope (ft/ft)	0.001713	Area (sq ft)		48.58
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	28.58	Top Width (ft)		28.58
Vel Total (ft/s)	2.31	Avg. Vel. (ft/s)		2.31
Max Chl Dpth (ft)	3.30	Hydr. Depth (ft)		1.70
Conv. Total (cfs)	2706.4	Conv. (cfs)		2706.4
Length Wtd. (ft)	458.80	Wetted Per. (ft)		29.74
Min Ch El (ft)	590.47	Shear (lb/sq ft)		0.17
Alpha	1.00	Stream Power (lb/ft s)	583.79	0.00
0.00				
Frctn Loss (ft)	1.35	Cum Volume (acre-ft)	0.22	3.70
0.30				
C & E Loss (ft)	0.01	Cum SA (acres)	0.58	2.04
0.68				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	594.45	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.11	Wt. n-Val.		0.037

NFARS_RAS_trib_2.rep				
W. S. Elev (ft)	594.34	Reach Len. (ft)	496.30	458.80
421.40		Flow Area (sq ft)		66.29
Crit W. S. (ft)		Area (sq ft)		66.29
E. G. Slope (ft/ft)	0.001810	Flow (cfs)		175.00
Q Total (cfs)	175.00	Top Width (ft)		33.21
Top Width (ft)	33.21	Avg. Vel. (ft/s)		2.64
Vel Total (ft/s)	2.64	Hydr. Depth (ft)		2.00
Max Chl Dpth (ft)	3.87	Conv. (cfs)		4113.8
Conv. Total (cfs)	4113.8	Wetted Per. (ft)		34.52
Length Wtd. (ft)	458.80	Shear (lb/sq ft)		0.22
Min Ch El (ft)	590.47	Stream Power (lb/ft s)	583.79	0.00
Alpha	1.00	Cum Volume (acre-ft)	0.64	5.26
0.00		Cum SA (acres)	1.20	2.37
Frctn Loss (ft)	1.40			
1.08				
C & E Loss (ft)	0.01			
1.97				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 3126.746

INPUT

Description: Surveyed Section 5

Station Elevation Data num= 20									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	600.39	44.619	600.39	53.445	600.39	64.042	599.56	81.529	597.11
97	596.3	196	594.98	244	595.23	256	596.44	288	595.92
309	591.6	311	589.28	315	589.1	317	590.12	317	590.92
365	596.6	410	597.23	636.056	597.11	646.293	597.11	670.604	597.11

Manning's n Values num= 3					
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	288	.036	365	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	288	365		577.68	574.8	571.32	.1
							.3

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	591.79	Element	Left OB	Channel
Right OB				

NFARS_RAS_trib_2.rep				
Vel Head (ft)	0.10	Wt. n-Val.		0.036
W. S. Elev (ft)	591.68	Reach Len. (ft)	577.68	574.80
571.32 Crit W. S. (ft)		Flow Area (sq ft)		19.11
E. G. Slope (ft/ft)	0.003314	Area (sq ft)		19.11
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	14.87	Top Width (ft)		14.87
Vel Total (ft/s)	2.56	Avg. Vel. (ft/s)		2.56
Max Chl Dpth (ft)	2.58	Hydr. Depth (ft)		1.28
Conv. Total (cfs)	851.1	Conv. (cfs)		851.1
Length Wtd. (ft)	574.80	Wetted Per. (ft)		17.04
Min Ch El (ft)	589.10	Shear (lb/sq ft)		0.23
Alpha	1.00	Stream Power (lb/ft s)	670.60	0.00
0.00 Frctn Loss (ft)	2.21	Cum Volume (acre-ft)	0.00	1.55
0.00 C & E Loss (ft)	0.00	Cum SA (acres)	0.00	1.22
0.00				

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	592.30	Element	Left OB	Channel
Right OB Vel Head (ft)	0.17	Wt. n-Val.		0.036
W. S. Elev (ft)	592.12	Reach Len. (ft)	577.68	574.80
571.32 Crit W. S. (ft)		Flow Area (sq ft)		26.90
E. G. Slope (ft/ft)	0.005313	Area (sq ft)		26.90
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	20.71	Top Width (ft)		20.71
Vel Total (ft/s)	3.35	Avg. Vel. (ft/s)		3.35
Max Chl Dpth (ft)	3.02	Hydr. Depth (ft)		1.30
Conv. Total (cfs)	1234.8	Conv. (cfs)		1234.8
Length Wtd. (ft)	574.80	Wetted Per. (ft)		22.94
Min Ch El (ft)	589.10	Shear (lb/sq ft)		0.39
Alpha	1.00	Stream Power (lb/ft s)	670.60	0.00

NFARS_RAS_trib_2.rep

0.00				
Frctn Loss (ft)	2.00	Cum Volume (acre-ft)	0.02	2.68
0.09				
C & E Loss (ft)	0.03	Cum SA (acres)	0.21	1.63
0.28				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	592.50	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.21	Wt. n-Val.		0.036
W. S. Elev (ft)	592.29	Reach Len. (ft)	577.68	574.80
571.32				
Crit W. S. (ft)		Flow Area (sq ft)		30.49
E. G. Slope (ft/ft)	0.006130	Area (sq ft)		30.49
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	22.90	Top Width (ft)		22.90
Vel Total (ft/s)	3.67	Avg. Vel. (ft/s)		3.67
Max Chl Dpth (ft)	3.19	Hydr. Depth (ft)		1.33
Conv. Total (cfs)	1430.5	Conv. (cfs)		1430.5
Length Wtd. (ft)	574.80	Wetted Per. (ft)		25.16
Min Ch El (ft)	589.10	Shear (lb/sq ft)		0.46
Alpha	1.00	Stream Power (lb/ft s)	670.60	0.00
0.00				
Frctn Loss (ft)	1.90	Cum Volume (acre-ft)	0.22	3.28
0.30				
C & E Loss (ft)	0.04	Cum SA (acres)	0.58	1.77
0.68				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	593.04	Element	Left OB	Channel
Right OB				

NFARS_RAS_trib_2.rep				
Vel Head (ft)	0.25	Wt. n-Val.		0.036
W. S. Elev (ft)	592.79	Reach Len. (ft)	577.68	574.80
571.32 Crit W. S. (ft)		Flow Area (sq ft)		43.72
E. G. Slope (ft/ft)	0.006192	Area (sq ft)		43.72
Q Total (cfs)	175.00	Flow (cfs)		175.00
Top Width (ft)	29.61	Top Width (ft)		29.61
Vel Total (ft/s)	4.00	Avg. Vel. (ft/s)		4.00
Max Chl Dpth (ft)	3.69	Hydr. Depth (ft)		1.48
Conv. Total (cfs)	2224.0	Conv. (cfs)		2224.0
Length Wtd. (ft)	574.80	Wetted Per. (ft)		31.95
Min Ch El (ft)	589.10	Shear (lb/sq ft)		0.53
Alpha	1.00	Stream Power (lb/ft s)	670.60	0.00
0.00 Frctn Loss (ft)	1.96	Cum Volume (acre-ft)	0.64	4.68
1.08 C & E Loss (ft)	0.04	Cum SA (acres)	1.20	2.04
1.97				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Trib to Cayuga

REACH: Reach 1

RS: 2552.012

INPUT

Description: Surveyed Section 6

Station Elevation Data num= 21									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	600.22	1.77	600.11	16.73	599.2	43.14	597.59	46.59	597.11
57.18	597.11	104.92	597.11	140.19	597.11	253	597.03	301	593.55
396	591.69	403	591.18	419	588.82	420.5	587.82	422	587.82
423.5	587.82	461	592.29	499	592.98	540	595.57	785.22	595.57
810.71	595.57								

Manning's n Values num= 3					
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	403	.036	461	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	403	461		751.8	721.8	681.6	.1
							.3

CROSS SECTION OUTPUT Profile #10-Year

NFARS_RAS_trib_2.rep

E. G. Elev (ft)	589.58	Element	Left OB	Channel
Right OB Vel Head (ft)	0.10	Wt. n-Val.		0.036
W. S. Elev (ft)	589.48	Reach Len. (ft)	751.80	721.80
681.60 Crit W. S. (ft)		Flow Area (sq ft)		19.76
E. G. Slope (ft/ft)	0.004508	Area (sq ft)		19.76
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	22.91	Top Width (ft)		22.91
Vel Total (ft/s)	2.48	Avg. Vel. (ft/s)		2.48
Max Chl Dpth (ft)	1.66	Hydr. Depth (ft)		0.86
Conv. Total (cfs)	729.8	Conv. (cfs)		729.8
Length Wtd. (ft)	721.80	Wetted Per. (ft)		23.36
Min Ch El (ft)	587.82	Shear (lb/sq ft)		0.24
Alpha 0.00	1.00	Stream Power (lb/ft s)	810.71	0.00
Frctn Loss (ft)	1.03	Cum Volume (acre-ft)	0.00	1.29
0.00 C & E Loss (ft)	0.02	Cum SA (acres)	0.00	0.97
0.00				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	590.27	Element	Left OB	Channel
Right OB Vel Head (ft)	0.08	Wt. n-Val.		0.036
W. S. Elev (ft)	590.19	Reach Len. (ft)	751.80	721.80
681.60 Crit W. S. (ft)		Flow Area (sq ft)		39.84
E. G. Slope (ft/ft)	0.002446	Area (sq ft)		39.84
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	33.67	Top Width (ft)		33.67
Vel Total (ft/s)	2.26	Avg. Vel. (ft/s)		2.26
Max Chl Dpth (ft)	2.37	Hydr. Depth (ft)		1.18
Conv. Total (cfs)	1819.9	Conv. (cfs)		1819.9

NFARS_RAS_trib_2.rep

Length Wtd. (ft)	721.01	Wetted Per. (ft)		34.21
Min Ch El (ft)	587.82	Shear (lb/sq ft)		0.18
Alpha 0.00	1.00	Stream Power (lb/ft s)	810.71	0.00
Frctn Loss (ft) 0.09	0.60	Cum Volume (acre-ft)	0.02	2.24
C & E Loss (ft) 0.28	0.01	Cum SA (acres)	0.21	1.27

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	590.55	Element	Left OB	Channel
Right OB Vel Head (ft)	0.08	Wt. n-Val.		0.036
W. S. Elev (ft)	590.48	Reach Len. (ft)	751.80	721.80
681.60 Crit W. S. (ft)		Flow Area (sq ft)		50.14
E. G. Slope (ft/ft)	0.002067	Area (sq ft)		50.14
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	38.03	Top Width (ft)		38.03
Vel Total (ft/s)	2.23	Avg. Vel. (ft/s)		2.23
Max Chl Dpth (ft)	2.66	Hydr. Depth (ft)		1.32
Conv. Total (cfs)	2463.6	Conv. (cfs)		2463.6
Length Wtd. (ft)	720.54	Wetted Per. (ft)		38.61
Min Ch El (ft)	587.82	Shear (lb/sq ft)		0.17
Alpha 0.00	1.00	Stream Power (lb/ft s)	810.71	0.00
Frctn Loss (ft) 0.30	0.40	Cum Volume (acre-ft)	0.22	2.75
C & E Loss (ft) 0.68	0.02	Cum SA (acres)	0.58	1.37

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	591.04	Element	Left OB	Channel
Right OB				

	NFARS_RAS_trib_2.rep			
Vel Head (ft)	0.10	Wt. n-Val.		0.036
W. S. Elev (ft)	590.94	Reach Len. (ft)	751.80	721.80
681.60 Crit W. S. (ft)		Flow Area (sq ft)		69.21
E. G. Slope (ft/ft)	0.002154	Area (sq ft)		69.21
Q Total (cfs)	175.00	Flow (cfs)		175.00
Top Width (ft)	45.00	Top Width (ft)		45.00
Vel Total (ft/s)	2.53	Avg. Vel. (ft/s)		2.53
Max Chl Dpth (ft)	3.12	Hydr. Depth (ft)		1.54
Conv. Total (cfs)	3770.9	Conv. (cfs)		3770.9
Length Wtd. (ft)	720.25	Wetted Per. (ft)		45.64
Min Ch El (ft)	587.82	Shear (lb/sq ft)		0.20
Alpha	1.00	Stream Power (lb/ft s)	810.71	0.00
0.00 Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	0.64	3.94
1.08 C & E Loss (ft)	0.02	Cum SA (acres)	1.20	1.55
1.97				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Trib to Cayuga
REACH: Reach 1 RS: 1830.000

INPUT

Description: Surveyed Section 7

Station	Elevation	Data	num=	13							
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	592.06	21.818	592.06	76	592.06	132	589.75	172	589.49		
183	586.92	183	585.73	184	585.73	190	585.73	198	588.96		
292	591.02	407.677	591.02	446.818	591.02						

Manning's n Values	num=	3			
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	172	.036	198	.04

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	172	198		89	88.78	88.56		.3	.5

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	588.53	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.		0.036

NFARS_RAS_trib_2.rep				
W. S. Elev (ft)	588.50	Reach Len. (ft)	89.00	88.78
88.56		Flow Area (sq ft)		34.25
Crit W. S. (ft)		Area (sq ft)		34.25
E. G. Slope (ft/ft)	0.000687	Flow (cfs)		49.00
Q Total (cfs)	49.00	Top Width (ft)		20.63
Top Width (ft)	20.63	Avg. Vel. (ft/s)		1.43
Vel Total (ft/s)	1.43	Hydr. Depth (ft)		1.66
Max Chl Dpth (ft)	2.77	Conv. (cfs)		1868.8
Conv. Total (cfs)	1868.8	Wetted Per. (ft)		22.54
Length Wtd. (ft)	88.78	Shear (lb/sq ft)		0.07
Min Ch El (ft)	585.73	Stream Power (lb/ft s)	446.82	0.00
Alpha	1.00	Cum Volume (acre-ft)	0.00	0.85
0.00		Cum SA (acres)	0.00	0.61
Frctn Loss (ft)	0.04			
0.00				
C & E Loss (ft)	0.01			
0.00				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
 This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	589.66	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.	0.040	0.036
0.040				
W. S. Elev (ft)	589.63	Reach Len. (ft)	89.00	88.78
88.56		Flow Area (sq ft)	1.47	61.21
Crit W. S. (ft)		Area (sq ft)	1.47	61.21
10.18		Flow (cfs)	0.19	86.12
E. G. Slope (ft/ft)	0.000412	Top Width (ft)	21.25	26.00
10.18		Avg. Vel. (ft/s)	0.13	1.41
Q Total (cfs)	90.00	Hydr. Depth (ft)	0.07	2.35
3.70		Conv. (cfs)	9.2	4243.7
Top Width (ft)	77.73	Wetted Per. (ft)	21.25	28.11
30.49		Shear (lb/sq ft)	0.00	0.06
Vel Total (ft/s)	1.24	Stream Power (lb/ft s)	446.82	0.00
0.36		Cum Volume (acre-ft)	0.00	1.41
Max Chl Dpth (ft)	3.90			
0.33				
Conv. Total (cfs)	4434.9			
182.1				
Length Wtd. (ft)	88.78			
30.49				
Min Ch El (ft)	585.73			
0.01				
Alpha	1.24			
0.00				
Frctn Loss (ft)	0.03			

NFARS_RAS_trib_2.rep

0.01				
C & E Loss (ft)	0.00	Cum SA (acres)	0.03	0.77
0.04				

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	590.14	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.040	0.036
0.040				
W. S. Elev (ft)	590.12	Reach Len. (ft)	89.00	88.78
88.56				
Crit W. S. (ft)		Flow Area (sq ft)	21.75	74.04
30.80				
E. G. Slope (ft/ft)	0.000249	Area (sq ft)	21.75	74.04
30.80				
Q Total (cfs)	112.00	Flow (cfs)	7.42	92.01
12.57				
Top Width (ft)	128.03	Top Width (ft)	49.02	26.00
53.02				
Vel Total (ft/s)	0.88	Avg. Vel. (ft/s)	0.34	1.24
0.41				
Max Chl Dpth (ft)	4.39	Hydr. Depth (ft)	0.44	2.85
0.58				
Conv. Total (cfs)	7095.2	Conv. (cfs)	470.1	5828.6
796.5				
Length Wtd. (ft)	88.77	Wetted Per. (ft)	49.02	28.11
53.03				
Min Ch El (ft)	585.73	Shear (lb/sq ft)	0.01	0.04
0.01				
Alpha	1.65	Stream Power (lb/ft s)	446.82	0.00
0.00				
Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	0.03	1.72
0.06				
C & E Loss (ft)	0.00	Cum SA (acres)	0.15	0.84
0.26				

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	590.60	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.040	0.036
0.040				
W. S. Elev (ft)	590.58	Reach Len. (ft)	89.00	88.78
88.56				
Crit W. S. (ft)		Flow Area (sq ft)	46.66	85.92
59.76				
E. G. Slope (ft/ft)	0.000260	Area (sq ft)	46.66	85.92
59.76				
Q Total (cfs)	175.00	Flow (cfs)	23.59	120.34
31.06				
Top Width (ft)	159.94	Top Width (ft)	60.08	26.00
73.85				
Vel Total (ft/s)	0.91	Avg. Vel. (ft/s)	0.51	1.40
0.52				
Max Chl Dpth (ft)	4.85	Hydr. Depth (ft)	0.78	3.30
0.81				

	NFARS_RAS_trib_2.rep			
Conv. Total (cfs)	10859.8	Conv. (cfs)	1464.1	7468.0
1927.6				
Length Wtd. (ft)	88.77	Wetted Per. (ft)	60.10	28.11
73.87				
Min Ch El (ft)	585.73	Shear (lb/sq ft)	0.01	0.05
0.01				
Alpha	1.73	Stream Power (lb/ft s)	446.82	0.00
0.00				
Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	0.24	2.65
0.62				
C & E Loss (ft)	0.00	Cum SA (acres)	0.68	0.96
1.39				

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 1741.222

INPUT

Description: U/S BR3

Station Elevation Data	num=	13							
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev									
0 591.87 49.705 591.87 72 591.87 128 589.56 168 589.3									
169.1 588.92 179 585.54 180 585.54 186 585.54 194 588.77									
288 590.83 330.151 590.83 441.109 590.83									

Manning's n Values	num=	3			
Sta n Val Sta n Val Sta n Val					
0 .04 169.1 .036 194 .04					

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
169.1 194	39.73 40.42 42.52	.3	.5

Ineffective Flow	num=	2
Sta L Sta R Elev Permanent		
0 169 590 F		
195 441.109 590 F		

Blocked Obstructions	num=	2
Sta L Sta R Elev Sta L Sta R Elev		
0 169 590 195 441.109 590		

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	588.49	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.		0.036
W. S. Elev (ft)	588.47	Reach Len. (ft)	39.73	40.42
42.52				
Crit W. S. (ft)	586.55	Flow Area (sq ft)		43.62
E. G. Slope (ft/ft)	0.000331	Area (sq ft)		43.62
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	22.82	Top Width (ft)		22.82
Vel Total (ft/s)	1.12	Avg. Vel. (ft/s)		1.12
Max Chl Dpth (ft)	2.93	Hydr. Depth (ft)		1.91

NFARS_RAS_trib_2.rep

Conv. Total (cfs)	2691.5	Conv. (cfs)	2691.5
Length Wtd. (ft)	40.42	Wetted Per. (ft)	23.87
Min Ch El (ft)	585.54	Shear (lb/sq ft)	0.04
Alpha	1.00	Stream Power (lb/ft s)	441.11
0.00		Cum Volume (acre-ft)	0.00
Frctn Loss (ft)		Cum SA (acres)	0.00
0.00			0.57
C & E Loss (ft)			
0.00			

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	589.63	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.040	0.036
0.040				
W. S. Elev (ft)	589.60	Reach Len. (ft)	39.73	40.42
42.52				
Crit W. S. (ft)	586.96	Flow Area (sq ft)	0.07	71.52
0.82				
E. G. Slope (ft/ft)	0.000241	Area (sq ft)	0.07	71.52
0.82				
Q Total (cfs)	90.00	Flow (cfs)	0.01	89.71
0.28				
Top Width (ft)	26.00	Top Width (ft)	0.10	24.90
1.00				
Vel Total (ft/s)	1.24	Avg. Vel. (ft/s)	0.11	1.25
0.34				
Max Chl Dpth (ft)	4.06	Hydr. Depth (ft)	0.67	2.87
0.82				
Conv. Total (cfs)	5801.5	Conv. (cfs)	0.5	5783.0
18.0				
Length Wtd. (ft)	40.42	Wetted Per. (ft)	0.75	26.09
1.81				
Min Ch El (ft)	585.54	Shear (lb/sq ft)	0.00	0.04
0.01				
Alpha	1.02	Stream Power (lb/ft s)	441.11	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.00	1.27
0.00				
C & E Loss (ft)		Cum SA (acres)	0.01	0.72
0.01				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	590.12	Element	Left OB	Channel
Right OB				

NFARS_RAS_trib_2.rep				
Vel Head (ft)	0.03	Wt. n-Val.	0.040	0.036
0.040				
W. S. Elev (ft)	590.09	Reach Len. (ft)	39.73	40.42
42.52				
Crit W. S. (ft)	587.14	Flow Area (sq ft)	5.00	83.71
6.61				
E. G. Slope (ft/ft)	0.000217	Area (sq ft)	5.00	83.71
6.61				
Q Total (cfs)	112.00	Flow (cfs)	0.55	110.63
0.82				
Top Width (ft)	139.26	Top Width (ft)	54.01	24.90
60.35				
Vel Total (ft/s)	1.17	Avg. Vel. (ft/s)	0.11	1.32
0.12				
Max Chl Dpth (ft)	4.55	Hydr. Depth (ft)	0.09	3.36
0.11				
Conv. Total (cfs)	7609.5	Conv. (cfs)	37.6	7516.4
55.5				
Length Wtd. (ft)	40.42	Wetted Per. (ft)	55.06	26.09
61.56				
Min Ch El (ft)	585.54	Shear (lb/sq ft)	0.00	0.04
0.00				
Alpha	1.25	Stream Power (lb/ft s)	441.11	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.01	1.56
0.02				
C & E Loss (ft)		Cum SA (acres)	0.05	0.79
0.15				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

		Element	Left OB	Channel
E. G. Elev (ft)	590.57			
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.	0.040	0.036
0.040				
W. S. Elev (ft)	590.54	Reach Len. (ft)	39.73	40.42
42.52				
Crit W. S. (ft)	587.60	Flow Area (sq ft)	31.66	94.87
38.26				
E. G. Slope (ft/ft)	0.000261	Area (sq ft)	31.66	94.87
38.26				
Q Total (cfs)	175.00	Flow (cfs)	11.65	149.55
13.81				
Top Width (ft)	170.59	Top Width (ft)	64.88	24.90
80.81				
Vel Total (ft/s)	1.06	Avg. Vel. (ft/s)	0.37	1.58
0.36				
Max Chl Dpth (ft)	5.00	Hydr. Depth (ft)	0.49	3.81
0.47				
Conv. Total (cfs)	10836.7	Conv. (cfs)	721.1	9260.7
854.9				
Length Wtd. (ft)	40.42	Wetted Per. (ft)	65.94	26.09
82.03				
Min Ch El (ft)	585.54	Shear (lb/sq ft)	0.01	0.06
0.01				
Alpha	1.90	Stream Power (lb/ft s)	441.11	0.00
0.00				

Frctn Loss (ft)	Cum Volume (acre-ft)	0.16	2.47
0.52			
C & E Loss (ft)	Cum SA (acres)	0.55	0.91
1.24			

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CULVERT

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 1731

INPUT

Description: Culvert 4
 Distance from Upstream XS = 10
 Deck/Roadway Width = 20
 Weir Coefficient = 2.6
 Upstream Deck/Roadway Coordinates

num=	5													
Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
100	589.77		580		132	589.77		580		182	591.57		580	
232	590.18		580		300	590.18		580						

Upstream Bridge Cross Section Data

Station	Elevation	Data	num=	13							
Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev
0	591.87	49.705	591.87	72	591.87	128	589.56	168	589.3		
169.1	588.92	179	585.54	180	585.54	186	585.54	194	588.77		
288	590.83	330.151	590.83	441.109	590.83						

Manning's n Values	num=	3			
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	169.1	.036	194	.04

Bank Sta:	Left	Right	Coeff	Contr.	Expan.
	169.1	194	.3		.5

Ineffective Flow	num=	2	
Sta L	Sta R	El ev	Permanent
0	169	590	F
195	441.109	590	F

Blocked Obstructions	num=	2			
Sta L	Sta R	El ev	Sta L	Sta R	El ev
0	169	590	195	441.109	590

Downstream Deck/Roadway Coordinates

num=	5													
Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
100	589.77		580		130	589.77		580		180	591.57		580	
230	590.18		580		300	590.18		580						

Downstream Bridge Cross Section Data

Station	Elevation	Data	num=	16							
Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev
0	590.92	.525	590.92	15.715	590.92	69	590.92	149	589.5		
167	588.38	176	586.72	177	586.02	178.5	585.45	180	585.45		
181.5	585.45	185	586.66	194	588.59	253	590.65	400.23	590.65		
431.266	590.65										

Manning's n Values	num=	3
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NFARS_RAS_trib_2.rep

Sta n Val Sta n Val Sta n Val
 0 .04 167 .036 194 .04

Bank Sta: Left Right Coeff Contr. Expan.
 167 194 .3 .5
 Ineffective Flow num= 2
 Sta L Sta R Elev Permanent
 0 146 589 F
 214 431.266 589 F

Upstream Embankment side slope = 0 hori z. to 1.0 verti cal
 Downstream Embankment side slope = 0 hori z. to 1.0 verti cal
 Maximum allowable submergence for weir flow = .95
 Elevation at which weir flow begins =
 Energy head used in spillway design =
 Spillway height used in design =
 Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name Shape Rise Span
 Culvert #1 Circular 6
 FHWA Chart # 2 - Corrugated Metal Pipe Culvert
 FHWA Scale # 3 - Pipe projecting from fill
 Solution Criteria = Highest U. S. EG
 Culvert Upstrm Dist Length Top n Bottom n Depth Blocked Entrance Loss Coef
 Exit Loss Coef
 10 20 .021 .021 0 .9

1
 Upstream Elevati on = 585.35
 Centerline Stati on = 182
 Downstream Elevati on = 585.55
 Centerline Stati on = 180

CULVERT OUTPUT Profile #10-Year Culv Group: Culvert #1

Q Culv Group (cfs)	49.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	4.08
Q Barrel (cfs)	49.00	Culv Vel DS (ft/s)	5.07
E. G. US. (ft)	588.49	Culv Inv El Up (ft)	585.35
W. S. US. (ft)	588.47	Culv Inv El Dn (ft)	585.55
E. G. DS (ft)	587.86	Culv Frctn Ls (ft)	0.06
W. S. DS (ft)	587.80	Culv Exit Loss (ft)	0.33
Delta EG (ft)	0.62	Culv Entr Loss (ft)	0.23
Delta WS (ft)	0.67	Q Weir (cfs)	
E. G. IC (ft)	588.03	Weir Sta Lft (ft)	
E. G. OC (ft)	588.49	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	587.99	Weir Max Depth (ft)	
Culv WS Outlet (ft)	587.80	Weir Avg Depth (ft)	
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.86	Min El Weir Flow (ft)	590.01

CULVERT OUTPUT Profile #50-Year Culv Group: Culvert #1

Q Culv Group (cfs)	90.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	5.43
Q Barrel (cfs)	90.00	Culv Vel DS (ft/s)	6.64
E. G. US. (ft)	589.63	Culv Inv El Up (ft)	585.35
W. S. US. (ft)	589.60	Culv Inv El Dn (ft)	585.55
E. G. DS (ft)	588.53	Culv Frctn Ls (ft)	0.08
W. S. DS (ft)	588.45	Culv Exit Loss (ft)	0.60

		NFARS_RAS_trib_2.rep	
Delta EG (ft)	1.09	Culv Entr Loss (ft)	0.41
Delta WS (ft)	1.15	Q Weir (cfs)	
E.G. IC (ft)	589.19	Weir Sta Lft (ft)	
E.G. OC (ft)	589.63	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	588.76	Weir Max Depth (ft)	
Culv WS Outlet (ft)	588.45	Weir Avg Depth (ft)	
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.55	Min El Weir Flow (ft)	590.01

CULVERT OUTPUT Profile #100-Year Culv Group: Culvert #1

Q Culv Group (cfs)	109.49	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	5.91
Q Barrel (cfs)	109.49	Culv Vel DS (ft/s)	7.10
E.G. US. (ft)	590.12	Culv Inv El Up (ft)	585.35
W.S. US. (ft)	590.09	Culv Inv El Dn (ft)	585.55
E.G. DS (ft)	588.85	Culv Frctn Ls (ft)	0.09
W.S. DS (ft)	588.76	Culv Exit Loss (ft)	0.70
Delta EG (ft)	1.27	Culv Entr Loss (ft)	0.49
Delta WS (ft)	1.33	Q Weir (cfs)	2.51
E.G. IC (ft)	589.76	Weir Sta Lft (ft)	114.42
E.G. OC (ft)	590.12	Weir Sta Rgt (ft)	141.72
Culvert Control	Outlet	Weir Submerg	0.00
Culv WS Inlet (ft)	589.09	Weir Max Depth (ft)	0.12
Culv WS Outlet (ft)	588.76	Weir Avg Depth (ft)	0.11
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	2.90
Culv Crt Depth (ft)	2.82	Min El Weir Flow (ft)	590.01

Warning: During the culvert inlet control computations, the program could not balance the culvert/weir flow. The reported inlet energy grade answer may not be valid.

CULVERT OUTPUT Profile #500-Year Culv Group: Culvert #1

Q Culv Group (cfs)	116.38	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	5.21
Q Barrel (cfs)	116.38	Culv Vel DS (ft/s)	5.66
E.G. US. (ft)	590.57	Culv Inv El Up (ft)	585.35
W.S. US. (ft)	590.54	Culv Inv El Dn (ft)	585.55
E.G. DS (ft)	589.71	Culv Frctn Ls (ft)	0.05
W.S. DS (ft)	589.64	Culv Exit Loss (ft)	0.43
Delta EG (ft)	0.86	Culv Entr Loss (ft)	0.38
Delta WS (ft)	0.90	Q Weir (cfs)	58.62
E.G. IC (ft)	590.45	Weir Sta Lft (ft)	103.57
E.G. OC (ft)	590.57	Weir Sta Rgt (ft)	276.04
Culvert Control	Outlet	Weir Submerg	0.00
Culv WS Inlet (ft)	589.78	Weir Max Depth (ft)	0.57
Culv WS Outlet (ft)	589.64	Weir Avg Depth (ft)	0.34
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	36.70
Culv Crt Depth (ft)	2.91	Min El Weir Flow (ft)	590.01

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 1700.815

INPUT
 Description: D/S BR3

NFARS_RAS_trib_2.rep

Station		Elevation		Data		num=		16	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	590.92	.525	590.92	15.715	590.92	69	590.92	149	589.5
167	588.38	176	586.72	177	586.02	178.5	585.45	180	585.45
181.5	585.45	185	586.66	194	588.59	253	590.65	400.23	590.65
431.266	590.65								

Manning's n		Values		num=		3	
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.04	167	.036	194	.04		

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	167	194		30.61	26.8		.3	.5
Ineffective Flow			num=	2				
Sta L	Sta R	Elev	Permanent					
0	146	589	F					
214	431.266	589	F					

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	587.86	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.		0.036
W. S. Elev (ft)	587.80	Reach Len. (ft)	30.61	26.80
32.19				
Crit W. S. (ft)	586.84	Flow Area (sq ft)		23.82
E. G. Slope (ft/ft)	0.002086	Area (sq ft)		23.82
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	20.14	Top Width (ft)		20.14
Vel Total (ft/s)	2.06	Avg. Vel. (ft/s)		2.06
Max Chl Dpth (ft)	2.35	Hydr. Depth (ft)		1.18
Conv. Total (cfs)	1072.9	Conv. (cfs)		1072.9
Length Wtd. (ft)	26.80	Wetted Per. (ft)		20.89
Min Ch El (ft)	585.45	Shear (lb/sq ft)		0.15
Alpha	1.00	Stream Power (lb/ft s)	431.27	0.00
0.00				
Frctn Loss (ft)	0.01	Cum Volume (acre-ft)	0.00	0.75
0.00				
C & E Loss (ft)	0.03	Cum SA (acres)	0.00	0.55
0.00				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

NFARS_RAS_trib_2.rep				
E. G. Elev (ft)	588.53	Element	Left OB	Channel
Right OB Vel Head (ft)	0.08	Wt. n-Val.	0.040	0.036
W. S. Elev (ft)	588.45	Reach Len. (ft)	30.61	26.80
32.19 Crit W. S. (ft)	587.35	Flow Area (sq ft)	0.04	39.18
E. G. Slope (ft/ft)	0.001907	Area (sq ft)	0.04	39.18
Q Total (cfs)	90.00	Flow (cfs)	0.01	89.99
Top Width (ft)	27.53	Top Width (ft)	1.17	26.36
Vel Total (ft/s)	2.29	Avg. Vel. (ft/s)	0.18	2.30
Max Chl Dpth (ft)	3.00	Hydr. Depth (ft)	0.04	1.49
Conv. Total (cfs)	2060.9	Conv. (cfs)	0.2	2060.7
Length Wtd. (ft)	26.80	Wetted Per. (ft)	1.17	27.23
Min Ch El (ft)	585.45	Shear (lb/sq ft)	0.00	0.17
Alpha	1.00	Stream Power (lb/ft s)	431.27	0.00
0.00 Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	0.00	1.24
0.00 C & E Loss (ft)	0.03	Cum SA (acres)	0.01	0.70
0.01				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	588.85	Element	Left OB	Channel
Right OB Vel Head (ft)	0.08	Wt. n-Val.	0.040	0.036
0.040 W. S. Elev (ft)	588.76	Reach Len. (ft)	30.61	26.80
32.19 Crit W. S. (ft)	587.54	Flow Area (sq ft)	1.18	47.50
0.43 E. G. Slope (ft/ft)	0.001584	Area (sq ft)	1.18	47.50
0.43 Q Total (cfs)	112.00	Flow (cfs)	0.58	111.30
0.12 Top Width (ft)	38.09	Top Width (ft)	6.15	27.00
4.94 Vel Total (ft/s)	2.28	Avg. Vel. (ft/s)	0.49	2.34
0.29 Max Chl Dpth (ft)	3.31	Hydr. Depth (ft)	0.19	1.76
0.09 Conv. Total (cfs)	2814.1	Conv. (cfs)	14.5	2796.5
3.1 Length Wtd. (ft)	26.82	Wetted Per. (ft)	6.16	27.88

NFARS_RAS_trib_2.rep

4.95 Min Ch El (ft)	585.45	Shear (lb/sq ft)	0.02	0.17
0.01 Alpha	1.05	Stream Power (lb/ft s)	431.27	0.00
0.00 Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	0.01	1.52
0.02 C & E Loss (ft)	0.03	Cum SA (acres)	0.02	0.76
0.11				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	589.71	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.	0.040	0.036
0.040				
W. S. Elev (ft)	589.64	Reach Len. (ft)	30.61	26.80
32.19				
Crit W. S. (ft)	587.97	Flow Area (sq ft)	13.24	71.29
15.89				
E. G. Slope (ft/ft)	0.000797	Area (sq ft)	13.24	71.29
15.89				
Q Total (cfs)	175.00	Flow (cfs)	8.83	155.30
10.87				
Top Width (ft)	83.26	Top Width (ft)	26.09	27.00
30.17				
Vel Total (ft/s)	1.74	Avg. Vel. (ft/s)	0.67	2.18
0.68				
Max Chl Dpth (ft)	4.19	Hydr. Depth (ft)	0.51	2.64
0.53				
Conv. Total (cfs)	6198.9	Conv. (cfs)	312.8	5501.2
385.0				
Length Wtd. (ft)	27.16	Wetted Per. (ft)	26.12	27.88
30.19				
Min Ch El (ft)	585.45	Shear (lb/sq ft)	0.03	0.13
0.03				
Alpha	1.40	Stream Power (lb/ft s)	431.27	0.00
0.00				
Frctn Loss (ft)	0.01	Cum Volume (acre-ft)	0.16	2.39
0.52				
C & E Loss (ft)	0.01	Cum SA (acres)	0.51	0.89
1.18				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION

NFARS_RAS_trib_2.rep

RIVER: Trib to Cayuga
 REACH: Reach 1

RS: 1674.005

INPUT

Description: Surveyed Section 8 / U/S BR4

Station		Elevation		Data		num=		12	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	590.86	19.849	590.86	37.139	590.86	69	590.86	149	589.44
167	588.32	172	585.39	188	585.39	194	588.53	253	590.59
380.052	590.59	428.412	590.59						

Manning's n		Values		num=		3	
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.04	167	.036	194	.04		

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	167	194		97.3	85.7	98.1	.3	.5

Ineffective Flow		num=		2	
Sta L	Sta R	Elev	Permanent	F	F
0	161.7	591	F		
198.1	428.412	591	F		

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	587.82	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.		0.036
W. S. Elev (ft)	587.81	Reach Len. (ft)	97.30	85.70
98.10				
Crit W. S. (ft)	586.04	Flow Area (sq ft)		49.25
E. G. Slope (ft/ft)	0.000248	Area (sq ft)		49.25
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	24.74	Top Width (ft)		24.74
Vel Total (ft/s)	0.99	Avg. Vel. (ft/s)		0.99
Max Chl Dpth (ft)	2.42	Hydr. Depth (ft)		1.99
Conv. Total (cfs)	3112.5	Conv. (cfs)		3112.5
Length Wtd. (ft)	85.70	Wetted Per. (ft)		26.00
Min Ch El (ft)	585.39	Shear (lb/sq ft)		0.03
Alpha	1.00	Stream Power (lb/ft s)	428.41	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.00	0.73
0.00				
C & E Loss (ft)		Cum SA (acres)	0.00	0.53
0.00				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

NFARS_RAS_trib_2.rep

E. G. Elev (ft)	588.49	Element	Left OB	Channel
Right OB Vel Head (ft)	0.03	Wt. n-Val.	0.040	0.036
W. S. Elev (ft)	588.46	Reach Len. (ft)	97.30	85.70
98.10 Crit W. S. (ft)	586.35	Flow Area (sq ft)	0.16	66.17
E. G. Slope (ft/ft)	0.000352	Area (sq ft)	0.16	66.17
Q Total (cfs)	90.00	Flow (cfs)	0.02	89.98
Top Width (ft)	29.13	Top Width (ft)	2.26	26.87
Vel Total (ft/s)	1.36	Avg. Vel. (ft/s)	0.12	1.36
Max Chl Dpth (ft)	3.07	Hydr. Depth (ft)	0.07	2.46
Conv. Total (cfs)	4799.2	Conv. (cfs)	1.0	4798.2
Length Wtd. (ft)	85.70	Wetted Per. (ft)	2.27	28.42
Min Ch El (ft)	585.39	Shear (lb/sq ft)	0.00	0.05
Alpha 0.00	1.00	Stream Power (lb/ft s)	428.41	0.00
Frctn Loss (ft)		Cum Volume (acre-ft)	0.00	1.21
0.00 C & E Loss (ft)		Cum SA (acres)	0.01	0.68
0.01				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	588.80	Element	Left OB	Channel
Right OB Vel Head (ft)	0.03	Wt. n-Val.	0.040	0.036
0.040 W. S. Elev (ft)	588.77	Reach Len. (ft)	97.30	85.70
98.10 Crit W. S. (ft)	586.49	Flow Area (sq ft)	1.51	74.51
0.69 E. G. Slope (ft/ft)	0.000365	Area (sq ft)	1.63	74.51
0.82 Q Total (cfs)	112.00	Flow (cfs)	0.46	111.39
0.15 Top Width (ft)	41.09	Top Width (ft)	7.23	27.00
6.87 Vel Total (ft/s)	1.46	Avg. Vel. (ft/s)	0.31	1.49
0.22 Max Chl Dpth (ft)	3.38	Hydr. Depth (ft)	0.28	2.76
0.17 Conv. Total (cfs)	5859.2	Conv. (cfs)	24.3	5827.2
7.8 Length Wtd. (ft)	85.70	Wetted Per. (ft)	5.31	28.57
4.10 Min Ch El (ft)	585.39	Shear (lb/sq ft)	0.01	0.06

NFARS_RAS_trib_2.rep

0.00	Alpha	1.04	Stream Power (lb/ft s)	428.41	0.00
0.00	Frctn Loss (ft)		Cum Volume (acre-ft)	0.01	1.48
0.02	C & E Loss (ft)		Cum SA (acres)	0.02	0.74
0.11					

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	589.69	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.04	Wt. n-Val.	0.040	0.036
0.040				
W. S. Elev (ft)	589.64	Reach Len. (ft)	97.30	85.70
98.10				
Crit W. S. (ft)	586.86	Flow Area (sq ft)	6.13	98.05
4.26				
E. G. Slope (ft/ft)	0.000331	Area (sq ft)	14.85	98.05
17.69				
Q Total (cfs)	175.00	Flow (cfs)	4.56	167.49
2.96				
Top Width (ft)	88.19	Top Width (ft)	29.35	27.00
31.83				
Vel Total (ft/s)	1.61	Avg. Vel. (ft/s)	0.74	1.71
0.69				
Max Chl Dpth (ft)	4.25	Hydr. Depth (ft)	1.16	3.63
1.04				
Conv. Total (cfs)	9621.1	Conv. (cfs)	250.6	9208.0
162.5				
Length Wtd. (ft)	85.70	Wetted Per. (ft)	5.31	28.57
4.10				
Min Ch El (ft)	585.39	Shear (lb/sq ft)	0.02	0.07
0.02				
Alpha	1.08	Stream Power (lb/ft s)	428.41	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.15	2.34
0.50				
C & E Loss (ft)		Cum SA (acres)	0.49	0.87
1.16				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CULVERT

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 1653

INPUT
 Description: Wagner Drive
 Distance from Upstream XS = 21
 Deck/Roadway Width = 40
 Weir Coefficient = 2.6

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Upstream Deck/Roadway Coordinates

num= 5														
Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
0	591.31		580		80	591.31		580		180	591.19		580	
280	591.39		580		500	591.39		580						

Upstream Bridge Cross Section Data

Station Elevation Data num= 12															
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	590.86	19.849	590.86	37.139	590.86	69	590.86	149	589.44						
167	588.32	172	585.39	188	585.39	194	588.53	253	590.59						
380.052	590.59	428.412	590.59												

Manning's n Values

num= 3					
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	167	.036	194	.04

Bank Sta: Left Right Coeff Contr. Expan.

num= 2				
Sta L	Sta R	Elev	Permanent	
0	161.7	591	F	
198.1	428.412	591	F	

Downstream Deck/Roadway Coordinates

num= 5														
Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
0	591.31		580		77	591.31		580		177	591.19		580	
277	591.39		580		500	591.39		580						

Downstream Bridge Cross Section Data

Station Elevation Data num= 11															
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	593.24	10	593.24	27	590.27	72	589.37	136	588.69						
165	588.29	169	583.5	185	583.5	188	588.16	239	589.48						
443.963	589.48														

Manning's n Values

num= 3					
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	165	.036	188	.04

Bank Sta: Left Right Coeff Contr. Expan.

num= 2				
Sta L	Sta R	Elev	Permanent	
0	158.7	591	F	
195.1	443.963	591	F	

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
 Downstream Embankment side slope = 0 horiz. to 1.0 vertical
 Maximum allowable submergence for weir flow = .95
 Elevation at which weir flow begins =
 Energy head used in spillway design =
 Spillway height used in design =
 Weir crest shape = Broad Crested

Number of Culverts = 3

Culvert Name Shape Rise Span
 Culvert #1 Ellipse 3.1 4.6
 FHWA Chart # 29- Horizontal Ellipse; Concrete
 FHWA Scale # 1 - Square edge with headwall
 Solution Criteria = Highest U. S. EG

Culvert Upstrm Dist	Length	Top n	Bottom n	Depth Blocked	Entrance Loss Coef
Exit Loss Coef	21	40	.011	.011	0
1					.5
Upstream	Elevation = 586.09				
	Centerline Station = 174				
Downstream	Elevation = 584.93				
	Centerline Station = 171				

Culvert Name Shape Rise Span
 Culvert #2 Ellipse 2.6 4.1
 FHWA Chart # 29- Horizontal Ellipse; Concrete
 FHWA Scale # 1 - Square edge with headwall
 Solution Criteria = Highest U. S. EG

Culvert Upstrm Dist	Length	Top n	Bottom n	Depth Blocked	Entrance Loss Coef
Exit Loss Coef	21	40	.021	.021	0
1					.5
Upstream	Elevation = 586.35				
	Centerline Station = 180				
Downstream	Elevation = 585.79				
	Centerline Station = 177				

Culvert Name Shape Rise Span
 Culvert #3 Ellipse 2.6 4.2
 FHWA Chart # 29- Horizontal Ellipse; Concrete
 FHWA Scale # 1 - Square edge with headwall
 Solution Criteria = Highest U. S. EG

Culvert Upstrm Dist	Length	Top n	Bottom n	Depth Blocked	Entrance Loss Coef
Exit Loss Coef	21	40	.021	.021	0
1					.5
Upstream	Elevation = 586.14				
	Centerline Station = 186				
Downstream	Elevation = 585.8				
	Centerline Station = 183				

CULVERT OUTPUT Profile #10-Year Culv Group: Culvert #1

Q Culv Group (cfs)	18.78	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	5.15
Q Barrel (cfs)	18.78	Culv Vel DS (ft/s)	10.06
E. G. US. (ft)	587.82	Culv Inv El Up (ft)	586.09
W. S. US. (ft)	587.81	Culv Inv El Dn (ft)	584.93
E. G. DS (ft)	584.82	Culv Frctn Ls (ft)	0.43
W. S. DS (ft)	584.73	Culv Exit Loss (ft)	2.38
Delta EG (ft)	3.01	Culv Entr Loss (ft)	0.21
Delta WS (ft)	3.08	Q Weir (cfs)	
E. G. IC (ft)	587.60	Weir Sta Lft (ft)	
E. G. OC (ft)	587.83	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	587.21	Weir Max Depth (ft)	
Culv WS Outlet (ft)	585.62	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	0.60	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.12	Min El Weir Flow (ft)	591.20

Note: The flow in the culvert is entirely supercritical.

CULVERT OUTPUT Profile #50-Year Culv Group: Culvert #1

Q Culv Group (cfs)	33.58	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	6.17

NFARS_RAS_trib_2.rep			
Q Barrel (cfs)	33.58	Culv Vel DS (ft/s)	11.20
E. G. US. (ft)	588.49	Culv Inv El Up (ft)	586.09
W. S. US. (ft)	588.46	Culv Inv El Dn (ft)	584.93
E. G. DS (ft)	585.99	Culv Frctn Ls (ft)	0.35
W. S. DS (ft)	585.92	Culv Exit Loss (ft)	1.86
Del ta EG (ft)	2.50	Culv Entr Loss (ft)	0.30
Del ta WS (ft)	2.54	Q Weir (cfs)	
E. G. IC (ft)	588.24	Weir Sta Lft (ft)	
E. G. OC (ft)	588.49	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	587.61	Weir Max Depth (ft)	
Culv WS Outlet (ft)	585.90	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	0.80	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.52	Min El Weir Flow (ft)	591.20

Note: The flow in the culvert is entirely supercritical.

CULVERT OUTPUT Profile #100-Year Culv Group: Culvert #1

Q Culv Group (cfs)	41.73	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	6.63
Q Barrel (cfs)	41.73	Culv Vel DS (ft/s)	11.66
E. G. US. (ft)	588.80	Culv Inv El Up (ft)	586.09
W. S. US. (ft)	588.77	Culv Inv El Dn (ft)	584.93
E. G. DS (ft)	586.57	Culv Frctn Ls (ft)	0.33
W. S. DS (ft)	586.51	Culv Exit Loss (ft)	1.57
Del ta EG (ft)	2.23	Culv Entr Loss (ft)	0.34
Del ta WS (ft)	2.26	Q Weir (cfs)	
E. G. IC (ft)	588.57	Weir Sta Lft (ft)	
E. G. OC (ft)	588.81	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	587.79	Weir Max Depth (ft)	
Culv WS Outlet (ft)	586.03	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	0.89	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.70	Min El Weir Flow (ft)	591.20

Note: The flow in the culvert is entirely supercritical.

CULVERT OUTPUT Profile #500-Year Culv Group: Culvert #1

Q Culv Group (cfs)	65.38	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	7.89
Q Barrel (cfs)	65.38	Culv Vel DS (ft/s)	12.76
E. G. US. (ft)	589.69	Culv Inv El Up (ft)	586.09
W. S. US. (ft)	589.64	Culv Inv El Dn (ft)	584.93
E. G. DS (ft)	587.53	Culv Frctn Ls (ft)	0.30
W. S. DS (ft)	587.44	Culv Exit Loss (ft)	1.38
Del ta EG (ft)	2.16	Culv Entr Loss (ft)	0.48
Del ta WS (ft)	2.20	Q Weir (cfs)	
E. G. IC (ft)	589.50	Weir Sta Lft (ft)	
E. G. OC (ft)	589.69	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	588.24	Weir Max Depth (ft)	
Culv WS Outlet (ft)	586.38	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	1.11	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.15	Min El Weir Flow (ft)	591.20

Note: The flow in the culvert is entirely supercritical.

CULVERT OUTPUT Profile #10-Year Culv Group: Culvert #2

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Q Culv Group (cfs)	13.04	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	4.74
Q Barrel (cfs)	13.04	Culv Vel DS (ft/s)	5.52
E.G. US. (ft)	587.82	Culv Inv El Up (ft)	586.35
W.S. US. (ft)	587.81	Culv Inv El Dn (ft)	585.79
E.G. DS (ft)	584.82	Culv Frctn Ls (ft)	0.54
W.S. DS (ft)	584.73	Culv Exit Loss (ft)	2.29
Delta EG (ft)	3.01	Culv Entr Loss (ft)	0.17
Delta WS (ft)	3.08	Q Weir (cfs)	
E.G. IC (ft)	587.65	Weir Sta Lft (ft)	
E.G. OC (ft)	587.82	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	587.30	Weir Max Depth (ft)	
Culv WS Outlet (ft)	586.64	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	0.85	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	0.95	Min El Weir Flow (ft)	591.20

Note: During supercritical analysis, the culvert direct step method went to normal depth. The program then assumed normal depth at the outlet.

Note: The flow in the culvert is entirely supercritical.

CULVERT OUTPUT Profile #50-Year Culv Group: Culvert #2

Q Culv Group (cfs)	25.20	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	5.83
Q Barrel (cfs)	25.20	Culv Vel DS (ft/s)	6.78
E.G. US. (ft)	588.49	Culv Inv El Up (ft)	586.35
W.S. US. (ft)	588.46	Culv Inv El Dn (ft)	585.79
E.G. DS (ft)	585.99	Culv Frctn Ls (ft)	0.52
W.S. DS (ft)	585.92	Culv Exit Loss (ft)	1.70
Delta EG (ft)	2.50	Culv Entr Loss (ft)	0.26
Delta WS (ft)	2.54	Q Weir (cfs)	
E.G. IC (ft)	588.28	Weir Sta Lft (ft)	
E.G. OC (ft)	588.47	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	587.68	Weir Max Depth (ft)	
Culv WS Outlet (ft)	586.98	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	1.19	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.33	Min El Weir Flow (ft)	591.20

Note: During supercritical analysis, the culvert direct step method went to normal depth. The program then assumed normal depth at the outlet.

Note: The flow in the culvert is entirely supercritical.

CULVERT OUTPUT Profile #100-Year Culv Group: Culvert #2

Q Culv Group (cfs)	31.81	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	6.32
Q Barrel (cfs)	31.81	Culv Vel DS (ft/s)	7.25
E.G. US. (ft)	588.80	Culv Inv El Up (ft)	586.35
W.S. US. (ft)	588.77	Culv Inv El Dn (ft)	585.79
E.G. DS (ft)	586.57	Culv Frctn Ls (ft)	0.52
W.S. DS (ft)	586.51	Culv Exit Loss (ft)	1.38
Delta EG (ft)	2.23	Culv Entr Loss (ft)	0.31
Delta WS (ft)	2.26	Q Weir (cfs)	
E.G. IC (ft)	588.60	Weir Sta Lft (ft)	
E.G. OC (ft)	588.79	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	

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Culv WS Inlet (ft)	587.86	Weir Max Depth (ft)	
Culv WS Outlet (ft)	587.14	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	1.35	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.51	Min El Weir Flow (ft)	591.20

Note: The flow in the culvert is entirely supercritical.

CULVERT OUTPUT Profile #500-Year Culv Group: Culvert #2

Q Culv Group (cfs)	51.66	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	7.73
Q Barrel (cfs)	51.66	Culv Vel DS (ft/s)	8.22
E. G. US. (ft)	589.69	Culv Inv El Up (ft)	586.35
W. S. US. (ft)	589.64	Culv Inv El Dn (ft)	585.79
E. G. DS (ft)	587.53	Culv Frctn Ls (ft)	0.55
W. S. DS (ft)	587.44	Culv Exit Loss (ft)	1.14
Delta EG (ft)	2.16	Culv Entr Loss (ft)	0.46
Delta WS (ft)	2.20	Q Weir (cfs)	
E. G. IC (ft)	589.58	Weir Sta Lft (ft)	
E. G. OC (ft)	589.68	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	588.28	Weir Max Depth (ft)	
Culv WS Outlet (ft)	587.62	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	1.83	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.93	Min El Weir Flow (ft)	591.20

Note: During supercritical analysis, the culvert direct step method went to normal depth. The program then assumed normal depth at the outlet.

Note: The flow in the culvert is entirely supercritical.

CULVERT OUTPUT Profile #10-Year Culv Group: Culvert #3

Q Culv Group (cfs)	17.18	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	5.03
Q Barrel (cfs)	17.18	Culv Vel DS (ft/s)	5.11
E. G. US. (ft)	587.82	Culv Inv El Up (ft)	586.14
W. S. US. (ft)	587.81	Culv Inv El Dn (ft)	585.80
E. G. DS (ft)	584.82	Culv Frctn Ls (ft)	0.34
W. S. DS (ft)	584.73	Culv Exit Loss (ft)	2.47
Delta EG (ft)	3.01	Culv Entr Loss (ft)	0.20
Delta WS (ft)	3.08	Q Weir (cfs)	
E. G. IC (ft)	587.65	Weir Sta Lft (ft)	
E. G. OC (ft)	587.82	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	587.23	Weir Max Depth (ft)	
Culv WS Outlet (ft)	586.88	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	1.09	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.08	Min El Weir Flow (ft)	591.20

Note: During subcritical analysis, the culvert direct step method, the solution went to normal depth.

CULVERT OUTPUT Profile #50-Year Culv Group: Culvert #3

Q Culv Group (cfs)	31.22	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	6.01
Q Barrel (cfs)	31.22	Culv Vel DS (ft/s)	6.20
E. G. US. (ft)	588.49	Culv Inv El Up (ft)	586.14
W. S. US. (ft)	588.46	Culv Inv El Dn (ft)	585.80

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E. G. DS (ft)	585.99	Culv Frctn Ls (ft)	0.34
W. S. DS (ft)	585.92	Culv Exit Loss (ft)	1.89
Delta EG (ft)	2.50	Culv Entr Loss (ft)	0.28
Delta WS (ft)	2.54	Q Weir (cfs)	
E. G. IC (ft)	588.34	Weir Sta Lft (ft)	
E. G. OC (ft)	588.50	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	587.66	Weir Max Depth (ft)	
Culv WS Outlet (ft)	587.28	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	1.52	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.48	Min El Weir Flow (ft)	591.20

Note: During subcritical analysis, the culvert direct step method, the solution went to normal depth.

CULVERT OUTPUT Profile #100-Year Culv Group: Culvert #3

Q Culv Group (cfs)	38.46	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	6.33
Q Barrel (cfs)	38.46	Culv Vel DS (ft/s)	6.75
E. G. US. (ft)	588.80	Culv Inv El Up (ft)	586.14
W. S. US. (ft)	588.77	Culv Inv El Dn (ft)	585.80
E. G. DS (ft)	586.57	Culv Frctn Ls (ft)	0.35
W. S. DS (ft)	586.51	Culv Exit Loss (ft)	1.58
Delta EG (ft)	2.23	Culv Entr Loss (ft)	0.31
Delta WS (ft)	2.26	Q Weir (cfs)	
E. G. IC (ft)	588.68	Weir Sta Lft (ft)	
E. G. OC (ft)	588.81	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	587.87	Weir Max Depth (ft)	
Culv WS Outlet (ft)	587.44	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	1.73	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.64	Min El Weir Flow (ft)	591.20

Note: During subcritical analysis, the culvert direct step method, the solution went to normal depth.

CULVERT OUTPUT Profile #500-Year Culv Group: Culvert #3

Q Culv Group (cfs)	57.96	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	7.11
Q Barrel (cfs)	57.96	Culv Vel DS (ft/s)	8.12
E. G. US. (ft)	589.69	Culv Inv El Up (ft)	586.14
W. S. US. (ft)	589.64	Culv Inv El Dn (ft)	585.80
E. G. DS (ft)	587.53	Culv Frctn Ls (ft)	0.43
W. S. DS (ft)	587.44	Culv Exit Loss (ft)	1.31
Delta EG (ft)	2.16	Culv Entr Loss (ft)	0.42
Delta WS (ft)	2.20	Q Weir (cfs)	
E. G. IC (ft)	589.69	Weir Sta Lft (ft)	
E. G. OC (ft)	589.67	Weir Sta Rgt (ft)	
Culvert Control	Inlet	Weir Submerg	
Culv WS Inlet (ft)	588.49	Weir Max Depth (ft)	
Culv WS Outlet (ft)	587.82	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	2.60	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.02	Min El Weir Flow (ft)	591.20

Note: The normal depth exceeds the height of the culvert. The program assumes that the normal depth is equal to the height of the culvert.

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 1588.307

INPUT

Description: D/S BR4

Station		Elevation		Data		num=		11	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	593.24	10	593.24	27	590.27	72	589.37	136	588.69
165	588.29	169	583.5	185	583.5	188	588.16	239	589.48
443.963	589.48								

Manning's n		Values		num=		3	
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.04	165	.036	188	.04		

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	165	188		76.88	73.12	80.88		.3	.5

Ineffective Flow		num=		2	
Sta L	Sta R	Elev	Permanent		
0	158.7	591	F		
195.1	443.963	591	F		

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	584.82	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.09	Wt. n-Val.		0.036
W. S. Elev (ft)	584.73	Reach Len. (ft)	76.88	73.12
80.88				
Crit W. S. (ft)	584.16	Flow Area (sq ft)		20.79
E. G. Slope (ft/ft)	0.002905	Area (sq ft)		20.79
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	17.82	Top Width (ft)		17.82
Vel Total (ft/s)	2.36	Avg. Vel. (ft/s)		2.36
Max Chl Dpth (ft)	1.23	Hydr. Depth (ft)		1.17
Conv. Total (cfs)	909.1	Conv. (cfs)		909.1
Length Wtd. (ft)	73.12	Wetted Per. (ft)		19.06
Min Ch El (ft)	583.50	Shear (lb/sq ft)		0.20
Alpha	1.00	Stream Power (lb/ft s)	443.96	0.00
0.00				
Frctn Loss (ft)	0.11	Cum Volume (acre-ft)	0.00	0.69
0.00				
C & E Loss (ft)	0.02	Cum SA (acres)	0.00	0.49
0.00				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

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This may indicate the need for additional cross sections.
 Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	585.99	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.		0.036
W. S. Elev (ft)	585.92	Reach Len. (ft)	76.88	73.12
80.88				
Crit W. S. (ft)	584.48	Flow Area (sq ft)		43.01
E. G. Slope (ft/ft)	0.001053	Area (sq ft)		43.01
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	19.58	Top Width (ft)		19.58
Vel Total (ft/s)	2.09	Avg. Vel. (ft/s)		2.09
Max Chl Dpth (ft)	2.42	Hydr. Depth (ft)		2.20
Conv. Total (cfs)	2773.9	Conv. (cfs)		2773.9
Length Wtd. (ft)	73.12	Wetted Per. (ft)		22.03
Min Ch El (ft)	583.50	Shear (lb/sq ft)		0.13
Alpha	1.00	Stream Power (lb/ft s)	443.96	0.00
0.00				
Frctn Loss (ft)	0.06	Cum Volume (acre-ft)	0.00	1.16
0.00				
C & E Loss (ft)	0.01	Cum SA (acres)	0.01	0.64
0.01				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	586.57	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.06	Wt. n-Val.		0.036
W. S. Elev (ft)	586.51	Reach Len. (ft)	76.88	73.12
80.88				
Crit W. S. (ft)	584.64	Flow Area (sq ft)		54.79
E. G. Slope (ft/ft)	0.000793	Area (sq ft)		54.79
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	20.45	Top Width (ft)		20.45
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)		2.04
Max Chl Dpth (ft)	3.01	Hydr. Depth (ft)		2.68

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Conv. Total (cfs)	3977.1	Conv. (cfs)		3977.1
Length Wtd. (ft)	73.12	Wetted Per. (ft)		23.49
Min Ch El (ft)	583.50	Shear (lb/sq ft)		0.12
Alpha 0.00	1.00	Stream Power (lb/ft s)	443.96	0.00
Frctn Loss (ft) 0.02	0.05	Cum Volume (acre-ft)	0.01	1.43
C & E Loss (ft) 0.10	0.01	Cum SA (acres)	0.01	0.70

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	587.53	Element	Left OB	Channel
Right OB Vel Head (ft)	0.09	Wt. n-Val.		0.036
W. S. Elev (ft) 80.88	587.44	Reach Len. (ft)	76.88	73.12
Crit W. S. (ft)	585.01	Flow Area (sq ft)		74.58
E. G. Slope (ft/ft)	0.000786	Area (sq ft)		74.58
Q Total (cfs)	175.00	Flow (cfs)		175.00
Top Width (ft)	21.83	Top Width (ft)		21.83
Vel Total (ft/s)	2.35	Avg. Vel. (ft/s)		2.35
Max Chl Dpth (ft)	3.94	Hydr. Depth (ft)		3.42
Conv. Total (cfs)	6242.0	Conv. (cfs)		6242.0
Length Wtd. (ft)	73.34	Wetted Per. (ft)		25.83
Min Ch El (ft)	583.50	Shear (lb/sq ft)		0.14
Alpha 0.00	1.00	Stream Power (lb/ft s)	443.96	0.00
Frctn Loss (ft) 0.50	0.04	Cum Volume (acre-ft)	0.15	2.25
C & E Loss (ft) 1.12	0.02	Cum SA (acres)	0.46	0.82

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION

RIVER: Trib to Cayuga
REACH: Reach 1

RS: 1515.168

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INPUT

Description: Surveyed Section 9

Station Elevation Data		num=		14					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	591.64	4	591.64	21	588.67	66	587.77	130	587.09
159	586.69	168	582.66	168.5	581.9	171	581.9	173.5	581.9
176	582.73	182	586.56	233	587.88	431.135	587.88		

Manning's n Values		num=		3	
Station	Value	Station	Value	Station	Value
0	.04	159	.036	182	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	159	182		115.08	117.12	119.04	.3
							.5

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	584.69	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.036
W. S. Elev (ft)	584.64	Reach Len. (ft)	115.08	117.12
119.04				
Crit W. S. (ft)		Flow Area (sq ft)		27.89
E. G. Slope (ft/ft)	0.000931	Area (sq ft)		27.89
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	15.40	Top Width (ft)		15.40
Vel Total (ft/s)	1.76	Avg. Vel. (ft/s)		1.76
Max Chl Dpth (ft)	2.74	Hydr. Depth (ft)		1.81
Conv. Total (cfs)	1605.8	Conv. (cfs)		1605.8
Length Wtd. (ft)	117.12	Wetted Per. (ft)		16.93
Min Ch El (ft)	581.90	Shear (lb/sq ft)		0.10
Alpha	1.00	Stream Power (lb/ft s)	431.14	0.00
0.00				
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)	0.00	0.65
0.00				
C & E Loss (ft)	0.01	Cum SA (acres)	0.00	0.46
0.00				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	585.92	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.036

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W. S. Elev (ft)	585.87	Reach Len. (ft)	115.08	117.12
119.04 Crit W. S. (ft)		Flow Area (sq ft)		49.69
E. G. Slope (ft/ft)	0.000658	Area (sq ft)		49.69
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	20.08	Top Width (ft)		20.08
Vel Total (ft/s)	1.81	Avg. Vel. (ft/s)		1.81
Max Chl Dpth (ft)	3.97	Hydr. Depth (ft)		2.48
Conv. Total (cfs)	3507.8	Conv. (cfs)		3507.8
Length Wtd. (ft)	117.12	Wetted Per. (ft)		22.22
Min Ch El (ft)	581.90	Shear (lb/sq ft)		0.09
Al pha 0.00	1.00	Stream Power (lb/ft s)	431.14	0.00
Frctn Loss (ft) 0.00	0.06	Cum Volume (acre-ft)	0.00	1.08
C & E Loss (ft) 0.01	0.01	Cum SA (acres)	0.01	0.60

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	586.52	Element	Left OB	Channel
Right OB Vel Head (ft)	0.05	Wt. n-Val.		0.036
W. S. Elev (ft)	586.47	Reach Len. (ft)	115.08	117.12
119.04 Crit W. S. (ft)		Flow Area (sq ft)		62.41
E. G. Slope (ft/ft)	0.000552	Area (sq ft)		62.41
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	22.35	Top Width (ft)		22.35
Vel Total (ft/s)	1.79	Avg. Vel. (ft/s)		1.79
Max Chl Dpth (ft)	4.57	Hydr. Depth (ft)		2.79
Conv. Total (cfs)	4765.7	Conv. (cfs)		4765.7
Length Wtd. (ft)	117.12	Wetted Per. (ft)		24.80
Min Ch El (ft)	581.90	Shear (lb/sq ft)		0.09
Al pha 0.00	1.00	Stream Power (lb/ft s)	431.14	0.00
Frctn Loss (ft) 0.02	0.05	Cum Volume (acre-ft)	0.01	1.33
C & E Loss (ft) 0.10	0.01	Cum SA (acres)	0.01	0.66

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CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	587.47	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.	0.040	0.036
0.040				
W. S. Elev (ft)	587.42	Reach Len. (ft)	115.08	117.12
119.04				
Crit W. S. (ft)		Flow Area (sq ft)	20.33	84.22
14.20				
E. G. Slope (ft/ft)	0.000437	Area (sq ft)	20.33	84.22
14.20				
Q Total (cfs)	175.00	Flow (cfs)	7.69	161.05
6.26				
Top Width (ft)	115.92	Top Width (ft)	59.80	23.00
33.12				
Vel Total (ft/s)	1.47	Avg. Vel. (ft/s)	0.38	1.91
0.44				
Max Chl Dpth (ft)	5.52	Hydr. Depth (ft)	0.34	3.66
0.43				
Conv. Total (cfs)	8372.9	Conv. (cfs)	367.8	7705.4
299.7				
Length Wtd. (ft)	117.14	Wetted Per. (ft)	59.80	25.52
33.13				
Min Ch El (ft)	581.90	Shear (lb/sq ft)	0.01	0.09
0.01				
Alpha	1.56	Stream Power (lb/ft s)	431.14	0.00
0.00				
Frctn Loss (ft)	0.04	Cum Volume (acre-ft)	0.13	2.11
0.49				
C & E Loss (ft)	0.01	Cum SA (acres)	0.40	0.79
1.09				

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1

RS: 1398.047

INPUT

Description: U/S BR5

Station Elevation Data

num= 14

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	591.04	28	591.04	45	588.07	90	587.17	154	586.49
183	586.09	192	582.06	192.5	581.3	195	581.3	197.5	581.3
200	582.13	206	585.96	257	587.28	364.403	587.28		

Manning's n Values

num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.04	183	.036	206	.04

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 183 206 48.65 48.62 48.56 .3 .5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	182	587.09	F
208	364.403	587.05	F

Blocked Obstructions num= 1

Sta L Sta R Elev
0 182 587.09

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	584.60	Element	Left OB	Channel
Right OB Vel Head (ft)	0.03	Wt. n-Val.		0.036
W. S. Elev (ft)	584.58	Reach Len. (ft)	48.65	48.62
48.56 Crit W. S. (ft)	582.52	Flow Area (sq ft)		36.72
E. G. Slope (ft/ft)	0.000442	Area (sq ft)		36.72
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	17.45	Top Width (ft)		17.45
Vel Total (ft/s)	1.33	Avg. Vel. (ft/s)		1.33
Max Chl Dpth (ft)	3.28	Hydr. Depth (ft)		2.10
Conv. Total (cfs)	2331.8	Conv. (cfs)		2331.8
Length Wtd. (ft)	48.62	Wetted Per. (ft)		19.24
Min Ch El (ft)	581.30	Shear (lb/sq ft)		0.05
Alpha 0.00	1.00	Stream Power (lb/ft s)	364.40	0.00
Frctn Loss (ft)		Cum Volume (acre-ft)	0.00	0.56
0.00		Cum SA (acres)	0.00	0.42
C & E Loss (ft)				
0.00				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	585.85	Element	Left OB	Channel
Right OB Vel Head (ft)	0.03	Wt. n-Val.		0.036
W. S. Elev (ft)	585.82	Reach Len. (ft)	48.65	48.62
48.56 Crit W. S. (ft)	583.03	Flow Area (sq ft)		61.35
E. G. Slope (ft/ft)	0.000373	Area (sq ft)		61.35
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	22.17	Top Width (ft)		22.17
Vel Total (ft/s)	1.47	Avg. Vel. (ft/s)		1.47
Max Chl Dpth (ft)	4.52	Hydr. Depth (ft)		2.77

	NFARS_RAS_trib_2.rep		
Conv. Total (cfs)	4657.5	Conv. (cfs)	4657.5
Length Wtd. (ft)	48.62	Wetted Per. (ft)	24.60
Min Ch El (ft)	581.30	Shear (lb/sq ft)	0.06
Alpha	1.00	Stream Power (lb/ft s)	364.40
0.00		Cum Volume (acre-ft)	0.00
Frctn Loss (ft)		Cum SA (acres)	0.01
0.00			0.55
C & E Loss (ft)			
0.01			

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	586.46	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.	0.040	0.036
0.040				
W. S. Elev (ft)	586.43	Reach Len. (ft)	48.65	48.62
48.56				
Crit W. S. (ft)	583.25	Flow Area (sq ft)	0.33	75.25
0.88				
E. G. Slope (ft/ft)	0.000305	Area (sq ft)	0.33	75.25
4.21				
Q Total (cfs)	112.00	Flow (cfs)	0.08	111.58
0.33				
Top Width (ft)	42.04	Top Width (ft)	1.00	23.00
18.04				
Vel Total (ft/s)	1.46	Avg. Vel. (ft/s)	0.26	1.48
0.38				
Max Chl Dpth (ft)	5.13	Hydr. Depth (ft)	0.33	3.27
0.44				
Conv. Total (cfs)	6409.5	Conv. (cfs)	4.9	6385.6
19.0				
Length Wtd. (ft)	48.62	Wetted Per. (ft)	1.32	25.52
2.00				
Min Ch El (ft)	581.30	Shear (lb/sq ft)	0.00	0.06
0.01				
Alpha	1.02	Stream Power (lb/ft s)	364.40	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.00	1.14
0.01				
C & E Loss (ft)		Cum SA (acres)	0.01	0.60
0.08				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	587.42	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.	0.040	0.036

NFARS_RAS_trib_2.rep

0.040					
W. S. Elev (ft)	587.39	Reach Len. (ft)	48.65	48.62	
48.56					
Crit W. S. (ft)	583.76	Flow Area (sq ft)	29.68	97.37	
50.90					
E. G. Slope (ft/ft)	0.000245	Area (sq ft)	29.68	97.37	
50.90					
Q Total (cfs)	175.00	Flow (cfs)	7.44	153.68	
13.88					
Top Width (ft)	285.35	Top Width (ft)	103.94	23.00	
158.40					
Vel Total (ft/s)	0.98	Avg. Vel. (ft/s)	0.25	1.58	
0.27					
Max Chl Dpth (ft)	6.09	Hydr. Depth (ft)	0.29	4.23	
0.32					
Conv. Total (cfs)	11174.3	Conv. (cfs)	475.1	9812.6	
886.6					
Length Wtd. (ft)	48.62	Wetted Per. (ft)	104.93	25.52	
158.53					
Min Ch El (ft)	581.30	Shear (lb/sq ft)	0.00	0.06	
0.00					
Alpha	2.27	Stream Power (lb/ft s)	364.40	0.00	
0.00					
Frctn Loss (ft)		Cum Volume (acre-ft)	0.06	1.87	
0.40					
C & E Loss (ft)		Cum SA (acres)	0.19	0.72	
0.83					

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CULVERT

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 1387

INPUT

Description: Culvert 3
 Distance from Upstream XS = 11
 Deck/Roadway Width = 26
 Weir Coefficient = 2.6
 Upstream Deck/Roadway Coordinates

num=	5													
Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
90	587.17		575		145	587.09		575		195	587.81		575	
245	587.05		575		257	587.28		575						

Upstream Bridge Cross Section Data

Station	Elevation	Data	num=	14							
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	591.04	28	591.04	45	588.07	90	587.17	154	586.49		
183	586.09	192	582.06	192.5	581.3	195	581.3	197.5	581.3		
200	582.13	206	585.96	257	587.28	364.403	587.28				

Manning's n Values

num=	3				
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	183	.036	206	.04

Bank Sta: Left Right Coeff Contr. Expan.
 183 206 .3 .5

Ineffective Flow num= 2
 Sta L Sta R Elev Permanent
 0 182 587.09 F
 208 364.403 587.05 F

Blocked Obstructions num= 1
 Sta L Sta R Elev
 0 182 587.09

Downstream Deck/Roadway Coordinates
 num= 4

Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
140	587.09	575	190	587.81	575	240	587.05	575						
283	587.1	575												

Downstream Bridge Cross Section Data
 Station Elevation Data num= 13

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	592.04	39	592.04	55	588.98	145	587.85	175	586.34
186	582.57	187	581.05	190	581.05	193	581.05	193	582.75
200	585.54	283	587.1	364.764	587.26				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.04	175	.036	200	.04

Bank Sta: Left Right Coeff Contr. Expan.
 175 200 .3 .5

Ineffective Flow num= 2
 Sta L Sta R Elev Permanent
 0 149.41 586.3 F
 230.59 364.764 586.3 F

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
 Downstream Embankment side slope = 0 horiz. to 1.0 vertical
 Maximum allowable submergence for weir flow = .95
 Elevation at which weir flow begins =
 Energy head used in spillway design =
 Spillway height used in design =
 Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name Shape Rise Span
 Culvert #1 Circular 6
 FHWA Chart # 2 - Corrugated Metal Pipe Culvert
 FHWA Scale # 3 - Pipe projecting from fill
 Solution Criteria = Highest U.S. EG

Culvert	Upstrm Dist	Length	Top n	Bottom n	Depth Blocked	Entrance Loss Coef
1	11	26	.021	.021	0	.9

 Upstream Elevation = 581.58
 Centerline Station = 195
 Downstream Elevation = 581.6
 Centerline Station = 190

CULVERT OUTPUT Profile #10-Year Culv Group: Culvert #1

Q Culv Group (cfs)	49.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	4.76
Q Barrel (cfs)	49.00	Culv Vel DS (ft/s)	5.52
E.G. US. (ft)	584.60	Culv Inv El Up (ft)	581.58
W.S. US. (ft)	584.58	Culv Inv El Dn (ft)	581.60

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E. G. DS (ft)	583.80	Culv Frctn Ls (ft)	0.10
W. S. DS (ft)	583.71	Culv Exit Loss (ft)	0.39
Del ta EG (ft)	0.81	Culv Entr Loss (ft)	0.32
Del ta WS (ft)	0.86	Q Weir (cfs)	
E. G. IC (ft)	584.23	Weir Sta Lft (ft)	
E. G. OC (ft)	584.60	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	583.93	Weir Max Depth (ft)	
Culv WS Outlet (ft)	583.71	Weir Avg Depth (ft)	
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.86	Min El Weir Flow (ft)	587.06

CULVERT OUTPUT Profile #50-Year Culv Group: Culvert #1

Q Culv Group (cfs)	90.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	5.46
Q Barrel (cfs)	90.00	Culv Vel DS (ft/s)	5.82
E. G. US. (ft)	585.85	Culv Inv El Up (ft)	581.58
W. S. US. (ft)	585.82	Culv Inv El Dn (ft)	581.60
E. G. DS (ft)	584.91	Culv Frctn Ls (ft)	0.09
W. S. DS (ft)	584.82	Culv Exit Loss (ft)	0.44
Del ta EG (ft)	0.95	Culv Entr Loss (ft)	0.42
Del ta WS (ft)	1.00	Q Weir (cfs)	
E. G. IC (ft)	585.39	Weir Sta Lft (ft)	
E. G. OC (ft)	585.85	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	584.97	Weir Max Depth (ft)	
Culv WS Outlet (ft)	584.82	Weir Avg Depth (ft)	
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.55	Min El Weir Flow (ft)	587.06

CULVERT OUTPUT Profile #100-Year Culv Group: Culvert #1

Q Culv Group (cfs)	112.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	5.74
Q Barrel (cfs)	112.00	Culv Vel DS (ft/s)	6.03
E. G. US. (ft)	586.46	Culv Inv El Up (ft)	581.58
W. S. US. (ft)	586.43	Culv Inv El Dn (ft)	581.60
E. G. DS (ft)	585.43	Culv Frctn Ls (ft)	0.09
W. S. DS (ft)	585.35	Culv Exit Loss (ft)	0.48
Del ta EG (ft)	1.03	Culv Entr Loss (ft)	0.46
Del ta WS (ft)	1.08	Q Weir (cfs)	
E. G. IC (ft)	585.96	Weir Sta Lft (ft)	
E. G. OC (ft)	586.46	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	585.49	Weir Max Depth (ft)	
Culv WS Outlet (ft)	585.35	Weir Avg Depth (ft)	
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.85	Min El Weir Flow (ft)	587.06

CULVERT OUTPUT Profile #500-Year Culv Group: Culvert #1

Q Culv Group (cfs)	112.03	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	4.23
Q Barrel (cfs)	112.03	Culv Vel DS (ft/s)	4.27
E. G. US. (ft)	587.42	Culv Inv El Up (ft)	581.58
W. S. US. (ft)	587.39	Culv Inv El Dn (ft)	581.60
E. G. DS (ft)	586.89	Culv Frctn Ls (ft)	0.04
W. S. DS (ft)	586.85	Culv Exit Loss (ft)	0.24
Del ta EG (ft)	0.54	Culv Entr Loss (ft)	0.25

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Delta WS (ft)	0.54	Q Weir (cfs)	62.97
E.G. IC (ft)	587.27	Weir Sta Lft (ft)	76.03
E.G. OC (ft)	587.42	Weir Sta Rgt (ft)	364.40
Culvert Control	Outlet	Weir Submerg	0.00
Culv WS Inlet (ft)	586.90	Weir Max Depth (ft)	0.40
Culv WS Outlet (ft)	586.85	Weir Avg Depth (ft)	0.21
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	50.87
Culv Crt Depth (ft)	2.86	Min El Weir Flow (ft)	587.06

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 1349.409

INPUT

Description: D/S BR5

Station Elevation Data

	num=	13							
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	592.04	39	592.04	55	588.98	145	587.85	175	586.34
186	582.57	187	581.05	190	581.05	193	581.05	193	582.75
200	585.54	283	587.1	364.764	587.26				

Manning's n Values

	num=	3			
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	175	.036	200	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
175	200	70.96	93.74	116.18	.3	.5	
Ineffective Flow	num=	2					
Sta L	Sta R	Elev	Permanent				
0	149.41	586.3	F				
230.59	364.764	586.3	F				

CROSS SECTION OUTPUT Profile #10-Year

E.G. Elev (ft)	583.80	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.09	Wt. n-Val.		0.036
W.S. Elev (ft)	583.71	Reach Len. (ft)	70.96	93.74
116.18				
Crit W.S. (ft)	582.30	Flow Area (sq ft)		20.92
E.G. Slope (ft/ft)	0.002183	Area (sq ft)		20.92
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	12.74	Top Width (ft)		12.74
Vel Total (ft/s)	2.34	Avg. Vel. (ft/s)		2.34
Max Chl Dpth (ft)	2.66	Hydr. Depth (ft)		1.64
Conv. Total (cfs)	1048.8	Conv. (cfs)		1048.8
Length Wtd. (ft)	93.74	Wetted Per. (ft)		15.63
Min Ch El (ft)	581.05	Shear (lb/sq ft)		0.18
Alpha	1.00	Stream Power (lb/ft s)	364.76	0.00

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0.00 Frctn Loss (ft)	0.16	Cum Volume (acre-ft)	0.00	0.54
0.00 C & E Loss (ft)	0.01	Cum SA (acres)	0.00	0.40

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	584.91	Element	Left OB	Channel
Right OB Vel Head (ft)	0.09	Wt. n-Val.		0.036
W. S. Elev (ft)	584.82	Reach Len. (ft)	70.96	93.74
116.18 Crit W. S. (ft)	582.96	Flow Area (sq ft)		38.41
E. G. Slope (ft/ft)	0.001538	Area (sq ft)		38.41
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	18.77	Top Width (ft)		18.77
Vel Total (ft/s)	2.34	Avg. Vel. (ft/s)		2.34
Max Chl Dpth (ft)	3.77	Hydr. Depth (ft)		2.05
Conv. Total (cfs)	2295.1	Conv. (cfs)		2295.1
Length Wtd. (ft)	93.74	Wetted Per. (ft)		22.06
Min Ch El (ft)	581.05	Shear (lb/sq ft)		0.17
Alpha	1.00	Stream Power (lb/ft s)	364.76	0.00
0.00 Frctn Loss (ft)	0.11	Cum Volume (acre-ft)	0.00	0.90
0.00 C & E Loss (ft)	0.01	Cum SA (acres)	0.01	0.52

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	585.43	Element	Left OB	Channel
Right OB Vel Head (ft)	0.08	Wt. n-Val.		0.036
W. S. Elev (ft)	585.35	Reach Len. (ft)	70.96	93.74
116.18 Crit W. S. (ft)	583.27	Flow Area (sq ft)		49.06
E. G. Slope (ft/ft)	0.001252	Area (sq ft)		49.06
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	21.63	Top Width (ft)		21.63
Vel Total (ft/s)	2.28	Avg. Vel. (ft/s)		2.28

	NFARS_RAS_trib_2.rep			
Max Chl Dpth (ft)	4.30	Hydr. Depth (ft)		2.27
Conv. Total (cfs)	3165.0	Conv. (cfs)		3165.0
Length Wtd. (ft)	93.77	Wetted Per. (ft)		25.11
Min Ch El (ft)	581.05	Shear (lb/sq ft)		0.15
Alpha	1.00	Stream Power (lb/ft s)	364.76	0.00
0.00				
Frctn Loss (ft)	0.09	Cum Volume (acre-ft)	0.00	1.11
0.01				
C & E Loss (ft)	0.01	Cum SA (acres)	0.01	0.58
0.07				

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	586.89	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.04	Wt. n-Val.	0.040	0.036
0.040				
W. S. Elev (ft)	586.85	Reach Len. (ft)	70.96	93.74
116.18				
Crit W. S. (ft)	583.91	Flow Area (sq ft)	2.56	85.05
45.47				
E. G. Slope (ft/ft)	0.000418	Area (sq ft)	2.56	85.05
45.47				
Q Total (cfs)	175.00	Flow (cfs)	0.78	148.20
26.02				
Top Width (ft)	104.64	Top Width (ft)	10.08	25.00
69.56				
Vel Total (ft/s)	1.31	Avg. Vel. (ft/s)	0.30	1.74
0.57				
Max Chl Dpth (ft)	5.80	Hydr. Depth (ft)	0.25	3.40
0.65				
Conv. Total (cfs)	8556.1	Conv. (cfs)	38.0	7246.0
1272.1				
Length Wtd. (ft)	97.48	Wetted Per. (ft)	10.09	28.68
69.57				
Min Ch El (ft)	581.05	Shear (lb/sq ft)	0.01	0.08
0.02				
Alpha	1.52	Stream Power (lb/ft s)	364.76	0.00
0.00				
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	0.06	1.76
0.40				
C & E Loss (ft)	0.01	Cum SA (acres)	0.12	0.70
0.70				

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 1255.663

INPUT

Description: Surveyed Section 10

Station Elevati on Data num= 13
 Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev

NFARS_RAS_trib_2.rep

0	591.56	18	591.56	34	588.5	124	587.37	154	585.86
165	582.09	166	580.57	169	580.57	172	580.57	172	582.27
179	585.06	262	586.62	431.234	587.26				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.04	154	.036	179	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	154	179		148.89	118.41	87.69	.3 .5

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	583.63	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.06	Wt. n-Val.		0.036
W. S. Elev (ft)	583.57	Reach Len. (ft)	148.89	118.41
87.69				
Crit W. S. (ft)		Flow Area (sq ft)		25.54
E. G. Slope (ft/ft)	0.001315	Area (sq ft)		25.54
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	14.57	Top Width (ft)		14.57
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)		1.92
Max Chl Dpth (ft)	3.00	Hydr. Depth (ft)		1.75
Conv. Total (cfs)	1351.4	Conv. (cfs)		1351.4
Length Wtd. (ft)	118.41	Wetted Per. (ft)		17.59
Min Ch El (ft)	580.57	Shear (lb/sq ft)		0.12
Alpha	1.00	Stream Power (lb/ft s)	431.23	0.00
0.00				
Frctn Loss (ft)	0.14	Cum Volume (acre-ft)	0.00	0.49
0.00				
C & E Loss (ft)	0.00	Cum SA (acres)	0.00	0.37
0.00				

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	584.78	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.06	Wt. n-Val.		0.036
W. S. Elev (ft)	584.72	Reach Len. (ft)	148.89	118.41
87.69				
Crit W. S. (ft)		Flow Area (sq ft)		45.95
E. G. Slope (ft/ft)	0.000961	Area (sq ft)		45.95
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	20.83	Top Width (ft)		20.83

NFARS_RAS_trib_2.rep

Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)		1.96
Max Chl Dpth (ft)	4.15	Hydr. Depth (ft)		2.21
Conv. Total (cfs)	2903.1	Conv. (cfs)		2903.1
Length Wtd. (ft)	118.41	Wetted Per. (ft)		24.26
Min Ch El (ft)	580.57	Shear (lb/sq ft)		0.11
Alpha 0.00	1.00	Stream Power (lb/ft s)	431.23	0.00
Frctn Loss (ft) 0.00	0.10	Cum Volume (acre-ft)	0.00	0.81
C & E Loss (ft) 0.01	0.00	Cum SA (acres)	0.01	0.48

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	585.33	Element	Left OB	Channel
Right OB Vel Head (ft) 0.040	0.06	Wt. n-Val.		0.036
W. S. Elev (ft) 87.69	585.27	Reach Len. (ft)	148.89	118.41
Crit W. S. (ft) 1.16		Flow Area (sq ft)		58.11
E. G. Slope (ft/ft) 1.16	0.000776	Area (sq ft)		58.11
Q Total (cfs) 0.27	112.00	Flow (cfs)		111.73
Top Width (ft) 11.13	34.40	Top Width (ft)		23.28
Vel Total (ft/s) 0.23	1.89	Avg. Vel. (ft/s)		1.92
Max Chl Dpth (ft) 0.10	4.70	Hydr. Depth (ft)		2.50
Conv. Total (cfs) 9.6	4021.4	Conv. (cfs)		4011.8
Length Wtd. (ft) 11.13	118.17	Wetted Per. (ft)		26.86
Min Ch El (ft) 0.01	580.57	Shear (lb/sq ft)		0.10
Alpha 0.00	1.03	Stream Power (lb/ft s)	431.23	0.00
Frctn Loss (ft) 0.01	0.08	Cum Volume (acre-ft)	0.00	0.99
C & E Loss (ft) 0.05	0.01	Cum SA (acres)	0.01	0.53

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	586.85	Element	Left OB	Channel
Right OB Vel Head (ft) 0.040	0.02	Wt. n-Val.	0.040	0.036

NFARS_RAS_trib_2.rep				
W. S. Elev (ft)	586.83	Reach Len. (ft)	148.89	118.41
87.69		Flow Area (sq ft)	9.27	96.52
Crit W. S. (ft)		Area (sq ft)	9.27	96.52
87.46		Flow (cfs)	3.21	135.42
E. G. Slope (ft/ft)	0.000229	Top Width (ft)	19.19	25.00
87.46		Avg. Vel. (ft/s)	0.35	1.40
Q Total (cfs)	175.00	Hydr. Depth (ft)	0.48	3.86
36.37		Conv. (cfs)	211.8	8946.3
Top Width (ft)	181.68	Wetted Per. (ft)	19.22	28.68
137.49		Shear (lb/sq ft)	0.01	0.05
Vel Total (ft/s)	0.91	Stream Power (lb/ft s)	431.23	0.00
0.42		Cum Volume (acre-ft)	0.05	1.56
Max Chl Dpth (ft)	6.26	Cum SA (acres)	0.10	0.64
0.64				
Conv. Total (cfs)	11561.0			
2402.8				
Length Wtd. (ft)	114.20			
137.50				
Min Ch El (ft)	580.57			
0.01				
Alpha	1.90			
0.00				
Frctn Loss (ft)	0.03			
0.23				
C & E Loss (ft)	0.00			
0.43				

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 1137.230

INPUT

Description: U/S BR6

Station Elevation Data num= 13											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	591.27	35	591.27	51	588.21	141	587.08	171	585.57		
182	581.8	183	580.28	186	580.28	189	580.28	189	581.98		
196	584.77	279	586.33	479.429	587.26						

Manning's n Values num= 3					
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	171	.036	196	.04

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	171	196		50.2	48.13	46.46		.3	.5
Ineffective Flow num= 2									
Sta L	Sta R	Elev	Permanent						
0	165	588.6	F						
207	479.429	588.6	F						

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	583.48	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.036
W. S. Elev (ft)	583.43	Reach Len. (ft)	50.20	48.13
46.46				

NFARS_RAS_trib_2.rep				
Crit W. S. (ft)	581.52	Flow Area (sq ft)		27.87
E. G. Slope (ft/ft)	0.001050	Area (sq ft)		27.87
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	15.42	Top Width (ft)		15.42
Vel Total (ft/s)	1.76	Avg. Vel. (ft/s)		1.76
Max Chl Dpth (ft)	3.15	Hydr. Depth (ft)		1.81
Conv. Total (cfs)	1512.2	Conv. (cfs)		1512.2
Length Wtd. (ft)	48.13	Wetted Per. (ft)		18.49
Min Ch El (ft)	580.28	Shear (lb/sq ft)		0.10
Alpha	1.00	Stream Power (lb/ft s)	479.43	0.00
0.00		Cum Volume (acre-ft)	0.00	0.42
Frctn Loss (ft)		Cum SA (acres)	0.00	0.33
0.00				
C & E Loss (ft)				
0.00				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	584.68	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.036
W. S. Elev (ft)	584.63	Reach Len. (ft)	50.20	48.13
46.46				
Crit W. S. (ft)	582.20	Flow Area (sq ft)		50.08
E. G. Slope (ft/ft)	0.000766	Area (sq ft)		50.08
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	21.88	Top Width (ft)		21.88
Vel Total (ft/s)	1.80	Avg. Vel. (ft/s)		1.80
Max Chl Dpth (ft)	4.35	Hydr. Depth (ft)		2.29
Conv. Total (cfs)	3251.7	Conv. (cfs)		3251.7
Length Wtd. (ft)	48.13	Wetted Per. (ft)		25.38
Min Ch El (ft)	580.28	Shear (lb/sq ft)		0.09
Alpha	1.00	Stream Power (lb/ft s)	479.43	0.00
0.00		Cum Volume (acre-ft)	0.00	0.68
Frctn Loss (ft)		Cum SA (acres)	0.01	0.42
0.00				
C & E Loss (ft)				
0.01				

NFARS_RAS_trib_2.rep

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	585.24	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.036
0.040				
W. S. Elev (ft)	585.19	Reach Len. (ft)	50.20	48.13
46.46				
Crit W. S. (ft)	582.52	Flow Area (sq ft)		63.19
3.53				
E. G. Slope (ft/ft)	0.000593	Area (sq ft)		63.19
4.80				
Q Total (cfs)	112.00	Flow (cfs)		110.50
1.50				
Top Width (ft)	46.49	Top Width (ft)		23.90
22.59				
Vel Total (ft/s)	1.68	Avg. Vel. (ft/s)		1.75
0.42				
Max Chl Dpth (ft)	4.91	Hydr. Depth (ft)		2.64
0.32				
Conv. Total (cfs)	4600.5	Conv. (cfs)		4538.9
61.6				
Length Wtd. (ft)	48.13	Wetted Per. (ft)		27.53
11.00				
Min Ch El (ft)	580.28	Shear (lb/sq ft)		0.08
0.01				
Alpha	1.07	Stream Power (lb/ft s)	479.43	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.00	0.83
0.01				
C & E Loss (ft)		Cum SA (acres)	0.01	0.46
0.02				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	586.82	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.	0.040	0.036
0.040				
W. S. Elev (ft)	586.79	Reach Len. (ft)	50.20	48.13
46.46				
Crit W. S. (ft)	583.14	Flow Area (sq ft)	6.42	102.88
21.09				
E. G. Slope (ft/ft)	0.000235	Area (sq ft)	14.80	102.88
125.80				
Q Total (cfs)	175.00	Flow (cfs)	3.82	152.64
18.54				
Top Width (ft)	231.48	Top Width (ft)	24.25	25.00
182.23				
Vel Total (ft/s)	1.34	Avg. Vel. (ft/s)	0.60	1.48

NFARS_RAS_trib_2.rep

0.88				
Max Chl Dpth (ft)	6.51	Hydr. Depth (ft)	1.07	4.12
1.92				
Conv. Total (cfs)	11408.2	Conv. (cfs)	249.1	9950.3
1208.8				
Length Wtd. (ft)	48.13	Wetted Per. (ft)	6.01	28.68
11.00				
Min Ch El (ft)	580.28	Shear (lb/sq ft)	0.02	0.05
0.03				
Alpha	1.12	Stream Power (lb/ft s)	479.43	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)	0.01	1.29
0.01				
C & E Loss (ft)		Cum SA (acres)	0.03	0.58
0.11				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CULVERT

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 1126

INPUT

Description: Culvert 2
 Distance from Upstream XS = 11
 Deck/Roadway Width = 26
 Weir Coefficient = 2.6

Upstream Deck/Roadway Coordinates
 num= 5

Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
40	589.45		575		136	588.46		575		186	588.54		575	
236	588.76		575		480	589.04		575						

Upstream Bridge Cross Section Data

Station Elevation Data num= 13

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	591.27	35	591.27	51	588.21	141	587.08	171	585.57
182	581.8	183	580.28	186	580.28	189	580.28	189	581.98
196	584.77	279	586.33	479.429	587.26				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.04	171	.036	196	.04

Bank Sta: Left Right Coeff Contr. Expan.
 171 196 .3 .5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	165	588.6	F
207	479.429	588.6	F

Downstream Deck/Roadway Coordinates

Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
28	588.46		575		78	588.54		575		128	588.76		575	

Downstream Bridge Cross Section Data

Station Elevation Data num= 9

NFARS_RAS_trib_2.rep

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	589.45	40	589.45	56	588.51	76	581.12	78	580.17
81	580.95	101	589.21	146	589.04	363.091	589.04		

Manning's n Values

Sta	n Val	Sta	n Val	Sta	n Val
0	.04	56	.036	101	.04

Bank Sta: Left Right Coeff Contr. Expan.

Left	Right	Coeff	Contr.	Expan.
56	101		.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	40.21	588.5	F
116.18	363.091	588.5	F

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
 Downstream Embankment side slope = 0 horiz. to 1.0 vertical
 Maximum allowable submergence for weir flow = .95
 Elevation at which weir flow begins =
 Energy head used in spillway design =
 Spillway height used in design =
 Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name	Shape	Rise	Span
Culvert #1	Circular	6	

FHWA Chart # 2 - Corrugated Metal Pipe Culvert
 FHWA Scale # 3 - Pipe projecting from fill
 Solution Criteria = Highest U. S. EG

Culvert	Upstrm Dist	Length	Top n	Bottom n	Depth Blocked	Entrance Loss Coef
1	11	26	.021	.021	0	.9

Upstream Elevation = 580.48
 Centerline Station = 186
 Downstream Elevation = 580.31
 Centerline Station = 78.3

CULVERT OUTPUT Profile #10-Year Culv Group: Culvert #1

Q Culv Group (cfs)	49.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	5.31
Q Barrel (cfs)	49.00	Culv Vel DS (ft/s)	4.91
E. G. US. (ft)	583.48	Culv Inv El Up (ft)	580.48
W. S. US. (ft)	583.43	Culv Inv El Dn (ft)	580.31
E. G. DS (ft)	582.75	Culv Frctn Ls (ft)	0.10
W. S. DS (ft)	582.61	Culv Exit Loss (ft)	0.24
Delta EG (ft)	0.73	Culv Entr Loss (ft)	0.39
Delta WS (ft)	0.82	Q Weir (cfs)	
E. G. IC (ft)	583.11	Weir Sta Lft (ft)	
E. G. OC (ft)	583.48	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	582.65	Weir Max Depth (ft)	
Culv WS Outlet (ft)	582.61	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	1.96	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.86	Min El Weir Flow (ft)	588.52

CULVERT OUTPUT Profile #50-Year Culv Group: Culvert #1

Q Culv Group (cfs)	90.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	6.27

NFARS_RAS_trib_2.rep			
Q Barrel (cfs)	90.00	Culv Vel DS (ft/s)	5.99
E. G. US. (ft)	584.68	Culv Inv El Up (ft)	580.48
W. S. US. (ft)	584.63	Culv Inv El Dn (ft)	580.31
E. G. DS (ft)	583.60	Culv Frctn Ls (ft)	0.11
W. S. DS (ft)	583.46	Culv Exit Loss (ft)	0.41
Del ta EG (ft)	1.07	Culv Entr Loss (ft)	0.55
Del ta WS (ft)	1.17	Q Weir (cfs)	
E. G. IC (ft)	584.27	Weir Sta Lft (ft)	
E. G. OC (ft)	584.68	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	583.52	Weir Max Depth (ft)	
Culv WS Outlet (ft)	583.46	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	2.73	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.55	Min El Weir Flow (ft)	588.52

CULVERT OUTPUT Profile #100-Year Culv Group: Culvert #1

Q Culv Group (cfs)	112.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	6.54
Q Barrel (cfs)	112.00	Culv Vel DS (ft/s)	6.31
E. G. US. (ft)	585.24	Culv Inv El Up (ft)	580.48
W. S. US. (ft)	585.19	Culv Inv El Dn (ft)	580.31
E. G. DS (ft)	584.05	Culv Frctn Ls (ft)	0.11
W. S. DS (ft)	583.91	Culv Exit Loss (ft)	0.48
Del ta EG (ft)	1.19	Culv Entr Loss (ft)	0.60
Del ta WS (ft)	1.28	Q Weir (cfs)	
E. G. IC (ft)	584.84	Weir Sta Lft (ft)	
E. G. OC (ft)	585.24	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	583.98	Weir Max Depth (ft)	
Culv WS Outlet (ft)	583.91	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	3.10	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.85	Min El Weir Flow (ft)	588.52

CULVERT OUTPUT Profile #500-Year Culv Group: Culvert #1

Q Culv Group (cfs)	175.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	7.20
Q Barrel (cfs)	175.00	Culv Vel DS (ft/s)	7.10
E. G. US. (ft)	586.82	Culv Inv El Up (ft)	580.48
W. S. US. (ft)	586.79	Culv Inv El Dn (ft)	580.31
E. G. DS (ft)	585.30	Culv Frctn Ls (ft)	0.12
W. S. DS (ft)	585.20	Culv Exit Loss (ft)	0.68
Del ta EG (ft)	1.52	Culv Entr Loss (ft)	0.72
Del ta WS (ft)	1.59	Q Weir (cfs)	
E. G. IC (ft)	586.40	Weir Sta Lft (ft)	
E. G. OC (ft)	586.82	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	585.29	Weir Max Depth (ft)	
Culv WS Outlet (ft)	585.20	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	4.16	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	3.61	Min El Weir Flow (ft)	588.52

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1

RS: 1089.117

INPUT

NFARS_RAS_trib_2.rep

Description: D/S BR6

Station Elevation Data		num= 9		Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	589.45	40	589.45	56	588.51	76	581.12	78	580.17		
81	580.95	101	589.21	146	589.04	363.091	589.04				

Manning's n Values		num= 3		Sta	n Val
0	.04	56	.036	101	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	56	101		60.1	52.26	51.24	.3
Ineffective Flow	num= 2						
Sta L	Sta R	Elev	Permanent				
0	40.21	588.5	F				
116.18	363.091	588.5	F				

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	582.75	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.14	Wt. n-Val.		0.036
W. S. Elev (ft)	582.61	Reach Len. (ft)	60.10	52.26
51.24				
Crit W. S. (ft)	581.95	Flow Area (sq ft)		16.42
E. G. Slope (ft/ft)	0.004213	Area (sq ft)		16.42
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	13.05	Top Width (ft)		13.05
Vel Total (ft/s)	2.98	Avg. Vel. (ft/s)		2.98
Max Chl Dpth (ft)	2.44	Hydr. Depth (ft)		1.26
Conv. Total (cfs)	754.9	Conv. (cfs)		754.9
Length Wtd. (ft)	52.26	Wetted Per. (ft)		13.96
Min Ch El (ft)	580.17	Shear (lb/sq ft)		0.31
Alpha	1.00	Stream Power (lb/ft s)	363.09	0.00
0.00				
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	0.00	0.41
0.00				
C & E Loss (ft)	0.02	Cum SA (acres)	0.00	0.32
0.00				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	583.60	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.15	Wt. n-Val.		0.036

NFARS_RAS_trib_2.rep				
W. S. Elev (ft)	583.46	Reach Len. (ft)	60.10	52.26
51.24				
Crit W. S. (ft)	582.47	Flow Area (sq ft)		29.33
E. G. Slope (ft/ft)	0.003017	Area (sq ft)		29.33
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	17.40	Top Width (ft)		17.40
Vel Total (ft/s)	3.07	Avg. Vel. (ft/s)		3.07
Max Chl Dpth (ft)	3.29	Hydr. Depth (ft)		1.69
Conv. Total (cfs)	1638.6	Conv. (cfs)		1638.6
Length Wtd. (ft)	52.26	Wetted Per. (ft)		18.63
Min Ch El (ft)	580.17	Shear (lb/sq ft)		0.30
Alpha	1.00	Stream Power (lb/ft s)	363.09	0.00
0.00				
Frctn Loss (ft)	0.16	Cum Volume (acre-ft)	0.00	0.66
0.00				
C & E Loss (ft)	0.00	Cum SA (acres)	0.01	0.40
0.01				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	584.05	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.14	Wt. n-Val.		0.036
W. S. Elev (ft)	583.91	Reach Len. (ft)	60.10	52.26
51.24				
Crit W. S. (ft)	582.68	Flow Area (sq ft)		37.82
E. G. Slope (ft/ft)	0.002371	Area (sq ft)		37.82
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	19.74	Top Width (ft)		19.74
Vel Total (ft/s)	2.96	Avg. Vel. (ft/s)		2.96
Max Chl Dpth (ft)	3.74	Hydr. Depth (ft)		1.92
Conv. Total (cfs)	2299.9	Conv. (cfs)		2299.9
Length Wtd. (ft)	52.26	Wetted Per. (ft)		21.14
Min Ch El (ft)	580.17	Shear (lb/sq ft)		0.26
Alpha	1.00	Stream Power (lb/ft s)	363.09	0.00
0.00				
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)	0.00	0.79
0.01				

C & E Loss (ft) 0.01
 NFARS_RAS_trib_2.rep 0.00 Cum SA (acres) 0.01 0.44

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	585.30	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.10	Wt. n-Val.		0.036
W. S. Elev (ft)	585.20	Reach Len. (ft)	60.10	52.26
51.24				
Crit W. S. (ft)	583.18	Flow Area (sq ft)		67.34
E. G. Slope (ft/ft)	0.001242	Area (sq ft)		67.34
Q Total (cfs)	175.00	Flow (cfs)		175.00
Top Width (ft)	26.32	Top Width (ft)		26.32
Vel Total (ft/s)	2.60	Avg. Vel. (ft/s)		2.60
Max Chl Dpth (ft)	5.03	Hydr. Depth (ft)		2.56
Conv. Total (cfs)	4965.5	Conv. (cfs)		4965.5
Length Wtd. (ft)	52.26	Wetted Per. (ft)		28.20
Min Ch El (ft)	580.17	Shear (lb/sq ft)		0.19
Alpha	1.00	Stream Power (lb/ft s)	363.09	0.00
0.00				
Frctn Loss (ft)	0.06	Cum Volume (acre-ft)	0.01	1.21
0.01				
C & E Loss (ft)	0.00	Cum SA (acres)	0.01	0.55
0.01				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 1036.844

INPUT

Description: Surveyed Section 11

Station	Elevation	Data	num=	9
Sta	Elev	Sta	Elev	Sta
0	589.32	5	589.32	21
46	580.82	66	589.08	111
				588.38
				41
				580.99
				43
				580.04
				111
				588.91
				315.322
				588.91

Manning's n Values	num=	3
Sta	n Val	Sta
0	.04	21
		66
		.036
		.04

NFARS_RAS_trib_2.rep

Bank Sta: Left 21 Right 66 Lengths: Left Channel 247.65 Right Channel 239.4 Right 228.3 Coeff Contr. .1 Expan. .3

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	582.44	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.21	Wt. n-Val.		0.036
W. S. Elev (ft)	582.23	Reach Len. (ft)	247.65	239.40
228.30				
Crit W. S. (ft)		Flow Area (sq ft)		13.36
E. G. Slope (ft/ft)	0.007305	Area (sq ft)		13.36
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	11.79	Top Width (ft)		11.79
Vel Total (ft/s)	3.67	Avg. Vel. (ft/s)		3.67
Max Chl Dpth (ft)	2.19	Hydr. Depth (ft)		1.13
Conv. Total (cfs)	573.3	Conv. (cfs)		573.3
Length Wtd. (ft)	239.40	Wetted Per. (ft)		12.61
Min Ch El (ft)	580.04	Shear (lb/sq ft)		0.48
Alpha	1.00	Stream Power (lb/ft s)	315.32	0.00
0.00				
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	0.00	0.39
0.00				
C & E Loss (ft)	0.05	Cum SA (acres)	0.00	0.30
0.00				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	583.44	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.15	Wt. n-Val.		0.036
W. S. Elev (ft)	583.28	Reach Len. (ft)	247.65	239.40
228.30				
Crit W. S. (ft)		Flow Area (sq ft)		28.59
E. G. Slope (ft/ft)	0.003231	Area (sq ft)		28.59
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	17.18	Top Width (ft)		17.18
Vel Total (ft/s)	3.15	Avg. Vel. (ft/s)		3.15

Max Chl Dpth (ft)	3.24	Hydr. Depth (ft)		1.66
Conv. Total (cfs)	1583.2	Conv. (cfs)		1583.2
Length Wtd. (ft)	239.40	Wetted Per. (ft)		18.39
Min Ch El (ft)	580.04	Shear (lb/sq ft)		0.31
Alpha 0.00	1.00	Stream Power (lb/ft s)	315.32	0.00
Frctn Loss (ft) 0.00	0.36	Cum Volume (acre-ft)	0.00	0.62
C & E Loss (ft) 0.01	0.03	Cum SA (acres)	0.01	0.38

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	583.93	Element	Left OB	Channel
Right OB Vel Head (ft)	0.14	Wt. n-Val.		0.036
W. S. Elev (ft)	583.79	Reach Len. (ft)	247.65	239.40
228.30 Crit W. S. (ft)		Flow Area (sq ft)		37.96
E. G. Slope (ft/ft)	0.002347	Area (sq ft)		37.96
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	19.78	Top Width (ft)		19.78
Vel Total (ft/s)	2.95	Avg. Vel. (ft/s)		2.95
Max Chl Dpth (ft)	3.75	Hydr. Depth (ft)		1.92
Conv. Total (cfs)	2311.7	Conv. (cfs)		2311.7
Length Wtd. (ft)	239.40	Wetted Per. (ft)		21.19
Min Ch El (ft)	580.04	Shear (lb/sq ft)		0.26
Alpha 0.00	1.00	Stream Power (lb/ft s)	315.32	0.00
Frctn Loss (ft) 0.01	0.30	Cum Volume (acre-ft)	0.00	0.75
C & E Loss (ft) 0.01	0.02	Cum SA (acres)	0.01	0.42

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #500-Year

NFARS_RAS_trib_2.rep

E. G. Elev (ft)	585.24	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.10	Wt. n-Val.		0.036
W. S. Elev (ft)	585.14	Reach Len. (ft)	247.65	239.40
228.30				
Crit W. S. (ft)		Flow Area (sq ft)		69.20
E. G. Slope (ft/ft)	0.001155	Area (sq ft)		69.20
Q Total (cfs)	175.00	Flow (cfs)		175.00
Top Width (ft)	26.68	Top Width (ft)		26.68
Vel Total (ft/s)	2.53	Avg. Vel. (ft/s)		2.53
Max Chl Dpth (ft)	5.10	Hydr. Depth (ft)		2.59
Conv. Total (cfs)	5149.2	Conv. (cfs)		5149.2
Length Wtd. (ft)	239.40	Wetted Per. (ft)		28.59
Min Ch El (ft)	580.04	Shear (lb/sq ft)		0.17
Alpha	1.00	Stream Power (lb/ft s)	315.32	0.00
0.00				
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	0.01	1.13
0.01				
C & E Loss (ft)	0.01	Cum SA (acres)	0.01	0.51
0.01				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 797.4444

INPUT

Description: Surveyed Section 12

Station	Elevation	Data	num=	14					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	589.54	36	589.54	136	587.71	224	586.21	236	585.61
240	584.66	249	580.92	250	578.73	253	578.6	256	578.74
257	580.2	268	585.9	368	588.41	467.29	590.28		

Manning's n Values	num=	3			
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	236	.036	268	.04

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	236	268		46.26	42.58	39.83		.3	.5

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	581.90	Element	Left OB	Channel
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NFARS_RAS_trib_2.rep

Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.036
W. S. Elev (ft)	581.85	Reach Len. (ft)	46.26	42.58
39.83				
Crit W. S. (ft)		Flow Area (sq ft)		27.17
E. G. Slope (ft/ft)	0.000957	Area (sq ft)		27.17
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	13.42	Top Width (ft)		13.42
Vel Total (ft/s)	1.80	Avg. Vel. (ft/s)		1.80
Max Chl Dpth (ft)	3.25	Hydr. Depth (ft)		2.02
Conv. Total (cfs)	1583.8	Conv. (cfs)		1583.8
Length Wtd. (ft)	42.54	Wetted Per. (ft)		16.20
Min Ch El (ft)	578.60	Shear (lb/sq ft)		0.10
Alpha	1.00	Stream Power (lb/ft s)	467.29	0.00
0.00				
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	0.00	0.28
0.00				
C & E Loss (ft)	0.00	Cum SA (acres)	0.00	0.23
0.00				

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	583.05	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.06	Wt. n-Val.		0.036
W. S. Elev (ft)	582.99	Reach Len. (ft)	46.26	42.58
39.83				
Crit W. S. (ft)		Flow Area (sq ft)		45.28
E. G. Slope (ft/ft)	0.000867	Area (sq ft)		45.28
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	18.36	Top Width (ft)		18.36
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)		1.99
Max Chl Dpth (ft)	4.39	Hydr. Depth (ft)		2.47
Conv. Total (cfs)	3057.1	Conv. (cfs)		3057.1
Length Wtd. (ft)	42.55	Wetted Per. (ft)		21.64
Min Ch El (ft)	578.60	Shear (lb/sq ft)		0.11
Alpha	1.00	Stream Power (lb/ft s)	467.29	0.00
0.00				
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	0.00	0.42
0.00				

C & E Loss (ft)	0.01	NFARS_RAS_trib_2.rep	0.01	0.28
		Cum SA (acres)		

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	583.61	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.06	Wt. n-Val.		0.036
W. S. Elev (ft)	583.55	Reach Len. (ft)	46.26	42.58
39.83				
Crit W. S. (ft)		Flow Area (sq ft)		56.20
E. G. Slope (ft/ft)	0.000763	Area (sq ft)		56.20
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	20.78	Top Width (ft)		20.78
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)		1.99
Max Chl Dpth (ft)	4.95	Hydr. Depth (ft)		2.70
Conv. Total (cfs)	4055.6	Conv. (cfs)		4055.6
Length Wtd. (ft)	42.57	Wetted Per. (ft)		24.31
Min Ch El (ft)	578.60	Shear (lb/sq ft)		0.11
Alpha	1.00	Stream Power (lb/ft s)	467.29	0.00
0.00				
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	0.00	0.49
0.01				
C & E Loss (ft)	0.00	Cum SA (acres)	0.01	0.30
0.01				

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	585.04	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.06	Wt. n-Val.		0.036
W. S. Elev (ft)	584.98	Reach Len. (ft)	46.26	42.58
39.83				
Crit W. S. (ft)		Flow Area (sq ft)		90.61
E. G. Slope (ft/ft)	0.000540	Area (sq ft)		90.61
Q Total (cfs)	175.00	Flow (cfs)		175.00
Top Width (ft)	27.59	Top Width (ft)		27.59
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)		1.93
Max Chl Dpth (ft)	6.38	Hydr. Depth (ft)		3.28
Conv. Total (cfs)	7528.4	Conv. (cfs)		7528.4

NFARS_RAS_trib_2.rep

Length Wtd. (ft)	42.62	Wetted Per. (ft)	31.73
Min Ch El (ft)	578.60	Shear (lb/sq ft)	0.10
Alpha	1.00	Stream Power (lb/ft s)	467.29
0.00			
Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	0.01
0.01			
C & E Loss (ft)	0.00	Cum SA (acres)	0.01
0.01			

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 754.8596

INPUT

Description: U/S BR7

Station Elevation Data num= 14

Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev
0	589.41	53	589.41	153	587.58	241	586.08	253	585.48
257	584.53	266	580.79	267	578.6	270	578.47	273	578.61
274	580.07	285	585.77	385	588.28	464.665	590.28		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.04	266	.036	274	.04

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

266	274	44.98	47.9	50.85	.3	.5
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Ineffective Flow num= 2

Sta L	Sta R	El ev	Permanent
0	257	586.5	F
283	464.665	586.5	F

CROSS SECTION OUTPUT Profile #10-Year

E. G. El ev (ft)	581.87	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.	0.040	0.036
0.040				
W. S. El ev (ft)	581.81	Reach Len. (ft)	44.98	47.90
50.85				
Crit W. S. (ft)	579.77	Flow Area (sq ft)	1.26	24.25
2.93				
E. G. Slope (ft/ft)	0.000661	Area (sq ft)	1.26	24.25
2.93				
Q Total (cfs)	49.00	Flow (cfs)	0.73	45.90
2.36				
Top Width (ft)	13.83	Top Width (ft)	2.46	8.00
3.37				
Vel Total (ft/s)	1.72	Avg. Vel. (ft/s)	0.58	1.89
0.81				
Max Chl Dpth (ft)	3.34	Hydr. Depth (ft)	0.51	3.03
0.87				
Conv. Total (cfs)	1905.6	Conv. (cfs)	28.4	1785.2
91.9				
Length Wtd. (ft)	47.90	Wetted Per. (ft)	2.67	10.18

NFARS_RAS_trib_2.rep

3.79 Min Ch El (ft)	578.47	Shear (lb/sq ft)	0.02	0.10
0.03 Alpha	1.14	Stream Power (lb/ft s)	464.67	0.00
0.00 Frctn Loss (ft)		Cum Volume (acre-ft)		0.25
0.00 C & E Loss (ft)		Cum SA (acres)	0.00	0.22

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	583.02	Element	Left OB	Channel
Right OB Vel Head (ft)	0.07	Wt. n-Val.	0.040	0.036
0.040 W. S. Elev (ft)	582.95	Reach Len. (ft)	44.98	47.90
50.85 Crit W. S. (ft)	580.36	Flow Area (sq ft)	5.59	33.31
7.98 E. G. Slope (ft/ft)	0.000630	Area (sq ft)	5.59	33.31
7.98 Q Total (cfs)	90.00	Flow (cfs)	5.20	76.04
8.76 Top Width (ft)	18.74	Top Width (ft)	5.19	8.00
5.55 Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	0.93	2.28
1.10 Max Chl Dpth (ft)	4.48	Hydr. Depth (ft)	1.08	4.16
1.44 Conv. Total (cfs)	3584.8	Conv. (cfs)	207.0	3028.9
348.8 Length Wtd. (ft)	47.90	Wetted Per. (ft)	5.62	10.18
6.25 Min Ch El (ft)	578.47	Shear (lb/sq ft)	0.04	0.13
0.05 Alpha	1.24	Stream Power (lb/ft s)	464.67	0.00
0.00 Frctn Loss (ft)		Cum Volume (acre-ft)		0.38
0.00 C & E Loss (ft)		Cum SA (acres)	0.00	0.27

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	583.58	Element	Left OB	Channel
Right OB Vel Head (ft)	0.07	Wt. n-Val.	0.040	0.036
0.040 W. S. Elev (ft)	583.50	Reach Len. (ft)	44.98	47.90
50.85 Crit W. S. (ft)	580.62	Flow Area (sq ft)	8.86	37.77
11.38 E. G. Slope (ft/ft)	0.000573	Area (sq ft)	8.86	37.77
11.38 Q Total (cfs)	112.00	Flow (cfs)	9.16	89.44
13.40				

NFARS_RAS_trib_2.rep				
Top Width (ft)	21.16	Top Width (ft)	6.53	8.00
6.63				
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.03	2.37
1.18				
Max Chl Dpth (ft)	5.03	Hydr. Depth (ft)	1.36	4.72
1.72				
Conv. Total (cfs)	4678.3	Conv. (cfs)	382.7	3735.8
559.9				
Length Wtd. (ft)	47.90	Wetted Per. (ft)	7.07	10.18
7.46				
Min Ch El (ft)	578.47	Shear (lb/sq ft)	0.04	0.13
0.05				
Alpha	1.27	Stream Power (lb/ft s)	464.67	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)		0.44
C & E Loss (ft)		Cum SA (acres)	0.00	0.29
0.00				

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	585.02	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.	0.040	0.036
0.040				
W. S. Elev (ft)	584.95	Reach Len. (ft)	44.98	47.90
50.85				
Crit W. S. (ft)	581.32	Flow Area (sq ft)	20.59	49.32
22.91				
E. G. Slope (ft/ft)	0.000419	Area (sq ft)	20.96	49.32
22.96				
Q Total (cfs)	175.00	Flow (cfs)	25.76	119.24
30.00				
Top Width (ft)	28.17	Top Width (ft)	10.76	8.00
9.41				
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.25	2.42
1.31				
Max Chl Dpth (ft)	6.48	Hydr. Depth (ft)	2.29	6.17
2.55				
Conv. Total (cfs)	8552.8	Conv. (cfs)	1259.2	5827.6
1466.0				
Length Wtd. (ft)	47.90	Wetted Per. (ft)	9.75	10.18
10.14				
Min Ch El (ft)	578.47	Shear (lb/sq ft)	0.06	0.13
0.06				
Alpha	1.27	Stream Power (lb/ft s)	464.67	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)		0.62
C & E Loss (ft)		Cum SA (acres)	0.01	0.35
0.01				

CULVERT

RIVER: Trib to Cayuga
 REACH: Reach 1

RS: 745

NFARS_RAS_trib_2.rep

INPUT

Description: Culvert 1
 Distance from Upstream XS = 11
 Deck/Roadway Width = 26
 Weir Coefficient = 2.6

Upstream Deck/Roadway Coordinates

num= 4											
Sta	Hi	Cord	Lo	Sta	Hi	Cord	Lo	Sta	Hi	Cord	Lo
170	587.04		575	270	586.19		575	370	588.04		575
385	588.28		575								

Upstream Bridge Cross Section Data

Station Elevation Data num= 14											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	589.41	53	589.41	153	587.58	241	586.08	253	585.48		
257	584.53	266	580.79	267	578.6	270	578.47	273	578.61		
274	580.07	285	585.77	385	588.28	464.665	590.28				

Manning's n Values

num= 3			
Sta	n Val	Sta	n Val
0	.04	266	.036
		274	.04

Bank Sta: Left 266 Right 274 Coeff Contr. .3 Expan. .5

Ineffective Flow num= 2			
Sta L	Sta R	Elev	Permanent
0	257	586.5	F
283	464.665	586.5	F

Downstream Deck/Roadway Coordinates

num= 3											
Sta	Hi	Cord	Lo	Sta	Hi	Cord	Lo	Sta	Hi	Cord	Lo
185	587.04		575	285	586.19		575	385	588.04		575

Downstream Bridge Cross Section Data

Station Elevation Data num= 15											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	588.51	44.291	588.51	125.197	588.51	218	588.51	235	587.48		
245	586.05	271	584.52	281	580.22	281	578.95	284.5	578.33		
288	579.01	288	580.13	303	585.95	404	589.32	450.558	589.32		

Manning's n Values

num= 3			
Sta	n Val	Sta	n Val
0	.04	271	.036
		303	.04

Bank Sta: Left 271 Right 303 Coeff Contr. .3 Expan. .5

Ineffective Flow num= 2			
Sta L	Sta R	Elev	Permanent
0	229	585	F
341	450.558	585	F

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
 Downstream Embankment side slope = 0 horiz. to 1.0 vertical
 Maximum allowable submergence for weir flow = .95
 Elevation at which weir flow begins =
 Energy head used in spillway design =
 Spillway height used in design =
 Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name Shape Rise Span

Culvert #1 Circular 6
 FHWA Chart # 2 - Corrugated Metal Pipe Culvert
 FHWA Scale # 3 - Pipe projecting from fill
 Solution Criteria = Highest U.S. EG
 Culvert Upstrm Dist Length Top n Bottom n Depth Blocked Entrance Loss Coef
 Exit Loss Coef
 1 11 26 .021 .021 0 .9
 Upstream Elevation = 578.78
 Centerline Station = 270
 Downstream Elevation = 578.56
 Centerline Station = 285

CULVERT OUTPUT Profile #10-Year Culv Group: Culvert #1

Q Culv Group (cfs)	49.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	6.30
Q Barrel (cfs)	49.00	Culv Vel DS (ft/s)	5.34
E.G. US. (ft)	581.87	Culv Inv El Up (ft)	578.78
W.S. US. (ft)	581.81	Culv Inv El Dn (ft)	578.56
E.G. DS (ft)	580.88	Culv Frctn Ls (ft)	0.15
W.S. DS (ft)	580.72	Culv Exit Loss (ft)	0.28
Delta EG (ft)	0.98	Culv Entr Loss (ft)	0.55
Delta WS (ft)	1.09	Q Weir (cfs)	
E.G. IC (ft)	581.41	Weir Sta Lft (ft)	
E.G. OC (ft)	581.87	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	580.70	Weir Max Depth (ft)	
Culv WS Outlet (ft)	580.72	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	1.83	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.86	Min El Weir Flow (ft)	586.20

CULVERT OUTPUT Profile #50-Year Culv Group: Culvert #1

Q Culv Group (cfs)	90.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	7.05
Q Barrel (cfs)	90.00	Culv Vel DS (ft/s)	6.42
E.G. US. (ft)	583.02	Culv Inv El Up (ft)	578.78
W.S. US. (ft)	582.95	Culv Inv El Dn (ft)	578.56
E.G. DS (ft)	581.75	Culv Frctn Ls (ft)	0.14
W.S. DS (ft)	581.54	Culv Exit Loss (ft)	0.43
Delta EG (ft)	1.27	Culv Entr Loss (ft)	0.69
Delta WS (ft)	1.40	Q Weir (cfs)	
E.G. IC (ft)	582.57	Weir Sta Lft (ft)	
E.G. OC (ft)	583.02	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	581.55	Weir Max Depth (ft)	
Culv WS Outlet (ft)	581.54	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	2.54	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.55	Min El Weir Flow (ft)	586.20

CULVERT OUTPUT Profile #100-Year Culv Group: Culvert #1

Q Culv Group (cfs)	112.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	7.55
Q Barrel (cfs)	112.00	Culv Vel DS (ft/s)	7.02
E.G. US. (ft)	583.58	Culv Inv El Up (ft)	578.78
W.S. US. (ft)	583.50	Culv Inv El Dn (ft)	578.56
E.G. DS (ft)	582.09	Culv Frctn Ls (ft)	0.15
W.S. DS (ft)	581.86	Culv Exit Loss (ft)	0.54
Delta EG (ft)	1.49	Culv Entr Loss (ft)	0.80

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Delta WS (ft)	1.64	Q Weir (cfs)	
E. G. IC (ft)	583.14	Weir Sta Lft (ft)	
E. G. OC (ft)	583.58	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	581.90	Weir Max Depth (ft)	
Culv WS Outlet (ft)	581.86	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	2.87	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.85	Min El Weir Flow (ft)	586.20

CULVERT OUTPUT Profile #500-Year Culv Group: Culvert #1

Q Culv Group (cfs)	175.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	8.59
Q Barrel (cfs)	175.00	Culv Vel DS (ft/s)	8.33
E. G. US. (ft)	585.02	Culv Inv El Up (ft)	578.78
W. S. US. (ft)	584.95	Culv Inv El Dn (ft)	578.56
E. G. DS (ft)	582.98	Culv Frctn Ls (ft)	0.17
W. S. DS (ft)	582.74	Culv Exit Loss (ft)	0.84
Delta EG (ft)	2.04	Culv Entr Loss (ft)	1.03
Delta WS (ft)	2.21	Q Weir (cfs)	
E. G. IC (ft)	584.69	Weir Sta Lft (ft)	
E. G. OC (ft)	585.02	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	582.84	Weir Max Depth (ft)	
Culv WS Outlet (ft)	582.74	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	3.79	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	3.61	Min El Weir Flow (ft)	586.20

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 706.9435

INPUT

Description: D/S BR7

Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	588.51	44.291	588.51	125.197	588.51	218	588.51	235	587.48
245	586.05	271	584.52	281	580.22	281	578.95	284.5	578.33
288	579.01	288	580.13	303	585.95	404	589.32	450.558	589.32

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.04	271	.036	303	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
271	303	72.04	89.7	107.32	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	229	585	F
341	450.558	585	F

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	580.88	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.16	Wt. n-Val.		0.036
W. S. Elev (ft)	580.72	Reach Len. (ft)	72.04	89.70

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107.32				
Crit W. S. (ft)	579.80	Flow Area (sq ft)		15.22
E. G. Slope (ft/ft)	0.004643	Area (sq ft)		15.22
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	9.69	Top Width (ft)		9.69
Vel Total (ft/s)	3.22	Avg. Vel. (ft/s)		3.22
Max Chl Dpth (ft)	2.39	Hydr. Depth (ft)		1.57
Conv. Total (cfs)	719.1	Conv. (cfs)		719.1
Length Wtd. (ft)	89.70	Wetted Per. (ft)		12.42
Min Ch El (ft)	578.33	Shear (lb/sq ft)		0.36
Alpha 0.00	1.00	Stream Power (lb/ft s)	450.56	0.00
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)		0.24
C & E Loss (ft)	0.05	Cum SA (acres)		0.21

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	581.75	Element	Left OB	Channel
Right OB Vel Head (ft)	0.20	Wt. n-Val.		0.036
W. S. Elev (ft)	581.54	Reach Len. (ft)	72.04	89.70
107.32 Crit W. S. (ft)	580.46	Flow Area (sq ft)		24.81
E. G. Slope (ft/ft)	0.004579	Area (sq ft)		24.81
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	13.71	Top Width (ft)		13.71
Vel Total (ft/s)	3.63	Avg. Vel. (ft/s)		3.63
Max Chl Dpth (ft)	3.21	Hydr. Depth (ft)		1.81
Conv. Total (cfs)	1330.0	Conv. (cfs)		1330.0
Length Wtd. (ft)	89.70	Wetted Per. (ft)		16.76
Min Ch El (ft)	578.33	Shear (lb/sq ft)		0.42
Alpha 0.00	1.00	Stream Power (lb/ft s)	450.56	0.00

	NFARS_RAS_trib_2.rep	
Frctn Loss (ft)	0.58	Cum Volume (acre-ft) 0.36
C & E Loss (ft)	0.05	Cum SA (acres) 0.26

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	582.09	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.22	Wt. n-Val.		0.036
W. S. Elev (ft)	581.86	Reach Len. (ft)	72.04	89.70
107.32				
Crit W. S. (ft)	580.77	Flow Area (sq ft)		29.49
E. G. Slope (ft/ft)	0.004535	Area (sq ft)		29.49
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	15.30	Top Width (ft)		15.30
Vel Total (ft/s)	3.80	Avg. Vel. (ft/s)		3.80
Max Chl Dpth (ft)	3.53	Hydr. Depth (ft)		1.93
Conv. Total (cfs)	1663.1	Conv. (cfs)		1663.1
Length Wtd. (ft)	89.70	Wetted Per. (ft)		18.47
Min Ch El (ft)	578.33	Shear (lb/sq ft)		0.45
Alpha	1.00	Stream Power (lb/ft s)	450.56	0.00
0.00				
Frctn Loss (ft)	0.53	Cum Volume (acre-ft)		0.42
C & E Loss (ft)	0.04	Cum SA (acres)		0.28

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	582.98	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.24	Wt. n-Val.		0.036
W. S. Elev (ft)	582.74	Reach Len. (ft)	72.04	89.70
107.32				
Crit W. S. (ft)	581.43	Flow Area (sq ft)		44.71

NFARS_RAS_trib_2.rep			
E. G. Slope (ft/ft)	0.003727	Area (sq ft)	44.71
Q Total (cfs)	175.00	Flow (cfs)	175.00
Top Width (ft)	19.57	Top Width (ft)	19.57
Vel Total (ft/s)	3.91	Avg. Vel. (ft/s)	3.91
Max Chl Dpth (ft)	4.41	Hydr. Depth (ft)	2.28
Conv. Total (cfs)	2866.6	Conv. (cfs)	2866.6
Length Wtd. (ft)	89.70	Wetted Per. (ft)	23.09
Min Ch El (ft)	578.33	Shear (lb/sq ft)	0.45
Alpha	1.00	Stream Power (lb/ft s)	450.56
0.00			
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	0.58
C & E Loss (ft)	0.01	Cum SA (acres)	0.33

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 617.2497

INPUT

Description: Surveyed Section 13

Station		Elevation Data		num=	14						
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	588.23	43.471	588.23	213.747	588.23	231	588.23	248	587.2		
258	585.77	284	584.24	294	579.94	294	578.67	297.5	578.05		
301	578.73	301	579.85	316	585.67	413.419	589.04				

Manning's n Values		num=	3
Sta	n Val	Sta	n Val
0	.04	284	.036
		316	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	284	316		82.47	104.46	126.3	.3	.5

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	580.23	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.32	Wt. n-Val.		0.036
W. S. Elev (ft)	579.91	Reach Len. (ft)	82.47	104.46
126.30				
Crit W. S. (ft)		Flow Area (sq ft)		10.72
E. G. Slope (ft/ft)	0.010634	Area (sq ft)		10.72
Q Total (cfs)	49.00	Flow (cfs)		49.00

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Top Width (ft)	7.14	Top Width (ft)	7.14
Vel Total (ft/s)	4.57	Avg. Vel. (ft/s)	4.57
Max Chl Dpth (ft)	1.86	Hydr. Depth (ft)	1.50
Conv. Total (cfs)	475.2	Conv. (cfs)	475.2
Length Wtd. (ft)	104.46	Wetted Per. (ft)	9.63
Min Ch El (ft)	578.05	Shear (lb/sq ft)	0.74
Alpha 0.00	1.00	Stream Power (lb/ft s)	413.42
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	0.21
C & E Loss (ft)	0.12	Cum SA (acres)	0.19

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	581.11	Element	Left OB	Channel
Right OB Vel Head (ft)	0.38	Wt. n-Val.		0.036
W. S. Elev (ft)	580.74	Reach Len. (ft)	82.47	104.46
126.30 Crit W. S. (ft)		Flow Area (sq ft)		18.30
E. G. Slope (ft/ft)	0.009919	Area (sq ft)		18.30
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	11.15	Top Width (ft)		11.15
Vel Total (ft/s)	4.92	Avg. Vel. (ft/s)		4.92
Max Chl Dpth (ft)	2.69	Hydr. Depth (ft)		1.64
Conv. Total (cfs)	903.7	Conv. (cfs)		903.7
Length Wtd. (ft)	104.46	Wetted Per. (ft)		13.99
Min Ch El (ft)	578.05	Shear (lb/sq ft)		0.81
Alpha 0.00	1.00	Stream Power (lb/ft s)	413.42	0.00
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)		0.31
C & E Loss (ft)	0.15	Cum SA (acres)		0.23

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance)

is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	581.52	Element	Left OB	Channel
Right OB Vel Head (ft)	0.35	Wt. n-Val.		0.036
W. S. Elev (ft)	581.16	Reach Len. (ft)	82.47	104.46
126.30 Crit W. S. (ft)		Flow Area (sq ft)		23.45
E. G. Slope (ft/ft)	0.008192	Area (sq ft)		23.45
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	13.22	Top Width (ft)		13.22
Vel Total (ft/s)	4.78	Avg. Vel. (ft/s)		4.78
Max Chl Dpth (ft)	3.11	Hydr. Depth (ft)		1.77
Conv. Total (cfs)	1237.5	Conv. (cfs)		1237.5
Length Wtd. (ft)	104.46	Wetted Per. (ft)		16.23
Min Ch El (ft)	578.05	Shear (lb/sq ft)		0.74
Alpha 0.00	1.00	Stream Power (lb/ft s)	413.42	0.00
Frctn Loss (ft)	0.26	Cum Volume (acre-ft)		0.36
C & E Loss (ft)	0.13	Cum SA (acres)		0.25

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	582.61	Element	Left OB	Channel
Right OB Vel Head (ft)	0.26	Wt. n-Val.		0.036
W. S. Elev (ft)	582.35	Reach Len. (ft)	82.47	104.46
126.30 Crit W. S. (ft)		Flow Area (sq ft)		42.67
E. G. Slope (ft/ft)	0.004213	Area (sq ft)		42.67
Q Total (cfs)	175.00	Flow (cfs)		175.00
Top Width (ft)	19.06	Top Width (ft)		19.06
Vel Total (ft/s)	4.10	Avg. Vel. (ft/s)		4.10
Max Chl Dpth (ft)	4.30	Hydr. Depth (ft)		2.24

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Conv. Total (cfs)	2696.2	Conv. (cfs)	2696.2
Length Wtd. (ft)	104.46	Wetted Per. (ft)	22.53
Min Ch El (ft)	578.05	Shear (lb/sq ft)	0.50
Alpha 0.00	1.00	Stream Power (lb/ft s)	413.42
Frctn Loss (ft)	0.16	Cum Volume (acre-ft)	0.49
C & E Loss (ft)	0.09	Cum SA (acres)	0.29

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Trib to Cayuga
REACH: Reach 1 RS: 512.8022

INPUT

Description: U/S BR8

Station Elevation Data num= 12

Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev
0	587.93	47.014	587.93	209	587.93	226	586.9	236	585.47
262	583.94	270	577.9	280	577.9	289.9	583	294	585.37
395	588.74	422.769	588.74						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.04	262	.036	289.9	.04

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

262	289.9	413.1	411.12	410.13	.3	.5
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Ineffective Flow num= 2

Sta L	Sta R	El ev	Permanent
0	260	586	F
290	422.769	586	F

CROSS SECTION OUTPUT Profile #10-Year

E. G. El ev (ft)	579.71	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.08	Wt. n-Val.		0.036
W. S. El ev (ft)	579.63	Reach Len. (ft)	413.10	411.12
410.13				
Crit W. S. (ft)	578.76	Flow Area (sq ft)		22.20
E. G. Slope (ft/ft)	0.001949	Area (sq ft)		22.20
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	15.65	Top Width (ft)		15.65
Vel Total (ft/s)	2.21	Avg. Vel. (ft/s)		2.21

NFARS_RAS_trib_2.rep

Max Chl Dpth (ft)	1.73	Hydr. Depth (ft)		1.42
Conv. Total (cfs)	1109.8	Conv. (cfs)		1109.8
Length Wtd. (ft)	411.12	Wetted Per. (ft)		16.65
Min Ch El (ft)	577.90	Shear (lb/sq ft)		0.16
Alpha 0.00	1.00	Stream Power (lb/ft s)	422.77	0.00
Frctn Loss (ft)		Cum Volume (acre-ft)		0.17
C & E Loss (ft)		Cum SA (acres)		0.17

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	580.66	Element	Left OB	Channel
Right OB Vel Head (ft)	0.08	Wt. n-Val.		0.036
W. S. Elev (ft)	580.58	Reach Len. (ft)	413.10	411.12
410.13 Crit W. S. (ft)	579.15	Flow Area (sq ft)		38.52
E. G. Slope (ft/ft)	0.001364	Area (sq ft)		38.52
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	18.75	Top Width (ft)		18.75
Vel Total (ft/s)	2.34	Avg. Vel. (ft/s)		2.34
Max Chl Dpth (ft)	2.68	Hydr. Depth (ft)		2.05
Conv. Total (cfs)	2437.1	Conv. (cfs)		2437.1
Length Wtd. (ft)	411.12	Wetted Per. (ft)		20.30
Min Ch El (ft)	577.90	Shear (lb/sq ft)		0.16
Alpha 0.00	1.00	Stream Power (lb/ft s)	422.77	0.00
Frctn Loss (ft)		Cum Volume (acre-ft)		0.24
C & E Loss (ft)		Cum SA (acres)		0.20

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

NFARS_RAS_trib_2.rep				
E. G. Elev (ft)	581.12	Element	Left OB	Channel
Right OB Vel Head (ft)	0.09	Wt. n-Val.		0.036
W. S. Elev (ft)	581.04	Reach Len. (ft)	413.10	411.12
410.13 Crit W. S. (ft)	579.35	Flow Area (sq ft)		47.41
E. G. Slope (ft/ft)	0.001180	Area (sq ft)		47.41
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	20.24	Top Width (ft)		20.24
Vel Total (ft/s)	2.36	Avg. Vel. (ft/s)		2.36
Max Chl Dpth (ft)	3.14	Hydr. Depth (ft)		2.34
Conv. Total (cfs)	3260.0	Conv. (cfs)		3260.0
Length Wtd. (ft)	411.12	Wetted Per. (ft)		22.05
Min Ch El (ft)	577.90	Shear (lb/sq ft)		0.16
Alpha 0.00	1.00	Stream Power (lb/ft s)	422.77	0.00
Frctn Loss (ft)		Cum Volume (acre-ft)		0.28
C & E Loss (ft)		Cum SA (acres)		0.21

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	582.36	Element	Left OB	Channel
Right OB Vel Head (ft)	0.08	Wt. n-Val.		0.036
W. S. Elev (ft)	582.28	Reach Len. (ft)	413.10	411.12
410.13 Crit W. S. (ft)	579.80	Flow Area (sq ft)		75.05
E. G. Slope (ft/ft)	0.000809	Area (sq ft)		75.05
Q Total (cfs)	175.00	Flow (cfs)		175.00
Top Width (ft)	24.29	Top Width (ft)		24.29
Vel Total (ft/s)	2.33	Avg. Vel. (ft/s)		2.33
Max Chl Dpth (ft)	4.38	Hydr. Depth (ft)		3.09
Conv. Total (cfs)	6151.4	Conv. (cfs)		6151.4
Length Wtd. (ft)	411.12	Wetted Per. (ft)		26.82
Min Ch El (ft)	577.90	Shear (lb/sq ft)		0.14

Alpha	1.00	Stream Power (lb/ft s)	422.77	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)		0.35
C & E Loss (ft)		Cum SA (acres)		0.24

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CULVERT

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 510

INPUT

Description: Taxiway
 Distance from Upstream XS = 11
 Deck/Roadway Width = 390
 Weir Coefficient = 2.6
 Upstream Deck/Roadway Coordinates

num=	5													
Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
0	588.56		570		175	588.56		570		275	588.27		570	
375	588.79		570		430	588.79		570						

Upstream Bridge Cross Section Data

Station	Elevation	Data	num=	12							
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	587.93	47.014	587.93	209	587.93	226	586.9	236	585.47		
262	583.94		270	577.9	280	577.9	289.9	583	294	585.37	
395	588.74	422.769	588.74								

Manning's n Values

num=	3				
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	262	.036	289.9	.04

Bank Sta: Left Right Coeff Contr. Expan.
 262 289.9 .3 .5

Ineffective Flow num= 2
 Sta L Sta R Elev Permanent
 0 260 586 F
 290 422.769 586 F

Downstream Deck/Roadway Coordinates

num=	3								
Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
-30	588.56		570		70	588.27		570	
					170	588.79		570	

Downstream Bridge Cross Section Data

Station	Elevation	Data	num=	9					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	588.34	29	586.28	50	585.41	58	580.93	65	576.97
75	576.97	84	580.93	97	586.48	152.198	587.3		

Manning's n Values

num=	3				
Sta	n Val	Sta	n Val	Sta	n Val
0	.04	58	.036	84	.04

Bank Sta: Left Right Coeff Contr. Expan.
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58 84
 Ineffective Flow num= 2
 Sta L Sta R Elev Permanent
 0 55 586 F
 85 152.198 586 F

Upstream Embankment side slope = 0 hori z. to 1.0 verti cal
 Downstream Embankment side slope = 0 hori z. to 1.0 verti cal
 Maximum allowable submergence for weir flow = .95
 Elevati on at whi ch weir flow be gins =
 Energy head used in spillway design =
 Spillway height used in design =
 Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name Shape Rise Span
 Culvert #1 Semi -Circle 5
 FHWA Chart # 41- Arch; Corrugated metal
 FHWA Scale # 2 - Mitered to slope
 Soluti on Cri teria = Hi ghest U. S. EG
 Culvert Upstrm Dist Length Top n Bottom n Depth Blocked Entrance Loss Coef
 Exit Loss Coef
 1 11 390 .021 .021 0 .7
 Upstream Elevati on = 577.9
 Centerline Stati on = 275
 Downstream Elevati on = 576.97
 Centerline Stati on = 70

CULVERT OUTPUT Profile #10-Year Culv Group: Culvert #1

Q Culv Group (cfs)	49.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	3.26
Q Barrel (cfs)	49.00	Culv Vel DS (ft/s)	2.46
E. G. US. (ft)	579.71	Culv Inv El Up (ft)	577.90
W. S. US. (ft)	579.63	Culv Inv El Dn (ft)	576.97
E. G. DS (ft)	579.06	Culv Frctn Ls (ft)	0.48
W. S. DS (ft)	579.02	Culv Exit Loss (ft)	0.05
Delta EG (ft)	0.65	Culv Entr Loss (ft)	0.12
Delta WS (ft)	0.61	Q Weir (cfs)	
E. G. IC (ft)	579.36	Weir Sta Lft (ft)	
E. G. OC (ft)	579.71	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	579.43	Weir Max Depth (ft)	
Culv WS Outlet (ft)	579.02	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	1.38	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	0.91	Min El Weir Flow (ft)	588.28

CULVERT OUTPUT Profile #50-Year Culv Group: Culvert #1

Q Culv Group (cfs)	90.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	3.99
Q Barrel (cfs)	90.00	Culv Vel DS (ft/s)	3.47
E. G. US. (ft)	580.67	Culv Inv El Up (ft)	577.90
W. S. US. (ft)	580.58	Culv Inv El Dn (ft)	576.97
E. G. DS (ft)	579.78	Culv Frctn Ls (ft)	0.60
W. S. DS (ft)	579.71	Culv Exit Loss (ft)	0.12
Delta EG (ft)	0.89	Culv Entr Loss (ft)	0.17
Delta WS (ft)	0.87	Q Weir (cfs)	
E. G. IC (ft)	580.12	Weir Sta Lft (ft)	
E. G. OC (ft)	580.67	Weir Sta Rgt (ft)	

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Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	580.25	Weir Max Depth (ft)	
Culv WS Outlet (ft)	579.71	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	2.12	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.36	Min El Weir Flow (ft)	588.28

CULVERT OUTPUT Profile #100-Year Culv Group: Culvert #1

Q Culv Group (cfs)	112.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	4.33
Q Barrel (cfs)	112.00	Culv Vel DS (ft/s)	3.95
E. G. US. (ft)	581.12	Culv Inv El Up (ft)	577.90
W. S. US. (ft)	581.04	Culv Inv El Dn (ft)	576.97
E. G. DS (ft)	580.08	Culv Frctn Ls (ft)	0.68
W. S. DS (ft)	580.00	Culv Exit Loss (ft)	0.16
Delta EG (ft)	1.04	Culv Entr Loss (ft)	0.20
Delta WS (ft)	1.03	Q Weir (cfs)	
E. G. IC (ft)	580.49	Weir Sta Lft (ft)	
E. G. OC (ft)	581.12	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	580.63	Weir Max Depth (ft)	
Culv WS Outlet (ft)	580.00	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	2.50	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.57	Min El Weir Flow (ft)	588.28

CULVERT OUTPUT Profile #500-Year Culv Group: Culvert #1

Q Culv Group (cfs)	175.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	5.21
Q Barrel (cfs)	175.00	Culv Vel DS (ft/s)	5.25
E. G. US. (ft)	582.36	Culv Inv El Up (ft)	577.90
W. S. US. (ft)	582.28	Culv Inv El Dn (ft)	576.97
E. G. DS (ft)	580.79	Culv Frctn Ls (ft)	0.96
W. S. DS (ft)	580.68	Culv Exit Loss (ft)	0.32
Delta EG (ft)	1.57	Culv Entr Loss (ft)	0.30
Delta WS (ft)	1.60	Q Weir (cfs)	
E. G. IC (ft)	581.45	Weir Sta Lft (ft)	
E. G. OC (ft)	582.36	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	581.65	Weir Max Depth (ft)	
Culv WS Outlet (ft)	580.68	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	3.81	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.12	Min El Weir Flow (ft)	588.28

CROSS SECTION

RIVER: Trib to Cayuga
 REACH: Reach 1 RS: 101.6786

INPUT

Description: D/S BR8

Station	Elevation	Data	num=	9					
Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev	Sta	El ev
0	588.34	29	586.28	50	585.41	58	580.93	65	576.97
75	576.97	84	580.93	97	586.48	152.198	587.3		

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.04	58	.036

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Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	58	84		24.31	16.4		.3	.5
Ineffective Flow		num=		2				
Sta L	Sta R	Elev	Permanent					
0	55	586	F					
85	152.198	586	F					

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	579.06	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.04	Wt. n-Val.		0.036
W. S. Elev (ft)	579.02	Reach Len. (ft)	24.31	16.40
10.56				
Crit W. S. (ft)	577.83	Flow Area (sq ft)		28.94
E. G. Slope (ft/ft)	0.000976	Area (sq ft)		28.94
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	18.27	Top Width (ft)		18.27
Vel Total (ft/s)	1.69	Avg. Vel. (ft/s)		1.69
Max Chl Dpth (ft)	2.05	Hydr. Depth (ft)		1.58
Conv. Total (cfs)	1568.4	Conv. (cfs)		1568.4
Length Wtd. (ft)	16.40	Wetted Per. (ft)		19.24
Min Ch El (ft)	576.97	Shear (lb/sq ft)		0.09
Alpha	1.00	Stream Power (lb/ft s)	152.20	0.00
0.00				
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)		0.01
C & E Loss (ft)	0.02	Cum SA (acres)		0.01

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	579.78	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.		0.036
W. S. Elev (ft)	579.71	Reach Len. (ft)	24.31	16.40
10.56				
Crit W. S. (ft)	578.21	Flow Area (sq ft)		42.59
E. G. Slope (ft/ft)	0.001111	Area (sq ft)		42.59

NFARS_RAS_trib_2.rep			
Q Total (cfs)	90.00	Flow (cfs)	90.00
Top Width (ft)	21.07	Top Width (ft)	21.07
Vel Total (ft/s)	2.11	Avg. Vel. (ft/s)	2.11
Max Chl Dpth (ft)	2.74	Hydr. Depth (ft)	2.02
Conv. Total (cfs)	2700.0	Conv. (cfs)	2700.0
Length Wtd. (ft)	16.40	Wetted Per. (ft)	22.37
Min Ch El (ft)	576.97	Shear (lb/sq ft)	0.13
Alpha 0.00	1.00	Stream Power (lb/ft s)	152.20
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	0.01
C & E Loss (ft)	0.02	Cum SA (acres)	0.01

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	580.08	Element	Left OB	Channel
Right OB Vel Head (ft)	0.08	Wt. n-Val.		0.036
W. S. Elev (ft)	580.00	Reach Len. (ft)	24.31	16.40
10.56 Crit W. S. (ft)	578.39	Flow Area (sq ft)		48.91
E. G. Slope (ft/ft)	0.001171	Area (sq ft)		48.91
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	22.25	Top Width (ft)		22.25
Vel Total (ft/s)	2.29	Avg. Vel. (ft/s)		2.29
Max Chl Dpth (ft)	3.03	Hydr. Depth (ft)		2.20
Conv. Total (cfs)	3272.9	Conv. (cfs)		3272.9
Length Wtd. (ft)	16.40	Wetted Per. (ft)		23.69
Min Ch El (ft)	576.97	Shear (lb/sq ft)		0.15
Alpha 0.00	1.00	Stream Power (lb/ft s)	152.20	0.00
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)		0.02
C & E Loss (ft)	0.02	Cum SA (acres)		0.01

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	580.79	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.11	Wt. n-Val.		0.036
W. S. Elev (ft)	580.68	Reach Len. (ft)	24.31	16.40
10.56				
Crit W. S. (ft)	578.83	Flow Area (sq ft)		64.87
E. G. Slope (ft/ft)	0.001310	Area (sq ft)		64.87
Q Total (cfs)	175.00	Flow (cfs)		175.00
Top Width (ft)	24.98	Top Width (ft)		24.98
Vel Total (ft/s)	2.70	Avg. Vel. (ft/s)		2.70
Max Chl Dpth (ft)	3.71	Hydr. Depth (ft)		2.60
Conv. Total (cfs)	4834.2	Conv. (cfs)		4834.2
Length Wtd. (ft)	16.40	Wetted Per. (ft)		26.74
Min Ch El (ft)	576.97	Shear (lb/sq ft)		0.20
Alpha	1.00	Stream Power (lb/ft s)	152.20	0.00
0.00				
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)		0.02
C & E Loss (ft)	0.03	Cum SA (acres)		0.01

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION

RIVER: Trib to Cayuga

REACH: Reach 1

RS: 85.2877

INPUT

Description:

Station	Elevation	Data	num=	9	Station	Elevation	Station	Elevation	Station	Elevation
0	587.87	27	586.23	48	585.36	66	577.18	68	576.5	
72	577.37	82	580.88	95	586.43	148.95	586.83			

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Manning's n Values
 Sta n Val
 0 .04

num= 3
 Sta n Val
 48 .036

Sta n Val
 95 .04

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 48 95 10.34 85.27 11.48 .1 .3

CROSS SECTION OUTPUT Profile #10-Year

E. G. Elev (ft)	579.02	Element	Left OB	Channel
Right OB Vel Head (ft)	0.11	Wt. n-Val.		0.036
W. S. Elev (ft)	578.91	Reach Len. (ft)		
Crit W. S. (ft)	578.12	Flow Area (sq ft)		18.73
E. G. Slope (ft/ft)	0.003001	Area (sq ft)		18.73
Q Total (cfs)	49.00	Flow (cfs)		49.00
Top Width (ft)	14.20	Top Width (ft)		14.20
Vel Total (ft/s)	2.62	Avg. Vel. (ft/s)		2.62
Max Chl Dpth (ft)	2.41	Hydr. Depth (ft)		1.32
Conv. Total (cfs)	894.5	Conv. (cfs)		894.5
Length Wtd. (ft)		Wetted Per. (ft)		15.04
Min Ch El (ft)	576.50	Shear (lb/sq ft)		0.23
Alpha 0.00	1.00	Stream Power (lb/ft s)	148.95	0.00
Frctn Loss (ft)		Cum Volume (acre-ft)		
C & E Loss (ft)		Cum SA (acres)		

CROSS SECTION OUTPUT Profile #50-Year

E. G. Elev (ft)	579.73	Element	Left OB	Channel
Right OB Vel Head (ft)	0.15	Wt. n-Val.		0.036
W. S. Elev (ft)	579.58	Reach Len. (ft)		
Crit W. S. (ft)	578.60	Flow Area (sq ft)		29.43
E. G. Slope (ft/ft)	0.003000	Area (sq ft)		29.43
Q Total (cfs)	90.00	Flow (cfs)		90.00
Top Width (ft)	17.60	Top Width (ft)		17.60
Vel Total (ft/s)	3.06	Avg. Vel. (ft/s)		3.06
Max Chl Dpth (ft)	3.08	Hydr. Depth (ft)		1.67

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Conv. Total (cfs)	1643.1	Conv. (cfs)	1643.1
Length Wtd. (ft)		Wetted Per. (ft)	18.70
Min Ch El (ft)	576.50	Shear (lb/sq ft)	0.29
Alpha 0.00	1.00	Stream Power (lb/ft s)	148.95
Frctn Loss (ft)		Cum Volume (acre-ft)	0.00
C & E Loss (ft)		Cum SA (acres)	

CROSS SECTION OUTPUT Profile #100-Year

E. G. Elev (ft)	580.03	Element	Left OB	Channel
Right OB Vel Head (ft)	0.16	Wt. n-Val.		0.036
W. S. Elev (ft)	579.87	Reach Len. (ft)		
Crit W. S. (ft)	578.81	Flow Area (sq ft)		34.63
E. G. Slope (ft/ft)	0.003002	Area (sq ft)		34.63
Q Total (cfs)	112.00	Flow (cfs)		112.00
Top Width (ft)	19.03	Top Width (ft)		19.03
Vel Total (ft/s)	3.23	Avg. Vel. (ft/s)		3.23
Max Chl Dpth (ft)	3.37	Hydr. Depth (ft)		1.82
Conv. Total (cfs)	2044.3	Conv. (cfs)		2044.3
Length Wtd. (ft)		Wetted Per. (ft)		20.25
Min Ch El (ft)	576.50	Shear (lb/sq ft)		0.32
Alpha 0.00	1.00	Stream Power (lb/ft s)	148.95	0.00
Frctn Loss (ft)		Cum Volume (acre-ft)		
C & E Loss (ft)		Cum SA (acres)		

CROSS SECTION OUTPUT Profile #500-Year

E. G. Elev (ft)	580.73	Element	Left OB	Channel
Right OB Vel Head (ft)	0.20	Wt. n-Val.		0.036
W. S. Elev (ft)	580.53	Reach Len. (ft)		
Crit W. S. (ft)	579.30	Flow Area (sq ft)		48.31

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E. G. Slope (ft/ft)	0.003003	Area (sq ft)	48.31
Q Total (cfs)	175.00	Flow (cfs)	175.00
Top Width (ft)	22.37	Top Width (ft)	22.37
Vel Total (ft/s)	3.62	Avg. Vel. (ft/s)	3.62
Max Chl Dpth (ft)	4.03	Hydr. Depth (ft)	2.16
Conv. Total (cfs)	3193.7	Conv. (cfs)	3193.7
Length Wtd. (ft)		Wetted Per. (ft)	23.84
Min Ch El (ft)	576.50	Shear (lb/sq ft)	0.38
Alpha	1.00	Stream Power (lb/ft s)	148.95
0.00		Cum Volume (acre-ft)	0.00
Frctn Loss (ft)			
C & E Loss (ft)		Cum SA (acres)	

SUMMARY OF MANNING'S N VALUES

River: Trib to Cayuga

Reach	River Sta.	n1	n2	n3
Reach 1	4572.864	.04	.038	.04
Reach 1	4423.391	.04	.038	.04
Reach 1	4410	Cul vert		
Reach 1	4334.465	.04	.038	.04
Reach 1	4237.225	.04	.038	.04
Reach 1	3845.845	.04	.037	.04
Reach 1	3752.562	.04	.037	.04
Reach 1	3742	Cul vert		
Reach 1	3672.534	.04	.037	.04
Reach 1	3585.583	.04	.037	.04
Reach 1	3126.746	.04	.036	.04
Reach 1	2552.012	.04	.036	.04
Reach 1	1830.000	.04	.036	.04
Reach 1	1741.222	.04	.036	.04
Reach 1	1731	Cul vert		
Reach 1	1700.815	.04	.036	.04
Reach 1	1674.005	.04	.036	.04
Reach 1	1653	Cul vert		
Reach 1	1588.307	.04	.036	.04
Reach 1	1515.168	.04	.036	.04
Reach 1	1398.047	.04	.036	.04
Reach 1	1387	Cul vert		
Reach 1	1349.409	.04	.036	.04
Reach 1	1255.663	.04	.036	.04
Reach 1	1137.230	.04	.036	.04
Reach 1	1126	Cul vert		
Reach 1	1089.117	.04	.036	.04
Reach 1	1036.844	.04	.036	.04
Reach 1	797.4444	.04	.036	.04
Reach 1	754.8596	.04	.036	.04

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Reach 1	745	Cul vert		
Reach 1	706.9435	.04	.036	.04
Reach 1	617.2497	.04	.036	.04
Reach 1	512.8022	.04	.036	.04
Reach 1	510	Cul vert		
Reach 1	101.6786	.04	.036	.04
Reach 1	85.2877	.04	.036	.04

SUMMARY OF REACH LENGTHS

River: Trib to Cayuga

Reach	River Sta.	Left	Channel	Right
Reach 1	4572.864	158.31	149.49	144.36
Reach 1	4423.391	91.4	88.92	88.18
Reach 1	4410	Cul vert		
Reach 1	4334.465	77.26	97.24	116.66
Reach 1	4237.225	322.8	391.36	453.6
Reach 1	3845.845	94.88	93.28	91.7
Reach 1	3752.562	81.5	80.02	78.58
Reach 1	3742	Cul vert		
Reach 1	3672.534	88.56	86.94	85.36
Reach 1	3585.583	496.3	458.8	421.4
Reach 1	3126.746	577.68	574.8	571.32
Reach 1	2552.012	751.8	721.8	681.6
Reach 1	1830.000	89	88.78	88.56
Reach 1	1741.222	39.73	40.42	42.52
Reach 1	1731	Cul vert		
Reach 1	1700.815	30.61	26.8	32.19
Reach 1	1674.005	97.3	85.7	98.1
Reach 1	1653	Cul vert		
Reach 1	1588.307	76.88	73.12	80.88
Reach 1	1515.168	115.08	117.12	119.04
Reach 1	1398.047	48.65	48.62	48.56
Reach 1	1387	Cul vert		
Reach 1	1349.409	70.96	93.74	116.18
Reach 1	1255.663	148.89	118.41	87.69
Reach 1	1137.230	50.2	48.13	46.46
Reach 1	1126	Cul vert		
Reach 1	1089.117	60.1	52.26	51.24
Reach 1	1036.844	247.65	239.4	228.3
Reach 1	797.4444	46.26	42.58	39.83
Reach 1	754.8596	44.98	47.9	50.85
Reach 1	745	Cul vert		
Reach 1	706.9435	72.04	89.7	107.32
Reach 1	617.2497	82.47	104.46	126.3
Reach 1	512.8022	413.1	411.12	410.13
Reach 1	510	Cul vert		
Reach 1	101.6786	24.31	16.4	10.56
Reach 1	85.2877	10.34	85.27	11.48

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS

River: Trib to Cayuga

Reach	River Sta.	Contr.	Expan.
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NFARS_RAS_trib_2.rep

Reach 1	4572.864	.3	.5
Reach 1	4423.391	.3	.5
Reach 1	4410	Cul vert	
Reach 1	4334.465	.3	.5
Reach 1	4237.225	.1	.3
Reach 1	3845.845	.3	.5
Reach 1	3752.562	.3	.5
Reach 1	3742	Cul vert	
Reach 1	3672.534	.3	.5
Reach 1	3585.583	.1	.3
Reach 1	3126.746	.1	.3
Reach 1	2552.012	.1	.3
Reach 1	1830.000	.3	.5
Reach 1	1741.222	.3	.5
Reach 1	1731	Cul vert	
Reach 1	1700.815	.3	.5
Reach 1	1674.005	.3	.5
Reach 1	1653	Cul vert	
Reach 1	1588.307	.3	.5
Reach 1	1515.168	.3	.5
Reach 1	1398.047	.3	.5
Reach 1	1387	Cul vert	
Reach 1	1349.409	.3	.5
Reach 1	1255.663	.3	.5
Reach 1	1137.230	.3	.5
Reach 1	1126	Cul vert	
Reach 1	1089.117	.3	.5
Reach 1	1036.844	.1	.3
Reach 1	797.4444	.3	.5
Reach 1	754.8596	.3	.5
Reach 1	745	Cul vert	
Reach 1	706.9435	.3	.5
Reach 1	617.2497	.3	.5
Reach 1	512.8022	.3	.5
Reach 1	510	Cul vert	
Reach 1	101.6786	.3	.5
Reach 1	85.2877	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Profile	Q Total	Min Ch El	W. S.
El ev	E. G.	Vel	Flow Area	Top Width	
Froude #	El ev	Chnl	(cfs)	(ft)	
(ft)	(ft)	(ft/s)	(sq ft)	(ft)	
Reach 1	4572.864 XS "J"	10-Year	17.00	595.58	
596.90	596.94	1.59	10.70	11.76	
0.29					
Reach 1	4572.864 XS "J"	50-Year	32.00	595.58	
597.62	597.66	1.58	20.35	15.75	
0.24					
Reach 1	4572.864 XS "J"	100-Year	39.00	595.58	
597.71	597.76	1.80	21.85	17.43	
0.26					
Reach 1	4572.864 XS "J"	500-Year	62.00	595.58	

597.98 598.06 0.002021 2.39 27.09 22.34
 0.32

Reach 1 4423.391 10-Year 17.00 594.68
 596.83 595.40 596.84 0.000250 0.77 22.21 17.82
 0.11
 Reach 1 4423.391 50-Year 32.00 594.68
 597.57 595.66 597.58 0.000219 0.91 37.23 48.55
 0.11
 Reach 1 4423.391 100-Year 39.00 594.68
 597.66 595.76 597.67 0.000258 1.01 49.11 102.17
 0.12
 Reach 1 4423.391 500-Year 62.00 594.68
 597.91 596.04 597.93 0.000330 1.23 80.94 147.53
 0.14

Reach 1 4410 Culvert 6 Culvert

Reach 1 4334.465 10-Year 17.00 593.92
 594.94 594.54 594.99 0.003447 1.76 9.64 14.10
 0.38
 Reach 1 4334.465 50-Year 32.00 593.92
 595.79 594.78 595.82 0.000929 1.30 24.61 21.18
 0.21
 Reach 1 4334.465 100-Year 39.00 593.92
 596.30 594.87 596.32 0.000444 1.07 36.37 25.44
 0.15
 Reach 1 4334.465 500-Year 62.00 593.92
 597.74 595.12 597.75 0.000107 0.81 89.97 74.23
 0.08

Reach 1 4237.225 XS "I" 10-Year 17.00 593.57
 594.66 594.70 0.002501 1.55 10.99 15.40
 0.32
 Reach 1 4237.225 XS "I" 50-Year 32.00 593.57
 595.73 595.75 0.000451 0.98 32.73 25.17
 0.15
 Reach 1 4237.225 XS "I" 100-Year 39.00 593.57
 596.27 596.28 0.000244 0.82 47.64 30.09
 0.11
 Reach 1 4237.225 XS "I" 500-Year 62.00 593.57
 597.73 597.74 0.000052 0.56 143.31 122.99
 0.06

Reach 1 3845.845 XS "H" 10-Year 49.00 591.40
 594.34 594.37 0.000634 1.31 37.51 24.23
 0.19
 Reach 1 3845.845 XS "H" 50-Year 90.00 591.40
 595.58 595.60 0.000358 1.22 73.92 34.82
 0.15
 Reach 1 3845.845 XS "H" 100-Year 112.00 591.40

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596.16		596.18	0.000281	1.17	95.52	39.80
0.13						
Reach 1	3845.845	XS "H"		500-Year	175.00	591.40
597.67		597.69	0.000158	1.06	165.81	52.83
0.10						

Reach 1	3752.562			10-Year	49.00	591.07
594.31	592.08	594.33	0.000226	1.15	48.87	26.82
0.12						
Reach 1	3752.562			50-Year	90.00	591.07
595.56	592.53	595.58	0.000171	1.27	81.12	37.47
0.11						
Reach 1	3752.562			100-Year	112.00	591.07
596.13	592.74	596.16	0.000156	1.33	96.18	42.45
0.11						
Reach 1	3752.562			500-Year	175.00	591.07
597.65	593.26	597.67	0.000127	1.44	135.51	55.44
0.10						

Reach 1 3742 Culvert 5 Culvert

Reach 1	3672.534			10-Year	49.00	590.60
592.97	591.63	593.01	0.000816	1.66	30.39	20.01
0.22						
Reach 1	3672.534			50-Year	90.00	590.60
593.62	592.05	593.69	0.000923	2.16	45.00	25.27
0.24						
Reach 1	3672.534			100-Year	112.00	590.60
593.88	592.24	593.97	0.000984	2.38	51.52	27.37
0.25						
Reach 1	3672.534			500-Year	175.00	590.60
594.46	592.71	594.58	0.001140	2.91	66.59	32.06
0.28						

Reach 1	3585.583	XS "G"		10-Year	49.00	590.47
592.85		592.91	0.001850	1.91	25.65	21.13
0.31						
Reach 1	3585.583	XS "G"		50-Year	90.00	590.47
593.51		593.58	0.001708	2.18	41.36	26.46
0.31						
Reach 1	3585.583	XS "G"		100-Year	112.00	590.47
593.77		593.85	0.001713	2.31	48.58	28.58
0.31						
Reach 1	3585.583	XS "G"		500-Year	175.00	590.47
594.34		594.45	0.001810	2.64	66.29	33.21
0.33						

Reach 1	3126.746	XS "F"		10-Year	49.00	589.10
591.68		591.79	0.003314	2.56	19.11	14.87
0.40						
Reach 1	3126.746	XS "F"		50-Year	90.00	589.10

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592. 12	592. 30	0. 005313	3. 35	26. 90	20. 71
0. 52					
Reach 1	3126. 746 XS "F"		100-Year	112. 00	589. 10
592. 29	592. 50	0. 006130	3. 67	30. 49	22. 90
0. 56					
Reach 1	3126. 746 XS "F"		500-Year	175. 00	589. 10
592. 79	593. 04	0. 006192	4. 00	43. 72	29. 61
0. 58					

Reach 1	2552. 012 XS "E"		10-Year	49. 00	587. 82
589. 48	589. 58	0. 004508	2. 48	19. 76	22. 91
0. 47					
Reach 1	2552. 012 XS "E"		50-Year	90. 00	587. 82
590. 19	590. 27	0. 002446	2. 26	39. 84	33. 67
0. 37					
Reach 1	2552. 012 XS "E"		100-Year	112. 00	587. 82
590. 48	590. 55	0. 002067	2. 23	50. 14	38. 03
0. 34					
Reach 1	2552. 012 XS "E"		500-Year	175. 00	587. 82
590. 94	591. 04	0. 002154	2. 53	69. 21	45. 00
0. 36					

Reach 1	1830. 000 XS "D"		10-Year	49. 00	585. 73
588. 50	588. 53	0. 000687	1. 43	34. 25	20. 63
0. 20					
Reach 1	1830. 000 XS "D"		50-Year	90. 00	585. 73
589. 63	589. 66	0. 000412	1. 41	72. 86	77. 73
0. 16					
Reach 1	1830. 000 XS "D"		100-Year	112. 00	585. 73
590. 12	590. 14	0. 000249	1. 24	126. 60	128. 03
0. 13					
Reach 1	1830. 000 XS "D"		500-Year	175. 00	585. 73
590. 58	590. 60	0. 000260	1. 40	192. 34	159. 94
0. 14					

Reach 1	1741. 222		10-Year	49. 00	585. 54
588. 47	586. 55 588. 49	0. 000331	1. 12	43. 62	22. 82
0. 14					
Reach 1	1741. 222		50-Year	90. 00	585. 54
589. 60	586. 96 589. 63	0. 000241	1. 25	72. 41	26. 00
0. 13					
Reach 1	1741. 222		100-Year	112. 00	585. 54
590. 09	587. 14 590. 12	0. 000217	1. 32	95. 32	139. 26
0. 13					
Reach 1	1741. 222		500-Year	175. 00	585. 54
590. 54	587. 60 590. 57	0. 000261	1. 58	164. 80	170. 59
0. 14					

Reach 1 1731 Cul vert 4 Cul vert

Reach 1 1700. 815 10-Year 49. 00 585. 45

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587.80	586.84	587.86	0.002086	2.06	23.82	20.14
0.33						
Reach 1	1700.815			50-Year	90.00	585.45
588.45	587.35	588.53	0.001907	2.30	39.22	27.53
0.33						
Reach 1	1700.815			100-Year	112.00	585.45
588.76	587.54	588.85	0.001584	2.34	49.10	38.09
0.31						
Reach 1	1700.815			500-Year	175.00	585.45
589.64	587.97	589.71	0.000797	2.18	100.43	83.26
0.24						
Reach 1	1674.005			10-Year	49.00	585.39
587.81	586.04	587.82	0.000248	0.99	49.25	24.74
0.12						
Reach 1	1674.005			50-Year	90.00	585.39
588.46	586.35	588.49	0.000352	1.36	66.33	29.13
0.15						
Reach 1	1674.005			100-Year	112.00	585.39
588.77	586.49	588.80	0.000365	1.49	76.71	41.09
0.16						
Reach 1	1674.005			500-Year	175.00	585.39
589.64	586.86	589.69	0.000331	1.71	108.44	88.19
0.16						
Reach 1	1653	Wagner Drive			Culvert	
Reach 1	1588.307			10-Year	49.00	583.50
584.73	584.16	584.82	0.002905	2.36	20.79	17.82
0.38						
Reach 1	1588.307			50-Year	90.00	583.50
585.92	584.48	585.99	0.001053	2.09	43.01	19.58
0.25						
Reach 1	1588.307			100-Year	112.00	583.50
586.51	584.64	586.57	0.000793	2.04	54.79	20.45
0.22						
Reach 1	1588.307			500-Year	175.00	583.50
587.44	585.01	587.53	0.000786	2.35	74.58	21.83
0.22						
Reach 1	1515.168 XS "C"			10-Year	49.00	581.90
584.64	584.69		0.000931	1.76	27.89	15.40
0.23						
Reach 1	1515.168 XS "C"			50-Year	90.00	581.90
585.87	585.92		0.000658	1.81	49.69	20.08
0.20						
Reach 1	1515.168 XS "C"			100-Year	112.00	581.90
586.47	586.52		0.000552	1.79	62.41	22.35
0.19						
Reach 1	1515.168 XS "C"			500-Year	175.00	581.90
587.42	587.47		0.000437	1.91	118.75	115.92
0.18						

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Reach 1 584.58 0.16	1398.047 582.52	584.60	0.000442	10-Year 1.33	49.00 36.72	581.30 17.45
Reach 1 585.82 0.16	1398.047 583.03	585.85	0.000373	50-Year 1.47	90.00 61.35	581.30 22.17
Reach 1 586.43 0.14	1398.047 583.25	586.46	0.000305	100-Year 1.48	112.00 76.46	581.30 42.04
Reach 1 587.39 0.14	1398.047 583.76	587.42	0.000245	500-Year 1.58	175.00 177.95	581.30 285.35

Reach 1 1387 Cul vert 3 Cul vert

Reach 1 583.71 0.32	1349.409 582.30	583.80	0.002183	10-Year 2.34	49.00 20.92	581.05 12.74
Reach 1 584.82 0.29	1349.409 582.96	584.91	0.001538	50-Year 2.34	90.00 38.41	581.05 18.77
Reach 1 585.35 0.27	1349.409 583.27	585.43	0.001252	100-Year 2.28	112.00 49.06	581.05 21.63
Reach 1 586.85 0.17	1349.409 583.91	586.89	0.000418	500-Year 1.74	175.00 133.08	581.05 104.64

Reach 1 583.57 0.26	1255.663 583.63		0.001315	10-Year 1.92	49.00 25.54	580.57 14.57
Reach 1 584.72 0.23	1255.663 584.78		0.000961	50-Year 1.96	90.00 45.95	580.57 20.83
Reach 1 585.27 0.21	1255.663 585.33		0.000776	100-Year 1.92	112.00 59.27	580.57 34.40
Reach 1 586.83 0.13	1255.663 586.85		0.000229	500-Year 1.40	175.00 193.25	580.57 181.68

Reach 1 583.43 0.23	1137.230 581.52	583.48	0.001050	10-Year 1.76	49.00 27.87	580.28 15.42
Reach 1 584.63 0.21	1137.230 582.20	584.68	0.000766	50-Year 1.80	90.00 50.08	580.28 21.88
Reach 1 585.19 0.19	1137.230 582.52	585.24	0.000593	100-Year 1.75	112.00 66.72	580.28 46.49
Reach 1	1137.230			500-Year	175.00	580.28

586. 79 583. 14 586. 82 0. 000235 1. 48 130. 39 231. 48
 0. 13

Reach 1 1126 Culvert 2 Culvert

Reach 1 1089. 117 10-Year 49. 00 580. 17
 582. 61 581. 95 582. 75 0. 004213 2. 98 16. 42 13. 05
 0. 47
 Reach 1 1089. 117 50-Year 90. 00 580. 17
 583. 46 582. 47 583. 60 0. 003017 3. 07 29. 33 17. 40
 0. 42
 Reach 1 1089. 117 100-Year 112. 00 580. 17
 583. 91 582. 68 584. 05 0. 002371 2. 96 37. 82 19. 74
 0. 38
 Reach 1 1089. 117 500-Year 175. 00 580. 17
 585. 20 583. 18 585. 30 0. 001242 2. 60 67. 34 26. 32
 0. 29

Reach 1 1036. 844 XS "B" 10-Year 49. 00 580. 04
 582. 23 582. 44 0. 007305 3. 67 13. 36 11. 79
 0. 61
 Reach 1 1036. 844 XS "B" 50-Year 90. 00 580. 04
 583. 28 583. 44 0. 003231 3. 15 28. 59 17. 18
 0. 43
 Reach 1 1036. 844 XS "B" 100-Year 112. 00 580. 04
 583. 79 583. 93 0. 002347 2. 95 37. 96 19. 78
 0. 38
 Reach 1 1036. 844 XS "B" 500-Year 175. 00 580. 04
 585. 14 585. 24 0. 001155 2. 53 69. 20 26. 68
 0. 28

Reach 1 797. 4444 10-Year 49. 00 578. 60
 581. 85 581. 90 0. 000957 1. 80 27. 17 13. 42
 0. 22
 Reach 1 797. 4444 50-Year 90. 00 578. 60
 582. 99 583. 05 0. 000867 1. 99 45. 28 18. 36
 0. 22
 Reach 1 797. 4444 100-Year 112. 00 578. 60
 583. 55 583. 61 0. 000763 1. 99 56. 20 20. 78
 0. 21
 Reach 1 797. 4444 500-Year 175. 00 578. 60
 584. 98 585. 04 0. 000540 1. 93 90. 61 27. 59
 0. 19

Reach 1 754. 8596 10-Year 49. 00 578. 47
 581. 81 579. 77 581. 87 0. 000661 1. 89 28. 45 13. 83
 0. 19
 Reach 1 754. 8596 50-Year 90. 00 578. 47
 582. 95 580. 36 583. 02 0. 000630 2. 28 46. 88 18. 74
 0. 20
 Reach 1 754. 8596 100-Year 112. 00 578. 47

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583.50	580.62	583.58	0.000573	2.37	58.01	21.16
0.19						
Reach 1	754.8596			500-Year	175.00	578.47
584.95	581.32	585.02	0.000419	2.42	92.82	28.17
0.17						
Reach 1	745	Culvert 1				Culvert
Reach 1	706.9435			10-Year	49.00	578.33
580.72	579.80	580.88	0.004643	3.22	15.22	9.69
0.45						
Reach 1	706.9435			50-Year	90.00	578.33
581.54	580.46	581.75	0.004579	3.63	24.81	13.71
0.48						
Reach 1	706.9435			100-Year	112.00	578.33
581.86	580.77	582.09	0.004535	3.80	29.49	15.30
0.48						
Reach 1	706.9435			500-Year	175.00	578.33
582.74	581.43	582.98	0.003727	3.91	44.71	19.57
0.46						
Reach 1	617.2497 XS "A"			10-Year	49.00	578.05
579.91	580.23		0.010634	4.57	10.72	7.14
0.66						
Reach 1	617.2497 XS "A"			50-Year	90.00	578.05
580.74	581.11		0.009919	4.92	18.30	11.15
0.68						
Reach 1	617.2497 XS "A"			100-Year	112.00	578.05
581.16	581.52		0.008192	4.78	23.45	13.22
0.63						
Reach 1	617.2497 XS "A"			500-Year	175.00	578.05
582.35	582.61		0.004213	4.10	42.67	19.06
0.48						
Reach 1	512.8022			10-Year	49.00	577.90
579.63	578.76	579.71	0.001949	2.21	22.20	15.65
0.33						
Reach 1	512.8022			50-Year	90.00	577.90
580.58	579.15	580.66	0.001364	2.34	38.52	18.75
0.29						
Reach 1	512.8022			100-Year	112.00	577.90
581.04	579.35	581.12	0.001180	2.36	47.41	20.24
0.27						
Reach 1	512.8022			500-Year	175.00	577.90
582.28	579.80	582.36	0.000809	2.33	75.05	24.29
0.23						
Reach 1	510	Taxi way				Culvert

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Reach 1 579.02 0.24	101.6786 577.83	579.06	0.000976	10-Year 1.69	49.00 28.94	576.97 18.27
Reach 1 579.71 0.26	101.6786 578.21	579.78	0.001111	50-Year 2.11	90.00 42.59	576.97 21.07
Reach 1 580.00 0.27	101.6786 578.39	580.08	0.001171	100-Year 2.29	112.00 48.91	576.97 22.25
Reach 1 580.68 0.30	101.6786 578.83	580.79	0.001310	500-Year 2.70	175.00 64.87	576.97 24.98
Reach 1 578.91 0.40	85.2877 578.12	579.02	0.003001	10-Year 2.62	49.00 18.73	576.50 14.20
Reach 1 579.58 0.42	85.2877 578.60	579.73	0.003000	50-Year 3.06	90.00 29.43	576.50 17.60
Reach 1 579.87 0.42	85.2877 578.81	580.03	0.003002	100-Year 3.23	112.00 34.63	576.50 19.03
Reach 1 580.53 0.43	85.2877 579.30	580.73	0.003003	500-Year 3.62	175.00 48.31	576.50 22.37

cHECK-RAS Report

HEC-RAS Project: *nfars_ras_trib_2.prj*
 Plan File: *nfars_ras_trib_2.p01*
 Geometry File: *nfars_ras_trib_2.g01*
 Flow File: *nfars_ras_trib_2.f01*
 Report Date: *5/24/2013*

Message ID	Message	Cross sections affected	Comments
BR LF 01	This is (\$strucname\$). The selected profile is \$profilename\$. Type of flow is low flow because, 1. EGEL 3 of \$egel3\$ is less than or equal to MinTopRd of \$minelweirflow\$. 2. EGEL 3 of \$egel3\$ is less than MxLoCdU of \$mxlocdu\$.	510(Culvert-UP); 745(Culvert-UP); 1126(Culvert-UP); 1387(Culvert-UP); 1653(Culvert-UP); 1731(Culvert-UP); 3742(Culvert-UP); 4410(Culvert-UP)	
BR PF 01	This is a Bridge Section. The selected profile is \$profilename\$. Type of flow is sluice gate pressure flow because, 1. EGEL 3 of \$egel3\$ is less than or equal to MinTopRd of \$minelweirflow\$. 2. EGEL 3 of \$egel3\$ is greater than or equal to MxLoCdU of \$mxlocdu\$. 3. WSEL 2 of \$wsel2\$ is less than MxLoCdd of \$mxlocdd\$.	745(Culvert-UP); 1126(Culvert-UP); 1653(Culvert-UP); 3742(Culvert-UP)	
BR PW 01	This is a Bridge Section. The selected profile is \$profilename\$. Type of flow is sluice gate pressure and weir flow because, 1. EGEL 3 of \$egel3\$ is greater than MinTopRd of \$minelweirflow\$. 2. EGEL 3 of \$egel3\$ is equal to or greater than MxLoCdU of \$mxlocdu\$. 3. WSEL 2 of \$wsel2\$ is less than MxLoCdd of \$mxlocdd\$.	4410(Culvert-UP)	
BR PW 02	This is a Bridge Section. The selected profile is \$profilename\$. Type of flow is submerged pressure and weir flow because, 1. EGEL 3 of \$egel3\$ is greater than MinTopRd of \$minelweirflow\$. 2. EGEL 3 of \$egel3\$ is equal to or greater than MxLoCdU of \$mxlocdu\$. 3. WSEL 2 of \$wsel2\$ is equal to or greater than MxLoCdd of \$mxlocdd\$.	4410(Culvert-UP)	
CV CF 03	This is (\$strucname\$). Type of material is \$material\$. Culvert n-value is \$nculv\$. Culvert n-value is not within the recommended range. It should be within \$nculv1\$ and \$nculv2\$. Please refer to Table 6-1 on Page 6-24 and Table 6-2 on Page 6-25 of the HEC-RAS Hydraulic Reference Manual.	1653	The Manning's n entered in the RAS model for this cross section is 0.011 for the top and bottom of the concrete culvert, which is within the acceptable range according to table 6-1 of the Reference Manual
CV LF 01	This is (\$strucname\$). The selected profile is \$profilename\$. Type of flow is low flow because, 1. EGEL 3 of \$egel3\$ is less than or equal to MinTopRd of \$minelweirflow\$. 2. EGEL 3 of \$egel3\$ is less than MxLoCdU of \$mxlocdu\$.	510; 745; 1126; 1387; 1653; 1731; 3742; 4410	

CV PF 01	<p>This is (\$strucname\$). The selected profile is \$profilename\$. Type of flow is pressure flow because,</p> <ol style="list-style-type: none"> 1. EGEL 3 of \$egel3\$ is less than or equal to MinTopRd of \$minelweirflow\$. 2. CulvWSIn of \$Culv_WS_Inlet\$ is equal to or greater than MxLoCdu of \$mxLocdu\$. 3. CulvWSOut of \$culvwsoutlet\$ is equal to or greater than MxLoCdD of \$mxlocdd\$. 	745; 1126; 1653; 3742	
CV PW 01	<p>This is (\$strucname\$). The selected profile is \$profilename\$. Type of flow is low and weir flow because,</p> <ol style="list-style-type: none"> 1. EGEL 3 of \$egel3\$ is greater than MinTopRd of \$Min_El_Weir_Flow\$. 2. EGEL 3 of \$egel3\$ is less than MxLoCdu of \$MxLoCdU\$. 	4410	
ST DT 03	<p>This is (\$Structure\$) section. The Contraction Length is longer than the Expansion Length. Section 4 channel distance of \$Length_Chnl4\$ is longer than Section 2 channel distance of \$Length_Chnl2\$.</p> <p>Section 4 and Section 1 should be relocated.</p> <p>The HEC-RAS geometry file may need to be recreated using a GIS program.</p>	510(Culvert-UP); 1126(Culvert-UP); 1387(Culvert-UP); 1731(Culvert-UP); 3742(Culvert-UP); 4410(Culvert-UP)	



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

22 March 2013

CELRB-TD

Buffalo District, Corps of Engineers
1776 Niagara Street
Buffalo, NY 14207

LOMC Clearinghouse
847 South Pickett Street
Alexandria, VA 22304

Re: The Unnamed Tributary to Cayuga Creek at the Niagara Falls Air Reserve Station in Niagara Falls
New York

To Whom It May Concern:

The Flood Insurance Rate Map (FIRM) for a community depicts land which has been determined to be subject to a 1% annual exceedance probability (100-year) or greater chance of flooding in any given year. The FIRM is used to determine flood insurance rates and to help the community with floodplain management.

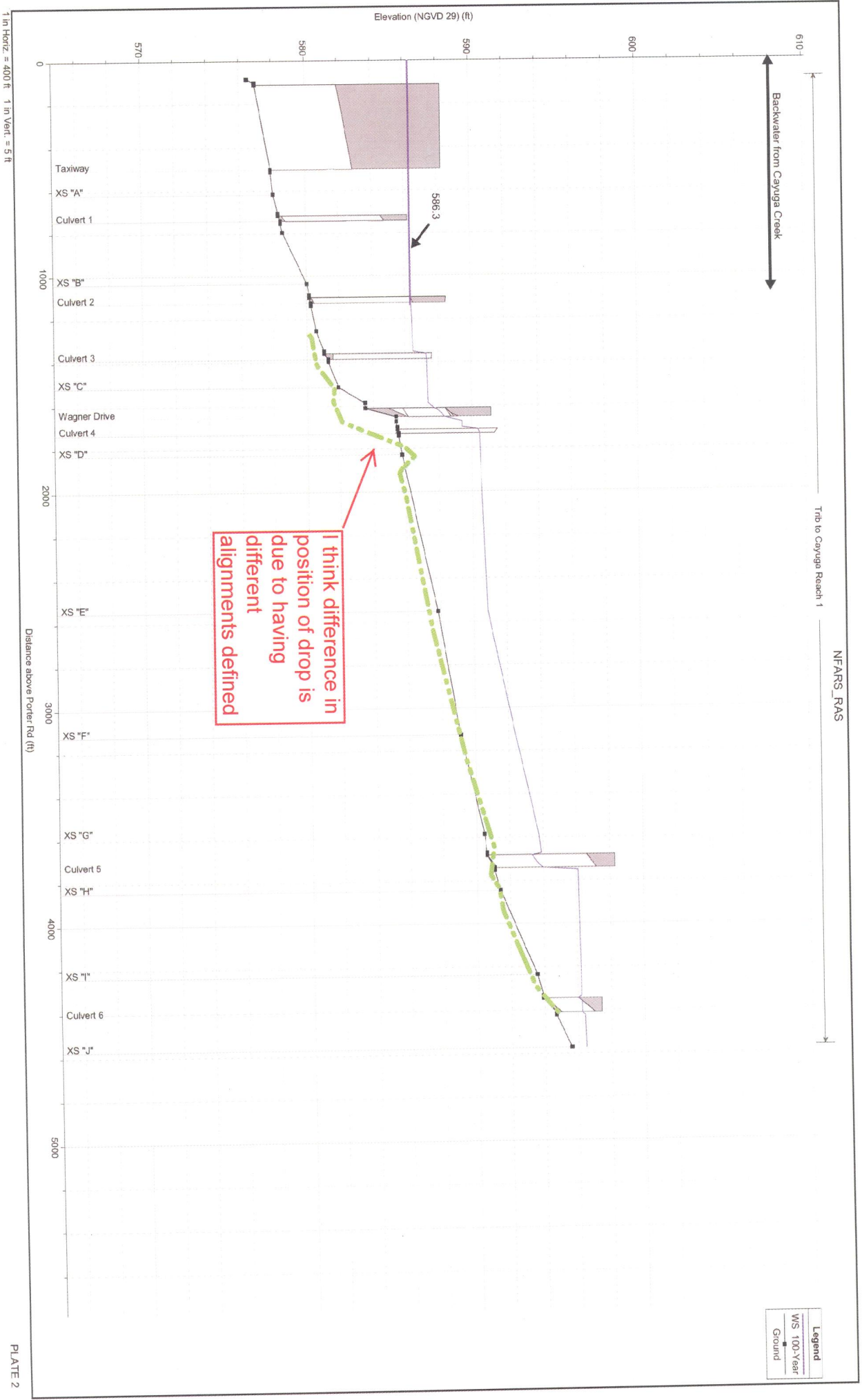
The United States Army Corp of Engineers (USACE) is applying for a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency (DHS-FEMA) on behalf of the United States Border Patrol (USBP) to revise FIRM Map Number 36063C0327E Panel 327 of 430 Map Suffix: E, for the Town of Niagara, Niagara County New York along the Unnamed Tributary which flows through the Niagara Air Reserve Station and outfalls at Outlet #5 into Cayuga Creek. The USACE is proposing to revise the FIRM to reflect the results found from a detailed analysis which concluded the 1% annual exceedance probability flow is contained primarily within the channel banks of the Unnamed Tributary.

The survey used in support of this investigation was completed in support of a 2005 hydraulic study. The cross sections used were ground truth/field verified in MARCH 2013 by USACE Buffalo District Survey Section personnel under my direct supervision, using the National Geodetic Vertical Datum 1929 (NGVD 29). The elevation comparison results agree within a reasonable tolerance, and are illustrated in the attached.

If you have any questions or require any additional information please contact Roman Figler at (716) 879-4429 or by email at Roman.H.Figler@usace.army.mil.

Thank you.

Roman H. Figler III, PLS
Chief, Survey Section



I think difference in position of drop is due to having different alignments defined

2005 SURVEY
2013 SURVEY

Legend
WS 100-Year
Ground



Niagara Falls AFRR Floodplain Boundary Map



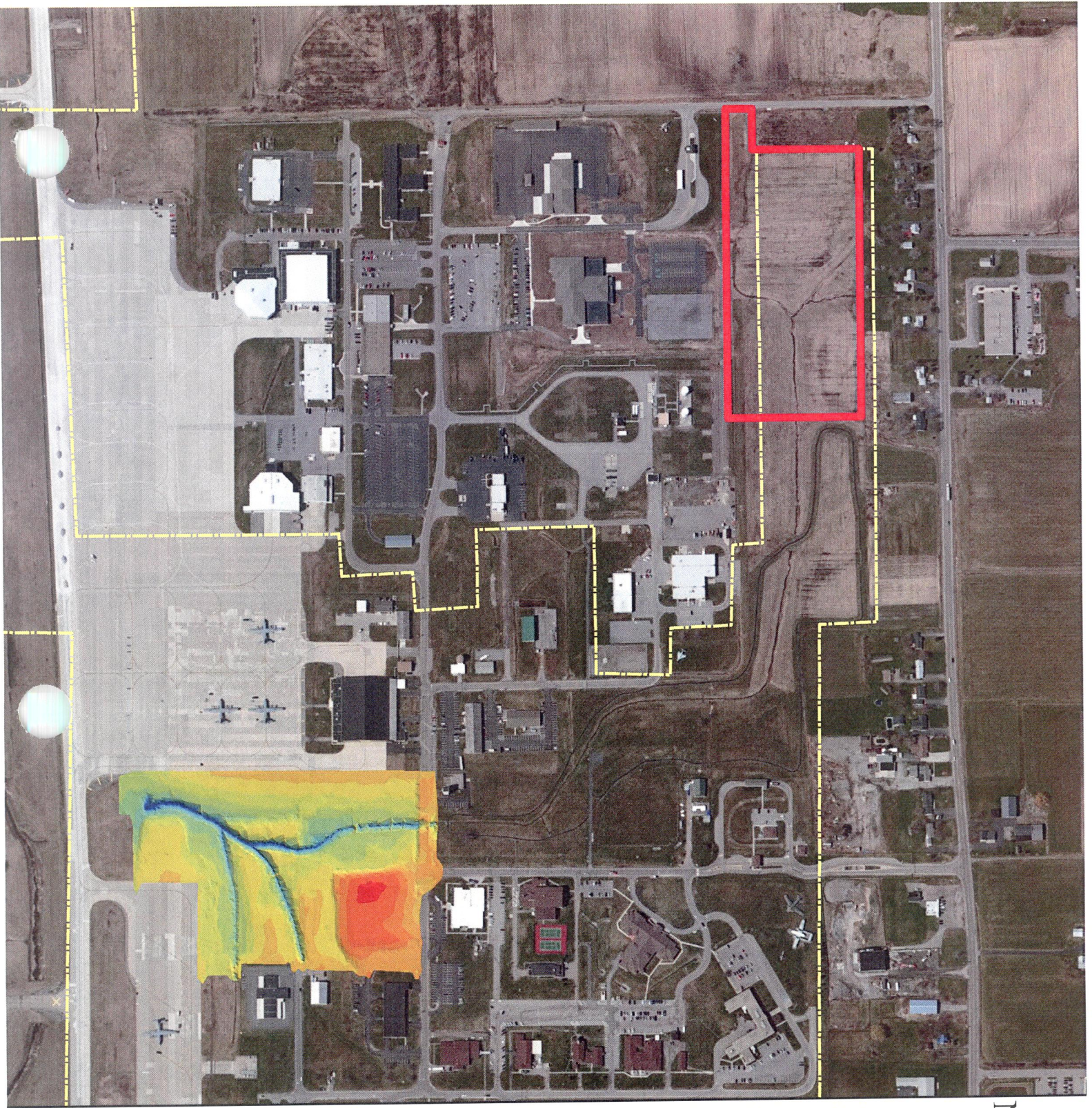
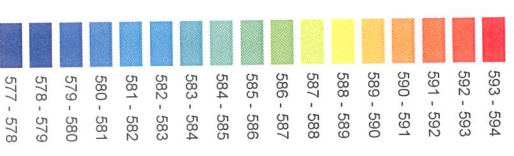
Scale

1 inch = 500 feet

Legend

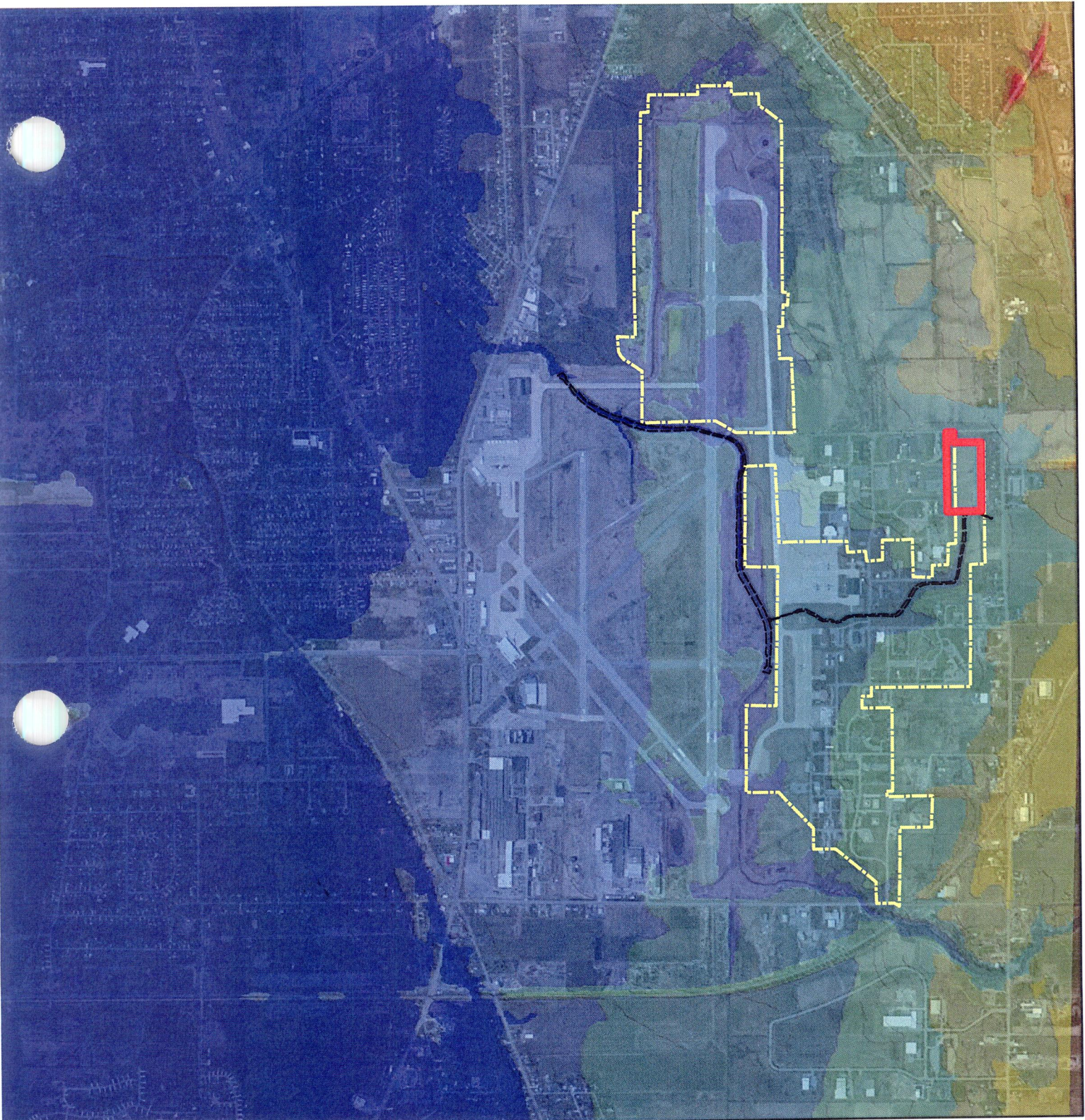
-  Airbase Boundary
-  Border Patrol Parcel

Elevation



Niagara Falls AFRS

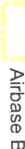


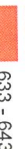
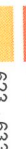







Floodplain Boundary Map



Scale

1 inch = 2,000 feet

Legend

	Airbase Boundary
	Border_Patrol_Parcel
Elevation	
	643 - 652
	633 - 643
	623 - 633
	613 - 623
	603 - 613
	593 - 603
	583 - 593
	574 - 583
	5f
	File



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

13March 2013

Niagara Falls Air Reserve Station
Otis Drive
Niagara Falls, NY 14304

Re: Notification of Narrowing of 1% (100 year) Annual Chance Floodplain and Establishment of Base Flood Elevations at the Niagara Falls Air Reserve Station.

To Whom It May Concern:

The Flood Insurance Rate Map (FIRM) for a community depicts land which has been determined to be subject to a 1% annual exceedance probability (100-year) or greater chance of flooding in any given year. The FIRM is used to determine flood insurance rates and to help the community with floodplain management.

The United States Army Corp of Engineers (USACE) is applying for a Letter of Map Revision (LOMR) from the Department of Homeland Security - Federal Emergency Management Agency (DHS-FEMA) on behalf of the United States Border Patrol (USBP) to revise FIRM Map Number 36063C0327E Panel 327 of 430 Map Suffix: E, for the Town of Niagara, Niagara County New York along the Unnamed Tributary which flows through the Niagara Air Reserve Station and outfalls at Outlet #5 into Cayuga Creek. The USACE is proposing to revise the FIRM to reflect the results found from a detailed analysis which concluded the 1% annual exceedance probability flow is contained primarily within the channel banks of the Unnamed Tributary.

The Letter of Map Revision will result in:

1. Establishment of Base (1% annual exceedance probability) Flood Elevations (BFEs). Currently, the flooding along The Unnamed Tributary to Outlet #5 is based on an approximate study.
2. Narrowing of the 1% annual exceedance probability floodplain with the maximum narrowing of 170 feet at a point approximately 700 feet downstream of Wagner Drive.

This letter is to inform you of the establishment of Base Flood Elevations and revision of the 1% annual exceedance probability floodplain on the Niagara Falls Air Reserve Station, Niagara County New York.

If you have any questions or concerns about the proposed changes to the FIRM or its effect on your property, you may contact me at (716) 879-4358 or through email at Keith.R.Koralewski@usace.army.mil.

Sincerely,

Keith R. Koralewski, P.E.
Chief, Hydrology and Hydraulics Engineering Section

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Public Notice

The Niagara County, Town of Niagara Floodplain Manager, hereby gives notice of the Niagara County intent to revise the flood hazards, generally located along the Unnamed Tributary which outlets at Outfall #5 on the Niagara Air Reserve Station, located approximately four miles east of the central business district of Niagara Falls in Niagara County, New York.

Specifically, the flood hazards shall be revised from a point along the Unnamed Tributary as it confluences with the Cayuga Creek to a point upstream to the Air Reserve Station property limits. As a result of the revision, the 1% annual exceedance probability water-surface elevations shall decrease and/or the 1% annual exceedance probability floodplain shall narrow within the area of revision.

Maps and detailed analysis of the revision can be reviewed at _____ at ____ (ADDRESS) _____. Interested persons may call Laura Ortiz at (716) 879-4407 for additional information from ___ DATE ___ to ___ DATE ___.

FEDERAL EMERGENCY MANAGEMENT AGENCY
PAYMENT INFORMATION FORM

Community Name: **Town of Niagara**

Project Identifier: **The Unnamed Tributary to Cayuga Creek at the Niagara Falls Air Reserve Station in Niagara Falls, NY**

THIS FORM MUST BE MAILED, ALONG WITH THE APPROPRIATE FEE, TO THE ADDRESS BELOW OR FAXED TO THE FAX NUMBER BELOW.

Type of Request:

- MT-1 application }
 MT-2 application }

FEMA
Fee Charge System Administrator
7390 Coca Cola Dr.
Suite 204
Hanover, MD 21076

- EDR application }

FEMA Project Library
847 South Pickett St.
Alexandria, VA 22304
FAX (703) 212-4090

Request No.: _____ (if known) Amount: \$0 _____

INITIAL FEE* FINAL FEE FEE BALANCE** MASTER CARD VISA CHECK MONEY ORDER

*Note: Check only for EDR and/or Alluvial Fan requests (as appropriate).

**Note: Check only if submitting a corrected fee for an ongoing request.

COMPLETE THIS SECTION **ONLY** IF PAYING BY CREDIT CARD

CARD NUMBER

EXP. DATE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
																Month	Year		

January 10, 2013 _____
Date Signature

NAME (AS IT APPEARS ON CARD): _____
(please print or type)

ADDRESS: _____
(for your credit card receipt-please print or type)

DAYTIME PHONE: _____

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1

Appendix F

2

Emissions Calculations

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Table E-1 Construction Equipment Use

Equipment Type	Number of Units	Days on Site	Hours Per Day	Operating Hours
Excavators Composite	1	115	4	460
Rollers Composite	1	173	8	1,384
Rubber Tired Dozers Composite	1	115	8	920
Plate Compactors Composite	2	115	4	920
Trenchers Composite	2	58	8	928
Air Compressors	2	115	4	920
Cement & Mortar Mixers	2	115	6	1,380
Cranes	1	115	7	805
Generator Sets	2	115	4	920
Tractors/Loaders/Backhoes	2	230	7	3,220
Pavers Composite	1	58	8	464
Paving Equipment	2	58	8	928

Table E-2 Construction Equipment Emission Factors (lbs/hour)

Equipment	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Excavators Composite	0.5828	1.3249	0.1695	0.0013	0.0727	0.0727	119.6
Rollers Composite	0.4341	0.8607	0.1328	0.0008	0.0601	0.0601	67.1
Rubber Tired Dozers Composite	1.5961	3.2672	0.3644	0.0025	0.1409	0.1409	239.1
Plate Compactors Composite	0.0263	0.0328	0.0052	0.0001	0.0021	0.0021	4.3
Trenchers Composite	0.5080	0.8237	0.1851	0.0007	0.0688	0.0688	58.7
Air Compressors	0.3782	0.7980	0.1232	0.0007	0.0563	0.0563	63.6
Cement and Mortar Mixers	0.0447	0.0658	0.0113	0.0001	0.0044	0.0044	7.2
Cranes	0.6011	1.6100	0.1778	0.0014	0.0715	0.0715	128.7
Generator Sets	0.3461	0.6980	0.1075	0.0007	0.0430	0.0430	61.0
Tractors/Loaders/Backhoes	0.4063	0.7746	0.1204	0.0008	0.0599	0.0599	66.8
Pavers Composite	0.5874	1.0796	0.1963	0.0009	0.0769	0.0769	77.9
Paving Equipment	0.0532	0.1061	0.0166	0.0002	0.0063	0.0063	12.6

Source: CARB 2007a and 2007b

Table E-3 Construction Equipment Emissions (Tons per Year)

Equipment	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Excavators Composite	0.1341	0.3047	0.0390	0.0003	0.0167	0.0167	27.5037
Rollers Composite	0.3004	0.5956	0.0919	0.0005	0.0416	0.0416	46.4006
Rubber Tired Dozers Composite	0.7342	1.5029	0.1676	0.0011	0.0648	0.0648	109.9886
Plate Compactors Composite	0.0121	0.0151	0.0024	0.0000	0.0010	0.0010	1.9843
Trenchers Composite	0.2357	0.3822	0.0859	0.0003	0.0319	0.0319	27.2467
Air Compressors	0.1740	0.3671	0.0567	0.0003	0.0259	0.0259	29.2594
Cement and Mortar Mixers	0.0309	0.0454	0.0078	0.0001	0.0031	0.0031	5.0012
Cranes	0.2419	0.6480	0.0716	0.0006	0.0288	0.0288	51.7885
Generator Sets	0.1592	0.3211	0.0494	0.0003	0.0198	0.0198	28.0566
Tractors/Loaders/Backhoes	0.6542	1.2470	0.1939	0.0012	0.0964	0.0964	107.5583
Pavers Composite	0.1363	0.2505	0.0455	0.0002	0.0178	0.0178	18.0811
Paving Equipment	0.0247	0.0492	0.0077	0.0001	0.0029	0.0029	5.8593
Total	2.84	5.73	0.82	0.0051	0.35	0.35	458.73

Table E-4 Painting

VOC Content	0.84	lbs/gallon	
Coverage	400	sqft/gallon	
Emission Factor	0.0021	lbs/sqft	
Building/Facility	Wall Surface	VOC [lbs]	VOC [tpy]
All Buildings Combined	34,000	68,000	142.8
Total	34,000	68,000	142.80

Source: SCAQMD 1993

Table E-5 Delivery of Equipment and Supplies

Number of Deliveries	2						
Number of Trips	2						
Miles Per Trip	30						
Days of Construction	192						
Total Miles	27,600						
Pollutant	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Emission Factor (lbs/mile)	0.0219	0.0237	0.0030	0.0000	0.0009	0.0007	2.7
Total Emissions (lbs)	605.80	654.47	82.60	0.71	23.63	20.41	75056.4
Total Emissions (tpy)	0.30	0.33	0.04	0.0004	0.01	0.01	37.53

Source: CARB 2011

Table E-6 Surface Disturbance

TSP Emissions	80	lb/acre				
PM ₁₀ /TSP	0.45					
PM _{2.5} /PM ₁₀	0.15					
Period of Disturbance	30	days				
Capture Fraction	0.5					
Building/Facility	Area [acres]	TSP[lbs]	PM ₁₀ [lbs]	PM ₁₀ [tons]	PM _{2.5} [lbs]	PM _{2.5} [tons]
Demolition	1.1	2650	1192	0.60	89	0.04
Total	1.1	2,650	1,192	0.60	89	0.04

Sources: USEPA 1995 and USEPA 2005

Table E-7 Worker Commutes

Number of Workers	50						
Number of Trips	2						
Miles Per Trip	30						
Days of Construction	230						
Total Miles	690000						
Pollutant	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Emission Factor (lbs/mile)	0.0105	0.0011	0.0011	0.0000	0.0001	0.0001	1.1
Total Emissions (lbs)	7,278.42	760.99	744.64	7.42	58.69	36.52	758,677.3
Total Emissions (tpy)	3.64	0.38	0.37	0.0037	0.03	0.02	379.34

Source: CARB 2011

Table E-8 Total Construction Emissions (Tons per Year)

Activity/Source	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Construction Equipment	2.84	5.73	0.82	0.0051	0.35	0.35	458.73
Painting	0.00	0.00	0.07	0.0000	0.00	0.00	0.00
Delivery of Equipment and Supplies	0.30	0.33	0.04	0.0004	0.01	0.01	37.53
Surface Disturbance	0.00	0.00	0.00	0.0000	0.60	0.04	0.00
Worker Commutes	3.64	0.38	0.37	0.0037	0.03	0.02	379.34
Total Construction Emissions	6.78	6.44	1.30	0.0092	0.99	0.42	875.60

Table E-9 Boiler Emissions

Gross Area	34000	sf					
Heating Requirements	99000	btu/sf					
Total Annual Heat Required	3366	MMBTU					
Heating Value	150	MMBTU/1000 Gallons					
Total #2 Oil Used	22.4	10 ³ Gallons					
Pollutant	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	
Emission Factor (lb/1000 gal)	5	24	2.493	0.1	2	2	
Total Emissions (tons)	0.06	0.27	0.03	<0.01	0.02	0.02	

1. Emission factors for all pollutants were obtained from USEPA's AP-42, Section 1.3. Conservatively assume that PM₁₀ = PM.

2. Assumed sulfur concentration 1%

3. Heating requirements obtained from Commercial Buildings Energy Consumption Survey, DOE 2003

Table E-10 Emergency Generators

Pollutant	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}		
Emission Factor [lb/hp-hr]	0.0055	0.024	0.000705	0.00809	0.0007	0.0007		
Generator Rating [kW]	Estimated Run Time (hr/yr)	Annual Power Output [kW-hr/yr]	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}
700	100	70,000	0.26	1.13	0.03	0.38	0.03	0.03
Total Emissions [tpy]			0.26	1.13	0.03	0.38	0.03	0.03

1. Emission factors for all pollutants were obtained from USEPA's AP-42, Section 3.4 Stationary Diesel Engines

Table E-11 Worker Commutes

Number of Workers	75							
Number of Trips	2							
Miles Per Trip	30							
Days of Work	260							
Total Miles	1170000							
Pollutant	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}		
Emission Factor (lbs/mile)	0.0105	0.0011	0.0011	0.0000	0.0001	0.0001		
Total Emissions (lbs)	12,341.67	1,290.37	1,262.66	12.57	99.51	61.93		
Total Emissions (tons)	6.17	0.65	0.63	0.01	0.05	0.03		

Source: CARB 2011

Table E-12 Total Operational Emissions (tons)

Activity/Source	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}
Boiler Emissions	0.06	0.27	0.03	0.00	0.02	0.02
Emergency Generators	0.26	1.13	0.03	0.38	0.03	0.03
Worker Commutes	6.17	0.65	0.63	0.01	0.05	0.02
Total Operational Emissions	6.5	2.0	0.7	0.4	0.01	0.01

References

- CARB (California Air Resources Board). 2011. *EMFAC (v2.3) Emission Factors (On-Road)*. <http://www.arb.ca.gov/msei/onroad/latest_version.htm> Accessed April 2012.
- DOE (Department of Energy). 2003. *Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, Commercial Buildings Energy Consumption Survey*. Department of Energy, Washington, DC.
- NYSDEC (New York State Department of Environmental Conservation) 2007. Correspondence from Steven J. Doleski, NYSDEC- Regional Permit Administrator to Demon F. Smyth, Niagara Falls Air Reserve Station, Base Civil Engineer.
- SCAQMD (South Coast Air Quality Management District). 1993. *CEQA Air Quality Handbook*. Coast Air Quality Management District, Diamond Bar, CA.
- USEPA (U.S. Environmental Protection Agency). 1995. *Compilation of Air Pollutant Emission Factors*, AP-42, 5th ed. Vol. I: Stationary Point and Area Sources.
- USEPA (U.S. Environmental Protection Agency). 2005. Methodology to Estimate the Transportable Fraction (TF) of Fugitive Dust Emissions for Regional and Urban Scale Air Quality Analyses.

Appendix G
EIFS Model Results

1
2

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1 **EIFS Report**

2 The estimated BPS total project construction cost is \$9 million. It is estimated that 35 percent of
3 construction costs reflect materials and supplies; 35 percent is for labor; and 30 percent is profit,
4 overhead, and fees. The actual construction cost for change in local expenditures (materials and
5 supplies) is 35 percent of total project construction cost: $\$9,000,000 * 0.35 = \$3,150,000$. This
6 was divided evenly over the 18-month project period, resulting in \$2,100,000 spent in the first 12
7 months and \$1,050,000 spent in the remaining 6 months. The change in civilian construction
8 employment is determined by finding the 35 percent labor costs and then dividing by the Bureau
9 of Labor Statistics wages by area and occupation (i.e., Niagara County, New York, non-
10 residential building construction annual wage of \$53,575) (BLS 2014). Thus, total labor
11 construction costs for Alternatives 1, 2 or 3 is $\$9 \text{ million} * 0.35 = \$3,150,000$. That number
12 divided by the average income of affected civilian construction workers ($\$3,150,000 / \$53,575 =$
13 59) is the estimated number of construction workers for the project.

14 The following tables present the EIFS output data for construction of the BPS under the No
15 Action Alternative and Alternatives 1, 2, and 3.

16 **Reference**

17 BLS (Bureau of Labor Statistics). 2014. *Quarterly Census of Employment and Wages Databases*.
18 Accessed February 25, 2014. <http://www.bls.gov/cew/#databases>.

EIFS REPORT

PROJECT NAME

CBP Niagara: Construction, Alternatives 1, 2, and 3

STUDY AREA

Niagara County, NY

FORECAST OUTPUT

		RTV
Employment Multiplier	2.73	
Income Multiplier	2.73	
Sales Volume - Total	\$22,475,458	0.49%
Income - Total (place of work)	\$9,911,157	0.20%
Employment - Total	253	0.26%

RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	8.26 %	8.33 %	4.06 %	1.01 %
Negative RTV	-6.61 %	-4.90 %	-4.68 %	-0.65 %

1
2
3 ***** End of Report *****
4

Appendix H
Survey Reports of Alternatives 1, 2, and 3
and Other Supporting Documentation

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

**Area 1 (Preferred Alternative Site)
Tuscarora Rd, Niagara Falls Air Reserve Station
Niagara Falls, New York**

Prepared for:

**Department of the Army
USACE, Buffalo District
1776 Niagara Street
Buffalo, NY 14207-3199**

October 2012

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SECTION 1

EXECUTIVE SUMMARY

Tetra Tech was contracted by U.S. Army Corp of Engineers (USACE) - Buffalo District to conduct a Phase I Environmental Site Assessment (ESA) of property under consideration for acquisition by U.S. Customs and Border Protection (CBP) for construction of a new U.S. Border Patrol (USBP) station in Niagara Falls, New York. The property is a rectangular 12.3-acre parcel located in the northwest corner of Niagara Falls Air Reserve Station (ARS). The parcel is vacant, flat, and grass-covered. It is zoned Light Industrial and has 100 linear feet (LF) of frontage on Tuscarora Road to the west. Lockport Road is north of the parcel, but residences along Lockport Road separate the parcel from the road. The Niagara Falls Air Reserve Station property lies east and south of the parcel. The parcel is known as the Area 1 Preferred Alternative Site (Subject Property).

The Subject Property meets the CBP selection criteria for establishing a new border patrol station (BPS) for the Niagara area of responsibility (AOR): (1) it is within the defined 60-square-mile search area for potential locations for a new BPS; (2) it has sufficient land area for establishing a BPS (10 acres minimum); and (3) it has two access points (Tuscarora Road and through Niagara Falls ARS). In addition, the parcel has the appropriate shape, terrain, drainage, and soil conditions for the proposed construction and use; utilities are available at the location (water, sewer, electric power, and natural gas are available at the parcel, while telephone and cable television are available nearby); the price is within budget; it is zoned appropriately; and it has no known detrimental cultural or environmental characteristics (USACE Detroit District 2011)

Two Recognized Environmental Concern (REC), as defined in ASTM International (ASTM) Standard E1527-05, were found in connection with the Subject Property. The

1 first REC is associated with Subject Property is a state environmental cleanup site known
2 as the Carborundum Site, approximately 0.9 miles northeast of the Subject Property. It is
3 possible that low levels of VOCs could be encountered in soil and shallow groundwater
4 during construction activities involving soil excavation. Operations at the Carborundum
5 Site began in 1963. Trichloroethene (TCE) was in use at the Carborundum Co. as a
6 degreaser in the manufacture of specialty abrasive carbon and graphite cloths from 1963
7 to 1983. During this period TCE was introduced into the overburden layer of soil and
8 eventually into the groundwater. The contamination was discovered in 1983 during a
9 routine NYSDEC inspection of the facilities SPDES outfall and in groundwater samples
10 collected from production well. Four phases of investigations, took place prior to the
11 December 23, 1991 execution of an Order on Consent. Construction of a Groundwater
12 Recovery System (GRS) and a Soil Remediation Groundwater Treatment System
13 (SRGWTS) was been completed and has been active since July 1994 with noted
14 reduction in the total mass of chemical concern.

15 A work plan for a soil vapor intrusion (SVI) assessment, which included installation of
16 soil vapor monitoring points (SVMPs) Off-site sub-slab and indoor air sampling of
17 selected condominiums adjacent to the western side of the site was completed in
18 November and December 2008. The results of the sampling were included in a report
19 entitled "Offsite Soil Vapor Assessment Report" submitted in February 2009. Based on
20 the results of the investigation the DEC, in consultation with the NYSDOH, concluded no
21 further on-site or off-site sampling was needed and no actions were needed to address
22 exposures related to soil vapor intrusion. An Investigation Complete - No Actions
23 Recommended memo was issued on April 1, 2009. Operation and maintenance of soil
24 vapor extraction was discontinued due to diminishing VOC extraction rates. Operation
25 and maintenance of the groundwater treatment system will provide for long-term
26 remediation of the groundwater. Exposure to these contaminants through drinking
27 groundwater is not expected because the surrounding area is connected to the public
28 water supply. However, it is possible that detectable concentrations of VOCs may be
29 encountered during construction activities that include excavation activities due to the
30 shallow regional aquifer.

1 Based on the information provided in the records search, it is unknown how far the
2 contaminated groundwater containing volatile organic compounds extends beyond the
3 site boundaries. According to Niagara Falls 914th Airlift Wings Civil Engineer Group, no
4 known contamination from this site located on the installation. Additionally, no prior
5 groundwater and soil investigations performed at other environmental sites across the
6 installation have noted contamination from this site (Niagara Falls ARS 914th MSG/CEV
7 Environmental Site Manager Personal Communication July 2012). However,
8 groundwater contamination cannot be ruled out since the extent of the contamination
9 south of the site is unknown.

10 A review of historical records found that the Subject Property was used for agricultural
11 purposes from at least 1900 to 1949, when it was bought by the United States
12 Government and the land became part of the Niagara Falls Air Force Base and eventually
13 Niagara Falls Air Reserve Station. The land was never developed. Fertilizers, pesticides,
14 and herbicides were likely applied to crops to prevent, destroy, repel, or mitigate pests
15 and unwanted flora while it was used for agricultural purposes. The possibility that
16 residual fertilizers, pesticides, and herbicides are present in soils on the Subject Property
17 is considered a REC.

18 This executive summary is provided for convenience only. Although the executive
19 summary is an integral part of the report, it should not be used in lieu of reading the
20 entire report, including the appendices. Reliance on this report should be based on the
21 findings and conclusions presented, including the limitations discussed in Section 2.4.

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SECTION 2

INTRODUCTION

2.1. PURPOSE

This Phase I ESA reports the results of an inquiry into the previous ownership and uses of the Subject Property, known as the Area 1 Preferred Alternative Site, which is being considered as the site for a new 50-person U.S. Border Patrol (USBP) station. The area is described as a 12.3-acre rectangular parcel with 100 LF of frontage along the western side of Tuscarora Road on Niagara Falls ARS, in the town of Niagara, Niagara County, New York. The property is currently undeveloped and owned by the United States of America. This inquiry is consistent with good commercial or customary practice as defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 *United States Code* (U.S.C.) 9601(35)(B), and it was designed to meet the standards of ASTM Standard E1527-05, *Standard Practice for Environmental Site Assessments: Phase I ESA Process* (ASTM 2005) in compliance with the US Environmental Protection Agency's (EPA) All Appropriate Inquiries (AAI) Final Rule (Title 40 of the *Code of Federal Regulations* [CFR] Part 312).

Through compliance with the AAI Final Rule, this Phase I ESA is intended to meet some of the threshold requirements of a bona fide prospective purchaser, contiguous property owner, or innocent landowner to qualify for landowner liability protection under the Brownfields Amendments to CERCLA, or other liability projects that might be available to landowners under state statutes.

On behalf of the Department of Homeland Security, Customs and Border Protection, Office of Border Patrol, the user of this Phase I ESA requested that the US Army Corps of Engineers, Buffalo District, to the extent feasible and pursuant to the processes prescribed herein, identify recognized environmental concern (RECs) in connection with

1 the Subject Property to help the Department in its decision-making process for the
2 proposed acquisition of the Subject Property. *RECs* are defined in ASTM Standard
3 E1527-05 as “the presence or likely presence of any hazardous substances or petroleum
4 products on the property under conditions that indicate an existing release, a past release,
5 or a material threat of release of any hazardous substances or petroleum products into
6 structures on the property or into the ground, groundwater, or surface water of the
7 property. The term includes hazardous substances or petroleum products, even under
8 conditions in compliance with laws. The term is not intended to include *de minimis*
9 conditions that generally do not present a threat to human health or the environment and
10 that generally would not be the subject of an enforcement action if brought to the
11 attention of appropriate governmental agencies. Conditions determined to be *de minimis*
12 are not [RECs]” (ASTM 2007).

13 2.2. DETAILED SCOPE OF SERVICES

14 ***Record Review.*** Reasonably ascertainable records of standard sources were reviewed,
15 including environmental record sources (specified regulatory agency lists and files);
16 physical setting sources (topographic maps); historical ownership information (chain of
17 title); and historical use information (such as aerial photographs, fire and flood insurance
18 company maps, and historical topographic maps). Internet searches of county, state, and
19 federal agencies were also conducted to find *reasonably ascertainable* data and
20 information. Data failures and the significance of gaps in the historical record are
21 discussed in Section 2.4

22 ***Site Reconnaissance.*** The Subject Property was inspected to identify possible hazardous
23 substance storage or disposal; pathways for contamination to enter soil or groundwater,
24 such as leaking underground storage tanks (USTs), sumps, or drains; poor management
25 of hazardous substances; and the possible presence of polychlorinated biphenyls (PCBs).
26 The environmental setting and indications of the current and past uses of the property,

27 ***Interviews.*** Property owners and representatives of the owners of the Subject Property, as
28 well as local emergency response personnel and state officials, were interviewed to

1 collect information on the Subject Property, adjoining properties, and the surrounding
2 area were observed.

3 ***Environmental Questionnaire.*** A environmental questionnaire was completed by both
4 Niagara Falls ARS personnel and the Contractor who prepared this report. The
5 transaction screen process consists of asking questions contained within the transaction
6 screen questionnaire of owners and occupants of the property, observing site conditions
7 at the property with direction provided by the transaction screen questionnaire, and, to the
8 extent reasonably ascertainable, conducting limited research regarding certain
9 government records and certain standard historical sources.

10 ***Report.*** The data attained by the Contractor (Tetra Tech, Inc.) during the review of
11 historical records, site reconnaissance, and interviews was evaluated and used to prepare
12 this report and its conclusions.

13 2.3. SIGNIFICANT ASSUMPTIONS

14 Data provided by the owner representatives is assumed to be true and correct. The maps
15 presenting the boundaries of the property are assumed to be accurate.

16 2.4. LIMITATIONS AND EXCEPTIONS

17 No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection
18 with a site. Performance of ASTM Standard E1527-05 is intended to reduce, but not
19 eliminate, uncertainty regarding the potential for RECs in connection with a site. The
20 information presented in this report is based on professional opinions from a thorough
21 reviews of documents acquired from database and record searches provided by InfoMap
22 Technologies, Inc.

23 It should be recognized that this study is not intended to be a definitive investigation of
24 potential environmental concerns at the Subject Property. The scope of services for this
25 investigation was limited and should not be construed as a guarantee that no currently
26 unrecognized environmental concerns exist at the Subject Property. However, The

1 Contractor undertook this study and completed the report in accordance with the
2 professional standards and generally accepted practices of environmental consultants at
3 the time of preparation. Business environmental risk might exist on the property that is
4 beyond the scope of this investigation.

5 Opinions and recommendations presented in this report apply to the Subject Property
6 conditions existing at the time of The Contractor's investigation and those reasonably
7 foreseeable. They do not necessarily apply to Subject Property changes of which The
8 Contractor is not aware and which The Contractor has not had the opportunity to
9 evaluate.

10 **2.5. SPECIAL TERMS AND CONDITIONS**

11 The conclusions and recommendations herein are based solely on the information The
12 Contractor obtained in compiling the report. Because the facts forming the basis for the
13 report are subject to professional interpretation, differing conclusions could be reached.

14 The Contractor does not assume responsibility for the discovery and elimination of
15 hazards that could cause accidents, injuries, or damage. Compliance with submitted
16 recommendations or suggestions does not assure elimination of hazards or the fulfillment
17 of client's obligations under local, state, or federal laws or any modifications or changes
18 to such laws.

19 None of the work performed hereunder will constitute or be represented as a legal
20 opinion of any kind or nature but will be a representation of findings of fact from records
21 examined.

SECTION 3

SITE DESCRIPTION

3.1. LOCATION AND LEGAL DESCRIPTION

The Subject Property occupies a rectangular parcel of approximately 12.3 acres in the northwestern corner of the Niagara Falls ARS, located in the northeast portion of the town of Niagara, Niagara County, New York. The parcel is about 2 miles from Interstate 190 (I-190), 7 miles from the border crossing at I-190, and 6.6 miles from the border crossing at Niagara Falls State Park. It has 100 LF of frontage on Tuscarora Road to the west. The approximate center point of the parcel is 43° 07' 11.27" north latitude and 78° 57' 04.61" west longitude. The Subject Property is shown in figures located in Appendices 14.1 and 14.2.

The legal description of the Subject Property, as provided by Land Title Inquiries, Inc., through InfoMap Technologies, Inc., is provided in the title in Appendix 14.4

3.2. SITE AND VICINITY CHARACTERISTICS

On May 15, 2012 a visual site inspection of the Subject Property was conducted to determine the environmental condition of the parcel. The Subject Property was observed to be undeveloped, grass-covered, and relatively level lot that is part of Niagara Falls ARS. Tetra Tech personnel were escorted around the property by installation personnel. The Subject Property is located in the northwestern corner of the installation. The northern and western sided of the parcel were observed to be bounded by barbed wire fence. Moderately high grass covered most of the site. No shrubs or trees were observed; however, hydric plants such as cattails were observed in and near the unnamed tributaries that crisscrossed the parcel. South of the parcel is a parking lot and vehicle/equipment storage area for the newly constructed New York Army National Guard Center. During

1 the VSI, an outfall and pump/lift station which appeared to be part of the installation's
2 stormwater management system was observed along the southern boundary of the
3 Subject Property. The lift station seemed to be pumping water onto the parcel from the
4 south towards an unnamed tributary on the eastern half of Area 1. The unnamed tributary
5 runs north to south through Niagara Falls ARS to Cayuga Creek, which runs east to west
6 south of the installation's aircraft runway. The unnamed tributary on the parcel is fed also
7 by two small streams that both flow from the north off-site of Niagara ARS and through
8 Subject Property. Figure 14.2 illustrates the surface water features of the Subject
9 Property. The streams connect toward the center of the Subject Property and then flow
10 east toward a larger stream located just east of the Subject Property. Various pieces of
11 sanitary debris such as plastic bottles, plastic bags, and newspaper were observed along
12 the banks of the unnamed tributaries.

13 North of the property were residential structures that were situated along See Appendix
14 14.3 for photographs of the Subject Property and adjoining property.

15 The parcel is vacant and is zoned as Light Industrial. Soil conditions preliminarily seem
16 suitable for the proposed development, and the zoning of the parcel is compatible with
17 this project.

18 The land surrounding the Subject Property is predominantly a mixture of residential,
19 agricultural, and government-occupied land. Residential properties are north of the
20 Subject Property, along Lockport Road. Niagara Falls ARS property is east and south of
21 the parcel. Farmland and residences lie to the west.

22 3.3. CURRENT USE OF THE PROPERTY

23 The Subject Property is undeveloped and covered with various grasses and other
24 vegetation. Historical aeriels and topographic maps show that no improvements have
25 been made to the parcel (InfoMap 2012). The VSI conducted on May 15th confirmed that
26 no structures or development has occurred on the Subject Property.

1 3.4. **DESCRIPTIONS OF STRUCTURES, ROADS, AND OTHER**
2 **IMPROVEMENTS ON THE SITE**

3 Historical topographic maps and aeriels show that no structures or permanent roads have
4 ever been built on the site (InfoMap 2012). Service utilities for natural gas, three-phase
5 power, telephone, cable TV, drinking water, and sanitary sewer are directly available to
6 the site. During the VSI an outfall and pump/lift station which appeared to be part of the
7 installation’s stormwater management system was observed along the southern boundary
8 of the Subject Property. The lift station seemed to be pumping water onto the parcel from
9 the south towards an unnamed tributary on the eastern half of Area 1. The unnamed
10 tributary runs north to south through Niagara Falls ARS to Cayuga Creek, which runs
11 east to west south of the installation’s aircraft runway. The unnamed tributary on the
12 parcel is fed also by two small streams that both flow from the north off-site of Niagara
13 ARS and through Subject Property. Figure 14.2 illustrates the surface water features of
14 the Subject Property. See Appendix 14.3 for photographs of the lift station and streams
15 located on or near the Subject Property.

16 3.5. **CURRENT USES OF THE ADJOINING PROPERTY**

17 During the VSI conducted on May 15th, 2012, residential structures were observed to be
18 located on Lockport Road, which backs up to the northern boundary of the Subject
19 Property. To the west of the Subject Property is an agricultural field with small areas of
20 woody vegetation. Based on historical imagery, a race track known as Niagara Falls
21 International Drag Strip was once located on the property to the west. Much of the actual
22 asphalt drag strip and a few old buildings are still present. An access gate to Tuscarora
23 Road is located directly southwest of the Subject Property. It appears that the gate is not
24 used often; it was not open during the visual site inspection conducted May 15, 2012. A
25 recently constructed New York Army Reserve Center (NYARC) campus is located
26 directly south of the Subject Property. A parking lot and storage lot with large cargo
27 containers associated with the NYARC borders the southern boundary of the parcel. Two
28 large 115,000 gallon aboveground storage tanks (ASTs) were observed during the VSI,
29 located directly southeast of the Subject Property at an inactive fueling facility that was

1 associated with the 107th Air National Guard, a tenant organization on Niagara Falls
2 ARS. Air National Guard representative indicated that the ASTs had not been in use for
3 over a year and a half. The ASTs have large secondary spill controls surrounding them to
4 reduce the impact of a release (107th Air National Guard, Environmental Management
5 Representative). See Appendix 14.3 for photos of these two inactive ASTs. To the east of
6 the Subject Property is a paved running track; the remaining area around the course is
7 well-maintained grassy vegetation. No signs of staining or environmental concerns were
8 observed.

9 In general, Niagara Falls ARS is a compact installation bounded by Tuscarora Road to
10 the west, Lockport Road to the north, Walmore Road to the east, and Niagara Falls
11 International Airport to the south. The dominant feature on the southern side of the
12 installation is the airfield, which consists of permanent and temporary aircraft parking
13 aprons, apron access taxiways, and the international airport property. Immediately
14 adjacent to the airfield is a consolidated area devoted to aircraft operations and
15 maintenance. Within this area are key operational facilities, including the fuel systems
16 maintenance hangar, aircraft maintenance hangar, and aircraft maintenance shop, which
17 are served by the hangar access apron. An isolated operational area surrounds the engine
18 test stand.

SECTION 4

USER-PROVIDED INFORMATION

4.1. TITLE RECORDS

A chain-of-title search of the Subject Property was obtained from Land Title Inquiries, Inc., through the record search provided by InfoMap Technologies, Inc. Based on the results of the title search, the land that the subject property is comprised of three separate properties, until 1949 when all three parcels were bought by the US Government as part of a larger land acquisition to create a DoD facility that is now known as Niagara ARS (InfoMap 2012). The chain of title is provided in Appendix 14.4.

4.2. ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

As part of this Phase I ESA, InfoMap Technologies, Inc., conducted an environmental lien search on the land that composes the Subject Property. The search identified no environmental liens and use limitations against the Subject Property. No environmental liens or land use controls were identified with the subject property (InfoMap 2012). Refer to Appendix 14.4 for the letter stating that liens or land use controls were identified.

4.3. SPECIALIZED KNOWLEDGE

Specialized knowledge pertaining to the current owner, local utilities, and current property conditions was provided by the US Army Corps of Engineers, Buffalo District, which authorized the US Army Corps of Engineers, Detroit District, to conduct a market study deliverable (USACE, Detroit District 2011).

1 4.4. **COMMONLY KNOWN OR REASONABLY ASCERTAINABLE**
2 **INFORMATION**

3 The USACE and CBP did not have and were not aware of any commonly known and
4 reasonably ascertainable information other than the documents provided to The
5 Contractor.

6 4.5. **VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES**

7 The market study conducted by the USACE, Detroit District, states that the property
8 would be leased to CBP by the Niagara Falls ARS via the United States of America
9 (USACE, Detroit District 2011). The Contractor does not believe that any environmental
10 issues on the property that would affect the value of the property.

11 4.6. **OWNER, PROPERTY MANAGER, AND OCCUPANT**
12 **INFORMATION**

13 The Subject Property and surrounding Niagara Falls ARS are owned by the United States
14 of America. The United States of America bought the land that composes the Subject
15 Property from three different private owners in April 1959. Before then, the land was
16 used for agricultural purposes (InfoMap 2012).

17 4.7. **REASON FOR PERFORMING PHASE I**

18 This Phase I ESA is intended to provide CBP with an understanding of any significant
19 potential environmental liabilities or risks relative to the investigated Site area.

20 4.8. **OTHER**

21 No other information relevant to RECs at the Subject Property was obtained from the
22 user of this Phase I ESA.

SECTION 5

RECORD REVIEW

5.1. REVIEW OF FEDERAL, STATE, AND TRIBAL ENVIRONMENTAL RECORDS

A record search that reviewed federal, state, local, and tribal environmental records pertaining to the Subject Property and its vicinity was conducted. In performing the review, services were provided by InfoMap, a vendor specializing in the search and retrieval of governmental environmental databases. The federal, state, local, and tribal databases include information regarding reported hazardous materials use and storage; facilities that treat, store, dispose of, or generate hazardous waste; solid waste landfills, transfer stations, and incinerators; leaking underground storage tanks (LUSTs); discharges of petroleum and other hazardous substances; and reported incidents of contamination. The databases conform to the standard record sources identified in ASTM Standard E1527-05 (ASTM 2005). The InfoMap report is presented in Appendix 14.4.

5.1.1. Subject Property

On the basis of the results of the record search conducted by InfoMap, no sites of concern were found within the boundaries of the Subject Property (InfoMap 2012).

5.1.2. Surrounding Properties

Three geocoded environmental sites and one non-geocoded site were found near the Subject Property during the InfoMap record search (InfoMap 2012). Non-geocoded sites are properties referenced in federal, state, local, or tribal environmental records that cannot be accurately mapped because of incomplete or inadequate location information; however, the sites are listed within a common ZIP Code. The Contractor reviewed the list

1 of non-geocoded sites in the InfoMap report to ascertain their potential to affect the
2 Subject Property. On the basis of distance or type of database finding, none of the non-
3 geocoded sites are likely to affect the Subject Property

- 4 • One geocoded LUST site was identified 0.32 mile southeast of the Subject
5 Property. The site, ***Tank 920D at Building 920***, was described as a 5,000-gallon
6 No. 2 fuel oil underground storage tank (UST) that was removed in the summer of
7 1998. Soil samples collected from the excavated site showed detected
8 concentrations of analytes above New York State Department of Environmental
9 Conservation (NYSDEC) Spills Technology and Remediation Series (STARS)
10 Guidance Values. Groundwater was determined not to be impacted. The impacted
11 soil was removed from the excavation, along with the excavated tank, and
12 disposed of off-site. A letter requesting no further action was drafted and sent to
13 NYSDEC for concurrence. NYSDEC concurred that the site was closed. On the
14 basis of the proper removal and disposal of the impacted soil, the absence of
15 groundwater contamination, and NYSDEC's concurrence with the no further
16 action request, this site is not likely to impact the Subject Property (InfoMap
17 2012).

- 18 • The second geocoded site was identified as ***Ross Steel Company, Inc.***, located
19 0.82 mile southwest of the parcel on Packard Road. There were two apparent
20 landfill sites on Pine Avenue used by Ross Steel (approximately 3.5 miles
21 southwest of the Subject Property). The site was bought by Niagara Mohawk
22 Power Corporation, which installed large power conduits that pass through the
23 property. During the installation, large excavations were performed to install the
24 infrastructure. Thus, the entire site is now either excavated or covered and seeded.
25 A Phase I investigation for this site was completed in 1989, and it concluded that
26 no hazardous waste is present on the site. Based on the site's distance from the
27 Subject Property, it is not likely to have impacted the Subject Property

- 28 • The ***Carborundum Site***, the third geocoded site, is approximately 0.9 mile
29 northeast of the Subject Property at 2050 Cory Drive (0.6 mile directly north of

1 the main entrance gate for Niagara Falls ARS). Operations at the Carborundum
2 Site began in 1963. Trichloroethene (TCE) was in use at the Carborundum
3 Company as a degreaser in the manufacture of specialty abrasive carbon and
4 graphite cloths from 1963 to 1983. Other chlorinated organics used during that
5 period included 1,1,1-trichloroethane and carbon tetrachloride. During the period
6 TCE was introduced into the overburden around the site. The contamination was
7 discovered in 1983 during a routine NYSDEC inspection of the facilities outfall
8 and in groundwater samples collected from a groundwater well. Four phases of
9 investigations took place prior to the December 23, 1991, execution of an Order
10 on Consent.

11 Construction of a groundwater recovery system and a soil remediation
12 groundwater treatment system was completed July 1994, and a reduction in the
13 total mass of chemical concern has been noted. Impacted groundwater was
14 determined to be present in the top layer of fractured bedrock, as well as in the
15 aquifers further below ground. Groundwater extraction was optimized to control
16 only the contaminant in top layer of fractured bedrock. Groundwater at the site
17 flows towards the south/southwest towards Niagara ARS in the direction of the
18 Niagara River and can be found in the first layer consolidated material (5 feet-15
19 feet), as well as the first zone of fracture bedrock, which is between 10 feet to 25
20 feet below ground surface (bgs). Groundwater can be found as far as 150 feet
21 below ground. The groundwater in the regions flows to the south/southwest
22 (USGS 1996). Operation and Maintenance continues including long term
23 groundwater monitoring. Installation of soil vapor monitoring points (SVMPs)
24 was approved in 2006. The results of the study indicated that additional work was
25 necessary to evaluate the exposure route. Off-site sub-slab and indoor air
26 sampling of selected condominiums adjacent to the western side of the site was
27 completed in December 2008.

28 NYSDEC, in consultation with the New York State Department of Health
29 (NYSDOH), concluded no further on-site or off-site sampling was needed and no
30 actions were needed to address exposures related to soil vapor intrusion.

1 Residential buildings near the impacted site were investigated, and the results
2 demonstrated that soil vapor intrusion is not a concern for surrounding residents.
3 An Investigation Complete - No Further Actions Recommended memo was issued
4 April 1, 2009. Operation and maintenance of soil vapor extraction was
5 discontinued due to diminishing VOC extraction rates. Operation and
6 maintenance of the groundwater treatment system will provide for long-term
7 remediation of the groundwater. Exposure to these contaminants through drinking
8 groundwater is not expected because the surrounding area is connected to the
9 public water supply. However, it is possible that detectable concentrations of
10 VOCs may be encountered during construction activities that include soil
11 excavation due to the shallow regional aquifer.

12 Based on the information provided in the records search, it is unknown how far
13 the contaminated groundwater containing volatile organic compounds extends
14 beyond the site boundaries. NYSDEC was contacted in regards to this site, but no
15 response was ever received. According to Niagara Falls 914th Airlift Wings Civil
16 Engineer Group, no known contamination from this site located on the
17 installation. Additionally, no prior groundwater and soil investigations performed
18 at other environmental sites across the installation have noted contamination from
19 this site (Niagara Falls ARS 914th MSG/CEV Environmental Site Manager
20 Personal Communication July 2012). However, groundwater contamination
21 cannot be ruled out since the extent of the contamination south of the site is
22 unknown.

- 23 • The only non-geocoded site, known as *Niagara Falls ARS, Building 850*, was
24 located using a map of the Niagara Falls ARS that put the building approximately
25 0.33 miles southeast of the Subject Property. Building 850 is a large maintenance
26 hangar for the aircraft under the 914th Air Force Reserve Airlift Wing. According
27 to the record search, the hangar's fire suppression system went off unexpectedly
28 on August 21, 2010, releasing approximately 48,000 gallons of fire suppression
29 foam. Most of the foam was contained in the hangar; however, some leaked
30 outside into a neighboring tributary that runs into Cayuga Creek (approximately

1 0.4 mile southeast of the Subject Property). The waters downstream were
2 inspected for fish kills and other environmental indicators of a hazardous release
3 into the environment, but not indications of the foam release were identified. The
4 remaining foam that had been released was collected and disposed of off-site.
5 NYSDEC received a spill incident report from the Department of the US Air
6 Force that described the incident, why it occurred, and what was released into the
7 environment and local sewer system. The spill incident report requested no further
8 action. NYSDEC concurred and the case was closed September 21, 2010
9 (InfoMap 2012). Based on the proximity of the site to the Subject Property as well
10 as the majority of the release occurred in Cayuga Creek, which is 0.4 miles
11 southeast of the Subject Property and hydrologically downgradient of the parcel,
12 this event is not likely to have impacted the Subject Property.

13 5.2. ADDITIONAL ENVIRONMENTAL RECORD SOURCES

14 The Contractor conducted Internet searches of local, county, and state agencies to obtain
15 records and documents to assess the environmental condition of the Subject Property.

16 5.2.1. Subject Property

17 Environmental records, site information, and GIS data were obtained from the Niagara
18 Falls ARS 914th Airlift Wing Base Civil Engineering Command. The websites of the US
19 Geological Survey (USGS), US Army Corps of Engineers (USACE), US Department of
20 Agriculture (USDA), EPA, NYSDEC, and US Fish and Wildlife Service (USFWS) were
21 used in helping to determine the environmental condition of the Subject Property.

22 According to the *July 2007 EA for the Construction of an Armed Forces Reserve*
23 *Complex and Implementation of BRAC Realignment Actions in Niagara Falls, New York*,
24 Niagara Falls ARS is a large quantity generator (LQG), which is defined by the Resource
25 Conservation and Recovery Act (RCRA) as a generator that generates greater than 1,000
26 kilograms per month of hazardous waste. The EPA Generator Identification Number for
27 Niagara Falls ARS (914th AW) is NY0570024273. In addition, the 107th Air Reserve
28 Wing of the New York Air National Guard (NYANG) (a major tenant organization on

1 Niagara Falls ARS) has its own EPA Identification Number, NYR000087882. Processes
2 generating hazardous waste on Niagara Falls ARS include aircraft and vehicle
3 maintenance, parts cleaning, support equipment maintenance, general facility
4 maintenance, painting, nondestructive inspection, weapons training and cleaning, and
5 expired shelf-life chemicals. The current US Army Reserve Command (USARC)
6 (Niagara Falls AFRC/AMSA-76(G)) generates small amounts of hazardous waste and is
7 a conditionally exempt small quantity generator (CESQG); its EPA Identification
8 Number is NY8210424273 (USACE Mobile District 2007). Based on the information
9 provided in the record search and 2007 BRAC Environmental Assessment, these RCRA
10 Generators are not anticipated to impact the Subject Property

11 The majority of the USARC's hazardous waste is generated by vehicle maintenance
12 activities. The USARC generates approximately 150–200 gallons of used motor oil, 10
13 gallons of used hydraulic oil, 40 gallons of used transmission fluid, 20 gallons of waste
14 brake fluid, 55 gallons of contaminated diesel fuel, and 20 gallons of used antifreeze per
15 year (USACE Mobile District 2007). Hazardous waste generated by the USARC is not
16 likely to impact the Subject Property, since none of the waste is handled or stored near
17 the site.

18 According to the EPA's Air Quality website, Niagara County, New York, is completely
19 within the Niagara Frontier Intrastate Air Quality Control Region (AQCR 162). EPA has
20 designated Niagara County as in moderate non-attainment for the 8-hour Ozone (O³)
21 National Ambient Air Quality Standards (USEPA, 2011b). Air quality permits may be
22 required during construction and to operate the building.

23 **5.2.2. Surrounding Properties**

24 Records and environmental site information obtained from Niagara Falls ARS, USGS,
25 USDA, EPA, NYSDEC, and USFWS were used in helping to determine the
26 environmental condition of the adjoining and surrounding properties.

27 NYANG's refueling facility is located directly southeast of the Subject Property.

28 According to installation personnel, the site is no longer in use. All Air National Guard

1 Aircraft now receive their fuel from the 914th Air Lift Wing's fueling facility (107th Air
2 National Guard, Environmental Management Representative).. The active fueling facility
3 is located approximately 0.85 miles southeast of Subject Property in the southeastern
4 portion of the installation (Niagara Falls ARS GIS 2012). The NYANG fueling facility
5 consists of two inactive 105,000-gallon JP8 ASTs, two 12,000-gallon deicing chemical
6 ASTs, and two 2,000-gallon JP8 USTs (Niagara AFR GIS 2012). The two 105,000-
7 gallon ASTs are surrounded by large bermed secondary spill controls. According to the
8 NYANG's environmental site manager for Niagara Falls ARS, there are no releases
9 associated with these USTs and ASTs. All the tanks located at this site were purged and
10 closed in September 2010. The site is currently designated to be demolished in the next 5
11 years (107th Air National Guard, Environmental Management Representative). See
12 Appendix 14.3 for photographs of the fueling facility south of the Subject Property.

13 There are five installation restoration program (IRP) sites located on Niagara Falls ARS
14 east and south of the Subject Property. Both soil and groundwater were impacted at these
15 sites discussed below. In some cases impacted soil and source material was removed;
16 however, treatment groundwater was given higher priority due to its ability to spread
17 contamination to a larger area more efficiently (faster). All of the IRP sites located near
18 the Subject Property are hydrologically downgradient from the Subject Property (USAF
19 2011). Installation personnel from the 914th Airlift Wing's Civil Engineer Department
20 and 107th Air National Guard stated in phone interviews conducted in July 2012 that
21 there is no known contamination within the boundaries of the Subject Property (Niagara
22 Falls ARS 914th MSG/CEV Environmental Site Manager, Personal Communication, July
23 2012) (107th Air National Guard, Environmental Management Representative).

24 • ***Site 5 – New York Air National Guard Hazardous Waste Drum Storage Yard.***

25 Site 5 is located approximately 0.12 mile southeast of the Subject Property. Figure
26 14.2 illustrates the location of Site 5. The site was described as an area used to
27 store drummed hazardous waste, including solvents, paints, oils, etc. that had been
28 stored there between 1978 and 1983. An interim corrective measure was
29 implemented in 2001. It included injection of hydrogen releasing compound
30 (HRC) throughout the site in order to enhance the reductive dechlorination of

1 chlorinated ethenes. HRC was injected again in 2002 and 2006. In 2007, soil
2 vapor intrusion sampling was conducted at Buildings 918 and 920, located
3 adjacent to Site 5. Analytical results of the soil vapor intrusion investigation
4 indicated that NFA was warranted, based on NYSDOH guidance. Site 5 is
5 currently in a status of long-term monitoring (AFARS 2010).

6 According to the 2011 Annual Comprehensive Sampling/Monitoring Report,
7 Dated February 2012. Chemicals of Concern (COCs) at Site 5 include
8 dichloroethene, trichlorethene, vinyl chloride, and benzene. Six of the nineteen
9 wells located at the site were sampled for VOCs in June 2011 and October 2011.
10 Concentrations of VOCs in the groundwater samples collected from wells were
11 detected above site specific monitoring goals, but are much the detected
12 concentrations are significantly lower than historical maximum detections (free
13 product levels). The general trend shows a decreasing trend, which implies that,
14 the active HRC remediation system is working (USAF 2012).

15 Groundwater elevation data collected during the annual groundwater sampling
16 event, as well as historical groundwater elevation data shows that shallow
17 groundwater flows southwest, away from the Subject Property. During the two
18 June 2011 and October 2011 groundwater sampling events, groundwater
19 elevations at Site 5 were recorded between 3.5 feet bgs to 16.5 feet bgs (USAF
20 2012). Because the site is hydrologically downgradient of the Subject Property, as
21 well the area of known contamination has been delineated and COC
22 concentrations are showing a decreasing concentration trend over time, this site is
23 not likely to impact the Subject Property.

- 24 • **Site 8 – Building 202 Drum Storage Yard.** Site 8 is located approximately 0.1
25 mile southeast of the Subject Property. Figure 14.2 illustrates the location of Site
26 8, as well as the known area of contamination (light orange). The site was
27 described as a drum storage area for waste materials such as solvents, paints, and
28 oils. Waste materials were stored at Site 8 from 1978 to 1983. The gravel drum
29 storage area was paved over to prevent precipitation infiltration.

1 According to the 2011 Annual Comprehensive Sampling/Monitoring Report,
2 Dated February 2012. COCs at this site include vinyl chloride, TCE, benzene, cis-
3 1,2 dichloroethene, and trans-1,2 dichloroethene. Long-term monitoring was
4 conducted on 13 groundwater monitoring wells from 1995 to 2002. An interim
5 corrective measure was implemented in 2002 and 2005; it included injection of
6 HRC throughout the site to enhance the reductive dechlorination of chlorinated
7 ethenes. Site 8 is currently in a status of long-term monitoring (AFARS 2010).

8 During the 2011 groundwater sampling events performed in June 2011 and
9 October 2011, three wells were sampled at Site 8. Two of the wells were
10 considered performance wells, which were located in the delineated area of
11 contamination, while the third well (MW8-11), located directly east of the Subject
12 Property, is designated as a background monitoring well. Sampling results
13 indicate that COCs are gradually decreasing and are continuing to break down
14 based on detected concentrations of breakdown products. Detected
15 concentrations from the background well were non-detect for all COCs previously
16 identified at Site 8 (USAF 2012).

17 Groundwater elevation data collected during the annual groundwater sampling
18 event, as well as historical groundwater elevation data shows that shallow
19 groundwater flows southwest, away from the Subject Property. During the two
20 June 2011 and October 2011 groundwater sampling events, groundwater
21 elevations at Site 5 were recorded between 9 feet bgs to 17 feet bgs (USAF 2012).
22 Because the site is hydrologically downgradient of the Subject Property, as well
23 the area of known contamination has been delineated and COC concentrations are
24 showing a decreasing concentration trend over time, this site is not likely to
25 impact the Subject Property.

- 26 • **Site 11 – Fire Training Area #2.** Site 11 is located approximately 0.3 mile south
27 of the Subject Property. Figure 14.2 illustrates the location of Site 11. This site
28 was described as a fire protection training area that was reportedly used 10 times
29 during the late 1950s for fire training exercises conducted by base personnel. The

1 site consists of an open, grassy area west of Building 936 in the southwestern
2 corner of the main area of Niagara ARS. In 1984, two soil boring samples were
3 collected and analyzed for oil/grease, total organic compounds, total organic
4 halogens, and phenols. In 1989, two additional soil boring samples were collected
5 from the site and analyzed for volatile organics, semivolatile organics, total
6 petroleum hydrocarbons (TPH), and total metals. TPH detected concentrations
7 were found in the shallow intervals of the soil borings. Only low levels of organic
8 contamination has been detected within the soils associated with Fire Training
9 Area #2. No stained soils or stressed vegetation were observed at the site. Results
10 of the baseline Risk Assessment conducted for the site by SAIC in 1990, indicated
11 that no adverse noncarcinogenic or carcinogenic health risks are posed by existing
12 site conditions. No exceedances of State or Federal Applicable or Relevant and
13 Appropriate Requirements (ARARs) were detected at the site. Based on these
14 results, AFRES concluded that past operations at the site had not adversely
15 affected the environment of the site (USAFR 1990). NYSDEC concurred with
16 this recommendation in 1996 (AFARS 2010). Based on the distance of Site 11
17 from the Subject Property, as well as this site is hydrologically downgradient
18 from the Subject Property, this site is not anticipated to impact the Subject
19 Property.

- 20 • ***Old Site 13 & New Site13 – Hazardous Waste Storage Area and Underground***
21 ***Tank Pit*** . Old Site 13 and New Site 13 are located approximately 0.25 mile south
22 of the Subject Property. The Old Site 13 was described as a storage area for drums
23 of waste. The site was deactivated and the concrete pad cleaned in accordance
24 with a NYSDEC approved closure plan. Soil and groundwater were found to be
25 impacted; however, a health based risk assessment was conducted that found that
26 site did not pose a threat to humans or surrounding environment. In April 1990, a
27 Decision Document approving the closure of old Site 13 was written and
28 approved by USAF and NYSDEC Subsequently, a new Site 13 (Underground
29 Tank Pit) was discovered and incorporated into the IRP program (AFARS 2010).
30 Both sites and the known extent of soil and groundwater contamination (light
31 orange) are illustrated in Figure 14.2

1 New Site 13, as it is known, was described as a UST where wastes materials from
2 aircraft and automotive shops were disposed of. Waste materials included waste
3 oils, solvents, and various other automotive fuels. The site was active from 1971
4 and 1987. The UST was then pumped out, excavated, and removed, and the pit
5 was backfilled. A March 1996 Corrective Measures Study recommended the
6 installation of a groundwater removal system at Site 13 to remediate chemicals of
7 concern (COCs) to site specific action levels. The COCs at Site 13 include 1,1,
8 dichloroethene, cis-1,2,dichloroethene, benzene, trichloroethene, and vinyl
9 chloride. Corrective measures included groundwater extraction from two vertical
10 pumping wells that were initiated in June 1998. The system was installed for the
11 purpose of preventing off-site migration. Groundwater is discharged directly to
12 the base sanitary sewer system and subsequently to Niagara County Sewer
13 District No. 1. Effluent discharge is permitted by Niagara County Sewer District
14 No. 1. Performance monitoring of the remediation system continues (AFARS
15 2010).

16 Groundwater samples were collected monitoring wells at Site 13 in June 2011 and
17 October 2011, as part of an installation wide groundwater sampling project.
18 Analytical results show a that COCs are still present and slightly above the site
19 specific action levels; however, groundwater concentrations are gradually
20 decreasing or stabilized due to remediation activities. The report also stated that
21 groundwater elevation data collected from Site 13 confirms that the groundwater
22 remediation system is successfully containing the dissolved VOC plume.
23 Additionally, groundwater elevation survey data collected from the 2011
24 installation wide groundwater monitoring project, as well as historical data shows
25 that groundwater in the upper overburden aquifer at Site 13 is located
26 approximately 6.5 feet bgs to 16.5 feet bgs and is generally flowing towards the
27 east/southeast. Groundwater in the fracture bedrock appears to be flowing inward
28 towards extraction wells that are part of the site's remediation system (AFARS
29 2012). Based on Site 13's distance from the Subject Property and hydrologically
30 downgradient location from the Subject Property, as wells as the extent of

1 contamination is known and is currently undergoing active remediation this site is
2 not likely impact the Subject Property.

- 3 • **UST 950 Site.** This site is approximately 0.1 mile southeast of the Subject
4 Property, between Buildings 901 and recently built Building 2503. Figure 14.2
5 shows the location of IRP site in relation to the Subject Property. According to
6 installation personnel from the 914th Airlift Wing's Civil Engineer Department
7 and 107th Air National Guard's environmental office, this site consisted of an
8 underground heating oil tank (HOT) that was closed and removed in 1989. The
9 site was subsequently closed without collecting and analyzing confirmation
10 samples from the soil around the HOT (107th Air National Guard, Environmental
11 Management Representative). Approximately five years ago the site was
12 reopened by the NYANG and Air Force. Groundwater and soil samples were
13 collected and analyzed. Sample results confirmed that detected concentrations of
14 polycyclic aromatic hydrocarbons associated with petroleum products were
15 present in the soil and groundwater around the former HOT; however, the
16 detected concentrations were only slightly above regulatory action levels.
17 Groundwater was encountered around 4.5 feet to 6.5 feet bgs (NYANG 2009).
18 The impacted area has been determined and is isolated. The investigation report
19 recommended further investigation near the site; however, no further
20 environmental activities have been performed.

21 The area surrounding the UST 950 has been recently developed as part of the
22 construction of a new Army National Guard Campus. No known contamination
23 was found during the development of this area. Additionally, this site is
24 hydrologically downgradient from the Subject Property (NYANG 2009).
25 Therefore, based on its proximity to the Subject Property and that is
26 hydrologically downgradient from the parcel, it is believed that site is not likely to
27 impact the Subject Property.

5.3. PHYSICAL SETTING

1
2 **Regional Physiography.** Topographic map coverage is provided by the USGS 1980
3 Tonawanda West, New York 7.5-minute quadrangle. The Subject Property is
4 approximately 585–600 feet above mean sea level (msl) and is relatively flat. Three
5 perennial streams run from the north and south; they meet toward the middle of the
6 Subject Property and flow eastward toward a larger stream that eventually flows into
7 Cayuga Creek south of the Subject Property (InfoMap 2012).

8 **Geologic Conditions.** Niagara Falls is on the Niagara Falls Escarpment, a prominent
9 cliff-forming feature extending from western New York into southern Ontario, northward
10 to the upper peninsula of Michigan, bending downward into eastern Wisconsin and
11 Illinois (NYSGS 2012). The escarpment is the edge of a thick series of dolomite layers of
12 Silurian age. The rocks are resistant to erosion and stand up in relief as a prominent line
13 of bluffs (Dutch 1999). The Niagara Escarpment was cut to form Niagara Falls during the
14 last glacial melt, approximately 16,000 years ago (NYSGS 2012).

15 **Soil Conditions.** The geology and soil conditions across the installation can be described
16 as having an initial layer of overburden (glacial deposit) that ranges in thickness across
17 the installation from approximately 3 feet near Cayuga Creek to nearly 18 feet at Site 5,
18 which is located directly southeast of the Subject Property. The unconsolidated deposits
19 consist of three types of materials from the top down (reworked topsoil/fill, lacustrine
20 deposits, and glacial till) except near Cayuga Creek, where fluvial deposits may exist. In
21 certain locations, including Site 5, a distinct and apparently laterally confined/
22 discontinuous, well-graded sand layer exists between the lacustrine deposits and till. The
23 bedrock situated immediately beneath the relatively thin cover of overburden is Middle
24 Silurian Lockport Dolostone, which consists mainly of gray to brownish-gray, fine- to
25 coarsegrained dolostone. Regionally, the Lockport Dolostone consists of four formations.
26 In the base vicinity, the uppermost unit (Guelph Formation) is not present, nor is the top
27 10-20 feet of the underlying Eramosa Formation. Underlying the Eramosa are the Goat
28 Island and Gasport formations. The Eramosa Formation is approximately 25- to 30-feet
29 thick at the base. The underlying formations of the Lockport Group total 46- to 93-feet-

1 thick. Investigations to date at the facility have focused on, at most, the top 51 feet of
2 bedrock. Therefore, it is the Eramosa and Upper Goat Island formations that are
3 encountered. The Eramosa (Dolomite) Formation is described as a biostromal,
4 bituminous, medium- to massive bedded dolomite. The upper portion of Goat Island
5 Formation consists of a light to dark gray, medium- to thin-bedded argillaceous dolomite
6 with thin shale partings; vugs are locally present (USAF 2012).

7 Observations made during well drilling activities at the installation indicated that the top
8 10 feet of the Lockport Dolostone are generally more fractured than below, and contains
9 mainly horizontal bedding plane fractures, but also some vertical fracturing. Moreover,
10 fracture concentrations vary greatly between locations. Other features of the Lockport
11 Dolostone observed at the installation include fossil algal and coral structures; stylolites;
12 vugs; and secondary mineralization of dolomite, gypsum, calcite, sphalerite, galena, and
13 fluorite (USAF 2012).

14 The soil on the Subject Property consists of Odessa silty clay loam, 0 to 2 percent slopes.
15 Odessa silty clay loam is formed from reddish clayey and silty glaciolacustrine deposits.
16 It is not known to flood or pond, and it has depth to a restrictive feature of more than 80
17 inches. The soils are somewhat poorly drained, and the depth to water table in the soils is
18 about 6 to 18 inches. Odessa silty clay loam, 0 to 2 percent is not designated as a hydric
19 soil; however, Lakemont is a component of this soil type that might qualify as a hydric
20 soil if found in a depression. The soil is designated as prime farmland if drained (USDA
21 NRCS 2012).

22 ***Surface Water Conditions.*** Three main drainage features converge at the center of the
23 Subject Property and flow directly east via an unnamed tributary to Cayuga Creek. This
24 tributary flows south through the center of the Niagara Falls ARS before draining into
25 Cayuga Creek. Cayuga Creek then drains into the Niagara River approximately 5 miles
26 upstream of the American and Horse Shoe Falls. The unnamed tributary functions as the
27 primary stormwater conveyance for Niagara Falls ARS (USACE 2007).

28 The Subject Property is located within the Niagara River/Lake Erie watershed. Within the
29 borders of New York State, this basin drains approximately 2,280 square miles of land

1 area of the northern Appalachian Plateau and lakeshore lowlands (NYSDEC 2012a). The
2 drainage area also includes four of the Great Lakes and some of the largest, most
3 industrial cities in North America. At the point where the Niagara River empties into
4 Lake Ontario, the watershed's outlet drains more than 265,000 square miles of land in the
5 north central United States and south central Canada (NYSDEC 2012a).

6 The Federal Emergency Management Agency (FEMA) prepares Flood Insurance Rate
7 Maps (FIRMs) to establish actuarial rates for structures based on risk of flooding. FIRMs
8 showing FEMA floodplain areas for Niagara Falls ARS show that lands adjacent to
9 Cayuga Creek and its tributaries are within the 100-year floodplain (USACE 2007;
10 Niagara County 2012).

11 A portion of the Subject Property is located within the 100-year floodplain or special
12 flood hazard zone associated with an unnamed tributary of Cayuga Creek. The tributary
13 is fed from two smaller streams from the north, as well as another stream the south. The
14 streams connect towards the middle of the parcel and flow towards a larger tributary
15 along the eastern side of the Subject Property. The area along these streams and tributary
16 would become inundated as the result of a 100-year storm event. The unnamed tributary
17 to Cayuga Creek and its associated 100-year floodplain, which runs north-south through
18 Niagara Falls ARS, preclude development in the immediate vicinity of the 100-year
19 floodplain on the Subject Property. At least 45 percent of the Subject Property is within
20 the Special Flood Hazard Area or the 100-year floodplain as depicted on the FEMA
21 FIRM (Community Number 360507, Map Number 36063C0327E [FEMA 2012]).

22 Although CPB would site the new Niagara BPS outside the 100-year floodplain, a
23 floodplain development permit application could be required because a portion of the
24 subject property is located within the regulated floodplain. At the time of construction,
25 the Town of Niagara will determine if a floodplain development permit is required, or
26 otherwise document that development will not be located in the area of special flood
27 hazard and that the project will not cause any increased flood hazards.

28 ***Groundwater Conditions.*** The New York and New England Carbonate Rock Aquifer is a
29 principal aquifer that underlies a considerable portion of the southern half of Niagara

1 County. Three bedrock aquifers are contained within this principal aquifer—the
2 limestone aquifer occurring in the Onondaga Limestone, Akron Dolomite, Bertie
3 Limestone formations; the Camillus aquifer occurring in the Camillus Shale formation,
4 the Syracuse formation, and the Vernon Shale formation; and the Lockport aquifer
5 occurring in the Lockport Dolomite formation. All three bedrock aquifers yield small to
6 moderate quantities of water and are not used for significant public withdrawals of water.
7 Public water supplies are provided by the Niagara County Water District (Niagara
8 County 2009). Potable water for the town of Niagara consists entirely of water pumped
9 from the Chippawa Channel of the Niagara River (townofniagara.com 2012). On-site
10 direct access to groundwater as a water supply is not expected.

11 Bedrock groundwater flows through horizontal bedding planes, vertical fractures, and
12 joints within the Lockport Dolomite. The most permeable zone is the upper 5-15 feet of
13 more heavily fractured and weathered bedrock. The generalized regional groundwater
14 flow direction in the bedrock aquifer is to the south-southwest. Specifically, the shallow
15 bedrock groundwater flow direction varies locally and seasonally on a site-by-site basis
16 but has a primary component to the south.

17 Based on groundwater data collected over decades environmental investigations, ongoing
18 long term monitoring and remediation projects at the 12 IRP sites located across Niagara
19 Falls ARS, depth to groundwater in the top aquifer (glacial overburden) has been
20 observed between approximately 2.5 feet bgs to 17 feet bgs. The horizontal flow of
21 groundwater locally at Niagara Falls ARS has been observed to flow towards the east,
22 southeast, south, or southwest. Groundwater depth varies from site to site and is
23 influenced by its proximity to surface water and drainages features, such as Cayuga
24 Creek (USAF 2012).

25 There are multiple environmental groundwater monitoring wells located east and
26 southeast of the Subject Property that are associated with IRP sites such as Site 8 –
27 Building 202 Drum Storage Yard IRP site and Site 5 – NYANG Hazardous Waste Drum
28 Storage Yard. Site 5 has five monitoring wells located northwest of the known area of
29 contamination, inside the 107th Airlift Wing’s inactive fuel storage area. Only the well

1 furthest to the southeast in the inactive fuel storage area was sampled last monitoring
2 event. Cis-1,2, DCE was detected in the groundwater, but it was substantially lower than
3 the screening criteria for that analyte (USAF 2012). The other four wells are not sampled
4 and are currently used to only measure groundwater elevations that aid in modeling
5 groundwater flow at Site 5. At Site 8, southeast of the parcel, three wells were sampled in
6 the last round of groundwater monitoring. Two of the wells area considered performance
7 wells, which are located in center of the known area of contamination, while the third
8 well (MW8-11), located directly east of the Subject Property, is designated as a
9 background monitoring well. Background monitoring well (MW8-11) is used to collect
10 data on groundwater elevations and to collect groundwater data not associated with the
11 site (USAF 2012). Monitoring well (MW8-11) is upgradient of the known area of
12 contamination at Site 8. No wells used for drinking water are located near the property.

13 ***Prime Farmland.*** The USDA defines *prime farmland* as land that has the best
14 combination of physical and chemical characteristics for producing food, feed, forage,
15 fiber, and oilseed crops and that is available for such uses. Section 1541(b) of the
16 Farmland Protection Policy Act of 1980 and 1995 [7 U.S.C. 4202(b)] requires that
17 Federal and state agencies, and projects funded with Federal funds, (1) identify and take
18 into account the adverse effects of their programs on the preservation of farmland; (2)
19 consider alternative actions, as appropriate, that could lessen adverse effects; and (3)
20 ensure that their programs, to the extent practicable, are compatible with state, local
21 government, and private programs and policies to protect farmland. The soil on the
22 Subject Property is considered prime farmland if drained (USDA NRCS 2011).

23 5.4. HISTORICAL USE INFORMATION ON THE PROPERTY

24 A history of previous uses of the Subject Property since its first developed use was
25 compiled from information obtained from standard historical sources to identify past uses
26 that could have led to RECs in connection with the Subject Property. Documentation of
27 historical ownership and uses is included in Appendices 14.4 and 14.5. The historical
28 record sources used included historical topographic maps provided by InfoMap and dated
29 1900, 1951, 1965, and 1980 and historical aerial photographs provided by InfoMap and

1 dated 1938, 1963, 1972, 1985, 1995, and 2009 (Infomap 2012). Sanborn fire insurance
2 map coverages were not available for the Subject Property (InfoMap 2012). Each source
3 is summarized below; the historical aerial photographs and topographic maps
4 summarized are provided in Appendix 14.4.

5 Based on a review of historical records, the site was used for agricultural purposes from
6 at 1900 and to 1959 when it was then purchased by the US Government and made part of
7 the military installation known today as Niagara Falls ARS. The property has remained
8 undeveloped, since its purchase in 1959. Although the property remained undeveloped, it
9 was maintained. No trees or overgrown vegetation on the Subject Property was observed
10 in the historical aerials or topographic maps.

11 **5.4.1. Historical Aerial Photographs and Topographic Maps**

12 ***1900 Topographic Map.*** In this topographic map, the Subject Property is undeveloped
13 and relatively flat. Three small structures are north of the Subject Property. Tuscarora
14 Road to the west and Lockport Road to the north are both visible. The New York Central
15 Railroad runs from the southeast to the northeast, north of the Subject Property and
16 Lockport Road. Cayuga Creek is south of the Parcel.

17 ***1938 Aerial Photograph.*** In this aerial photograph, the Subject Property is composed of
18 three separate agricultural fields. Two farms are located near the eastern boundary and
19 northeastern boundary. The entire area is primarily agriculture fields.

20 ***1951 Topographic Map.*** In this topographic map, the Subject Property and area
21 bordering the property have not changed significantly. Niagara International Airport and
22 multiple runways are visible approximately half a mile south of the Subject Property.
23 More structures have been built directly north of the Subject Property.

24 ***1963 Aerial Photograph.*** Niagara Falls Air Force Base is now visible, but the Subject
25 Property has not changed significantly. A large group of structures, evenly spaced along
26 seven parallel roads, are visible southeast of the Subject Property. Hangars and planes
27 can be seen along the runway that the installation shares with Niagara Falls International

1 Airport. Southeast of the Subject Property is the Niagara Falls Drag Strip. A quarter-mile
2 track runs northeast to southwest. A parking lot can be seen above the track along
3 Tuscarora Road. There is a rock quarry northwest of the Subject Property.

4 **1965 Topographic Map.** In this topographic map, more structures are associated with
5 Niagara Air Force Base to the south and east. The outline of the fence/border of the base
6 can be seen along the northern and eastern borders of the Subject Property. More houses
7 have been built along Lockport Road.

8 **1972 Aerial Photograph.** A structure is visible directly south of the western half of the
9 Subject Property. More parking/fairground area is visible north of the Niagara Falls
10 International Drag Strip. The rock quarry northwest of the Subject Property has expanded
11 east toward the parcel.

12 **1980 Topographic Map.** There are no significant changes to the Subject Property or
13 surrounding area. The Niagara Falls Drag Strip is shown on the map; however, the race
14 track was shut down in 1974.

15 **1985 Aerial Photograph.** The structures evenly spaced along seven parallel roads have
16 been demolished; however, their foundations and the roads still exist. There are no
17 significant changes to the Subject Property. The former drag strip is still visible.

18 **1995 Aerial Photograph.** The area directly south of the Subject Property is being
19 developed. A new structure is located directly south as well. The streams that flow from
20 the north onto the Subject Property and then flow east to a larger stream off the parcel are
21 visible. The former drag strip is still visible, but it appears to be overgrown by vegetation.

22 **2009 Aerial Photograph.** There are no significant changes to the Subject Property.
23 Construction is under way on the New York Army Reserve facilities south of the Subject
24 Property. The surrounding area is still predominantly used for agriculture with the
25 exception of the military installation and rock quarry northwest of the Subject Property.
26 The drag strip is still visible, but it is still overgrown with vegetation with the exception
27 of the quarter-mile race track.

1 **5.4.2. Sanborn Fire Insurance Maps**

2 Sanborn Fire Insurance maps were requested for this Phase I ESA; however, no maps
3 were available for the Subject Property. The letter of request is included in Appendix
4 14.4.

5 **5.4.3. City Directories**

6 No city directory search was conducted for this Phase I ESA because of the Subject
7 Property's rural location.

8 **5.4.4. Chain of Title**

9 A chain-of-title search that researched title records as far back as 1946 for the Subject
10 Property was obtained from Land Title Inquiries, Inc., through the record search provided
11 by InfoMap Technologies, Inc. The Subject Property is made up of three parcels that
12 were bought by the United States Government in April 1959. The chain of title that Land
13 Title Inquiries, Inc., acquired is as follows:

14 Parcel 146.07-1-2 was sold by Christine Devantier to the United States
15 Government for \$8,100.00 to the United States of America by Deed
16 recorded April 14, 1959 in Document No. 1313/11

17 Parcel 146.07-1-2 was sold by Hubert Adolph Devantier and Hulda A.
18 Davntier to the United States Government for \$9,000.00 to the United
19 States of America by Deed recorded April 15, 1959 in Document No.
20 1313/113

21 Parcel 146.07-1-2 was sold by Byron H. Jackson and Beryl Raymond
22 Jackson to the United States Government for \$13,900.00 to the United
23 States of America by Deed recorded April 15, 1959 in Document No.
24 1313/134

1 The legal description of the parcel is provided in Section 3.1 of this Phase I ESA. Copies
2 of the deeds are located in Appendix 14.4.

3 **5.5. HISTORICAL USE INFORMATION AND ON ADJOINING**
4 **PROPERTIES**

5 Information regarding historical use and adjoining properties is based on the historical
6 topographic and aerial maps provided in the record search (InfoMap 2012). The
7 environmental condition of the adjoining properties, based on the record search, is
8 summarized in Section 5.1.2.

9 Generally, the adjoining properties outside of Niagara Falls ARS have been used as
10 agricultural land and residential properties. The area north and west of the Subject
11 Property was and mostly still is agricultural land. The area southwest of the Subject
12 Property was home to the Niagara Falls International Drag Strip from 1961 to 1974. The
13 asphalt race track and a few dilapidated buildings are still visible. Most of the area
14 surrounding the track has been overgrown by trees and woody vegetation. The area to the
15 south and east was also agricultural land until the Niagara International Airport was built
16 in 1926 (Niagara Falls International Airport 2012) and Niagara Falls Air Force Base (the
17 original name of Niagara Falls ARS) of which the Subject Property is located on was
18 established in the mid-1940s.

19 **5.6. NON-SCOPE CONSIDERATIONS**

20 The Contractor examined these additional non-scope considerations to assist in
21 determining the environmental condition of the Subject Property. Brief summaries of the
22 non-scope considerations are provided below.

23 **5.6.1. Asbestos-containing Building Materials**

24 Asbestos-containing materials would not be expected to be encountered because no
25 buildings are or have been on the Subject Property.

1 **5.6.2. Radon**

2 According to the InfoMap record search of the 109 homes tested in the local area around
3 the Subject Property, the average radon reading recorded was 1.3 picocuries per liter
4 (InfoMap 2012). This level is considered below average by EPA standards and does not
5 warrant mitigation controls.

6 **5.6.3. Lead-based Paint**

7 Materials containing lead-based paint are unlikely to be encountered because no
8 buildings are or have been on the Subject Property.

9 **5.6.4. Lead in Drinking Water**

10 The Town of Niagara provides drinking water for Niagara Falls ARS. According to the
11 last water quality report produced in 2011, lead was detected above action levels (0.15
12 ug/L) in only 3 of the 53 sites/samples collected. Lead in the drinking water is not
13 considered an issue (Town of Niagara 2012).

14 **5.6.5. Wetlands**

15 In 2008, the USFWS reevaluated a wetland delineation of Niagara Falls ARS conducted
16 in 2002 that included area known as the Subject Property (USFWS 2010). USFWS
17 delineated three palustrine emergent wetlands and a 4,638-foot tributary on the Subject
18 Property. The main wetland was 0.57 acre, which is approximately 0.24 acre larger than
19 previously reported in 2002. Two small depressional wetlands on the western portion of
20 the parcel that had not been documented in the previous 2002 delineation were also
21 identified in 2008. The two depressional wetlands cover a total area of 0.05 acre.

22 Although the wetland is limited as a wildlife habitat due to significant human disturbance
23 (mostly mowing), it provides important sediment and toxicant retention and nutrient
24 removal functions (USFWS 2010).

25 A limited field reconnaissance survey was conducted in May 2012 to determine the
26 presence of any jurisdictional wetlands and waterbodies as defined in the *Corps of*

1 *Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). Wetland
2 areas identified during this limited field assessment generally correspond to those
3 identified in the 2008 delineation. However, two of three small, isolated palustrine
4 emergent wetlands now appear larger and slightly shifted to the west and to the south. A
5 jurisdictional wetland and waterbody delineation must be performed.

6 **5.6.6. PCBs**

7 No PCB sites were found on the Subject Property during the record search (InfoMap
8 2012). Additionally, no electrical transformers or other items that could possibly contain
9 PCB materials were observed during the VSI conducted on May 15, 2012. It is unknown
10 to whether transformers or other items containing PCB materials were once located on
11 the Subject Property and removed in the past.

12 **5.6.7. Regulatory Compliance**

13 On the basis of the record search, no regulatory compliance issues or permits were found
14 in the Subject Property.

15 **5.6.8. Cultural and Historic Resources**

16 The Subject Property was surveyed for cultural resources in 1998 (Pierce 2000). No
17 cultural resources were identified within the parcel, and no further cultural resources
18 investigations were recommended. The New York State Historic Preservation Office (NY
19 SHPO) concurred with the recommendations (NY SHPO 2000). Two previously
20 identified archaeological sites or historic places were identified within 1 mile of the
21 Subject Property. No National Historic Landmarks or architectural resources listed in or
22 eligible for listing in the state register or National Register of Historic Places (NRHP) are
23 present within or immediately adjacent to the parcel.

24 *Archaeological Resources.* The Subject Property was surveyed as part of a Stage I
25 Cultural Resource Investigation performed in February 2000 by Pratt and Huth
26 Associates. No archaeological resources were identified within its boundaries during the
27 survey (Pierce 2000).

1 *Architectural Resources.* There are no NRHP-listed or eligible properties within or
2 immediately adjacent to the Subject Property. The nearest NRHP-listed property is the
3 Town of Niagara District School No. 2, which is approximately 400 feet to the north
4 across Lockport Road. There are no other NRHP-listed properties within 1 mile of the
5 Subject Property. The parcel is within a residential/rural/light industrial mix and bordered
6 by homes to the north. The buildings immediately adjacent to the parcel are circa mid-
7 20th century vernacular style houses.

8 The listed structure is known as Niagara Falls School No. 2 and was constructed in 1878.
9 The school held classes until 1956, after which it was used for storage of miscellaneous
10 items until 1980, when it was sold to the Niagara Historical Society. The school was
11 restored and opened in June 1981 as a museum (Niagara County 2012).

12 **5.6.9. Industrial Hygiene**

13 On the basis of the characteristics of the Subject Property, industrial hygiene is not
14 applicable.

15 **5.6.10. Health and Safety**

16 On the basis of the characteristics of the Subject Property, health and safety is not
17 applicable.

18 **5.6.11. Ecological Resources**

19 The vegetation present the Subject Property is primarily old field upland species,
20 consisting of upland herbaceous vegetation dominated by Timothy grass (*Phleum*
21 *pratense*), red clover (*Trifolium pratense*), bull thistle (*Cirsium vulgare*), and other
22 common lawn grasses. The parcel is mowed. Hydric vegetation is present along the
23 margins of the drainages, as well as the delineated wetlands discussed above in Section
24 5.6.5. The representative species of hydric vegetation are cattails (*Typha* spp.), soft rush
25 (*Juncus effusus*), broom sedge (*Carex tribuloides*), and redtop (*Agrostis gigantea*).

1 Prior surveys performed by the USFWS on Niagara Falls ARS found grassland habitat
2 supporting numerous ground-nesting birds, such as the meadowlark, grasshopper
3 sparrow, and upland sandpiper. According to NYSDEC, Niagara Falls ARS contains
4 grassland habitat of regional importance and supports a variety of grassland bird
5 species (USACE 2007). These important habitat areas are concentrated in the riparian
6 areas along Cayuga Creek and its tributaries, where the vegetation is allowed to
7 remain in a more natural state.

8 Approximately 50 bird species were identified during prior surveys performed on and in
9 the vicinity of the Subject Property. They include summer breeding birds, transient
10 visitors during spring and fall migration, over-wintering birds, and year-round birds
11 (USACE 2007; URS 2011). The most abundant native birds inhabiting the area include
12 the red-winged black bird (*Agelaius phoeniceus*), European starling (*Sturnus vulgaris*),
13 gulls (*Laridae*), eastern meadowlark (*Sturnella neglecta*), song sparrow (*Melospiza*
14 *melodia*), savannah sparrow (*Passerculus sandwichensis*), rock dove (*Columba livia*),
15 mourning dove (*Streptopelia decipiens*), killdeer (*Charadrius vociferus*), American crow
16 (*Corvus brachyrhynchos*), and great blue heron (*Ardea herodias*). During winter months,
17 mallards (*Anas platyrhynchos*), black ducks (*Anas rubripes*), and Canada geese (*Branta*
18 *canadensis*) are also common (USACE 2007, URS 2011).

19 Most of these bird species were found in areas where tree/sapling/shrub habitat
20 dominated (USACE 2007). Many species of birds were observed during the May 2012
21 field assessment survey, including grey catbird (*Dumetella caroliniensis*), yellow warbler
22 (*Setophaga petechia*), American goldfinch (*Carduelis tristis*), and American robin
23 (*Turdus migratorius*).

24 A variety of mammal species are commonly found in such habitats in this region.
25 Common mammal species found inhabiting the surrounding area include whitetail deer
26 (*Odocoileus virginianus*), coyote (*Canis latrans* Say), beaver (*Castor canadensis*),
27 woodchuck (*Marmota monax*), raccoon (*Procyon lotor*), Eastern cottontail (*Sylvilagus*
28 *floridanus*), gray squirrel (*Sciurus carolinensis*), opossum (*Didelphis virginiana*), striped
29 skunk (*Mephitis mephitis*), and red fox (*Vulpes vulpes*), as well as such small rodents as

1 meadow voles (*Microtus pennsylvanicus*), muskrat (*Ondatra zibethicus*), and deer mouse
2 (*Peromyscus maniculatus*) (USACE 2007, URS 2011). USFWS surveys conducted in
3 2007 found no bat species using Niagara Falls ARS (USFWS 2009).

4 Herpetofauna consisting primarily of wood frogs (*Rana sylvatica*), northern leopard frogs
5 (*Lithobates pipiens*), green frogs (*Rana clamitans*), American toads (*Anaxyrus*
6 *americanus*), garter snakes (*Thamnophis sirtalis*), painted turtles (*Chrysemys picta*), and
7 snapping turtles (*Chelydra serpentina*) were also identified (USACE 2007; URS 2011).

8 The fisheries habitat on Niagara Falls ARS consists of Cayuga Creek and its unnamed
9 tributaries. Cayuga Creek is a relatively small, low-gradient, and warm-water system
10 (USACE 2007). Intermittent flow and limited aquatic habitat attribute to the relatively
11 low value of these waterways in relation to their regional ability to support aquatic
12 species. Species collected in the unnamed tributaries include central mudminnow (*Umbra*
13 *limi*), common shiner (*Luxilus cornutus*), bluntnose minnow (*Pimephales notatus*), creek
14 chub (*Semotilus atromaculatus*), and brook sticklebacks (*Culaea inconstans*) (USACE
15 2007).

16 The USFWS has also found devil crayfish (*Cambarus diogenes*) to be abundant at
17 Niagara Falls ARS in association with Cayuga Creek and its tributaries and has
18 determined that the current mowing regime is not detrimental to its survival (USFWS
19 2009).

20 **5.6.12. Endangered Species**

21 The eastern prairie fringed orchid (*Platanthera leucophea*) is the only Endangered
22 Species Act-protected species listed for Niagara County (USFWS 2012). The bald eagle
23 was delisted under the act on August 8, 2007, but it remains protected under the Bald and
24 Golden Eagle Protection Act. Neither species would be likely to occur on the Subject
25 Property because of the lack of suitable habitat.

26 USFWS surveys confirmed the presence of six New York State-listed bird species in the
27 vicinity of the Subject Property; however, none were found directly within the site

1 boundary (USFWS 2009). These include the grasshopper sparrow (*Ammodramus*
2 *savannarum*), upland sandpiper (*Bartramia longicauda*), short-eared owl (*Asio*
3 *flammeus*), northern harrier (*Circus cyaneus*), American bittern (*Botaurus lentiginosus*),
4 and horned lark (*Eremophila alpestris*). Other species were identified in site documents;
5 however, most were identified as having only historic occurrences or as migrants not
6 likely to use the site's habitats.

7 **5.6.13. Indoor Air Quality**

8 Indoor air quality is not relevant because there are no structures on the Subject Property.

9 **5.6.14. Biological Agents**

10 No evidence of biological agents associated with the Subject Property was found during
11 the record search for the Subject Property (InfoMap 2012).

12 **5.6.15. Mold**

13 There is no evidence of mold because there are no structures on the Subject Property.

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SECTION 6

FINDINGS

The Contractor performed this Phase I ESA of the Subject Property described herein in conformance with the scope and limitations of ASTM Standard E1527-05, subject to the limits and exceptions described in Section 2.4 of this report.

Two RECs, as defined in ASTM Standard E1527-05, was found in connection with the Subject Property. The first REC is associated with the Carborundum Site a state cleanup site located approximately 0.9 miles northeast of the Subject Property. It is possible that low levels of VOCs could be encountered in soil and shallow groundwater during construction activities involving soil excavation.

Operations at the Carborundum Site began in 1963. Trichloroethene (TCE) was in use at the Carborundum Co. as a degreaser in the manufacturing of specialty abrasive carbon and graphite cloths from 1963 to 1983. During this period TCE was introduced into the overburden layer of soil and eventually into the groundwater. The contamination was discovered in 1983 during a routine NYSDEC inspection of the facilities SPDES outfall and in groundwater samples collected from production well. Four phases of investigations, took place prior to the December 23, 1991 execution of an Order on Consent. Construction of a Groundwater Recovery System (GRS) and a Soil Remediation Groundwater Treatment System (SRGWTS) was been completed and has been active since July 1994 with noted reduction in the total mass of chemical concern.

The installation of soil vapor monitoring points (SVMPs) of off-site sub-slabs and indoor air sampling of selected condominiums adjacent to the western side of the site, was completed in December 2008. The results of the sampling were included in a report entitled "Offsite Soil Vapor Assessment Report" submitted in February 2009. Based on the results of the investigation the DEC, in consultation with the NYSDOH, concluded no

1 further on-site or off-site sampling was needed and no actions were needed to address
2 exposures related to soil vapor intrusion. An Investigation Complete - No Actions
3 Recommended memo was issued on April 1, 2009.

4 Operation and maintenance of soil vapor extraction was discontinued due to diminishing
5 VOC extraction rates. Operation and maintenance of the groundwater treatment system
6 will provide for long-term remediation of the groundwater. Exposure to these
7 contaminants through drinking groundwater is not expected because the surrounding area
8 is connected to the public water supply. However, it is possible that detectable
9 concentrations of VOCs may be encountered during construction activities that include
10 excavation activities due to the shallow regional aquifer.

11 Based on the information provided in the records search, it is unknown how far the
12 contaminated groundwater containing volatile organic compounds extends beyond the
13 site boundaries. According to Niagara Falls 914th Airlift Wings Civil Engineer Group, no
14 known contamination from this site located on the installation. Additionally, no prior
15 groundwater and soil investigations performed at other environmental sites across the
16 installation have noted contamination from this site (Niagara Falls ARS 914th MSG/CEV
17 Environmental Site Manager Personal Communication July 2012). However,
18 groundwater contamination cannot be ruled out since the extent of the contamination
19 south of the site is unknown.

20 A review of historical records found that the Subject Property was used for agricultural
21 purposes from at least 1900 to 1949, when it was bought by the United States
22 Government and the land became part of the Niagara Falls Air Force Base and eventually
23 Niagara Falls Air Reserve Station. The land was never developed. Fertilizers, pesticides,
24 and herbicides were likely applied to crops to prevent, destroy, repel, or mitigate pests
25 and unwanted flora while it was used for agricultural purposes. The possibility that
26 residual fertilizers, pesticides, and herbicides are present in soils on the Subject Property
27 is considered a REC.

SECTION 7

OPINION

On the basis of the information available at the time of this report's preparation, the two RECs mentioned above are identified in connection with historical uses of the Subject Property and environmental site northeast of the Subject Property.

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SECTION 8

CONCLUSIONS

The Contractor has performed a Phase I ESA of the Subject Property, Preferred Alternative Site (Area 1) located in the northwestern corner of Niagara Falls ARS, Niagara Falls, New York, in conformance with the scope and limitations of ASTM Standard E1527-05. Any exceptions to or deletions from this practice are described in Section 10 of this report. The assessment has revealed one REC in connection with the Subject Property.

On the basis of information provided by InfoMap and NYSDEC data, regarding the state environmental cleanup site known as the Carborundum Site, located 0.9 mile northeast of the Subject Property, it cannot be said for certain that the Subject Property was not affected by VOC groundwater plume that extends off its property towards the southwest, directly in the pathway of the Subject Property. Therefore, the Carborundum Site northeast of the Subject Property is considered a REC. Soils and groundwater may need to be analyzed to determine if worker safety measures regarding exposure are needed and to determine proper handling and disposal of excavated soils before construction begins.

On the basis of the findings and conclusions of this Phase I ESA, the contractor does not recommend any additional environmental investigation concerning the historical use of fertilizers, pesticides, and herbicides on the Subject Property. The surface soils have a vegetative cover that prevents windblown dust and erosion.

SECTION 9

DEVIATIONS FROM ASTM STANDARD E1527-05

There were no deletions or deviations from ASTM E 1527-05 with the exception of the following:

- Time gaps of more than 5 years were noted in available historical information.
- Historical aerial photographs were not available for the 1940s and 1960s.
- Local emergency services were attempted to be reached via phone, but messages were never returned.

The Contractor does not believe that the identified deviations affect its ability to render an opinion regarding RECs or *de minimis* conditions for the Subject Property.

SECTION 10

ADDITIONAL SERVICES

The Contractor provided no additional services during the drafting of this Phase I ESA. However, in addition to the Phase I ESA, an Environmental Assessment, a Phase I Cultural Resources Survey, a Wetlands/Biological Assessment, and a Farmland Conversion Impact Rating will be conducted as part of this project.

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SECTION 11

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SECTION 12

SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in the document have been provided in a manner consistent with the current standards of the profession and, to the best of my knowledge, comply with all applicable federal, state, and local statutes; regulations; and ordinances.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined at 40 CFR 312.10.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

David Postlewaite
Environmental Scientist

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SECTION 13

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

13.1. **DAVID POSTLEWAITE**

Mr. Postlewaite is an environmental scientist with more than 5 years of experience in preparing Phase I Environmental Site Assessments and other environmental investigation documents.

He has a BS in environmental and natural resources from Clemson University.

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SECTION 14

APPENDICES

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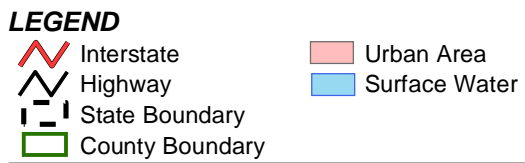
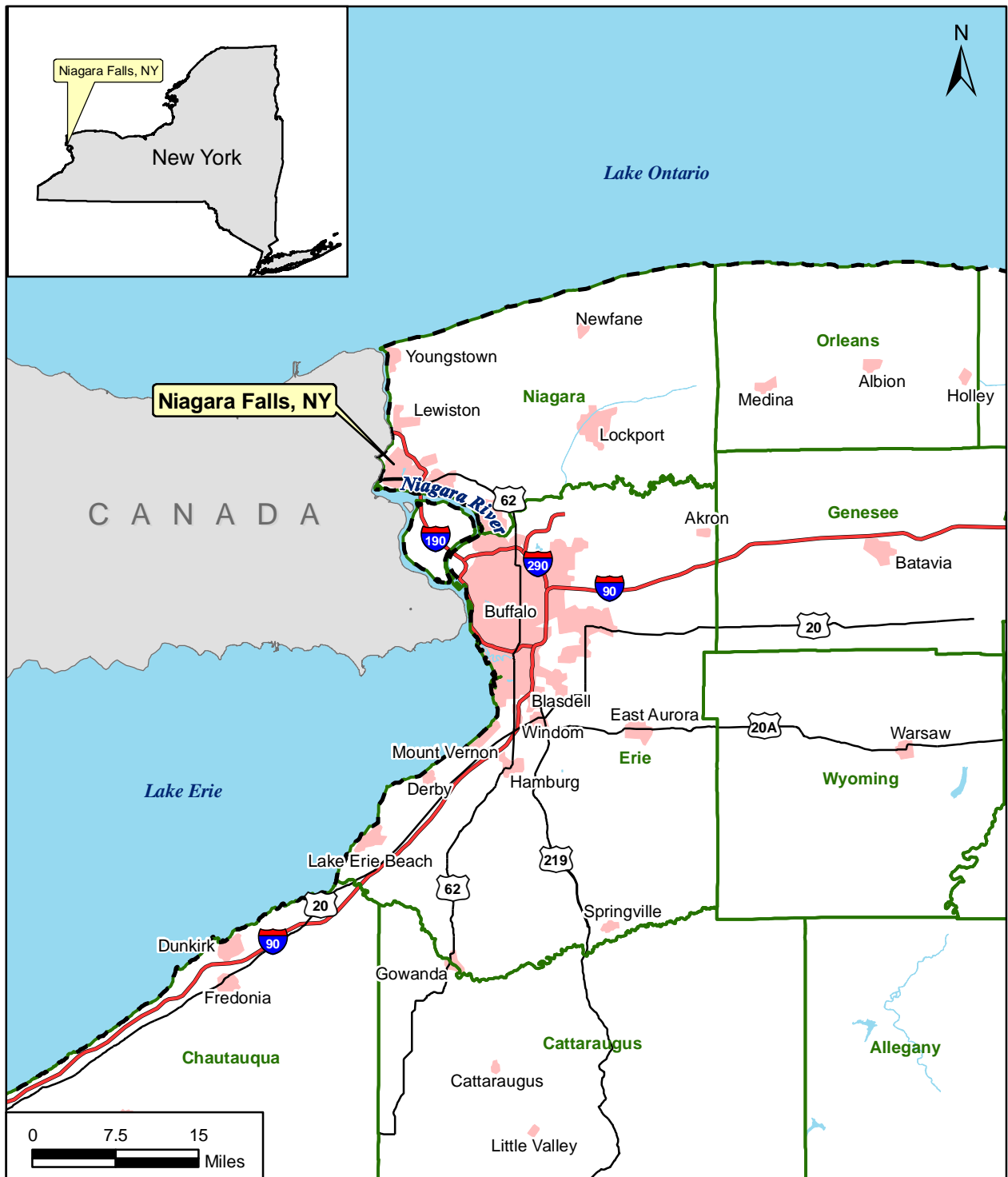
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14.1 - LOCATION MAP

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Project Location

Figure 14.1

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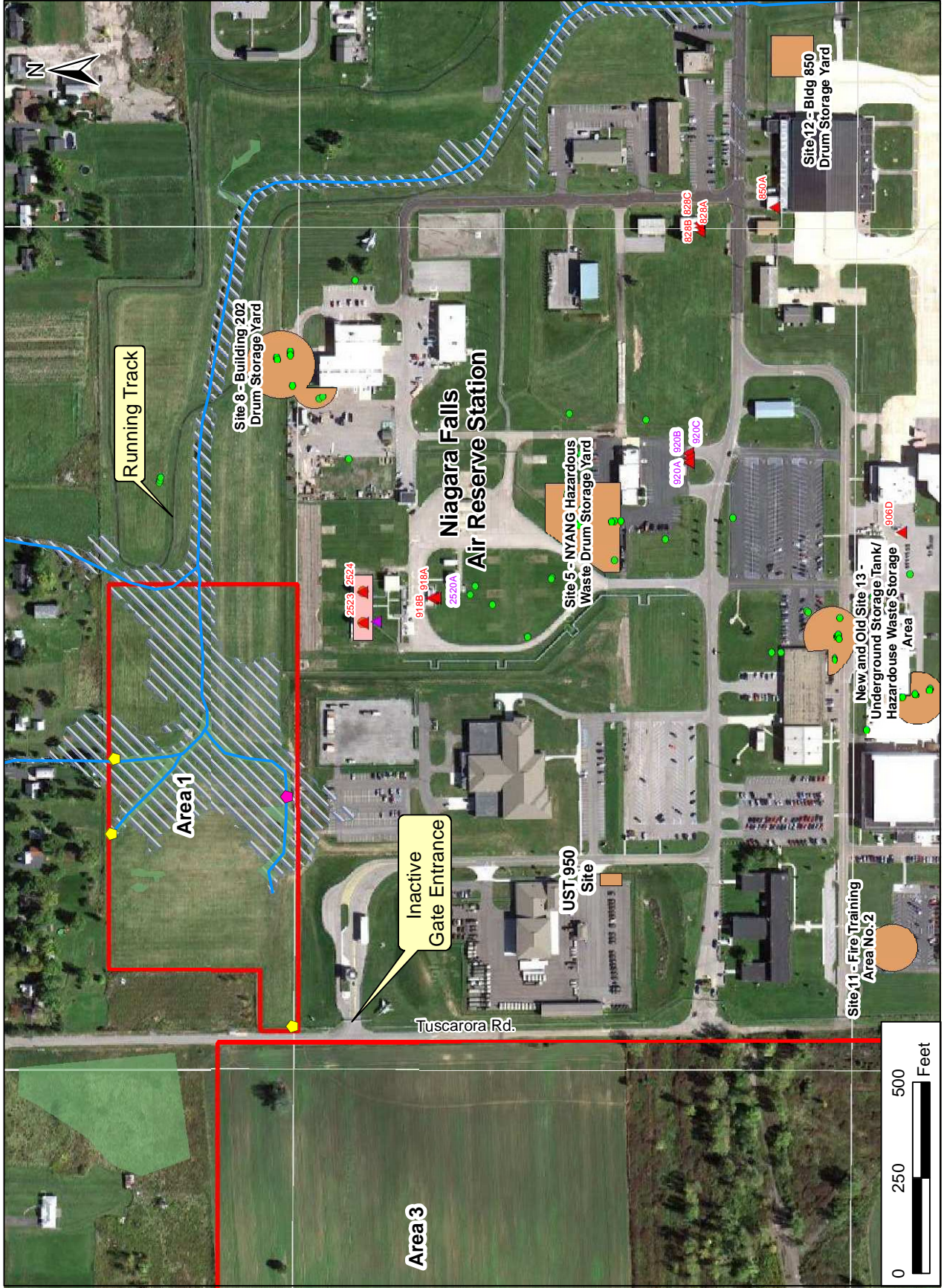
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14.2 - SITE MAP

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Site Map - Area 1

Figure 14.2

- LEGEND**
- CBP Footprint
 - ▨ 100yr Floodplain
 - Installation Restoration Program Site
 - Wetlands
 - Secondary Spill Controls (Petroleum)
 - Environmental Groundwater Monitoring Well
 - ▲ Aboveground Storage Tank
 - ▲ Underground Storage Tank
 - ▲ Surfacewater Outfall
 - ◆ Surfacewater Outfall/Lift Station

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14.3 - SITE PHOTOGRAPHS

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**Environmental Site Assessment
Niagara Phase I**

Date:
May 15, 2012

Area:
Area 1

Photo By:
D. Postlewaite

Description:
Southeastern corner
of Area 1 looking
towards the
southwest



Date:
May 15, 2012

Area:
Area 1

Photo By:
D. Postlewaite

Description:
Lift station in the
southern boundary of
Area 1



**Environmental Condition of Property
Niagara Phase I ESA**

Date:
May 15, 2012

Area:
Area 1

Photo By:
D. Postlewaite

Description:
Inactive fuel ASTs equipped with secondary spill controls southeast of Area 1



Date:
May 15, 2012

Area:
Area 1

Photo By:
D. Postlewaite

Description:
Unnamed stream flowing onto Area 1 along the northern boundary



**Environmental Condition of Property
Niagara Phase I ESA**

Date:
May 15, 2012

Area:
Area 1

Photo By:
D. Postlewaite

Description:
View of Area 1
looking from the
southern boundary
towards the north



Date:
May 15, 2012

Area:
Area 1

Photo By:
D. Postlewaite

Description:
New York Army
Reserve Storage
Area, directly south
of Area 1.



**Environmental Condition of Property
Niagara Phase I ESA**

Date:
May 15, 2012

Area:
Area 1

Photo By:
D. Postlewaite

Description:
Outfall for unnamed stream originating north of the parcel that flows south through Area 1 and off the parcel towards the airfield.



Date:
May 15, 2012

Area:
Area 1

Photo By:
D. Postlewaite

Description:
Unnamed streams converging towards the middle of Area 1 and then flowing east



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14.4 - HISTORICAL RESEARCH DOCUMENTS

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InfoMap

Technologies Incorporated

Environmental FirstSearch™ Report

Target Property:

AREA 1 NIAGARA FALLS CBP STATION

NIAGARA FALLS NY 14304

Job Number: 100-FFX-T28295

PREPARED FOR:

Tetra Tech, Inc.

10306 Eaton Place, Suite 340

Fairfax, VA 22030

04-20-12



Tel: (610) 430-7530

Fax: (610) 430-7535

Environmental FirstSearch Search Summary Report

Target Site: AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	02-01-12	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	02-01-12	0.25	0	0	0	-	-	0	0
CERCLIS	Y	02-27-12	0.50	0	0	0	0	-	0	0
NFRAP	Y	02-27-12	0.25	0	0	0	-	-	0	0
RCRA COR ACT	Y	03-13-12	1.00	0	0	0	0	0	0	0
RCRA TSD	Y	03-13-12	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	03-13-12	0.25	0	0	0	-	-	0	0
Federal Brownfield	Y	02-01-12	0.50	0	0	0	0	-	0	0
ERNS	Y	04-13-12	0.25	0	0	0	-	-	0	0
Tribal Lands	Y	12-15-08	0.25	0	0	0	-	-	0	0
State/Tribal Sites	Y	04-05-12	1.00	0	0	0	0	2	0	2
State Spills 90	Y	01-10-12	0.25	0	0	0	-	-	1	1
State/Tribal SWL	Y	01-11-12	0.50	0	0	0	0	-	0	0
State/Tribal LUST	Y	01-10-12	0.50	0	0	0	1	-	0	1
State/Tribal UST/AST	Y	04-05-12	0.25	0	0	0	-	-	0	0
State/Tribal EC	Y	04-05-12	0.50	0	0	0	0	-	0	0
State/Tribal IC	Y	04-05-12	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	04-05-12	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	04-05-12	0.50	0	0	0	0	-	0	0
Federal IC/EC	Y	03-13-12	0.50	0	0	0	0	-	0	0
- TOTALS -				0	0	0	1	2	1	4

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to InfoMap Technologies, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in InfoMap Technologies's databases. All EPA sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent NPL and state landfill the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although InfoMap Technologies uses its best efforts to research the actual location of each site, InfoMap Technologies does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of InfoMap Technologies's services proceeding are signifying an understanding of InfoMap Technologies's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

***Environmental FirstSearch
Site Information Report***

Request Date: 04-20-12
Requestor Name: Tetra Tech
Standard: ASTM-05

Search Type: COORD
Job Number: 100-FFX-T28295
Filtered Report

Target Site: AREA 1 NIAGARA FALLS CBP STATION
 NIAGARA FALLS NY 14304

Demographics

Sites: 4	Non-Geocoded: 1	Population: NA
Radon: OF THE 109 HOMES TESTED, THE AVG. PCI/L LEVEL WAS 1.3		

Site Location

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>	<u>UTMs</u>
Longitude:	-78.950169	-78:57:1	Easting: 666760.785
Latitude:	43.119692	43:7:11	Northing: 4775930.829
Elevation:	600		Zone: 17

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 0 Mile(s)	Services:																																		
<table border="1"> <thead> <tr> <th>ZIP Code</th> <th>City Name</th> <th>ST</th> <th>Dist/Dir</th> <th>Sel</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	ZIP Code	City Name	ST	Dist/Dir	Sel						<table border="1"> <thead> <tr> <th></th> <th>Requested?</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Fire Insurance Maps</td> <td>No</td> <td> </td> </tr> <tr> <td>Aerial Photographs</td> <td>No</td> <td> </td> </tr> <tr> <td>Historical Topos</td> <td>No</td> <td> </td> </tr> <tr> <td>City Directories</td> <td>No</td> <td> </td> </tr> <tr> <td>Title Search/Env Liens</td> <td>No</td> <td> </td> </tr> <tr> <td>Municipal Reports</td> <td>No</td> <td> </td> </tr> <tr> <td>Online Topos</td> <td>No</td> <td> </td> </tr> </tbody> </table>		Requested?	Date	Fire Insurance Maps	No		Aerial Photographs	No		Historical Topos	No		City Directories	No		Title Search/Env Liens	No		Municipal Reports	No		Online Topos	No	
ZIP Code	City Name	ST	Dist/Dir	Sel																															
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Fire Insurance Maps	No																																		
Aerial Photographs	No																																		
Historical Topos	No																																		
City Directories	No																																		
Title Search/Env Liens	No																																		
Municipal Reports	No																																		
Online Topos	No																																		

Environmental FirstSearch
Selected Sites Summary Report

Target Property: AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

TOTAL: 4 **GEOCODED:** 3 **NON GEOCODED:** 1 **SELECTED:** 4

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
1	LUST	TANK 920D AT 914 TAG 9806241/CLOSED	10031 KIRSCH DR NIAGARA FALLS NY 14304	0.32 SE	- 10	2
2	STATE	ROSS STEEL COMPANY, INC. 932058/HISTORIC	8555 PACKARD RD NIAGARA FALLS NY 14304	0.82 SW	+ 8	4
3	STATE	CARBORUNDUM SPECIALTY PRODUCTS 932102	2050 CORY RD WHEATFIELD NY 14132	0.90 NE	+ 18	6

Environmental FirstSearch
Selected Sites Summary Report

Target Property: AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

TOTAL: 4 **GEOCODED:** 3 **NON GEOCODED:** 1 **SELECTED:** 4

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
	SPILLS	BLG 850 1005680/CLOSED	NIAGARA FALLS RESERVE STA NIAGARA FALLS NY	NON GC	N/A	9

Environmental FirstSearch Site Detail Report

Target Property: AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

LUST

SEARCH ID: 3 **DIST/DIR:** 0.32 SE **ELEVATION:** 590 **MAP ID:** 1

NAME: TANK 920D AT 914 TAG	REV: 1/10/12
ADDRESS: 10031 KIRSCH DR	ID1: 9806241
NIAGARA FALLS NY	ID2: 327392
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NY DEC	

SITE INFORMATION

SPILL DATE:	8/1/1998
DATE REPORTED:	8/18/1998
CLOSED DATE:	9/1/1999
INSP DATE: 8/18/1998	
MATERIAL SPILLED: 2 FUEL OIL	AMOUNT SPILLED: 0 G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 0 G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL: TANK FAILURE
WATERBODY AFFECTED:
SOURCE OF SPILL: INSTITUTIONAL, EDUCATIONAL, GOV., OTHER
REPORTED BY: RESPONSIBLE PARTY
REGION:
UST TRUST? NO

SPILL INVESTIGATOR: SACALAND
SPILL CONTACT:
TELEPHONE:

SPILLER: 914 AIRLIFT WING AFRES
 JAMES NAGELOUT
ADDRESS: 2405 FRANKLIN DRIVE
 NIAGARA FALLS, NY 14304-
TELEPHONE:

REPORTED BY: RESPONSIBLE PARTY

LAST DEC UPDATE: 9/17/1999
CLEAN UP MEET STANDARDS? NO
PENALTY RECOMMENDED? NO

CALLER REMARKS: CONTAMINATION FOUND DURING TANK REMOVAL

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAC 08/18/98: SAC SITE INSPECTION, MET BILL NIVER AND ELLEN MARIEN OF AFRES, EXCAVATION OPEN, NO ODORS OR VISIBLE PRODUCT OBSERVED IN THE EXCAVATION, RECEIVED RESULTS FROM EXCAVATION, STARS GUIDANCE VALUES EXCEEDED ON A LOW LEVEL, REMOVED SOIL STAGED ON PLASTIC, SAMPLING INDICATED THAT STARS GUIDANCE VALUES WERE EXCEEDED. 05/19/99: SAC TELECON ELLEN MARIEN, SAC REQUESTED STATUS OF THE SOIL THAT WAS STAGED ON SITE, MS. MARIEN WILL DISCUSS WITH 107TH AIR NATIONAL GUARD. 05/20/99: SAC RECEIVED DISPOSAL RECEIPTS FOR THE CONTAMINATED SOIL. 09/01/99: SAC DRAFTED INACTIVE LETTER.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

LUST

SEARCH ID: 3	DIST/DIR: 0.32 SE	ELEVATION: 590	MAP ID: 1
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NAME: TANK 920D AT 914 TAG
ADDRESS: 10031 KIRSCH DR
NIAGARA FALLS NY
NIAGARA

REV: 1/10/12
ID1: 9806241
ID2: 327392
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NY DEC

Environmental FirstSearch
Site Detail Report

Target Property: AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 2 **DIST/DIR:** 0.82 SW **ELEVATION:** 608 **MAP ID:** 2

NAME: ROSS STEEL COMPANY, INC. **REV:** 05/20/99
ADDRESS: 8555 PACKARD RD **ID1:** 932058
NIAGARA FALLS NY 14304 **ID2:** NYD012964359
NIAGARA **STATUS:** HISTORIC
CONTACT: **PHONE:**
SOURCE:

CLASS CODE: D1 **REGION:** 9 **ESTIMATED SIZE:** 0.5 ACRES

SITE TYPE:
OPEN DUMP: X **STRUCTURE:**
LAGOON: **LANDFILL:**
POND:

SITE OWNER/OPERATOR INFORMATION:

CURRENT OWNER(S) NAME: Niagara Mohawk Power Corp.
CURRENT OWNER(S) ADDRESS: 500 Erie Blvd. West
Syracuse NY 14305

SITE OWNER/OPERATOR INFORMATION:

CURRENT OWNER(S) NAME: NYSDOT
CURRENT OWNER(S) ADDRESS: State Office Building Campus
Albany NY

OPERATOR(S) DURING DISPOSAL: Ross Steel Company
OPERATOR(S) ADDRESS: 4237 Pine Avenue
Niagara Falls NY

HAZARDOUS WASTE DISPOSAL PERIOD: Prio.1960 TO: Unknown

SITE DESCRIPTION:

There were two apparent landfill sites on Pine Avenue used by Ross Steel. This site is the site through which the Power Authority Conduits pass. Large excavations were made in order to place these. Thus, the entire site is now either excavated or covered and seeded. A Phase I investigation for this site was completed in 1989 and concluded that no hazardous waste is present on the site.

CONFIRMED HAZARDOUS WASTE DISPOSAL: **QUANTITY:**

ANALYTICAL DATA AVAILABLE FOR:

GROUNDWATER: **SURFACE WATER:**
AIR: **SEDIMENT:**
SOIL:

APPLICABLE STANDARDS EXCEEDED FOR:

GROUNDWATER: **SURFACE WATER:**
AIR: **DRINKING WATER:**

GEOTECHNICAL INFORMATION:

SOIL/ROCK TYPE: Unknown

- Continued on next page -

Environmental FirstSearch Site Detail Report

Target Property: AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 1 **DIST/DIR:** 0.90 NE **ELEVATION:** 618 **MAP ID:** 3

<p>NAME: CARBORUNDUM SPECIALTY PRODUCTS ADDRESS: 2050 CORY RD WHEATFIELD NY 14132 NIAGARA CONTACT: SOURCE: NYSDEC</p>	<p>REV: 4/5/12 ID1: 932102 ID2: 56729.00 STATUS: PHONE:</p>
---	--

SITE INFORMATION

REGION: 9 **SIZE (ACRES):** 40.000

SITE TYPE:

OPEN DUMP: YES	STRUCTURE: NO
LAGOON: NO	LANDFILL: NO
POND: NO	

SITE OWNER/OPERATOR INFORMATION:

NAME:
COMPANY: CARBORUNDUM SPECIALTY PRODUCTS
ADDRESS: ZZ
COUNTRY: UNITED STATES OF AMERICA

NAME:
COMPANY: CARBORUNDUM SPECIALTY PRODUCTS
ADDRESS: 2050 CORY ROAD
WHEATFIELD NY 14132
COUNTRY: UNITED STATES OF AMERICA

NAME:
COMPANY: CARBORUNDUM SPECIALTY PRODUCTS
ADDRESS: 200 PUBLIC SQUARE 7-4606-B
CLEVELAND OH 441142375
COUNTRY: UNITED STATES OF AMERICA

NAME:
COMPANY: CARBORUNDUM SPECIALTY PRODUCTS
ADDRESS: 2050 CORY ROAD
WHEATFIELD NY 14132
COUNTRY: UNITED STATES OF AMERICA

NAME: BILL BARBER
COMPANY: ELM HOLDINGS, INC.
ADDRESS: 4850 EAST 49TH STREET MBC3-147
CUYAHOGA HEIGHTS NY 44125
COUNTRY: UNITED STATES OF AMERICA

NAME: JOHN SAGE, SR. VP
COMPANY: PYROTEK, INC.
ADDRESS: 9503 EAST MONTGOMERY AVENUE
SPOKANE VALLEY WA 99206
COUNTRY: UNITED STATES OF AMERICA

HAZARDOUS WASTE:
TRICHLOROETHENE (TCE) F001 WASTE

QUANTITY:
UNKNOWN

- Continued on next page -

Environmental FirstSearch Site Detail Report

Target Property: AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 1 **DIST/DIR:** 0.90 NE **ELEVATION:** 618 **MAP ID:** 3

NAME: CARBORUNDUM SPECIALTY PRODUCTS	REV: 4/5/12
ADDRESS: 2050 CORY RD	ID1: 932102
WHEATFIELD NY 14132	ID2: 56729.00
NIAGARA	STATUS:
CONTACT:	PHONE:
SOURCE: NYSDEC	

HAZARDOUS WASTE DISPOSAL PERIOD: 1962 TO 1983

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Prior to Remediation: Based upon investigations conducted to date the primary contaminants of concern for OU2 are chlorinated Presently, TCE, and its primary breakdown products; Cis-1-2 Dichloroethene, and Vinyl Chloride are present in the shallow groundwater. All preliminary investigations were completed as required by NYSDEC with the signing of an Order on Consent, December 23, 1991. Construction of a Groundwater Recovery System (GRS) and a Soil Remediation Groundwater Treatment System (SRGWTS) has been completed. The system has been operational since July 1994 with noted reduction in the total mass of chemical concern. The PRP continues efforts to reduce contaminant mass and to better understand ongoing hydrogeology. Groundwater collection and treatment continues. The Soil Vapor Extraction /Air Sparging system in use at the site has been discontinued and a pilot test utilizing a Hydrogen Releasing Compound (HRC) was initiated in a select area however the results of the HRC test were determined to be inconclusive. Groundwater has been determined to exist at the top of rock and in four distinct zones at the site. Groundwater extraction has been optimized to control only the top of rock and the first bedrock zone. An additional DNAPL sump well has been installed in the northeast source area. Operation and Maintenance continues including long term groundwater monitoring. A work plan for a soil vapor intrusion (SVI) assessment, which included installation of soil vapor monitoring points (SVMPs), was approved in 2006. Due to high water table conditions installation and sampling of the SVMPs was delayed until the summer of 2007. The results of the study indicated that additional work was necessary to evaluate the exposure route. Off-site sub-slab and indoor air sampling of selected condominiums adjacent to the western side of the site was completed in November and December 2008. The results of the sampling were included in a report entitled "Soil Vapor Assessment Report" submitted in February 2009. Based on the results of the investigation the DEC, in consultation with the NYSDOH, concluded no further on-site or off-site sampling was needed and no actions were needed to address exposures related to soil vapor intrusion. An Investigation Complete - No Actions Recommended memo was issued on April 1, 2009. Degradation of surrounding groundwater resources. Operation and maintenance of soil vapor extraction was discontinued due to diminishing VOC extraction rates. Operation and maintenance of the groundwater treatment system will provide for long-term remediation of the groundwater.

ASSESSMENT OF HEALTH PROBLEMS:

While contaminated groundwater containing volatile organic compounds extends beyond the site boundaries, exposure to these contaminants through drinking groundwater is not expected since the surrounding area is connected to the public water supply. Groundwater seeping into a nearby quarry contains low level volatile organic compounds associated with the site; however, this exposure was investigated and is not considered a public health concern. Residential buildings near the property were investigated and the results demonstrated that soil vapor intrusion is not a concern for surrounding residents.

DESCRIPTION:

Location: The Carborundum Site is located in a rural area at 2050 Cory Drive in the Town of Wheatfield in Niagara County. The facility property is approximately 40 acres in size and borders the Town of Lewistown to the north and the Town of Niagara to the west. **Site Features:** The main site features include several large active manufacturing buildings surrounded by parking areas and roadways. A 93,000 square foot facility expansion was completed in 2011 with the construction of three new adjoining buildings at the north end of the site. The surface topography is flat and generally slopes southward at a rate of about 5 feet per mile toward the Niagara River. Surface water from the active areas of the facility discharges into the plant sewer system which discharges to the Niagara County Sewer District 1 Sewage Treatment Plant. Cayuga Creek is located 0.25 mile east of the facility and flows southward for about 4.5 miles until it discharges into the Niagara River. **Current Zoning/Use:** The site is currently active and zoned industrial. The majority of land adjacent to the facility is used for agricultural and residential purposes. Private condominiums (former Department of Defense (DoD) military housing) border the facility property along its western side. **Historical Uses:** Operations at the Carborundum Site began in 1963. Trichloroethene (TCE) was in use at the Carborundum Co. as a degreaser in the manufacture of specialty abrasive carbon and graphite cloths from 1963 to 1983. Other chlorinated organics used during this period included 1,1,1-trichloroethane (TCA) and carbon tetrachloride. During this period TCE was introduced into the overburden in primarily four areas surrounding the current Metallurgical manufacturing building in the southern half of the site: northeast of the building in the area of the leach field; along the southwest corner of the building; within the courtyard of the building; and in the area south and southeast of the building. The contamination was discovered in 1983 during a routine NYSDEC inspection of the facilities SPDES outfall and in groundwater samples collected from production well P-2. Four phases of investigations, took place prior to the December 23, 1991 execution of an Order on Consent: The first phase of the work began in 1984 with the installation and groundwater sampling of six monitoring wells. The second phase began in March 1986 and continued through 1987. The investigation included a soil gas survey, the installation of six additional monitoring wells, a seismic reflection survey, residential well sampling, quarry sampling, and the completion of a 24 hour pumping test. The third phase was completed in 1988 and 1989 and included installation of 10 shallow and 3 deep bedrock wells, residential well and sump sampling, installation and testing of a second recovery well, sediment and surface water sampling in the inactive SPDES outfall and Cayuga Creek, sampling for the potential presence of Dense Non-Aqueous Phase Liquids (DNAPL), investigation of a sewer trench on Cory Drive and the conceptual development of two Interim Remedial Measures (IRMs) for

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 1 **DIST/DIR:** 0.90 NE **ELEVATION:** 618 **MAP ID:** 3

NAME: CARBORUNDUM SPECIALTY PRODUCTS
ADDRESS: 2050 CORY RD
WHEATFIELD NY 14132
NIAGARA
CONTACT:
SOURCE: NYSDEC

REV: 4/5/12
ID1: 932102
ID2: 56729.00
STATUS:
PHONE:

septic tank closure and application of vacuum extraction technology in a source area as a pilot test. The fourth phase comprised the Remedial Investigation which was completed in the last quarter of 1989 and first half of 1990. It included the installation 4 shallow bedrock wells, a soil gas survey at the DoD housing facility (now private condominiums), soil sampling at the SPDES outfall the completion of a IRM for septic tank closure and the preparation of a vacuum extraction treatability study in a source area. Operable Units: The site was divided into three operable units. An operable unit represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination. Operable unit 1 (OU1) is the remedial program which requires the extraction and disposal of groundwater, treatment of contaminated soils and monitoring of soil gas on adjacent residential properties. OU2 consists of the groundwater. OU3 consists of the soils. Site Geology and Hydrogeology: Site geology consists of 8 to 25 feet of unconsolidated glacial lake sediments and till; predominately silt and clay with random zones of sand and gravel found in some areas at the bottom of the overburden. The underlying bedrock is the Lockport Dolomite. Shallow horizontal and vertical fractures in the weathered uppermost section of the Lockport Dolomite comprise the primary aquifer beneath the facility. This weathered zone ranges in thickness from about 10 to 20 feet and appears to be the predominate route for migration within and off site. Depth to groundwater in the shallow bedrock varies seasonally about 10 feet on average. On average high water levels in the late winter and early spring reach 3 to 5 feet below ground surface and the shallow bedrock aquifer is confined beneath the low permeability silt and clay. During the summer and fall the head (water level within the well casing) reaches its lowest level and wells in the western two thirds of the site become unconfined as the water levels drop below the top of the bedrock. Most groundwater flows toward the southwest and to a lesser extent to the south.

Environmental FirstSearch Site Detail Report

Target Property: AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 4	DIST/DIR: NON GC	ELEVATION:	MAP ID:
NAME: BLG 850		REV: 4/5/12	
ADDRESS: NIAGARA FALLS RESERVE STA NIAGARA FALLS NY NIAGARA		ID1: 1005680	
CONTACT:		ID2: 439005	
SOURCE: NYSDEC		STATUS: CLOSED	
		PHONE:	

SITE INFORMATION

SPILL DATE: 8/21/2010
DATE REPORTED: 8/21/2010
CLOSED DATE: 9/21/2010
INSP DATE:
MATERIAL SPILLED: OTHER - AQUEOUS FILM FORMING FOAM 3% **AMOUNT SPILLED:** 48000 G
MATERIAL CLASS: PETROLEUM **AMOUNT RECOVERED:** 47950 G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: YES	DRINKING WATER: NO
SEWER: YES	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL: EQUIPMENT FAILURE
WATERBODY AFFECTED: CAYUGA CREEK
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: FIRE DEPARTMENT
REGION:
UST TRUST? NO

SPILL INVESTIGATOR: RJJONAK
SPILL CONTACT: ELLEN MARIEN
TELEPHONE: (716) 534-0091

SPILLER: AIR RESERVE STA

ADDRESS: , NY

TELEPHONE:

REPORTED BY: FIRE DEPARTMENT

LAST DEC UPDATE: 9/21/2010
CLEAN UP MEET STANDARDS? YES
PENALTY RECOMMENDED? NO

CALLER REMARKS: 48000 GALLONS IS IN THE TRIBUTARY TO THE CREEK; STORM DRAIN; CAYUGA CREEK; AND SANITARY SEWER SYSTEM; CLEAN UP IS IN PROGRESS

DEC REMARKS:

8/21/2010: RJJ AT SITE AT 2300...MEET WITH ELLEN MARIEN and LT. COMMANDER MCCOY FROM THE NIAGARA FALLS RESERVE AIR FORCE BASE STATION...IN BUILDING 850(A LARGE AIRPLANE HANGAR),THE FIRE SUPPRESSION SYSTEM ACCIDENTLY WENT OFF ALLOWING 48,000 GALS. OF A TRIPLE F FIRE SUPPRESSION FOAM TO DISCHARGE...THIS RESULTED IN 2-3 DEPTH OF FOAM IN THE BUILDING...A SMALL AMOUNT OF THIS FOAM MIGRATED OUTSIDE,INTO A TRIBUTARY CREEK,WHICH THEN RUNS INTO CAYUGA CREEK...WE INSPECTED THE CREEKS AND FOUND NO EVIDENCE OF ANY FISH KILL...IT APPEARS THAT THE HEAVY RAINS HAVE FLUSHED/DILUTED THIS FOAM DOWNSTREAM..THE AIR FORCE BASE HAS HIRED GREEN ENVIRONMENTAL,WITH ASSISTANCE FROM THEIR OWN FIRE DEPT.,TO WATER DOWN THIS FOAM,THEN VAC UP THE PRODUCT INTO THEIR VAC-TRUCKS...THIS IS EXCEPTED TO TAKE 3-4 HOURS...I WILL RETURN EARLY NEXT MORNING TO INSPECT BOTH,THE CREEKS AND THE CLEAN UP...ALSO,THEY ARE INVESTIGATING WHY THIS DISCHARGED(IT MIGHT HAVE BEEN A POWER SURGE FROM A NEARBY DOWNED

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 4

DIST/DIR: NON GC

ELEVATION:

MAP ID:

NAME: BLG 850

REV: 4/5/12

ADDRESS: NIAGARA FALLS RESERVE STA
NIAGARA FALLS NY
NIAGARA

ID1: 1005680

ID2: 439005

STATUS: CLOSED

CONTACT:

PHONE:

SOURCE: NYSDEC

LINE) AND WHY SOME OF THE FOAM MIGRATED INTO THEIR STORM WATER SYSTEM,NOT INTO THEIR SANITARY SYSTEM,AS IT SHOULD HAVE...I ALSO NOTIFIED GREG SUTTON AND NCDOH...AND I INFORMED DLE LT. SCOTT,WHO WILL SEND CENTRAL OFFICE A SIGNIFICANT INCIDENT REPORT . 8/22/2010: RJJ AT SITE AT 1000...GREEN ENVIRONMENTAL/FIRE DEPT. HAVE COMPLETED THEIR CLEAN UP IN THE BUILDING...THEY HAVE COLLECTED THE FOAM/WATER INTO VAC TRUCKS,WHICH THEY WILL DISCHARGE INTO THE NIAGARA CO. SEWER SYSTEM,WITH THEIR APPROVAL...ALSO,THERE IS NO EVIDENCE OF ANY FOAM IN THE CREEKS,IT HAS ALL BEEN FLUSHED THROUGH...AND THERE IS NO FISH KILL OF ANY KIND...ELLEN MARIEN WILL SEND ME THEIR REPORT. 8/23/2010: RJJ INFORMED DOW OF THIS EVENT AND FAXED ELLEN MARIEN A COPY OF THIS SPILL REPORT,PER HER REQUEST...SHE ALSO SAID THAT THEIR INVESTIGATION IS STILL ON GOING. 9/20/2010: RECEIVED THE SPILL INCIDENT REPORT FROM THE DEPT. OF THE AIR FORCE,WHICH INCLUDES THE DISPOSAL RECEIPTS FOR THE 4000 GAL OF AFFF,WASH WATER and DEFOAMER,DISPOSED AT THE NIAGARA CO. SEWER DISTRICT 1,WHICH WAS USED IN THE CLEAN UP...THE REPORT ALSO EXPLAINS ALL THEIR ACTIVITIES AND THE RESULTS OF THEIR INVESTIGATION OF THIS INCIDENT...WHEN THE AFFF SYSTEM ACTIVATED ON 8/21/2010,IT IS SUSPECTED THAT THE DOWNSTREAM VALVE ON THE STORM SEWER DID NOT FUNCTION PROPERLY,ALLOWING FOAM TO ESCAPE TO THE CREEK...THE PROBLEMATIC VALVES WILL BE REPAIRED TO PREVENT FUTURE DISCHARGES TO THE CREEK...THE SPILL HAS BEEN CLEANED UP and PROPERLY DISPOSED OF...NO FURTHER ACTION NEEDED...SPILL CLOSED OUT.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

Environmental FirstSearch Descriptions

NPL: EPA NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.

A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

FINAL - Currently on the Final NPL

PROPOSED - Proposed for NPL

NPL DELISTED: EPA NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. 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 - Deleted from the Final NPL

CERCLIS: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

PART OF NPL- Site is part of NPL site

DELETED - Deleted from the Final NPL

FINAL - Currently on the Final NPL

NOT PROPOSED - Not on the NPL

NOT VALID - Not Valid Site or Incident

PROPOSED - Proposed for NPL

REMOVED - Removed from Proposed NPL

SCAN PLAN - Pre-proposal Site

WITHDRAWN - Withdrawn

NFRAP: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). 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.

NFRAP – No Further Remedial Action Plan

P - Site is part of NPL site

D - Deleted from the Final NPL

F - Currently on the Final NPL

N - Not on the NPL

O - Not Valid Site or Incident

P - Proposed for NPL

R - Removed from Proposed NPL

S - Pre-proposal Site

W – Withdrawn

RCRA COR ACT: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: EPA/MA DEP/CT DEP RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that generate or transport hazardous waste or meet other RCRA requirements.

LGN - Large Quantity Generators

SGN - Small Quantity Generators

VGN – Conditionally Exempt Generator.

Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

CONNECTICUT HAZARDOUS WASTE MANIFEST – Database of all shipments of hazardous waste within, into or from Connecticut. The data includes date of shipment, transporter and TSD info, and material shipped and quantity. This data is appended to the details of existing generator records.

MASSACHUSETTES HAZARDOUS WASTE GENERATOR – database of generators that are regulated under the MA DEP.

VQN-MA = generates less than 220 pounds or 27 gallons per month of hazardous waste or waste oil.

SQN-MA = generates 220 to 2,200 pounds or 27 to 270 gallons per month of waste oil.

LQG-MA = generates greater than 2,200 lbs of hazardous waste or waste oil per month.

ERNS: EPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: DOI/BIA INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.

BUREAU OF INDIAN AFFIARS CONTACT - Regional contact information for the Bureau of Indian Affairs offices.

State/Tribal Sites: NYSDEC ENVIRONMENTAL SITE REMEDIATION DATABASE - database of sites being remediated under a DER remedial program/s (i.e. State Superfund, Brownfield Cleanup, etc.). This database also includes the Registry of Institutional and Engineering Controls in New York State.

REGISTRY OF INACTIVE HAZARDOUSE WASTE DISPOSAL SITES –

HAZARDOUS SUBSTANCE SITE STUDY - (STATIC) This study was done in 1998 and was prepared by the NY DEC, Hazardous Substances Waste Disposal Task Force In consultation with N.Y. Department of Health

State Spills 90: NYSDEC SPILL INCIDENTS DATABASE - database of chemical and petroleum spill incidents that occurred since 1990.

State/Tribal SWL: *NYSDEC* ACTIVE FACILITIES REGISTRY - database of solid waste landfill facilities. The data includes location, waste type, owner and permit number.

State/Tribal LUST: *NYSDEC* SPILL INCIDENTS DATABASE SUBSET - database of chemical and petroleum spill incidents where the cause was a tank test failure or tank failure

State/Tribal UST/AST: *NYSDEC* DATABASE OF PETROLEUM BULK STORAGE, MAJOR OIL STORAGE (MOSF), AND CHEMICAL BULK STORAGE (CBS) FACILITIES - database of petroleum or chemical storage facilities. The data includes status, tank type, capacity and contents. The data also includes Nassau County Department of Health's PBS Tanks
Nassau County Fire Marshall's PBS Tanks
Suffolk County Department of Health Services PBS Tanks
Cortland County Health Department PBS Tanks
Rockland County Department of Health PBS Tanks
Westchester County Department of Health PBS Tanks.

State/Tribal EC: *NYSDEC* REGISTRY OF INSTITUTIONAL AND ENGINEERING CONTROLS Subset - database of sites from the Registry that have Engineering Controls.

State/Tribal IC: *NYSDEC* REGISTRY OF INSTITUTIONAL AND ENGINEERING CONTROLS Subset - database of sites from the Registry that have Institutional Controls.

State/Tribal VCP: *NYSDEC* VOLUNTARY CLEANUP PROGRAM - static database of voluntary clean up sites. The Brownfield Cleanup program has replaced the Voluntary Cleanup Program.

State/Tribal Brownfields: *NYSDEC* BROWNFIELD - database of old brownfield programs, brownfield cleanup programs, environmental restoration projects.

RADON: *NTIS* NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

Environmental FirstSearch Database Sources

NPL: *EPA* Environmental Protection Agency

Updated quarterly

NPL DELISTED: *EPA* Environmental Protection Agency

Updated quarterly

CERCLIS: *EPA* Environmental Protection Agency

Updated quarterly

NFRAP: *EPA* Environmental Protection Agency.

Updated quarterly

RCRA COR ACT: *EPA* Environmental Protection Agency.

Updated quarterly

RCRA TSD: *EPA* Environmental Protection Agency.

Updated quarterly

RCRA GEN: *EPA/MA DEP/CT DEP* Environmental Protection Agency, Massachusetts Department of Environmental Protection, Connecticut Department of Environmental Protection

Updated quarterly

ERNS: *EPA/NRC* Environmental Protection Agency

Updated annually

Tribal Lands: *DOI/BIA* United States Department of the Interior

Updated annually

State/Tribal Sites: *NYSDEC* New York Department of Environmental Remediation
New York State Department of Environmental Conservation

Updated quarterly

State Spills 90: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal SWL: *NYSDEC* New York State Department of Environmental Conservation

Updated annually

State/Tribal LUST: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal UST/AST: *NYSDEC* New York State Department of Environmental Conservation
Nassau County Department of Health
Nassau County Fire Marshal
Cortland County Health Department
Rockland County Department of Health

Updated quarterly

State/Tribal EC: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal IC: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal VCP: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal Brownfields: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

RADON: *NTIS* Environmental Protection Agency, National Technical Information Services

Updated periodically

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

Target Property: AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

Street Name	Dist/Dir	Street Name	Dist/Dir
Lockport Rd	0.10 NW		
Tuscarora Rd	0.10 NW		

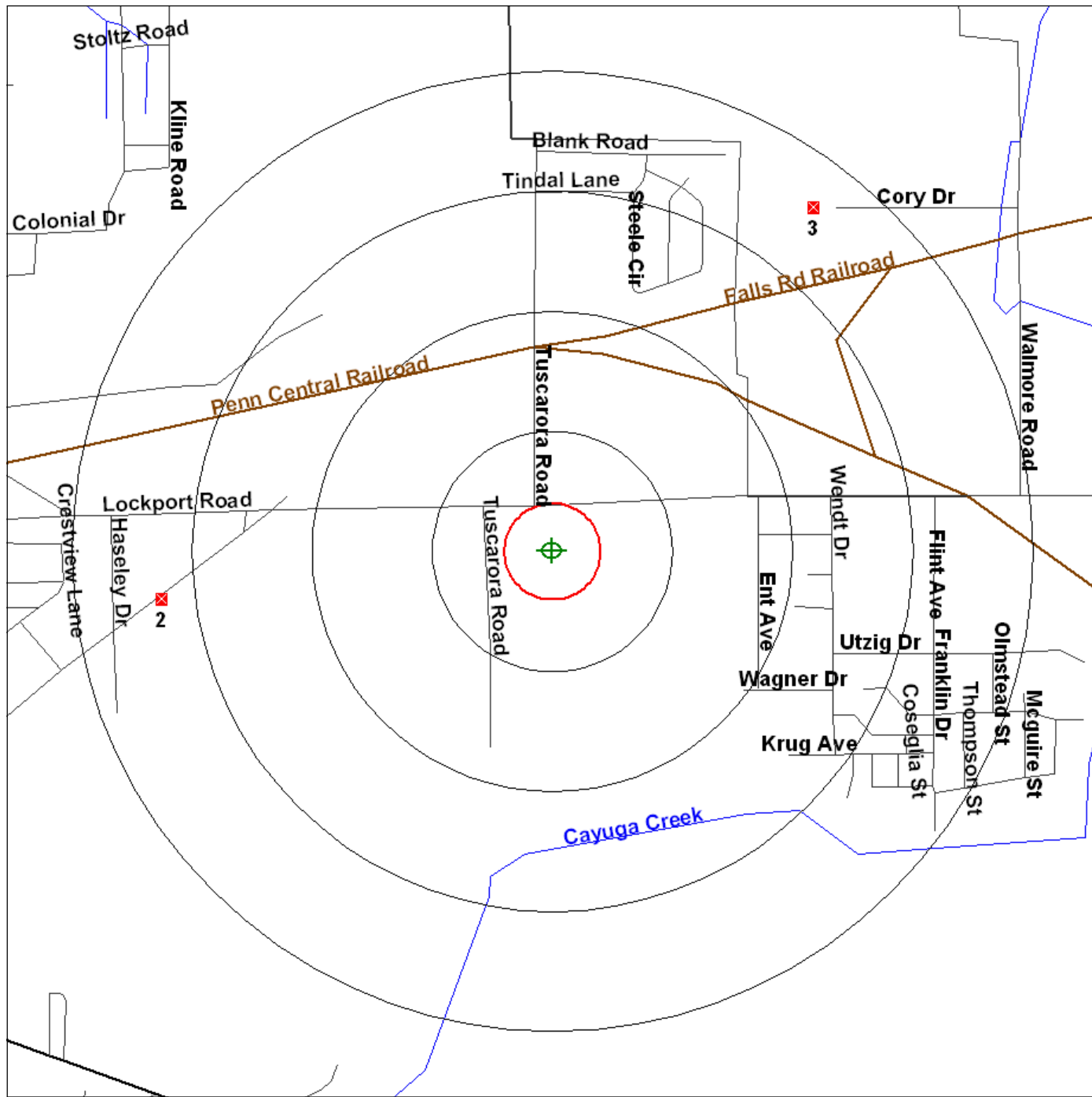


Environmental FirstSearch

1 Mile Radius
ASTM Map: NPL, RCOR, STATE Sites



AREA 1 NIAGARA FALLS CBP STATION , NIAGARA FALLS NY 143



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 43.119692 Longitude: -78.950169)
 - Identified Site, Multiple Sites, Receptor
 - NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
 - Triballand.....
 - Railroads
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

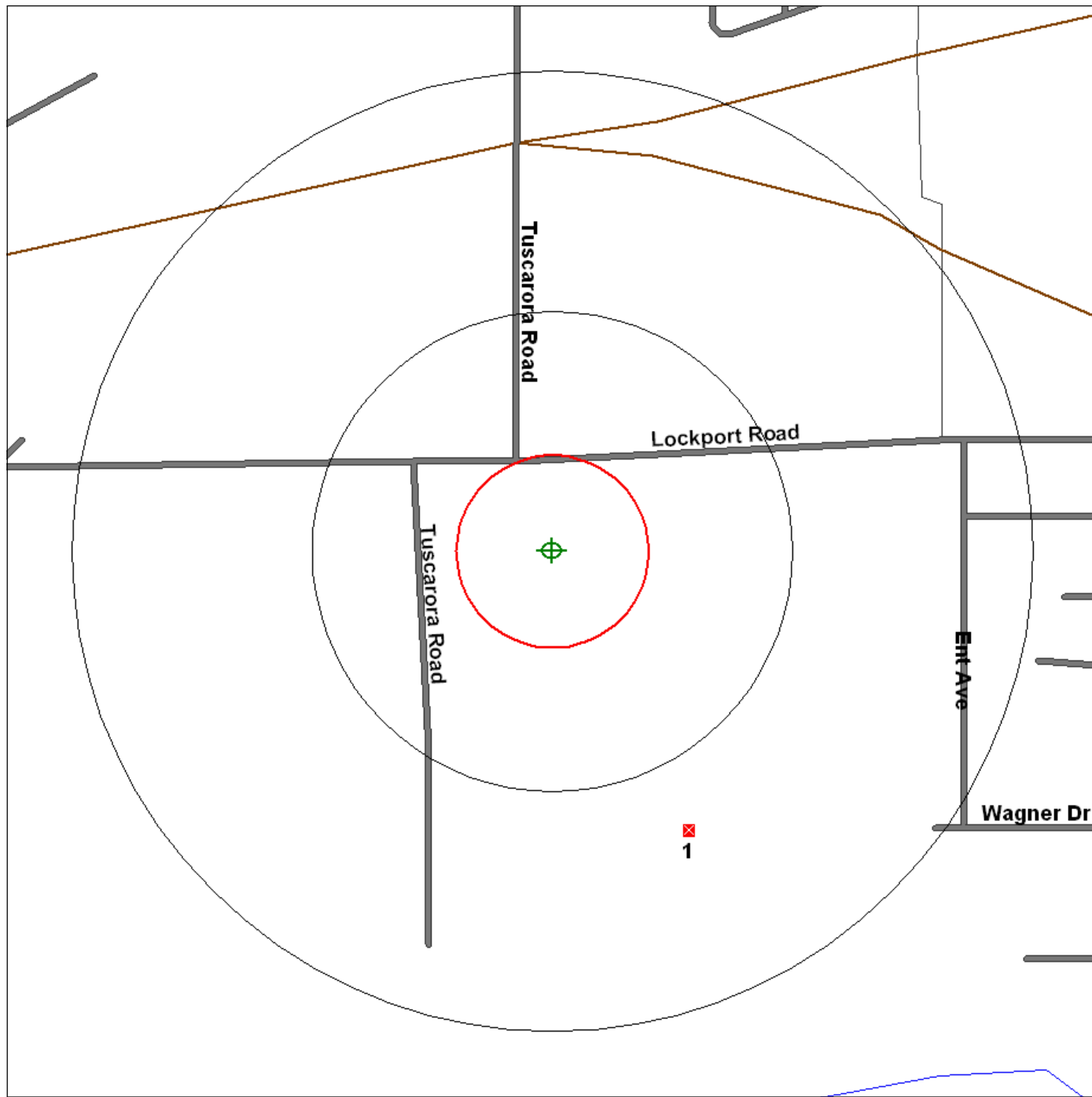




Environmental FirstSearch
 .5 Mile Radius
 ASTM Map: CERCLIS, RCRATSD, LUST, SWL



AREA 1 NIAGARA FALLS CBP STATION , NIAGARA FALLS NY 143

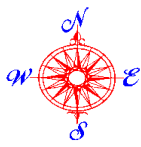


Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 43.119692 Longitude: -78.950169)
- Identified Site, Multiple Sites, Receptor
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
- Triballand.....
- Railroads



Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



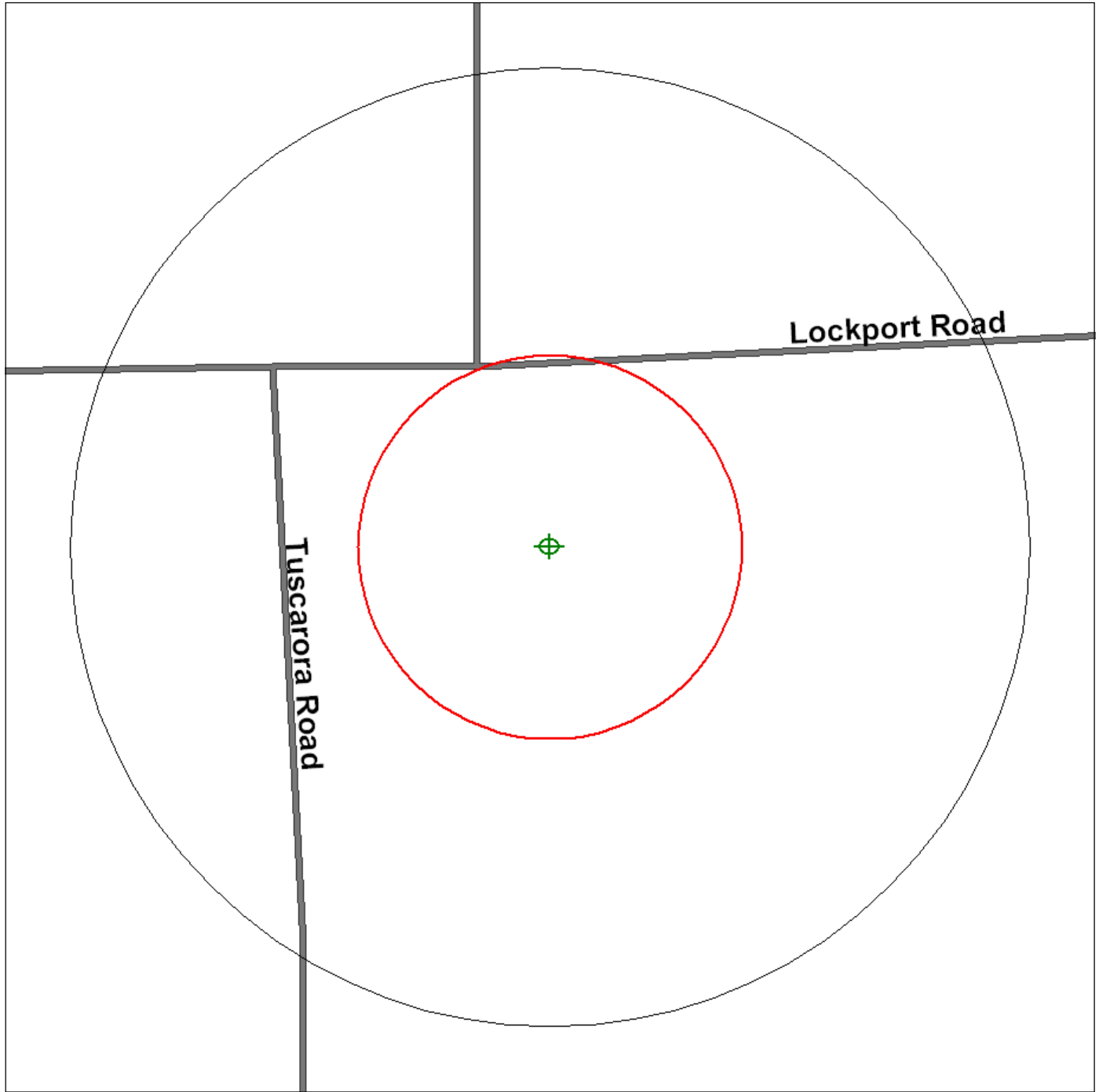
Environmental FirstSearch

.25 Mile Radius

ASTM Map: RCAGEN, ERNS, UST, FED IC/EC, METH LABS



AREA 1 NIAGARA FALLS CBP STATION , NIAGARA FALLS NY 143



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 43.119692 Longitude: -78.950169)
- Identified Site, Multiple Sites, Receptor
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
- Triballand.....
- Railroads



Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



Historical Aerial Photo
2009

**AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.119692 -78.950169; Job Number: 100-FFX-T28295



1 inch equals 750 feet



Historical Aerial Photo
1995

**AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.119692 -78.950169; Job Number: 100-FFX-T28295



1 inch equals 750 feet



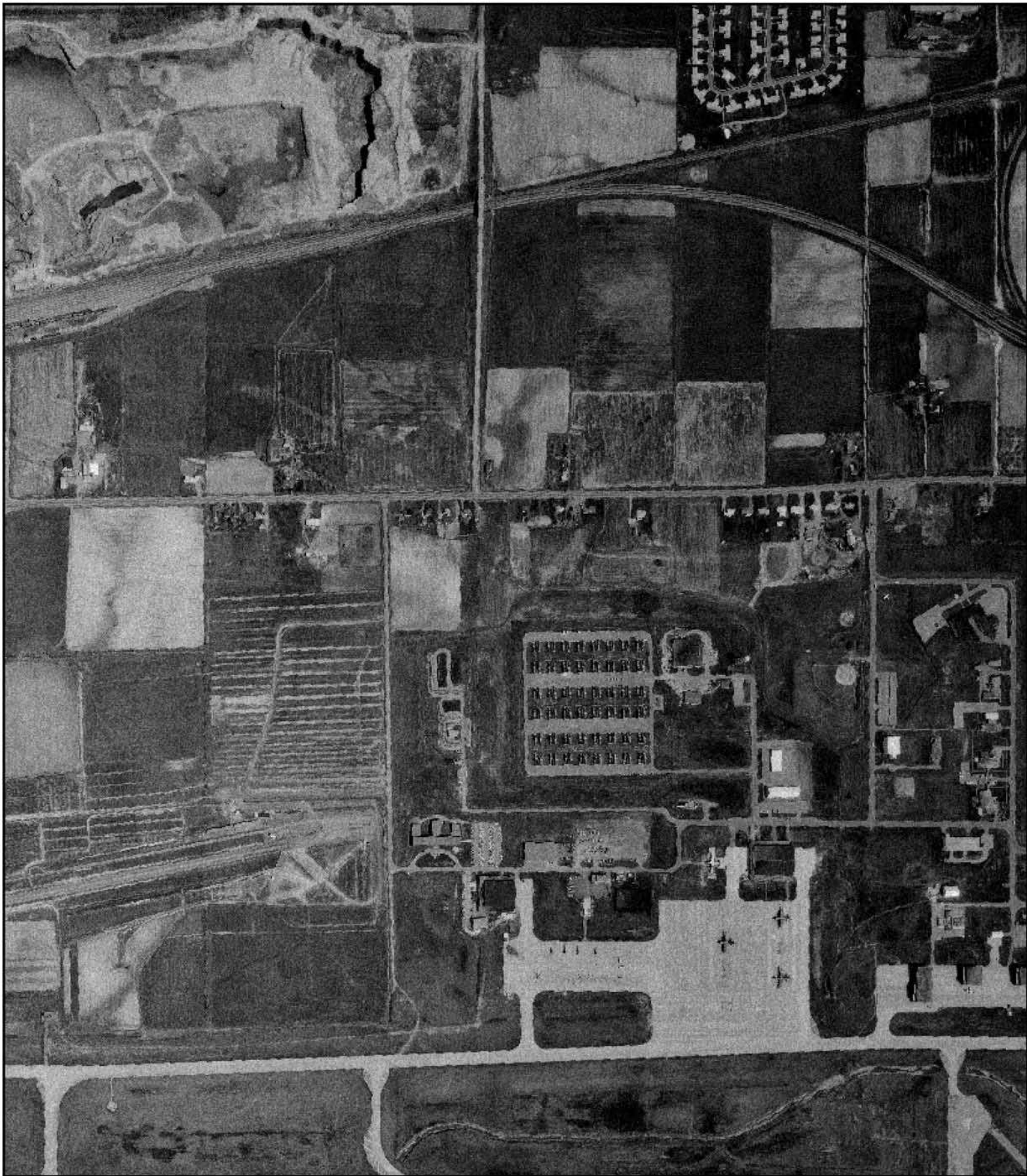
Historical Aerial Photo
1985

**AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.119692 -78.950169; Job Number: 100-FFX-T28295



1 inch equals 750 feet



Historical Aerial Photo
1972

AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304

Target Site: 43.119692 -78.950169; Job Number: 100-FFX-T28295



1 inch equals 750 feet



Historical Aerial Photo

1963

**AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.119692 -78.950169; Job Number: 100-FFX-T28295



1 inch equals 750 feet



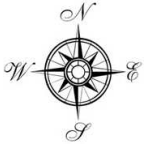
Historical Aerial Photo
1938

**AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.119692 -78.950169; Job Number: 100-FFX-T28295



1 inch equals 750 feet



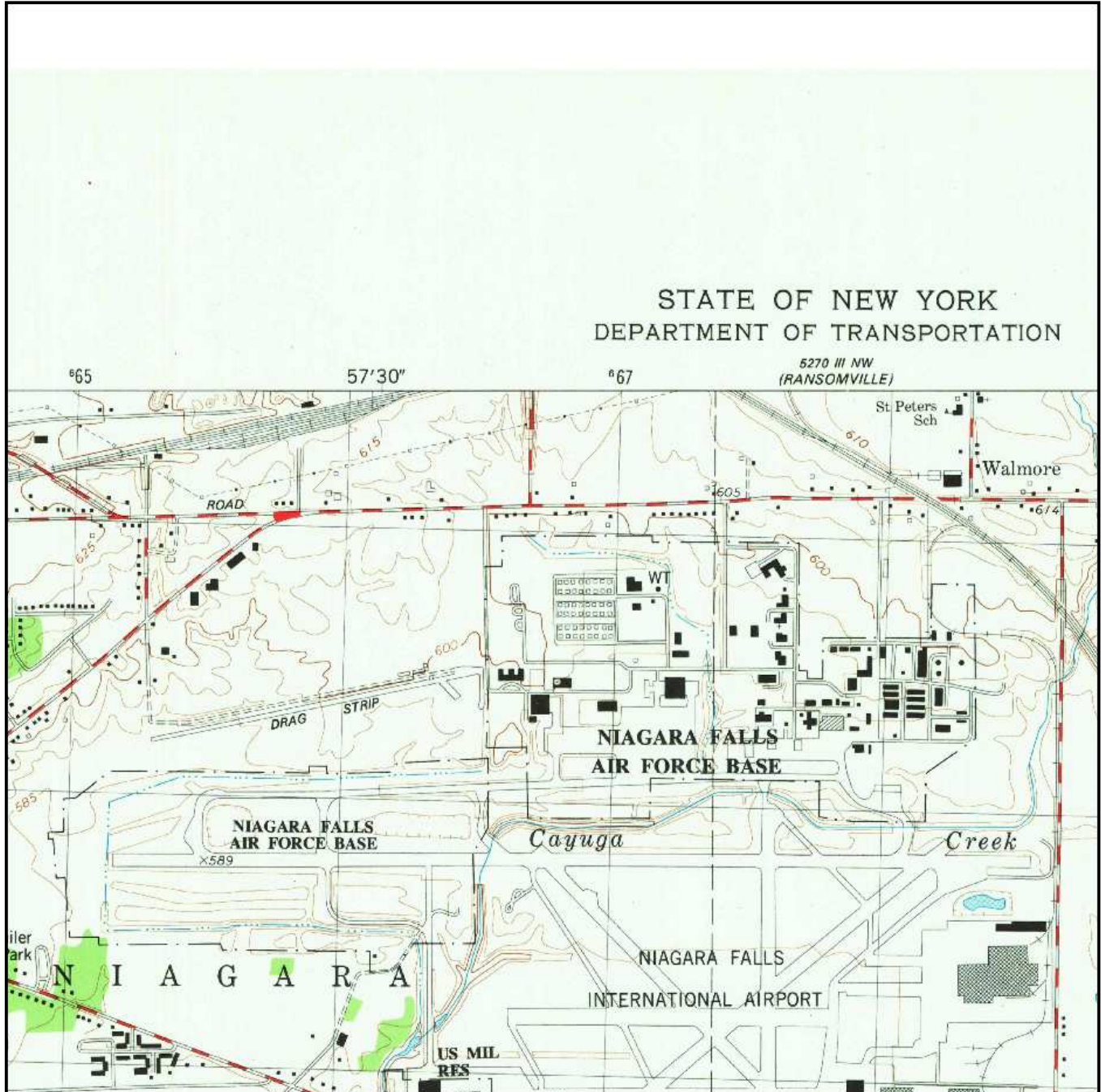
Environmental FirstSearch

Historical Topographic Map

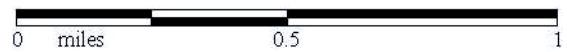


Quad Name: Tonawanda West, NY
Year: 1980 Original Map Scale: 1: 25000

AREA 1 NIAGARA FALLS CBP STATION, NIAGARA FALLS, NY



Job Number: 100-FFX-T28295
Target Site: -78.950169, 43.119692



Building		Railroad	
Topo Contour		Tanks	
Depression		Primary Highway	
Quarry or Open Pit Mine		Trail	



Environmental FirstSearch

Historical Topographic Map



Quad Name: Tonawanda West, NY
Year: 1965 Original Map Scale: 1: 24000

AREA 1 NIAGARA FALLS CBP STATION, NIAGARA FALLS, NY



Job Number: 100-FFX-T28295
Target Site: -78.950169, 43.119692

Building	--■	Railroad	—+—
Topo Contour	—6000—	Tanks	●●●
Depression	⊖	Primary Highway	—
Quarry or Open Pit Mine	×	Trail	- - -



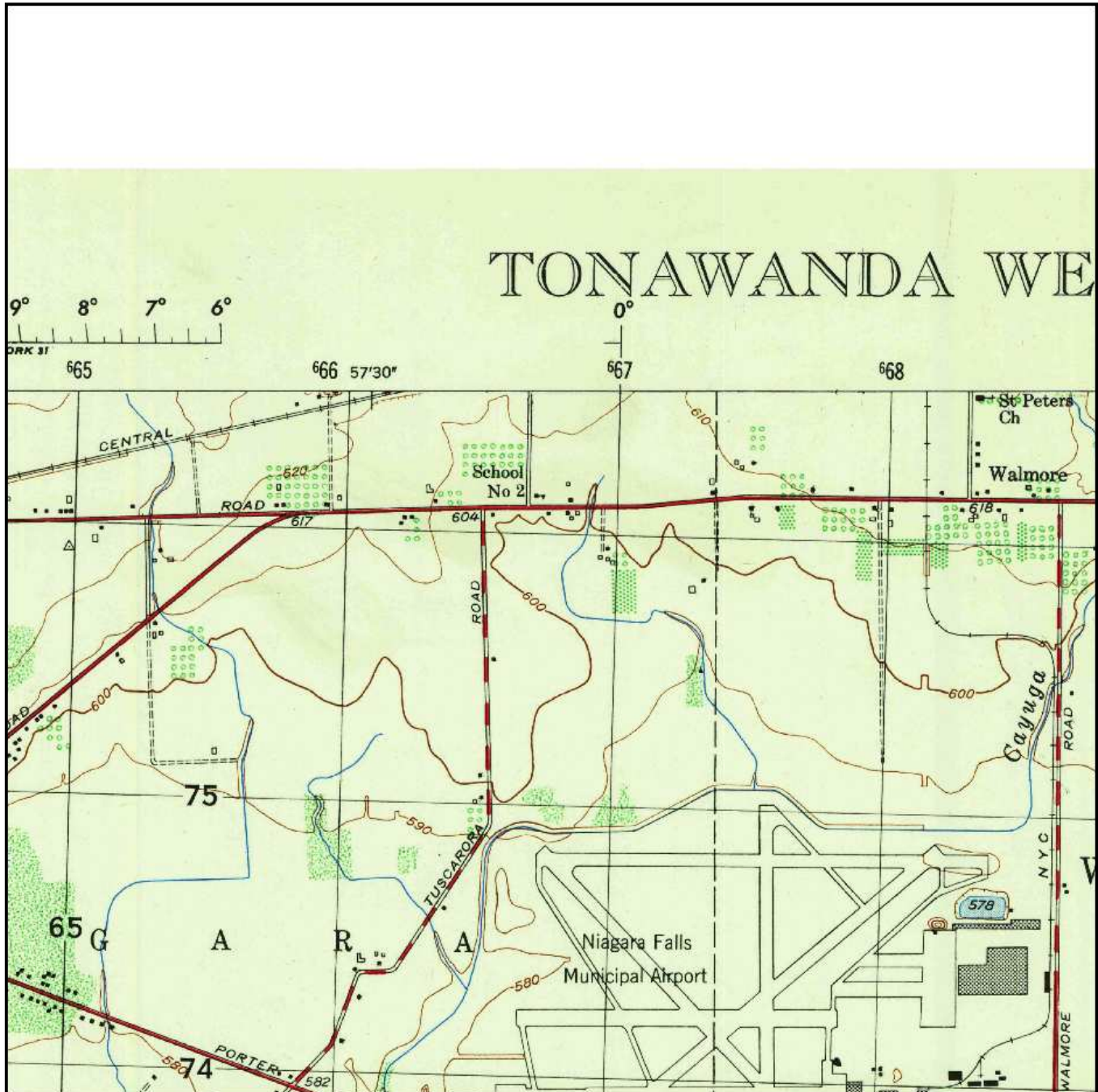
Environmental FirstSearch

Historical Topographic Map

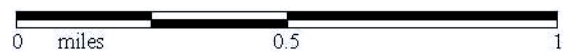


Quad Name: Tonawanda West, NY
Year: 1951 Original Map Scale: 1: 25000

AREA 1 NIAGARA FALLS CBP STATION, NIAGARA FALLS, NY



Job Number: 100-FFX-T28295
Target Site: -78.950169, 43.119692



Building		Railroad	
Topo Contour		Tanks	
Depression		Primary Highway	
Quarry or Open Pit Mine		Trail	



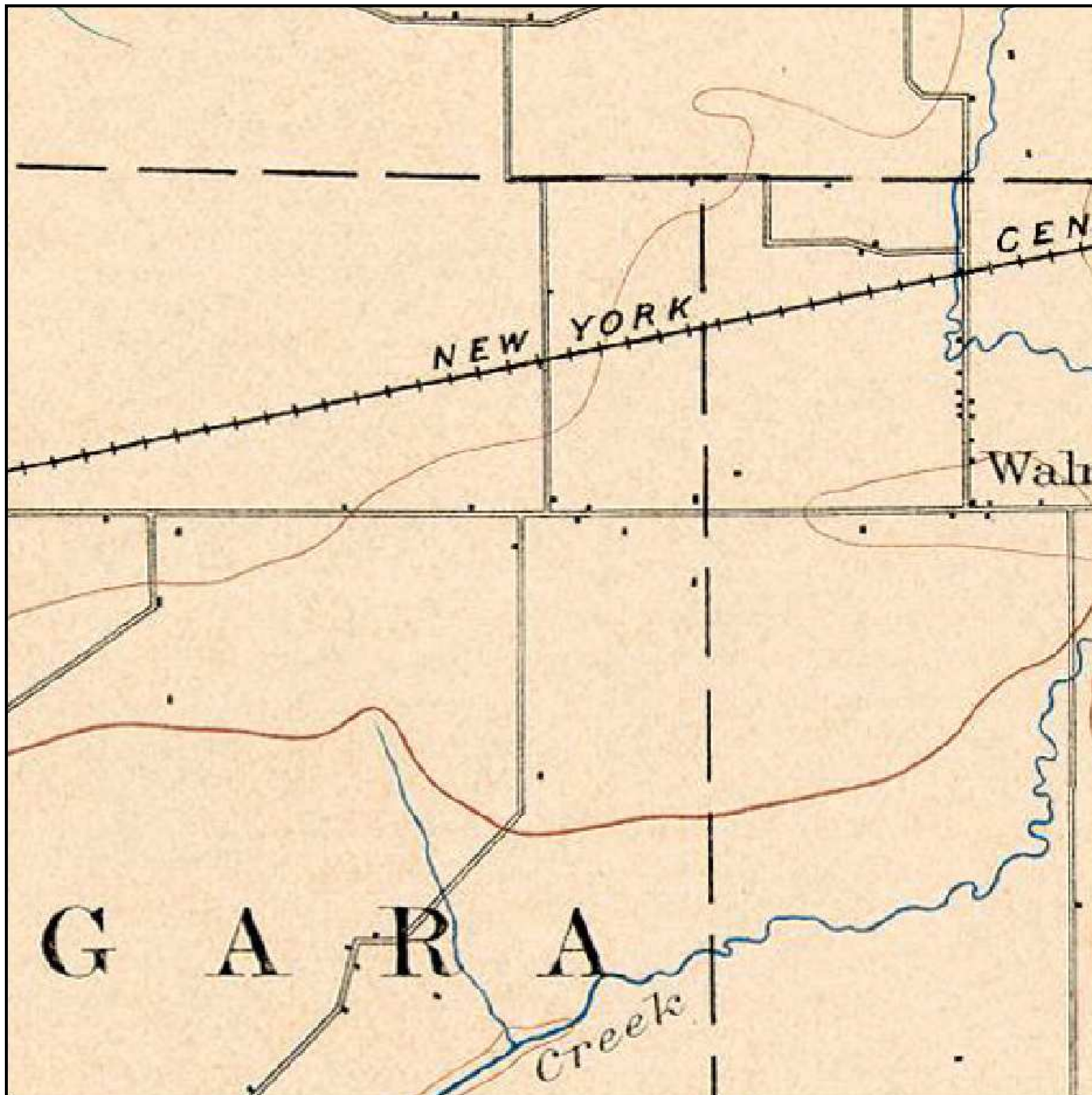
Environmental FirstSearch

Historical Topographic Map

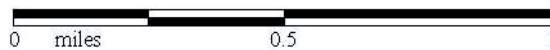


Quad Name: Tonawanda, NY
Year: 1900 Original Map Scale: 1: 62500

AREA 1 NIAGARA FALLS CBP STATION, NIAGARA FALLS, NY



Job Number: 100-FFX-T28295
Target Site: -78.950169, 43.119692



Building	---■---	Railroad	—+—+—+—
Topo Contour	—6000—	Tanks	●●●●
Depression	⊖	Primary Highway	—
Quarry or Open Pit Mine	×	Trail	- - - -



HISTORICAL FIRE INSURANCE MAPS
NO MAPS AVAILABLE

09-28-2011
100-FFX-T28295
AREA 1 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY, 14304

A search of the Library of Congress database of historical fire insurance map availability confirmed that there are NO MAPS AVAILABLE for the Subject Location as shown above.

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FirstSearch Technology Corporation

Environmental Chain of Title Report

TARGET PROPERTY:

Area 1 Niagara Falls CBP Station

Niagara Falls, NY 14304

Job Number: 100-FFX-T28295

FirstSearch #: 280779

Date 10/21/11



Tel: (781) 551-0470

Fax: (781) 551-0471

SOURCES & LIMITATIONS

FirstSearch Technology Corporation

This report has been produced from a limited search of the public land records and/or real property deed records of the county and state as defined in the legal description below for a 50-year period up through the indicated date as shown on this report. This limited search includes only the recorded deeds and most easements and surface leases affecting the ownership history of the subject property. This report is being provided for use only as a limited part of an overall Phase I Environmental Site Assessment as performed by a qualified Environmental Engineer/Consultant as specified in the ASTM Standard E 1527-05, AAI, and as specified in the Comprehensive Environmental Response, Compensation and Liabilities Act of 1980, as amended, and may not be relied upon for any other purpose.

This report is not to be considered an Abstract, a Title Commitment, Title Opinion, Title Guaranty, or a representation of the legal status of the property. The information presented is simply a report of instruments filed of record pertaining to the above property and was obtained from the county public records. No guaranty as to the integrity or correctness of said records is implied. In the process of compiling the information presented in this report, the public records were accessed primarily by the name(s) shown in the vesting instrument only and although reasonable care was taken to provide accuracy, this report and provider does not claim responsibility for instruments filed under any variation of name(s) and/or legal description.

Although great care has been taken by FirstSearch in compiling and verifying the information contained in this report to insure that it is accurate, FirstSearch disclaims any and all liability for any errors, omissions, or inaccuracies in such information and data.

FirstSearch Technology Corporation

Environmental Chain of Title Report

LEGAL DESCRIPTION: All that certain plot, piece and parcel of land, situate, lying and being in the city of Niagara, County of Niagara, and State of NY, described in the County of Niagara land records as parcel 146.07-1-2

SUBJECT PARCEL: All that certain plot, piece and parcel of land, situate, lying and being in the city of Niagara, County of Niagara, and State of NY, described in the County of Niagara land records as parcel 146.07-1-2

FirstSearch Technology Corporation

Environmental Chain of Title Report

TABLE SUMMARY

DATE	DOCUMENT TYPE	GRANTOR (Seller/Lessor)	GRANTEE (Buyer/Lessee)	PARCEL or LOT #	DOCUMENT NUMBER
4/14/1959	Deed	Christine Devantier	United States of America	146.07-1- 2	Document #: 1313/110
4/15/1959	Deed	Hubert Adolph Devantier and Hulda A. Devantier	United States of America	146.07-1- 2	Document #: 1313/131
4/15/1959	Deed	Byron H. Jackson and Beryl Raymond Jackson	United States of America	146.07-1- 2	Document #: 1313/134
No Environmental Liens were found during the course of this search					
No AUL's were found during the course of this search					

FirstSearch Technology Corporation

Environmental Chain of Title Report

TITLE RESEARCH NOTES:

ASTM Notes: ASTM E 1527-05, Section 8.3 on Historical Use Information requires a review of “*Reasonably Ascertainable standard historical sources.*”

“Reasonably Ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.”

This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful.

AAI Notes: The Environmental Protection Agency published a final rule setting federal standards for the conduct of all appropriate inquiries (AAI). The final rule establishes specific regulatory requirements for conducting all appropriate inquiries into *the previous ownership*, uses, and environmental conditions of a property for the purposes of qualifying for certain landowner liability protections under CERCLA.

After November 1, 2006, parties must comply with the requirements of All Appropriate Inquiries Final Rule, to satisfy the statutory requirements for conducting all appropriate inquiries. All appropriate inquiries must be conducted to obtain protection from potential liability under CERCLA as an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser.

Inquiries conducted by or for the prospective landowner or grantee:

- *environmental liens*
- *easements*
- *restrictions*
- *activity and use limitations*

FirstSearch Technology Corporation

Environmental Chain of Title Report

TITLE RESEARCH NOTES:

ASTM Notes: ASTM E 1527-05, Section 8.3 on Historical Use Information requires a review of “*Reasonably Ascertainable standard historical sources.*”

“Reasonably Ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.”

This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful.

AAI Notes: The Environmental Protection Agency published a final rule setting federal standards for the conduct of all appropriate inquiries (AAI). The final rule establishes specific regulatory requirements for conducting all appropriate inquiries into *the previous ownership*, uses, and environmental conditions of a property for the purposes of qualifying for certain landowner liability protections under CERCLA.

After November 1, 2006, parties must comply with the requirements of All Appropriate Inquiries Final Rule, to satisfy the statutory requirements for conducting all appropriate inquiries. All appropriate inquiries must be conducted to obtain protection from potential liability under CERCLA as an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser.

Inquiries conducted by or for the prospective landowner or grantee:

- *environmental liens*
- *easements*
- *restrictions*
- *activity and use limitations*

FirstSearch Technology Corporation

ENVIRONMENTAL CHAIN OF TITLE SEARCH GLOSSARY

There are certain terms used in Chain of Title searches, which may require clarification. This glossary is designed to provide definitions for some of the most common terms.

1. ENVIRONMENTAL LIEN:	The Environmental Lien is a record of a document/instrument filed by the City, County, State or Federal Government that prevents the conveyance of a property because of severe environmental problems existing on the premises.
2. BREAK IN CHAIN:	<p>There may appear to be a break in the chain of title as indicated when the sequential tracing of ownership fails. An example of a break would be: <i>Samson to James. . .James to Watson. . .Black to White</i>. The missing link is from Watson to Black. There are several possible reasons for this occurrence.</p> <ul style="list-style-type: none">• Due to the size or other physical characteristics of the property, there could be multiple owners at any time when tracing the history of the ownership of the property.• There could be an “easement title” over some portion of the property, allowing for use of that portion for a specific purpose.• There could be a “multi-percentage interest” in the property, with concurrent multiple owners making up 100% of the fee title. Then, a percentage owner deeds out his particular interest or a percentage of this interest to one or more parties. This causes a perceived break in the chain.
3. EASEMENT:	An easement is the right to enter and use another person’s property: a non-possessor right to use another person’s real property. Traditionally easements are granted to utility companies and other service organizations or as a right of access to another property.
4. MULTIPLE OWNERS:	<p>When “others” or “et al” appears on the report in the owner category, it indicates multiple ownership of a single parcel, with too many names to record in summary. It is frequently used to denote more than a single owner. If the owners are a married couple, both names may appear on the report or may be denoted by “et ux”.</p> <p>The term “owners’ is usually used to indicate owners of multiple parcels, all recorded under a document that covers the multiple parcels.</p>
5. MULTIPLE PARCELS:	Some properties are created by combining several adjoining parcels into one large parcel. When this occurs; there might be several different owners until the time of unification of the property. Sometimes the ownership appears to be cloudy until each owner conveys his/her interest to the single owner of the new larger parcel.
6. INSTITUTIONAL CONTROLS:	Institutional controls are a form of “deed restriction” placed on a property by a governing authority to reduce exposure to contaminants. A common deed restriction might be to prohibit residential or school use on a property.

Project: Special Facilities (Bomarc)
Air Force
Niagara Falls, New York
Tract 102

INDENTURE made this 14th day of April in the year One
Thousand Nine Hundred and Fifty-nine,

BETWEEN CHRISTINE DEVANTIER, party of the first part, residing
at ~~Route 73~~ ^{Mounted Route 73}, Lockport Road, Town of Niagara, County of Niagara,
State of New York, and the UNITED STATES OF AMERICA, Washington, D. C.,
party of the second part,

WITNESSETH that the party of the first part in consideration of
Eight Thousand One Hundred (\$8,100.00) Dollars lawful money of the
United States, the receipt and sufficiency of which is hereby
acknowledged, hereby grants and releases in fee simple absolute unto the
party of the second part and its assigns forever,

All that tract or parcel of land situate in the Town of Niagara,
County of Niagara, State of New York, being a part of Lot No. 3,
Township 13, Range 9 of the Holland Land Company's Survey, and more
particularly described as follows:

Beginning at a point on the center line of Tuscarora Road,
distant 695 feet southerly, along the same, from its intersection
with the center line of Lockport Road. Running thence easterly,
through lands of Christine De Vantier, on a line at right angles
to the center line of Tuscarora Road, 175 feet; thence northerly,
still through lands of the same, parallel to the center line of
Tuscarora Road, 395 feet, more or less, to a point 300 feet southerly,
measured at right angles from the center line of Lockport Road; thence
easterly, continuing through lands of Christine De Vantier, on a line
parallel to the center line of Lockport Road, 267 feet, more or less,
to lands of Hubert A. De Vantier; thence southerly, along said lands
of Hubert A. De Vantier, 1503 feet, more or less, to lands of Byron
Jackson; thence westerly, along said lands of Jackson, 441.90 feet
to the center line of Tuscarora Road; thence northerly, along the
center line of said road, 1106 feet, more or less, to the point or
place of beginning.

Containing 13.44 acres of land, more or less.

Together with all the right, title and interest of the party of
the first part in and to strips or gores of land, if any, lying between
the bounds of the within described parcel and adjoining premises in
Lot No. 3; Township 13, Range 9.

Being part of the same premises conveyed to the party of the
first part by deed dated 15 January 1935 and recorded in Liber 609

920570005

L 110 - 013

PAYMENT RECEIVED
NIAGARA COUNTY CLERK
DATE PAID

of Deeds at Page 367 of the Niagara County Clerk's Office.

Said premises are conveyed subject to existing easements for public roads and highways, for public utilities, railroads and pipe lines.

TOGETHER with all the appurtenances and all the estate and rights of the party of the first part in and to said premises. .

TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, and its assigns forever.

AND said party of the first part, does hereby covenant as follows:

FIRST: that said party of the first part is seized of the premises in fee simple, and has good right to convey the same;

SECOND: that said party of the second part shall quietly enjoy the said premises;

THIRD: that said premises are free from encumbrances, except as aforesaid;

FOURTH: that the party of the first part will execute or procure any further necessary assurance of the title to said premises;

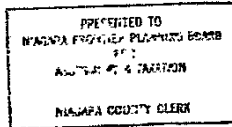
FIFTH: that the said party of the first part will forever warrant the title to the said premises;

SIXTH: that said party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of any and all improvements made or commenced upon the said premises, and will apply the same first to the payment of the cost of such improvements before using any part of the total of the same for any other purpose.

AND the party of the first part does remise, release and quitclaim to the party of the second part and its assigns all the right, title or interest which the party of the first part may have in alleys, ways, streets, strips, gores or railroad rights of way abutting or adjoining said land and in any means of ingress or egress appurtenant thereto.

IN WITNESS WHEREOF, the party of the first part has hereunto
affixed her hand and seal the day and year first above written.

Christine De Vantier
CHRISTINE DE VANTIER



STATE OF NEW YORK)
COUNTY OF NIAGARA) SS:

On this *14th* day of *April* 195*9* before me personally came
CHRISTINE DE VANTIER, to me known to be the person described in and
who executed the foregoing instrument and acknowledged that she
executed the same.

Ralph M. Harbeck



LOCKPORT, N. Y.
APR 14 2 10 PM 1959
RECORDED
NIAGARA COUNTY
& CLERK'S OFFICE

STATE OF NEW YORK
COUNTY OF NIAGARA
Recorded on the 14th day of
April A.D. 1959 at
2:10 o'clock P.M. in Liber
1313 of Deeds
at Page 110 and exhibited
George A. Hamney
Deputy Clerk

Project: Special Facilities (Bomarc)
Air Force
Niagara Falls, New York
Tract 101

INDENTURE made this 15th day of April in the year One
Thousand Nine Hundred and Fifty-nine,

BETWEEN HUBERT ADOLPH DEVANTIER AND HULDA A. DEVANTIER, his wife
parties of the first part, residing at ~~R. F. B. No. 1~~ ^{Mounted Route 73} Lockport Road, Town
of Niagara, County of Niagara, State of New York, and the UNITED STATES OF
AMERICA, Washington, D. C., party of the second part.

WITNESSETH that the parties of the first part in consideration of
Nine Thousand (\$9,000.00) Dollars lawful money of the United States,
the receipt and sufficiency of which is hereby acknowledged, hereby
grant and release in fee simple absolute unto the party of the second
part and its assigns forever,

All that tract or parcel of land situate in the Town of Niagara,
County of Niagara, State of New York, being a part of Lot No. 3, Township
13, Range 9 of the Holland Land Company's Survey, and more particularly
described as follows:

Beginning at a point on the northerly boundary of lands of the State
of New York (under lease to the United States of America) at the southwesterly
corner of lands of William De Vantier, running thence westerly, along said
lands of the State of New York, 386.22 feet to lands of Byron H. Jackson;
thence northerly, along said lands of Byron H. Jackson and lands of Christine
De Vantier, 1605 feet, more or less, to a point 300 feet southerly, measured
at right angles from the center line of Lockport Road; thence easterly, through
lands of Hubert A. De Vantier, on a line parallel to the center line of
Lockport Road and 300 feet southerly, measured at right angles therefrom, 423
feet, more or less to lands of William De Vantier; thence southerly, along said
lands of William De Vantier, 1605 feet; more or less, to the point or place of
beginning.

Containing 14.87 acres of land, more or less.

together with all the right, title and interest of the parties of
the first part in and to strips or gores of land, if any, lying between

of the within described parcel and adjoining premises in
Lot No. 3, Township 13, Range 9.

Being part of the same premises conveyed to the parties of the first
party by deed dated 26 March 1921 and recorded in Liber 492
of Deeds at Page 520 of the Niagara County Clerk's Office.

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GENERAL

Said premises are conveyed subject to existing easements for public roads and highways, for public utilities, railroads and pipe lines.

TOGETHER with all the appurtenances and all the estate and rights of the parties of the first part in and to said premises.

TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, and its assigns forever.

AND said parties of the first part, do hereby covenant as follows:

FIRST: that said parties of the first part are seized of the premises in fee simple, and have good right to convey the same;

SECOND: that said party of the second part shall quietly enjoy the said premises;

THIRD: that said premises are free from encumbrances, except as aforesaid;

FOURTH: that the parties of the first part will execute or procure any further necessary assurance of the title to said premises;

FIFTH: that the said parties of the first part will forever warrant the title to the said premises;

SIXTH: that said parties of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of any and all improvements made or commenced upon the said premises, and will apply the same first to the payment of the cost of such improvements before using any part of the total of the same for any other purpose.

AND the parties of the first part do remise, release and quitclaim to the party of the second part and its assigns all the right, title or interest which the parties of the first part may have in alleys, ways, streets, strips, gores or railroad rights of way abutting or adjoining said land and in any means of ingress or egress appurtenant thereto.

IN WITNESS WHEREOF, the parties of the first part have hereunto affixed their hands and seals the day and year first above written.

Hubert Adolph Devantier
HUBERT ADOLPH DEVANTIER

Hulda A. Devantier
HULDA A. DEVANTIER

STATE OF NEW YORK)
COUNTY OF NIAGARA) SS:

On this 15 day of April 1959 before me personally came HUBERT ADOLPH DEVANTIER and HULDA A. DEVANTIER to me known to be the persons described in and who executed the foregoing instrument and they acknowledged that they executed the same.

Anthony C. Ben
NOTARY PUBLIC, STATE OF NEW YORK

ANTHONY C. BEN
Notary Public, State of New York
Residing in Niagara Co.
My Commission Expires March 22, 1961

PRESENTED TO
NIAGARA FRONTIER PLANNING BOARD
FBI
ASSESSOR OF TAXATION
NIAGARA COUNTY CLERK



STATE OF NEW YORK
COUNTY OF NIAGARA
Recorded on the 15th day of
April A.D. 1959 at
10:33 o'clock A. M. in Liber
1313 of Deeds
at Page 131 and examined
Samuel J. Harris
Deputy Clerk

LOCKPORT, N. Y.

APR 15 10 33 AM 1959

RECORDED
NIAGARA COUNTY
CLERK'S OFFICE

Project: Special Air Force Facilities
Bomarc - Niagara Falls,
New York
Tract A-106

THIS INDENTURE, made this 15th day of April, 1958,
between BYRON H. JACKSON AND BERYL RAYMOND JACKSON, his wife, residing
at Tuscarora and Lockport Roads, Town of Niagara, County of Niagara,
State of New York, for themselves, their heirs, executors, administrators
and assigns (hereinafter referred to as the GRANTORS), and THE UNITED
STATES OF AMERICA (hereinafter referred to as THE GOVERNMENT),

WITNESSETH:

THAT THE GRANTORS, for and in consideration of the sum of Thirteen
Thousand Nine Hundred (\$13,900.00) Dollars, lawful money of THE UNITED
STATES, the receipt and sufficiency of which is hereby acknowledged,
hereby grant and release in fee simple absolute unto THE GOVERNMENT and
its assigns forever;

All that tract or parcel of land situate in the Town of Niagara,
County of Niagara, State of New York, being a part of Lot No. 3,
Township 13, Range 9 of the Holland Land Company's Survey, and more
particularly described as follows:

Beginning at a point on the center line of Tuscarora Road at the
southwesterly corner of lands of Christine De Vantier. Running thence
easterly, along said lands of Christine De Vantier, 441.90 feet, more
or less, to lands of Hubert De Vantier; thence southerly, along said
lands of Hubert De Vantier, 102.48 feet to lands of the State of New
York (under lease to the United States of America); thence westerly,
along said lands of the State of New York, 441.90 feet to the center
line of Tuscarora Road; thence northerly, along the center line of
said road, 102.48 feet to the point or place of beginning.

Containing 1.00 acres of land, more or less.

Being part of the same premises conveyed to THE GRANTORS by deed
dated 22 AUGUST 1939 and recorded in Liber 662 of Deeds, Page 9
in the Niagara County Clerk's Office.

Said premises are conveyed subject to existing easements for public
roads and highways, for public utilities, railroads and pipe lines.

TOGETHER with all the appurtenances and all the estate and rights
of the parties of the first part, in and to said premises.

TOGETHER with all the right, title and interest of the parties of
the first part in and to strips or gores of land, if any, lying between
the bounds of the within described parcel and adjoining premises in

RECEIVED
CLERK
NIAGARA COUNTY
NEW YORK
MAY 1 1958

Lot No. 3, Township 13, Range. 9.

TO HAVE AND TO HOLD the above described premises unto THE GOVERNMENT and its assigns in perpetuity.

AND said parties of the first part do hereby covenant as follows:

FIRST: That said parties of the first part are hereby seized of the premises in fee simple, and have good right to convey the same;

SECOND: That said party of the second part shall quietly enjoy the said premises;

THIRD: That said premises are free from encumbrances, except as aforesaid;

FOURTH: That the parties of the first part will execute or procure any further necessary assurance of the title to said premises;

FIFTH: That said parties of the first part will forever warrant the title to the said premises;

SIXTH: That said parties of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of any and all improvements made or commenced upon the said premises, and will apply the same first to the payment of the cost of such improvements before using any part of the total of the same for any other purpose.

AND the parties of the first part do hereby remise, release and quitclaim to the GOVERNMENT and its assigns, all the right, title or interest which the parties of the first part may have in any alleys, ways, strips, gores or railroad rights-of-way abutting or adjoining said land and in any means of ingress or egress appurtenant thereto.

IN WITNESS WHEREOF, the parties of the first part have hereunto affixed their hands and seals, the day and year first above written.

Byron H. Jackson
BYRON H. JACKSON
Beryl Raymond Jackson
BERYL RAYMOND JACKSON

RECORDED
NIAGARA COUNTY
CLERKS OFFICE
APR 15 11 39 AM 1958
LOCKPORT, N. Y.

STATE OF NEW YORK)
COUNTY OF NIAGARA) SS:

On this 15th day of April, 1958, before me personally came BYRON H. JACKSON AND BERYL RAYMOND JACKSON, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same.

Ralph M. Harlock

CLERK OF THE COUNTY OF NIAGARA
APR 15 1958



PRESENTED TO
NIAGARA FREEWHEE PLANNING BOARD
FOR
ASSESSMENT & TAXATION
NIAGARA COUNTY CLERK

STATE OF NEW YORK
COUNTY OF NIAGARA

Recorded on the 15th day of
April A.D. 1958 at
11:39 o'clock A.M. in Liber
1313 of Deeds

at Page 136 and examined.
George J. Harvey
Deputy Clerk

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14.5 - REGULATORY RECORDS DOCUMENTATION

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U.S. AIR FORCE
INSTALLATION RESTORATION PROGRAM

NIAGARA FALLS IAP, NY

DECISION DOCUMENT

FIRE PROTECTION TRAINING AREA 2 (FT06)

OCTOBER 1990

HEADQUARTERS, U.S. AIR FORCE RESERVE
ROBINS AIR FORCE BASE, GEORGIA 31098-6001

Approved/Disapproved

Alan B. Clune
Alan B. Clune, Lt. Col. USAFR
EPC Committee Chairman
20 Dec 1991

INTRODUCTION

The objective of this Decision Document is to describe the setting, present the technical findings of previous Installation Restoration Program (IRP) studies, evaluate potential remedial alternatives, and ultimately document the Air Force Reserve (AFRES) position on the final status of Fire Protection Training Area #2 (FPTA 2) (Site FT06), at Niagara Falls International Airport (IAP), New York.

SITE IDENTIFICATION

Niagara Falls IAP is located in Niagara County, New York, approximately six miles northeast of the city of Niagara Falls and approximately fifteen miles north of Buffalo (Fig 1). The site described in this decision document consists of a formerly utilized fire training area located along the western boundary of the installation south of building 901. This site was reportedly located by the foundation ruins of an old farmhouse. The foundation of the farmhouse no longer exists and regrading of the area has complicated attempts to exactly locate the site.

BACKGROUND

Site Description

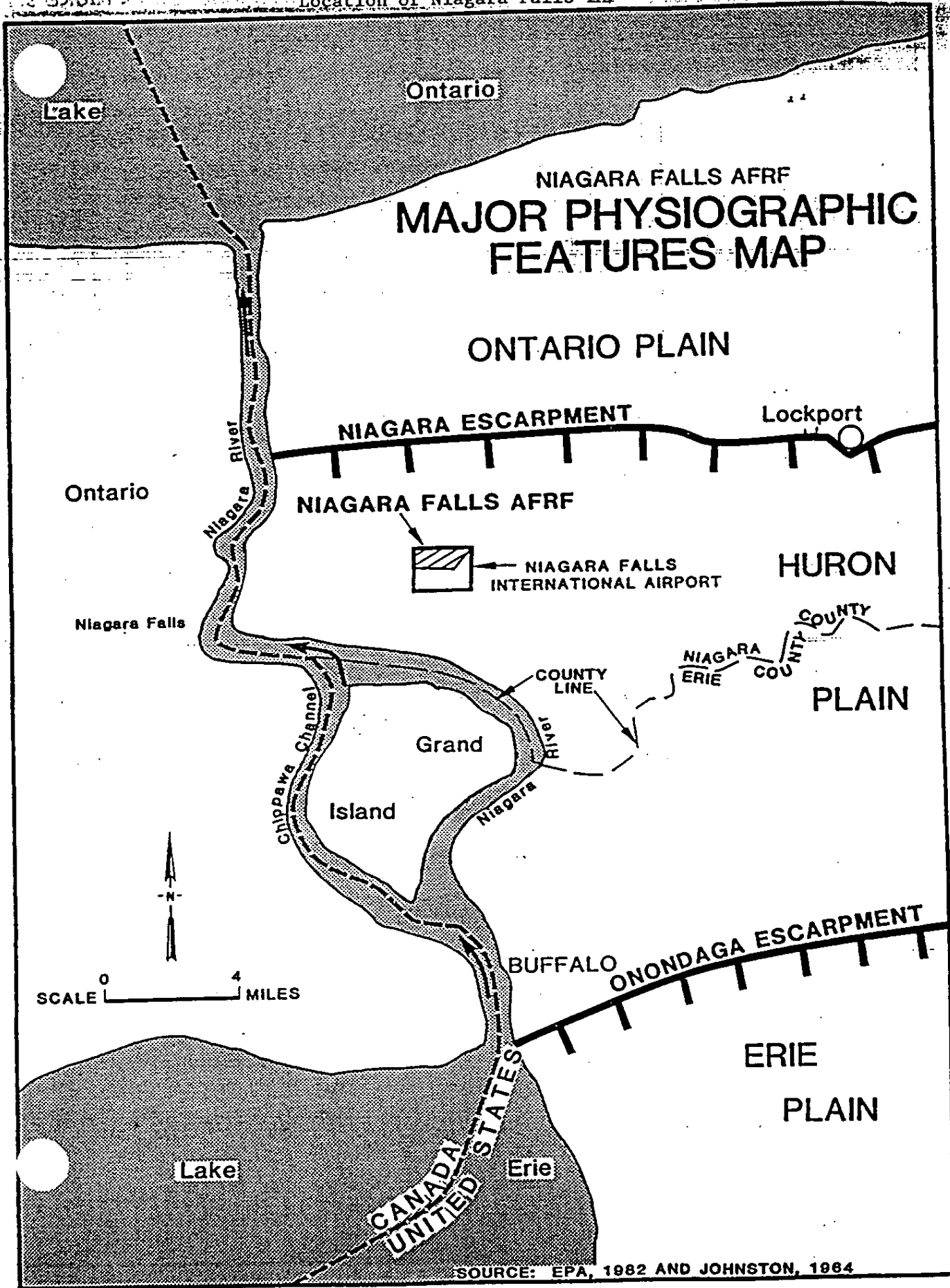
The Fire Protection Training Area #2 site consists of an open grassy area west of Building 903 (Fig. 2). The site was reportedly used 10 times during the late 1950's for fire training exercises conducted by base personnel. During a site inspection in 1983, no visual evidence of the site was observed.

Previous Investigations

An IRP Records Search for Niagara Falls IAP was completed by Engineering-Science in December 1983. The purpose of the records search was to identify the potential for environmental contamination from past waste management practices and to assess the probability for contamination migration. A total of 13 sites were initially identified as having a potential contamination problem.

In 1986, Science Applications International Corporation (SAIC) completed a Phase 2 Stage 1 Confirmation/Quantification study at Niagara Falls IAP. The purpose of this study was to confirm or deny the presence and/or migration of contaminants at 12 sites at the installation. Investigations at FPTA 2 consisted of the drilling and sampling of two soil borings.

In 1990, SAIC conducted field work in support of an IRP Remedial Investigation/Feasibility Study (RI/FS) at Niagara Falls IAP to confirm previous results, determine the lateral and vertical limits of contamination, and assess the risk posed by past waste disposal sites. This report incorporates the sampling results presented in the Draft RI/FS Report for this investigation. At FPTA 2 the investigation consisted of the drilling and sampling of two soil borings.



SOURCE: EPA, 1982 AND JOHNSTON, 1984

Figure 1

Environmental Setting

Niagara Falls IAP is located in the northwestern corner of the Huron Plain physiographic province. The topography of the area is relatively flat, ranging from 585 to 600 feet above mean sea level.

Niagara Falls receives a mean annual precipitation of 35.6 inches with a net annual precipitation of 8.6 inches. Average temperatures at the base range from the mid 20s to the low 80s °F throughout the year.

Bedrock in the area is composed of dolomites, limestones, shales, and sandstones. The predominant upper bedrock unit, the Lockport Dolomite, is surficially exposed on the base and is visible in the streambeds of Cayuga Creek. Beneath the Lockport is the 60-foot-thick, calcareous Rochester Shale and the 1200-foot-thick, sandy Queenstown Shale. The Lockport is covered by glacial deposits up to a depth of 30 feet in some areas. These unconsolidated deposits consist of a lower, well compacted, silty glacial till overlain by silty, sandy lacustrine deposits.

Groundwater beneath Niagara Falls IAP occurs within the unconsolidated glacial deposits as well as within the underlying bedrock. Niagara Falls IAP is located in the groundwater recharge zone for both the unconsolidated sediments and the Lockport Dolomite. Groundwater in the unconsolidated sediments discharges into local creeks while groundwater in the Lockport flows generally southwestward. The unconsolidated sediment aquifer and the Lockport aquifer may be in hydraulic connection when the underlying clay material in the glacial till is missing.

Niagara Falls IAP lies within the drainage basin of the Niagara River which is the source of drinking water for the city of Niagara Falls. Surface water runoff from the base is collected through a series of manmade storm sewers and ditches which empty into Cayuga Creek. Cayuga Creek runs east and south of the base and across the adjoining international airport. An unnamed tributary of Cayuga Creek originates in the northeast corner of the facility and flows southward, collecting water from storm drains until it intersects with Cayuga Creek.

RESULTS AND SIGNIFICANCE OF PREVIOUS INVESTIGATIONS

Results and Significance of Soil Borings

In October 1984, as part of the Phase 2 Stage 1 investigation, SAIC emplaced two shallow soil borings in the suspected area of FPTA 2. The borings were augered to the top of the bedrock and continuously sampled with a split spoon sampler. Samples were analyzed for oil and grease, total organic carbon (TOC), total organic halogens (TOX), and phenols. Results of the analysis are presented in the following table.

<u>Sample</u>	<u>Boring</u>	<u>oil/grease(ug/L)</u>	<u>TOC(ug/L)</u>	<u>TOX(ug/L)</u>	<u>phenols(ug/L)</u>
11SB-1	11-1	4.33	1.3	2.4	<0.16
11SB-2	11-1	<3.00	3.7	3.3	<0.16
11SB-3	11-2	120	2.8	4.0	<0.16
11SB-4	11-2	102	3.2	2.4	<0.16

In July 1989, in support of the RI/FS investigation at Niagara Falls IAP, SAIC emplaced two additional soil borings in the area of FPTA #2 (Fig. 3). Borings were augered to a depth of ten feet and continuously sampled with a split spoon. Samples were analyzed for volatile organics, semivolatile organics, total petroleum hydrocarbons (TPH), and total metals. Results of the analyses revealed TPH in the 0 to 1.5 foot interval of boring B11-1 at a concentration of 130 mg/kg as well as low levels acetone (0.015 to 0.140 mg/kg) in both borings.

CONTAMINATION ASSESSMENT

Only low levels of organic contamination has been detected within the soils associated with FPTA #2. No stained soils or stressed vegetation were observed at the site. Results of the baseline Risk Assessment conducted for the site by SAIC (1990), indicate that no adverse noncarcinogenic nor carcinogenic health risks are posed by existing site conditions. No exceedances of current State or Federal Applicable or Relevant and Appropriate Requirements (ARARs) have been detected at the site. Based on these results, AFRES concludes that past operations at Fire Protection Training Area #2 have not adversely affected the environment of the site.

CONTROL MEASURES

Identification of control measures

The following alternative control measures were identified for FPTA #2:

1. Treatment of contaminated soils.
2. Removal of contaminated soils.
3. No Further Action.

Screening of Control Measures

The control measures were screened to select a technically feasible and cost-effective plan to control the release of hazardous substances to the environment. The following criteria were used to screen each control measure:

1. Currently known characteristics of the site.
2. Technical feasibility and effectiveness of the remedial action at the site.

Evaluation of the Alternative Control Measures

Alternative 1: Treatment of contaminated soils.

This alternative was not chosen due to: (1) the low levels of contamination detected at the site; (2) the limited extent of detected contamination; and (3) the low risk to human health and the environment posed by the contaminants detected. Therefore, the high cost of implementing soil remediation technology at this site is not justified.

Alternative 2: Removal of contaminated soils.

This alternative was not chosen due to: (1) the low levels of contamination detected at the site; (2) the limited extent of detected contamination; and (3) the low risk to human health and the environment posed by the contaminants detected.

Alternative 3: No Further Action

This alternative was chosen due to: (1) the low levels of contamination detected at the site; (2) the limited extent of detected contamination; and (3) the low risk to human health and the environment posed by the contaminants detected.

RECOMMENDATIONS

No significant contamination associated with past operations of Fire Protection Training Area #2 has been detected within the soils of the site. This site poses no threat to the public health or environment of the Niagara Falls IAP area. Based on the findings of the most recent soil analysis, we feel further investigation or remedial action at the area is not warranted. AFRES recommends that no further action be taken at Fire Protection Training Area #2 (Site FT06), Niagara Falls IAP, NY.

REFERENCES

Engineering-Science, 1983. INSTALLATION RESTORATION PROGRAM PHASE 1 RECORDS SEARCH NIAGARA FALLS AIR FORCE RESERVE FACILITY, NEW YORK. Prepared for United States Air Force, Headquarters Air Force Reserve, Robins Air Force Base, Georgia.

Science Applications International Corporation (SAIC), 1986. INSTALLATION RESTORATION PROGRAM PHASE II - CONFIRMATION/QUANTIFICATION STAGE 1. Prepared for Headquarters Air Force Reserve command Surgeon's Office, Bioenvironmental Engineering Division, Robins Air Force Base, GA 31098.

Science Applications International Corporation (SAIC), 1990. INSTALLATION RESTORATION PROGRAM RI/FS, NIAGARA FALLS INTERNATIONAL AIRPORT, DRAFT TECHNICAL REPORT. Prepared for Department of the Air Force, Headquarters Air Force Reserve, Robins Air Force Base, Georgia 31098-6001.

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14.6 - INTERVIEW DOCUMENTATION

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ENVIRONMENTAL SITE ASSESSMENT TRANSACTION SCREEN QUESTIONNAIRE

Averall - Niagara Fall ARS

This document is an excerpt of Practice E1528-06: Standard Practice for Environmental Site Assessments: Transaction Screen Process, which is under the jurisdiction of ASTM Committee E50 on Environmental Assessment as is the direct responsibility of Subcommittee E50.02 on Commercial Real Estate Transactions. This questionnaire represents only Sections 5 and 6 of Practice E 1528-06 and should not be construed as being the complete standard. It is necessary to refer to the full standard prior to using this questionnaire. COPYRIGHT© 2006 ASTM INTERNATIONAL, West Conshohocken, PA. Prior edition copyrighted 2000. Stock # ADJE152806. For the complete standard, or to order additional copies of this questionnaire, contact ASTM Customer service at (610) 832-9585.

5. Introduction to Transaction Screen Questionnaire

5.1 Process--The *transaction screen process* consists of asking questions contained within the *transaction screen questionnaire* of owners and occupants of the property, observing site conditions at the property with direction provided by the *transaction screen questionnaire*, and, to the extent reasonably ascertainable, conducting limited research regarding certain government records and certain standard historical sources. The questions asked of owners are the same questions as those asked of occupants.

5.2 Guide--The *transaction screen questionnaire* is followed by a guide designed to assist the person completing the *transaction screen questionnaire*. The guide to the *transaction screen questionnaire* is set out in Sections 7-10 of this practice. The guide is divided into three sections: Guide for Owner/Occupant Inquiry, Guide to Site Visit, and Guide to Government Records/Historical Sources Inquiry.

5.2.1 To assist the *user*, its employee or agent, or the preparer in preparing a report, the guide repeats each of the questions set out in the *transaction screen questionnaire* in both the guide for owner/occupant inquiry and the guide to site visit. The questions regarding government records/historical sources inquiry are also repeated in the guide to that section.

5.2.2 The guide also describes the procedures to be followed to determine if reliance upon the information in a prior *transaction screen* is appropriate under this practice.

5.2.3 A *user*, his employee or agent, or preparer conducting the *transaction screen process* should not use the *transaction screen questionnaire* without reference to or without familiarity with the guide based on prior use of the guide.

5.3 The *user* may either conduct the *transaction screen process*, or delegate it to an employee or agent or may contract with a third party to prepare the questionnaire on behalf of the *user*. No matter who prepares the questionnaire, the *user* remains responsible for the decision to conduct limited environmental *due diligence* and the impact of that decision on risk management.

5.4 The preparer conducting the *transaction screen process* should use good faith efforts in determining answers to the questions set forth in the *transaction screen questionnaire*. The *user* should take time and care to check whatever records are in the *user's* possession and forward relevant information or specialized knowledge to the preparer.

5.5 Knowledge--All answers should be given to the best of the owner's or occupant's knowledge. The most knowledgeable person available should be chosen to answer the questions.

5.5.1 While the person conducting the *transaction screen* has an obligation to ask the questions in the *transaction screen questionnaire*, others may have no obligation to answer them.

5.5.2 The *transaction screen questionnaire* and the *transaction screen guide* sometimes include the phrase "to the best of your knowledge." This phrase does not impose a constructive knowledge standard. It is intended as an assurance to the person being questioned that he or she is not obligated to search out information he or she does not currently have in order to answer the particular question.

5.6 Conclusions Regarding Affirmative or Unknown Answers--Once a *transaction screen questionnaire* has been completed, it shall be presented to the user. Subject to 5.6 through 5.7, an affirmative, unknown, or no response is presumed to be a *potential environmental concern*. If any of the questions set forth in the *transaction screen questionnaire* are answered in the affirmative, the preparer must document the reason for the affirmative answer. If any of the questions are not answered or the answer is unknown, the *user* should document such nonresponse or answer of unknown and evaluate it in light of the other information obtained in the *transaction screen process*, including, in particular, the site visit and the government records/historical sources inquiry. If the *user* decides no further inquiry is warranted after receiving no response, an answer of unknown, or an affirmative answer, the *user* must document the reasons for any such conclusion.

5.6.1 Upon obtaining an affirmative answer, an answer of unknown or no response, the *user* should first refer to the guide. The guide may provide sufficient explanation to allow a *user* to conclude that no further inquiry is appropriate with respect to the particular question.

5.6.2 If the guide to a particular question does not, in itself, permit a user to conclude that no further inquiry is appropriate, then the user should consider other information obtained from the *transaction screen process* relating to this question. For example, while on the site performing a *site visit*, a person may find a storage tank on the property and therefore answer Question 10 of the *transaction screen questionnaire* in the affirmative. However, during or subsequent to the owner/occupant inquiry, the owner may establish that substances now or historically contained in the tank (for example, water) are not likely to cause contamination.

5.6.3 If either the guide to the question or other information obtained during the *transaction screen process* does not permit a *user* to conclude no further inquiry is appropriate with respect to such question, then the user must determine, in the exercise of the *user's* reasonable business judgment, based upon the totality of unresolved affirmative answers or answers of unknown received during the *transaction screen process*, whether further inquiry may be limited to those specific issues identified as of concern.

5.7 Presumption--A presumption exists that further inquiry is necessary if an affirmative answer is given to a question or because the answer was unknown or no response was given. In rebutting this presumption, the *user* should evaluate information obtained from each component of the *transaction screen process* and consider whether sufficient information has been obtained to conclude that no further inquiry is necessary. The *user* must determine, in the exercise of the *user's* reasonable business judgment, the scope of such further inquiry.

5.8 Further Inquiry--Upon completing the *transaction screen questionnaire*, if the *user* concludes that further inquiry or action is needed (for example, consult with an environmental consultant, contractor, governmental authority, or perform additional governmental and/or historical records review), the *user* should proceed with such inquiry. (Note that if the *user* determines to proceed with a Phase I Environment Site Assessment, the *user* may apply the current Practice E 1527 or alternatively the provisions of EPA's regulation "Standards and Practices for All Appropriate Inquiries," 40 C.F.R. Part 312.)

5.9 Signature--The *user* and the preparer of the *transaction screen questionnaire* must complete and sign the questionnaire as provided at the end of the questionnaire.

6. Transaction Screen Questionnaire

6.1 *Persons to Be Questioned*-The following questions should be asked of (1) the current owner of the property, (2) any major occupant of the property or, if the property does not have any major occupants, at least 10% of the occupants of the property, and (3) in addition to the current owner and the occupants identified in (2), any occupant likely to be using, treating, generating, storing, or disposing of hazardous substances or petroleum products on or from the property. A major occupant is any occupant using at least 40% of the leasable area of the property or any anchor tenant when the property is a

shopping center. In a multifamily property containing both residential and commercial uses, the preparer does not need to ask questions of the residential occupants. The preparer should ask each person to answer all questions to the best of the respondent's actual knowledge and in good faith. When completing the site visit column, the preparer should be sure to observe the property and any buildings and other structures on the property. The guide to this transaction screen questionnaire (see Sections 7-10) provides further details on the appropriate use of this questionnaire. (See Note 2.)

NOTE 2-Unk = "unknown" or "no response."

Description of Site Address: Parcel 1 - Niagara Falls ARS, Niagara Falls, N
 12.3 Acre parcel in NW Corner of Niagara Falls ARS
 No Structures. Two outfalls on northern border. Grass
 covered w/ small tributaries cross-crossing the parcel

Question	Owner			Occupants (if applicable)			Observed During Site Visit		If yes, provide description
	Yes	No	Unk	Yes	No	Unk	Yes	No	
1a. Is the property used for an industrial use?	Yes	No	Unk	Yes	No	Unk	Yes	No	
1b. Is any adjoining property used for an industrial use?	Yes	No	Unk	Yes	No	Unk	Yes	No	
2a. Did you observe evidence or do you have any prior knowledge that the property has been used for an industrial use in the past?	Yes	No	Unk	Yes	No	Unk	Yes	No	
2b. Did you observe evidence or do you have any prior knowledge that any adjoining property has been used for an industrial use in the past?	Yes	No	Unk	Yes	No	Unk	Yes	No	
3a. Is the property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes	No	Unk	Yes	No	Unk	Yes	No	
3b. Is any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes	No	Unk	Yes	No	Unk	Yes	No	
4a. Did you observe evidence or do you have any prior knowledge that the property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes	No	Unk	Yes	No	Unk	Yes	No	
4b. Did you observe evidence or do you have any prior knowledge that any adjoining property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes	No	Unk	Yes	No	Unk	Yes	No	
5a. Are there currently any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	Yes	No	Unk	Yes	No	Unk	Yes	No	
5b. Did you observe evidence or do you have any prior knowledge that there have been previously any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	Yes	No	Unk	Yes	No	Unk	Yes	No	
6a. Are there currently any industrial drums (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	Yes	No	Unk	Yes	No	Unk	Yes	No	
6b. Did you observe evidence or do you have any prior knowledge that there have been previously any industrial drums (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	Yes	No	Unk	Yes	No	Unk	Yes	No	
7a. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site?	Yes	No	Unk	Yes	No	Unk	Yes	No	

Yes, for 107th fueling vent located in SE corner. Inactive, tanks closed in 2010. NYKING campus directly south as well see above.

Former refueling station - no releases, tanks pass tightness test in 2010

Question	Owner			Occupants (If applicable)			Observed During Site Visit		If yes, provide description
7b. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that is of an unknown origin?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
8a. Are there currently any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
8b. Did you observe evidence or do you have any prior knowledge that there have been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
9a. Is there currently any stained soil on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
9b. Did you observe evidence or do you have any prior knowledge that there has been previously, any stained soil on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
10a. Are there currently any registered or unregistered storage tanks (above or underground) located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
10b. Did you observe evidence or do you have any prior knowledge that there have been previously, any registered or unregistered storage tanks (above or underground) located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
11a. Are there currently any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
11b. Did you observe evidence or do you have any prior knowledge that there have been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
12a. Is there currently evidence of leaks, spills or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
12b. Did you observe evidence or do you have any prior knowledge that there have been previously any leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring drains, walls, ceilings or exposed grounds on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
13a. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
13b. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that the well has been designated as contaminated by any government environment health agency?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
14. Does the owner or occupant of the property have any knowledge of environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
15a. Has the owner or occupant of the property been informed of the past existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
15b. Has the owner or occupant of the property been informed of the current existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
15c. Has the owner or occupant of the property been informed of the past existence of environmental violations with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
15d. Has the owner or occupant of the property been informed of the current existence of environmental violations with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	

Question	Owner			Occupants (if applicable)			Observed During Site Visit		If yes, provide description
	Yes	No	Unk	Yes	No	Unk	Yes	No	
16. Does the owner or occupant of the property have any knowledge of any environmental site assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assessment of the property?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
17. Does the owner or occupant of the property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the property?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
18a. Does the property discharge waste-water (not including sanitary waste or storm water) onto or adjacent to the property and/or into a storm water system?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
18b. Does the property discharge waste water (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary sewer system?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
19. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried and/or burned on the property?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
20. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	

Government Records/Historical Sources Inquiry
(See guide, Section 10)

21. Do any of the following federal, state, or tribal government record systems list the property or any property within the search distance noted below (where available):	Approximate Minimum Search Distance, miles (kilometres)	Yes	No	
Federal NPL site	1.0	<input type="radio"/>	<input checked="" type="radio"/>	
Federal Delisted NPL site	0.5	<input type="radio"/>	<input checked="" type="radio"/>	
Federal CERCLIS	0.5	<input type="radio"/>	<input checked="" type="radio"/>	
Federal CERCLIS NFRAP site - <i>Niagara Falls ABS, none</i>	0.5	<input type="radio"/>	<input type="radio"/>	
Federal RCRA CORRACTS facilities <i>that will affect property</i>	1.0	<input checked="" type="radio"/>	<input type="radio"/>	
Federal RCRA non-CORRACTS TSD	0.5	<input checked="" type="radio"/>	<input type="radio"/>	
Federal RCRA generators - <i>Niagara Falls ARS</i>	property and adjoining properties	<input checked="" type="radio"/>	<input type="radio"/>	
Federal institutional control/engineering control registries	property only			
Federal ERNS	property only	<input type="radio"/>	<input checked="" type="radio"/>	
State and tribal lists of hazardous waste sites identified for investigation or remediation:				
State-and tribal-equivalent NPL - <i>carborundum plant, no evidence of net impact to Parcel</i>	1.0	<input checked="" type="radio"/>	<input type="radio"/>	
State-and tribal-equivalent	0.5	<input checked="" type="radio"/>	<input type="radio"/>	
State-and tribal-landfill and/or solid waste disposal site lists	0.5	<input type="radio"/>	<input checked="" type="radio"/>	
State-and tribal-leaking storage tank lists	0.5	<input checked="" type="radio"/>	<input type="radio"/>	
State and tribal registered storage tank lists - <i>Fueling Facility adjacent to SE corner, closed in 2012</i>	property and adjoining properties	<input checked="" type="radio"/>	<input type="radio"/>	
State and tribal institutional control/engineering control registries	property only	<input type="radio"/>	<input checked="" type="radio"/>	
State and tribal voluntary cleanup sites	0.5	<input type="radio"/>	<input checked="" type="radio"/>	
State and tribal Brownfield sites	0.5	<input type="radio"/>	<input checked="" type="radio"/>	
22. Based upon a review of fire insurance maps (10.2.3) or local street directories (10.2.3), all as specified in the guide, are any buildings or other improvements on the property or on an adjoining property identified as having been used for an industrial use or uses likely to lead to contamination of the property?		<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Result

The Owner questionnaire answers were provided was completed by:

Name Squeak Csizmar
Title Environmental Manager
Firm 107th Air National Guard Airlift
Address Wing Building 901 Kirsch Dr
Niagara Falls AFS
Phone Number 716 236 2514
Date 7/12/12
Role (s) at the site 107th Air Lift Wing Env Mgr
Number of years at the site 2
Relationship to use (e.g. principal, employee, agent, consultant) Installation Employee

The Occupant questionnaire answers were provided by:

Name _____
Title N/A
Firm _____
Address Vacant Lot
Phone Number _____
Date _____
Role (s) at the site _____
Number of years at the site _____
Relationship to use (e.g. principal, employee, agent, consultant) _____

The Site Visit questionnaire was completed by:

Name David Postlewaite
Title Env Scientist
Firm Tetra Tech
Address 10306 Eaton Place
Fairfax VA 22030
Phone Number 703-385-6000
Date 7/18/12
Role (s) at the site Contractor
Number of years at the site 8
Relationship to use (e.g. principal, employee, agent, consultant) consultant

It is the user's responsibility to draw conclusions regarding affirmative or unknown answers.

The Government Records and Historical Sources Inquiry questionnaire was completed by:

Name David Postlewaite
Title _____
Firm _____
Address _____
Phone Number _____
Date _____
Role (s) at the site _____
Number of years at the site _____
Relationship to use (e.g. principal, employee, agent, consultant) _____

User's relationship to the site (for example, owner, prospective purchaser, lender, etc.)

If the preparer (s) is different from the user, complete the following:

Name of User _____
User's Address _____
User's Phone Number _____

Copies of the completed questionnaires have been filed at:

Copies of the completed questionnaires have been mailed or delivered to:

Preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct and to the best of the preparer's actual knowledge no material facts have been suppressed or misstated.

Signature: [Signature]
Date: 7/12/12
Signature: _____
Date: _____
Signature: _____
Date: _____

Phone Interview 7/12/12

- Kim Powell - to send Installation GW monitoring Plan and latest GW report
- No known ~~contamination~~ is known to exist on site
- site nearby are downgradient (GW)
- No environmental impacts found during construction of Air National Guard Campus directly South of Parcel
- IRP GIS files show known area of ~~contamination~~
 - Loose land use controls
- Call Squeak ~~to~~ consult with 107th AW about other site downgradient of Area 1

To order additional copies of this questionnaire,
contact ASTM International, Customer Service.

phone: (610) 832-9585

fax: (610) 9555

e-mail: service@astm.org



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West Conshohocken, PA 19428-2959



ENVIRONMENTAL SITE ASSESSMENT TRANSACTION SCREEN QUESTIONNAIRE

Area 1 - Niagara Falls
AKS

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5.5.2 The *transaction screen questionnaire* and the *transaction screen guide* sometimes include the phrase "to the best of your knowledge." This phrase does not impose a constructive knowledge standard. It is intended as an assurance to the person being questioned that he or she is not obligated to search out information he or she does not currently have in order to answer the particular question.

5.6 Conclusions Regarding Affirmative or Unknown Answers—Once a *transaction screen questionnaire* has been completed, it shall be presented to the user. Subject to 5.6 through 5.7, an affirmative, unknown, or no response is presumed to be a potential environmental concern. If any of the questions set forth in the *transaction screen questionnaire* are answered in the affirmative, the preparer must document the reason for the affirmative answer. If any of the questions are not answered or the answer is unknown, the *user* should document such nonresponse or answer of unknown and evaluate it in light of the other information obtained in the *transaction screen process*, including, in particular, the site visit and the government records/historical sources inquiry. If the *user* decides no further inquiry is warranted after receiving no response, an answer of unknown, or an affirmative answer, the *user* must document the reasons for any such conclusion.

5.6.1 Upon obtaining an affirmative answer, an answer of unknown or no response, the *user* should first refer to the guide. The guide may provide sufficient explanation to allow a *user* to conclude that no further inquiry is appropriate with respect to the particular question.

5.6.2 If the guide to a particular question does not, in itself, permit a *user* to conclude that no further inquiry is appropriate, then the *user* should consider other information obtained from the *transaction screen process* relating to this question. For example, while on the site performing a site visit, a person may find a storage tank on the property and therefore answer Question 10 of the *transaction screen questionnaire* in the affirmative. However, during or subsequent to the owner/occupant inquiry, the owner may establish that substances now or historically contained in the tank (for example, water) are not likely to cause contamination.

5.6.3 If either the guide to the question or other information obtained during the *transaction screen process* does not permit a *user* to conclude no further inquiry is appropriate with respect to such question, then the *user* must determine, in the exercise of the *user's* reasonable business judgment, based upon the totality of unresolved affirmative answers or answers of unknown received during the *transaction screen process*, whether further inquiry may be limited to those specific issues identified as of concern.

5.7 Presumption—A presumption exists that further inquiry is necessary if an affirmative answer is given to a question or because the answer was unknown or no response was given. In rebutting this presumption, the *user* should evaluate information obtained from each component of the *transaction screen process* and consider whether sufficient information has been obtained to conclude that no further inquiry is necessary. The *user* must determine, in the exercise of the *user's* reasonable business judgment, the scope of such further inquiry.

5.8 Further Inquiry—Upon completing the *transaction screen questionnaire*, if the *user* concludes that further inquiry or action is needed (for example, consult with an environmental consultant, contractor, governmental authority, or perform additional governmental and/or historical records review), the *user* should proceed with such inquiry. (Note that if the *user* determines to proceed with a Phase I Environment Site Assessment, the *user* may apply the current Practice E 1527 or alternatively the provisions of EPA's regulation "Standards and Practices for All Appropriate Inquiries," 40 C.F.R. Part 312.)

5.9 Signature—The *user* and the preparer of the *transaction screen questionnaire* must complete and sign the questionnaire as provided at the end of the questionnaire.

6. Transaction Screen Questionnaire

6.1 *Persons to Be Questioned*-The following questions should be asked of (1) the current owner of the property, (2) any major occupant of the property or, if the property does not have any major occupants, at least 10% of the occupants of the property, and (3) in addition to the current owner and the occupants identified in (2), any occupant likely to be using, treating, generating, storing, or disposing of hazardous substances or petroleum products on or from the property. A major occupant is any occupant using at least 40% of the leasable area of the property or any anchor tenant when the property is a

shopping center. In a multifamily property containing both residential and commercial uses, the preparer does not need to ask questions of the residential occupants. The preparer should ask each person to answer all questions to the best of the respondent's actual knowledge and in good faith. When completing the site visit column, the preparer should be sure to observe the property and any buildings and other structures on the property. The guide to this transaction screen questionnaire (see Sections 7-10) provides further details on the appropriate use of this questionnaire. (See Note 2.)

NOTE 2-Unk = "unknown" or "no response."

Description of Site Address: Parcel 1 - Niagara Falls ARS, Niagara Falls, NY
12.3 Acre parcel in NW Corner of Niagara Falls ARS, No structures. Two outfalls on northern border. Grass covered with small tributaries cross-crossing parcel.

Question	Owner	Occupants (if applicable)	Observed During Site Visit	If yes, provide description
1a. Is the property used for an industrial use?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	
1b. Is any adjoining property used for an industrial use?	Yes <input checked="" type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input checked="" type="radio"/> No <input type="radio"/>	Located on active military installation
2a. Did you observe evidence or do you have any prior knowledge that the property has been used for an industrial use in the past?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	
2b. Did you observe evidence or do you have any prior knowledge that any adjoining property has been used for an industrial use in the past?	Yes <input checked="" type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input checked="" type="radio"/> No <input type="radio"/>	
3a. Is the property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	
3b. Is any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes <input checked="" type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input checked="" type="radio"/> No <input type="radio"/>	Inactive rebuilding station
4a. Did you observe evidence or do you have any prior knowledge that the property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	
4b. Did you observe evidence or do you have any prior knowledge that any adjoining property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes <input checked="" type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes, see 3b
5a. Are there currently any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	
5b. Did you observe evidence or do you have any prior knowledge that there have been previously any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	
6a. Are there currently any industrial drums (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	
6b. Did you observe evidence or do you have any prior knowledge that there have been previously any industrial drums (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	
7a. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/> Unk <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	

* Unk = "unknown" or "no response"

Question	Owner	Occupants (if applicable)	Observed During Site Visit	If yes, provide description
7b. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that is of an unknown origin?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No <input type="radio"/> <input checked="" type="radio"/>	
8a. Are there currently any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No <input type="radio"/> <input checked="" type="radio"/>	
8b. Did you observe evidence or do you have any prior knowledge that there have been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No <input type="radio"/> <input checked="" type="radio"/>	
9a. Is there currently any stained soil on the property?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No <input type="radio"/> <input checked="" type="radio"/>	
9b. Did you observe evidence or do you have any prior knowledge that there has been previously, any stained soil on the property?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No <input type="radio"/> <input checked="" type="radio"/>	
10a. Are there currently any registered or unregistered storage tanks (above or underground) located on the property?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No <input type="radio"/> <input checked="" type="radio"/>	
10b. Did you observe evidence or do you have any prior knowledge that there have been previously, any registered or unregistered storage tanks (above or underground) located on the property?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No <input type="radio"/> <input checked="" type="radio"/>	
11a. Are there currently any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No <input type="radio"/> <input checked="" type="radio"/>	
11b. Did you observe evidence or do you have any prior knowledge that there have been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No <input type="radio"/> <input checked="" type="radio"/>	
12a. Is there currently evidence of leaks, spills or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No <input type="radio"/> <input checked="" type="radio"/>	
12b. Did you observe evidence or do you have any prior knowledge that there have been previously any leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring drains, walls, ceilings or exposed grounds on the property?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No <input type="radio"/> <input checked="" type="radio"/>	
13a. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No <input type="radio"/> <input checked="" type="radio"/>	Water to installation provided by local City water Plant
13b. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that the well has been designated as contaminated by any government environment health agency?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No <input type="radio"/> <input checked="" type="radio"/>	
14. Does the owner or occupant of the property have any knowledge of environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>		
15a. Has the owner or occupant of the property been informed of the past existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>		
15b. Has the owner or occupant of the property been informed of the current existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>		
15c. Has the owner or occupant of the property been informed of the past existence of environmental violations with respect to the property or any facility located on the property?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>		
15d. Has the owner or occupant of the property been informed of the current existence of environmental violations with respect to the property or any facility located on the property?	Yes No Unk <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	Yes No Unk <input type="radio"/> <input type="radio"/> <input type="radio"/>		

Question	Owner			Occupants (if applicable)			Observed During Site Visit		If yes, provide description
16. Does the owner or occupant of the property have any knowledge of any environmental site assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assessment of the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			
17. Does the owner or occupant of the property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			
18a. Does the property discharge waste-water (not including sanitary waste or storm water) onto or adjacent to the property and/or into a storm water system?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
18b. Does the property discharge waste water (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary sewer system?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
19. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried and/or burned on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
20. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	

Government Records/Historical Sources Inquiry
(See guide, Section 10)

21. Do any of the following federal, state, or tribal government record systems list the property or any property within the search distance noted below (where available):	Approximate Minimum Search Distance, miles (kilometres)	Yes	No	
Federal NPL site	1.0	<input type="radio"/>	<input checked="" type="radio"/>	
Federal Delisted NPL site	0.5	<input type="radio"/>	<input checked="" type="radio"/>	
Federal CERCLIS	0.5	<input type="radio"/>	<input checked="" type="radio"/>	
Federal CERCLIS NFRAP site	0.5	<input type="radio"/>	<input type="radio"/>	
Federal RCRA CORRACTS facilities - <i>Niagara Falls ARS, none that affect property</i>	1.0	<input checked="" type="radio"/>	<input type="radio"/>	
Federal RCRA non-CORRACTS TSD - <i>"</i>	0.5	<input checked="" type="radio"/>	<input type="radio"/>	
Federal RCRA generators - <i>Niagara Falls ARS</i>	property and adjoining properties	<input checked="" type="radio"/>	<input type="radio"/>	
Federal institutional control/engineering control registries	property only			
Federal ERNS	property only	<input type="radio"/>	<input checked="" type="radio"/>	
State and tribal lists of hazardous waste sites identified for investigation or remediation:				
State-and tribal-equivalent NPL - <i>carobevundum Plant, no evidence of impact to the parcel</i>	1.0	<input checked="" type="radio"/>	<input type="radio"/>	
State-and tribal-equivalent	0.5	<input checked="" type="radio"/>	<input type="radio"/>	
State-and tribal-landfill and/or solid waste disposal site lists	0.5	<input type="radio"/>	<input checked="" type="radio"/>	
State-and tribal-leaking storage tank lists	0.5	<input checked="" type="radio"/>	<input type="radio"/>	
State and tribal registered storage tank lists - <i>Recycling facility adjacent to SE corner no reports or evidence of release</i>	property and adjoining properties	<input checked="" type="radio"/>	<input type="radio"/>	
State and tribal institutional control/engineering control registries	property only	<input type="radio"/>	<input checked="" type="radio"/>	
State and tribal voluntary cleanup sites	0.5	<input type="radio"/>	<input checked="" type="radio"/>	
State and tribal Brownfield sites	0.5	<input type="radio"/>	<input checked="" type="radio"/>	
22. Based upon a review of fire insurance maps (10.2.3) or local street directories (10.2.3), all as specified in the guide, are any buildings or other improvements on the property or on an adjoining property identified as having been used for an industrial use or uses likely to lead to contamination of the property?		Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unavailable <input type="radio"/>

Result

The Owner questionnaire answers were provided was completed by:

Name Kimberly Powell
Title Env Engineer
Firm 914th Air lbrt Wing Civ Eng Group
Address 2405 Franklin Dr
Niagara Falls, NY
Phone Number 716 236 3123
Date 7/12/12
Role (s) at the site CRP/IRP Site Manager
Number of years at the site unknown
Relationship to use (e.g. principal, employee, agent, consultant) Installation Employee

The Occupant questionnaire answers were provided by:

Name N/A
Title N/A
Firm N/A
Address Vacant
Phone Number _____
Date _____
Role (s) at the site _____
Number of years at the site _____
Relationship to use (e.g. principal, employee, agent, consultant) _____

The Site Visit questionnaire was completed by:

Name David Postlewaite
Title Environmental Scientist
Firm Tebra Tech
Address 10385 Eaton Pl
Fairfax VA
Phone Number 703-385-6000
Date 6/15/12
Role (s) at the site Consultant
Number of years at the site 0
Relationship to use (e.g. principal, employee, agent, consultant) Contractor

The Government Records and Historical Sources Inquiry questionnaire was completed by:

Name David Postlewaite
Title _____
Firm _____
Address _____
Phone Number _____
Date _____
Role (s) at the site _____
Number of years at the site _____
Relationship to use (e.g. principal, employee, agent, consultant) _____

User's relationship to the site (for example, owner, prospective purchaser, leader, etc.)

If the preparer (s) is different from the user, complete the following:

Name of User _____
User's Address _____
User's Phone Number _____

Copies of the completed questionnaires have been filed at:

Copies of the completed questionnaires have been mailed or delivered to:

Preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct and to the best of the preparer's actual knowledge no material facts have been suppressed or misstated.

Signature: [Signature]
Date: 7/12/12
Signature: _____
Date: _____
Signature: _____
Date: _____

It is the user's responsibility to draw conclusions regarding affirmative or unknown answers.

Phone Interview 11/12/12

Additional site managed by 107th Airlift Wing

Site - UST 950 (HOT) - South of Area 1

- between 901 & 2503
- Removed - 1989 - no samples collected
- Conducted site invest approx 5 yrs ago

5 yrs ago samples collected

- slightly elevated levels
- Soil/GW

- no action has taken places

- impacted area ~~is~~ is isolated

- GW down gradient from Area 1

- No impact to new Army Reserve Center during construction

107th re-burying Area?

- No releases
- closed in Sept 2010
- All ASTs & USTs purged and closed
- tanks passed
- tightness test
- no records of releases

To order additional copies of this questionnaire,
contact ASTM International, Customer Service.

phone: (610) 832-9585

fax: (610) 9555

e-mail: service@astm.org



100 Barr Harbor Drive

PO Box C700

West Conshohocken, PA 19428-2959

Transaction Screen Environmental Site Assessment

**Area 2 (2nd Alternative Site)
Williams Road and Niagara Falls Boulevard
Niagara Falls, New York**

Prepared for:

**Department of the Army
USACE, Buffalo District
1776 Niagara Street
Buffalo, NY 14207-3199**

October 2012

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SECTION 1

EXECUTIVE SUMMARY

Tetra Tech was contracted by U.S. Army Corp of Engineers (USACE) - Buffalo District to conduct a Transaction Screen Environmental Site Assessment of property under consideration for acquisition by U.S. Customs and Border Protection (CBP) for construction of a new U.S. Border Patrol (USBP) station. The subject property is a 12-acre parcel along the west side of Williams Road and Niagara Falls Boulevard in the town of Wheatfield, Niagara County, New York. The parcel, which is currently owned by David C Smith Enterprises, is known as the Area 2 Second Alternative Site (Subject Property).

The Subject Property is a site being considered for the construction, operation, and maintenance of a new Niagara Falls Area USBP station (Site 2 of the market survey, USACE Detroit District 2011). The Subject Property is mostly in the town of Niagara and partially in the town of Wheatfield, Niagara County, New York (Niagara County 2012a). The parcel is approximately 2 miles east of Interstate 190 (I-190), 7.5 miles from the border crossing at I-190, and 7 miles east of the border crossing at Niagara Falls State Park. The parcel is south of the Niagara Falls International Airport. It has 400 linear feet (LF) of frontage on Williams Road to the east and is approximately 1,000 LF south of the intersection of Williams Road and Niagara Falls Boulevard (US Route 62).

Land surrounding the parcel is predominantly agricultural to the east and residential to the west and south, and a commercial area lies to the north. The parcel is zoned for commercial use and is vacant, flat, and sparsely covered with grasses (Niagara County 2012a; USACE, Detroit District 2011). Niagara Falls International Airport is less than 1,500 LF north of the site. The surrounding area generally consists of residential neighborhoods, pastureland, and forest.

1 This Transaction Screen Environmental Site Assessment was performed in accordance
2 with ASTM International (ASTM) Standard E1528-06, *Standard Practice for Limited*
3 *Environmental Due Diligence: Transaction Screen Process* (ASTM 2007) in compliance
4 with the US Environmental Protection Agency’s (EPA) All Appropriate Inquiries (AAI)
5 Final Rule (Title 40 of the *Code of Federal Regulations* Part 312). In addition to
6 adequately investigating the Subject Property, The Contractor undertook routine practices
7 from ASTM Standard E1527-05, *Standard Practice for Environmental Site Assessments:*
8 *Phase I Environmental Site Assessment Process*. The purpose of the Transaction Screen
9 Environmental Site Assessment was to identify, to the extent feasible, pursuant to the
10 processes prescribed herein, recognized environmental conditions (RECs) in connection
11 with the Subject Property to assist the CBP in its decision-making process for the
12 proposed acquisition of the Subject Property. RECs are defined in ASTM Standard
13 E1527-05 as “the presence or likely presence of any hazardous substances or petroleum
14 products on the property under conditions that indicate an existing release, a past release,
15 or a material threat of release of any hazardous substances or petroleum products into
16 structures on the property or into the ground, groundwater, or surface water of the
17 property.” (ASTM 2005) The term includes hazardous substances or petroleum products
18 even under conditions in compliance with laws. The investigation included a record
19 review, chain-of-title search, and preparation of this report.

20 Two RECs were found in connection with the Subject Property. A review of historical
21 records showed that at one time multiple aircraft hangars were located on the Subject
22 Property. On aerial photographs and topographic maps, structures are visible from 1949
23 to 1965 (InfoMap 2012; Smith, personal communication 2012). Whether maintenance on
24 aircraft occurred on the site is unknown. No records of petroleum or chemical releases
25 related to previous aircraft activities were found during the extensive review of historical
26 records; however, it is possible that small releases of petroleum and other chemicals
27 associated with aviation activities could have occurred within the boundaries of the
28 Subject Property. It is possible that residual concentrations of petroleum and other
29 chemicals associated with former aviation storage/maintenance activities could be
30 encountered on the Subject Property if the soil or groundwater was disturbed during
31 construction activities.

1 The second REC is associated with the NOCO Express gasoline station located directly
2 northeast of the Subject Property. The gas station has three 12,000-gallon gasoline
3 aboveground storage tanks (ASTs) with electronic leak-monitoring systems. In 2004 a
4 release of 3,000 gallons of gasoline occurred from one of the tanks. Approximately 2,100
5 gallons was recovered during response/cleanup activities. Product was found in the
6 sanitary and stormwater sewer systems nearby. Based on the records search, the area
7 affected was quite large. Impacted soil was removed, and an active remediation system
8 (air stripping system) was installed to remove the hydrocarbons from the soil and
9 groundwater; however, no groundwater monitoring wells or remediation systems were
10 observed during the site visit conducted on May 18, 2012. The record search details only
11 events up to October 2010, which indicate that at that point the site had not yet received
12 closure by the New York State Department of Environmental Conservation (NYSDEC).
13 Based on the information provided in the record search, it is possible that the soil and
14 groundwater in the northeastern portion of the Subject Property could have been
15 impacted by the petroleum. If the ground is disturbed during construction activities,
16 residual levels of hydrocarbons associated with gasoline in soil and groundwater might be
17 encountered.

18 Therefore, if future construction is proposed, soil and groundwater samples might need to
19 collected and analyzed by a laboratory to determine whether worker safety measures
20 regarding exposure are needed and to determine proper handling and disposal of
21 excavated soils. Groundwater would be not used for drinking water at the site (USACE
22 2011).

23 No additional RECs were identified based on the Transaction Screen Questionnaire that
24 was completed by owner representative, Joe Smith during a phone interview conducted
25 on May 18th, 2012.

26 This executive summary is provided for convenience only. Although the executive
27 summary is an integral part of the report, it should not be used in lieu of reading the
28 entire report, including the appendices. Reliance on this report should be based on the
29 findings and conclusions presented, including the limitations discussed in Section 2.4.

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SECTION 2

INTRODUCTION

2.1. PURPOSE

This Transaction Screen Environmental Site Assessment reports the results of an inquiry into the previous ownership and uses of the Subject Property, known as the Area 2 Second Alternative Site, which is being considered as the site for a new 50-person U.S. Border Patrol Station. The Subject Property is an approximately 12-acre rectangular parcel with 400 LF of frontage along the western side of Williams Road in Wheatfield, New York. The property, which is owned by David C. Smith Enterprises, is south of Niagara Falls Boulevard and west of Williams Road in the town of Niagara Falls, Niagara County, New York. This inquiry is consistent with good commercial or customary practice as defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 *United States Code* (U.S.C.) 9601(35)(B), and was designed to meet the standards of ASTM Standard E1528-06, *Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process* (ASTM 2007). In addition to an adequate investigation of the Subject Property, The Contractor undertook routine practices from ASTM Standard E1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* in compliance with EPA's AAI Final Rule (Title 40 of the *Code of Federal Regulations* Part 312).

Through compliance with the AAI Final Rule, this Transaction Screen Environmental Site Assessment is intended to meet some of the threshold requirements of a bona fide prospective purchaser, contiguous property owner, or innocent landowner to qualify for landowner liability protection under the Brownfields Amendments to CERCLA, or other liability projects that might be available to landowners under state statutes.

1 On behalf of the Department of Homeland Security, Customs and Border Protection,
2 Office of Border Patrol, the user of this Transaction Screen Environmental Site
3 Assessment requested that the US Army Corps of Engineers, Buffalo District, to the
4 extent feasible and pursuant to the processes prescribed herein, identify recognized
5 environmental conditions (RECs) in connection with the Subject Property to help the
6 Department in its decision-making process for the proposed acquisition of the Subject
7 Property. *RECs* are defined in ASTM Standard E1527-05 as “the presence or likely
8 presence of any hazardous substances or petroleum products on the property under
9 conditions that indicate an existing release, a past release, or a material threat of release
10 of any hazardous substances or petroleum products into structures on the property or into
11 the ground, groundwater, or surface water of the property. The term includes hazardous
12 substances or petroleum products, even under conditions in compliance with laws. The
13 term is not intended to include de minimis conditions that generally do not present a
14 threat to human health or the environment and that generally would not be the subject of
15 an enforcement action if brought to the attention of appropriate governmental agencies.
16 Conditions determined to be de minimis are not [RECs]” (ASTM 2005).

17 **2.2. DETAILED SCOPE OF SERVICES**

18 This Transaction Screen Environmental Site Assessment inquiry included the following
19 tasks:

20 ***Record Review.*** Reasonably ascertainable records of standard sources, including
21 environmental record sources (specified regulatory agency lists and files); physical
22 setting sources (topographic maps); historical ownership information (chain of title); and
23 historical use information (such as aerial photographs, fire and flood insurance company
24 maps, and historical topographic maps), were reviewed. Internet searches of county, state,
25 and federal agencies were also conducted to find *reasonably ascertainable* data and
26 information. Data failures and the significance of gaps in the historical record are
27 discussed in Section 2.4.

28 ***Site Reconnaissance.*** The Subject Property was inspected to identify possible hazardous
29 substance storage or disposal; pathways for contamination to enter soil or groundwater,

1 such as leaking underground storage tanks (LUSTs), sumps, or drains; poor management
2 of hazardous substances; and the possible presence of polychlorinated biphenyls (PCBs).
3 The environmental setting and indications of the current and past uses of the property,
4 adjoining properties, and the surrounding area were observed.

5 **Interviews.** Property owners and representative of the owners of the Subject Property, as
6 well as local emergency response personnel and state officials, were interviewed to
7 collect information on the Subject Property.

8 **Transaction Screen Questionnaire.** A transaction screen questionnaire as outlined in the
9 ASTM E1528-06 standards was completed by both the owners and the Contractor who
10 prepared this report. The transaction screen process consists of asking questions
11 contained within the transaction screen questionnaire of owners and occupants of the
12 property, observing site conditions at the property with direction provided by the
13 transaction screen questionnaire, and, to the extent reasonably ascertainable, conducting
14 limited research regarding certain government records and certain standard historical
15 sources.

16 **Report.** The data attained by the Contractor (Tetra Tech, Inc.) during the review of
17 historical records, site reconnaissance, and interviews was evaluated and used to prepare
18 this report and its conclusions.

19 **2.3. SIGNIFICANT ASSUMPTIONS**

20 Data provided by the owner representatives is assumed to be true and correct. The maps
21 presenting the boundaries of the property are assumed to be accurate.

22 **2.4. LIMITATIONS AND EXCEPTIONS**

23 No Transaction Screen Environmental Site Assessment can wholly eliminate uncertainty
24 regarding the potential for RECs in connection with a site. Performance of ASTM
25 Standards E1528-06 and E1527-05 is intended to reduce, but not eliminate, uncertainty
26 regarding the potential for RECs in connection with a site. The information presented in

1 this report is based on professional opinions from a thorough review of documents
2 acquired from database and record searches provided by InfoMap Technologies, Inc.

3 It should be recognized that this study is not intended to be a definitive investigation of
4 potential environmental concerns at the Subject Property. The scope of services for this
5 investigation was limited and should not be construed as a guarantee that no currently
6 unrecognized environmental concerns exist at the Subject Property. However, the
7 Contractor undertook this study and completed the report in accordance with the
8 professional standards and generally accepted practices of environmental consultants at
9 the time of preparation. Business environmental risk that is beyond the scope of this
10 investigation might exist on the property.

11 Opinions and recommendations presented in this report apply to the Subject Property
12 conditions existing at the time of The Contractor's investigation and those reasonably
13 foreseeable. They do not necessarily apply to Subject Property changes of which the
14 Contractor is not aware and which the Contractor has not had the opportunity to evaluate.

15 **2.5. SPECIAL TERMS AND CONDITIONS**

16 The conclusions and recommendations herein are based solely on the information the
17 Contractor obtained in compiling the report. Because the facts forming the basis for the
18 report are subject to professional interpretation, differing conclusions could be reached.

19 The Contractor does not assume responsibility for the discovery and elimination of
20 hazards that could cause accidents, injuries, or damage. Compliance with submitted
21 recommendations or suggestions does not assure elimination of hazards or the fulfillment
22 of the client's obligations under local, state, or federal laws or any modifications or
23 changes to such laws.

24 None of the work performed hereunder will constitute or be represented as a legal
25 opinion of any kind or nature but will be a representation of findings of fact from records
26 examined.

1 **2.6. USER RELIANCE**

2 This report was compiled partially from information supplied from outside sources and
3 from other information that is in the public domain. The Contractor makes no warranty as
4 to the accuracy of statements made by others that might be contained in the report; nor
5 are any other warranties or guarantees, express or implied, included or intended by the
6 report, except that it has been prepared in accordance with the current generally accepted
7 practices and standards consistent with the level of care and skill exercised under similar
8 circumstances by other professional consultants or firms performing the same or similar
9 services.

10 This report is intended for the sole use of the CBP. The scope of services performed in
11 execution of this investigation might not be appropriate to satisfy the needs of other
12 users, and any use or reuse of this document or the findings, conclusions, or
13 recommendations presented is at the sole risk of the other user.

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SECTION 3

SITE DESCRIPTION

3.1. LOCATION AND LEGAL DESCRIPTION

The Subject Property occupies a rectangular parcel of approximately 12 acres with 400 LF of frontage along the western side of Williams Road in the town of Wheatfield, Niagara County, New York. The property, which is owned by David C. Smith Enterprises, is west of Williams Road and South of Niagara Falls Boulevard. It is behind David Chevrolet Buick, which is owned by the same family that owns the Subject Property. The approximate center point of the parcel is 43° 05' 48.95" north latitude and 78° 56' 33.53" west longitude. The Subject Property is shown in Appendices 14.1 and 14.2.

The legal description of the Subject Property, as provided by Land Title Inquiries, Inc., through InfoMap Technologies, Inc., is provided in the title in Appendix 14.4.

3.2. SITE AND VICINITY CHARACTERISTICS

On May 14th, 2012 a visual site inspection of the Subject Property was conducted to determine the environmental condition of the parcel. The Subject Property was observed to be relatively flat and grass-covered with some small areas of woody vegetation and shrubbery. There were a few areas of standing water. Aircraft hangars once used by the military were at one time located on the Subject Property. They were torn down sometime before 1972 based on historical aerial photographs. Concrete debris and deteriorating concrete pads were observed on the southern part of the parcel. Old fire hydrants dot the area where the hangars were once located. An old asphalt road was also observed running north to south on the western side of the Subject Property. Old stormwater and sewer conduits were observed throughout the Subject Property. Soil

1 conditions preliminarily seem suitable for the proposed development, and the commercial
2 use zoning of the parcel is compatible with this project.

3 The land surrounding the Subject Property is predominantly residential and commercial.
4 Private residences line the southern and western boundaries of the site. A car dealership
5 and automotive shop, David Chevrolet Buick (same owners as the Subject Property), are
6 located directly north of the site, and a NOCO gas station with three 12,000-gallon USTs
7 is located directly northeast of the parcel. Williams Road runs north to south directly east
8 of the parcel. A vacant lot lies on the other side of Williams Road, further east of the
9 Subject Property. See Appendix 14.3 for photographs of the Subject Property and
10 adjoining lands.

11 **3.3. CURRENT USE OF THE PROPERTY**

12 The Subject Property is currently for sale and vacant. The parcel is zoned for commercial
13 use (USACE, Detroit District 2011).

14 **3.4. DESCRIPTIONS OF STRUCTURES, ROADS, AND OTHER** 15 **IMPROVEMENTS ON THE SITE**

16 Service utilities for water, natural gas, three-phase power, telephone, and cable TV are
17 directly available to the site. Sewer service would require an extension of about 1,500
18 feet from the existing mains south of the site and an agreement from the City of Niagara
19 Falls (USACE, Detroit District 2011). Based on historical aerial photographs and
20 topographic maps, the Subject Property was agricultural land from as far back as 1900 to
21 around 1948. In the 1948 topographic map, a group of what is believed to be aircraft
22 hangars are shown on the Subject Property; they were demolished sometime before 1965
23 based on the 1965 aerial photograph (InfoMap 2012). Old concrete pads, exposed
24 underground utility lines, fire hydrants, and an asphalt road are still visible on the Subject
25 Property. No improvements have been made to the parcel since 1948 according to the
26 historical aerials (InfoMap 2012). See Appendix 14.3 for images of the Subject Property
27 and improvements described above.

3.5. CURRENT USES OF THE ADJOINING PROPERTY

1
2 During the visual site inspection conducted on May 14, 2012, a car dealership and full-
3 service automotive shop, David Chevrolet Buick, was observed on the property directly
4 north of the Subject Property. The owner, David C. Smith Enterprises, also owns the
5 Subject Property. Directly north of the car dealership is Niagara Falls International
6 Airport. A NOCO gas station with three 12,000-gallon USTs is located directly northeast
7 of the Subject Property. Williams Road is directly east of the Subject Property, and a
8 vacant lot lies directly east of the road. West and south of the Subject property are
9 residential neighborhoods.

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SECTION 4

USER-PROVIDED INFORMATION

4.1. TITLE RECORDS

A chain-of-title search of the Subject Property was obtained from Land Title Inquiries, Inc., through the record search provided by InfoMap Technologies, Inc. Based on the results of the title search, the land was sold/donated (type of transaction is unknown) by the Sanoian Family in October 1959 to No. 838 Loyal Order of the Moose. In 1990 the Moose Lodge sold the property to Benderson Trust in July 1990. In June 2003 the Benderson Trust sold the property to the current owners, David C. Smith Sr. Enterprises, LLC. The chain of title is provided in Appendix 14.4.

4.2. ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

InfoMap Technologies, Inc. conducted an environmental lien search of the Subject Property. The environmental lien search identified no environmental liens and use limitations against the Subject Property. Refer to Appendix 14.4 for the title search documentation.

4.3. SPECIALIZED KNOWLEDGE

Specialized knowledge pertaining to the current owner, local utilities, and current property conditions was provided by the US Army Corps of Engineers, Buffalo District, which had authorized the US Army Corps of Engineers, Detroit District, to conduct a market study deliverable (USACE, Detroit District 2011).

1 **4.4. COMMONLY KNOWN OR REASONABLY ASCERTAINABLE**
2 **INFORMATION**

3 The US Army Corps of Engineers and CBP did not have and were not aware of any
4 commonly known and reasonably ascertainable information other than the documents
5 provided to the Contractor.

6 **4.5. VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES**

7 The market study conducted by the US Army Corps of Engineers, Detroit District, states
8 that the purchase price for the Subject Property is \$375,000 or \$31,250 per acre;
9 however, fair market value is not believed to be influenced by known or purported
10 contamination (USACE, Detroit District 2011).

11 **4.6. OWNER, PROPERTY MANAGER, AND OCCUPANT**
12 **INFORMATION**

13 The Subject Property is owned by David C. Smith Enterprises, which also owns the
14 David Chevrolet Buick car dealership directly north of the parcel. No occupants reside on
15 the property (USACE, Detroit District 2011).

16 **4.7. REASON FOR PERFORMING TRANSACTION SCREEN**
17 **ENVIRONMENTAL SITE ASSESSMENT**

18 This transaction screen environmental assessment is intended to provide CBP with an
19 understanding of any significant potential environmental liabilities or risks relative to the
20 investigated site area.

21 **4.8. OTHER**

22 No other information relevant to RECs at the Subject Property was obtained from the
23 user of this Transaction Screen Environmental Site Assessment

SECTION 5

RECORD REVIEW

5.1. REVIEW OF FEDERAL, STATE, AND TRIBAL ENVIRONMENTAL RECORDS

A record search that reviewed federal, state, local, and tribal environmental records pertaining to the Subject Property and its vicinity was conducted. In performing the review, services were provided by InfoMap, a vendor specializing in the search and retrieval of governmental environmental databases. The federal, state, local, and tribal databases include information regarding reported hazardous material use and storage; facilities that treat, store, dispose of, or generate hazardous waste; solid waste landfills, transfer stations, and incinerators; LUSTs; discharges of petroleum and other hazardous substances; and reported incidents of contamination. The databases conform to the standard record sources identified in ASTM Standard E1527-05 (ASTM 2005). The InfoMap report is presented in Appendix 14.4.

5.1.1. Subject Property

On the basis of the results of the record search conducted by InfoMap, no sites of concern were found within the boundaries of the Subject Property (InfoMap 2012).

5.1.2. Surrounding Properties

Forty-seven geocoded environmental sites and one non-geocoded sites were found near the Subject Property during the InfoMap record search (InfoMap 2012). Non-geocoded sites are properties referenced in federal, state, local, or tribal environmental records that cannot be accurately mapped because of incomplete or inadequate location information; however, the sites are listed within a common ZIP Code. The Contractor reviewed the list of non-geocoded sites in the InfoMap report to ascertain their potential to affect the

1 Subject Property. On the basis of distance or type of database finding, none of the non-
2 geocoded sites are likely to affect the Subject Property

3 Two sites listed in the *Emergency Response Notification System (ERNS)* were identified
4 within one quarter of a mile of the Subject Property. Based on review of the records, both
5 cases were spills of small quantities of hazardous liquids. Each incident was addressed
6 properly and closed shortly after the incidents occurred. Based on the information
7 provided in the record search, these cases are not anticipated to impact the Subject
8 Property.

9 *Twenty spill sites* were identified within one quarter of a mile of the Subject Property.
10 Most of the spills occurred north of the Subject Property within the boundaries of Niagara
11 Falls International Airport or Niagara Falls Air Reserve Station (ARS), located on the
12 northern end of the runway that the airport and ARS share. All of the spills were
13 addressed in accordance with state and federal regulations and subsequently closed by
14 NYSDEC with the exception of one spill incident that occurred in 2004 at the NOCO
15 Express gas station located directly northeast of the Subject Property. The incident was
16 described as a release of 3,000 gallons of gasoline from a faulty valve on an AST.
17 Approximately 2,100 gallons was recovered during response/cleanup activities. Product
18 was found in the sanitary and stormwater sewer systems nearby. Based on the record
19 search, the area affected was quite large. Impacted soil was removed, and an active
20 remediation system (air stripping system) was installed to remove the hydrocarbons from
21 the soil and groundwater; however, no groundwater monitoring wells or remediation
22 systems were observed during the site visit conducted May 18, 2012. The records search
23 only details events up to October 2010. The records state that at that time the site had not
24 yet received closure by NYSDEC. Contact with NYSDEC and NOCO representatives
25 was attempted multiple times, but no response was ever received. Based on the
26 information provided in the record search, it is possible that the soil and groundwater in
27 the northeastern portion of the Subject Property could have been impacted by this event
28 based on proximity of the spill to the Parcel. Additionally, groundwater in that area
29 generally flows south/southeast in the direction of the Subject Property, towards the
30 Niagara River (USGS 2004). Groundwater levels are quite shallow and range between 5

1 to 20 feet belowground in the first layer of overburden glacial deposits in the Niagara
2 Falls Region (USGS 2004). Therefore, if the ground is disturbed during construction
3 activities, residual levels of hydrocarbons associated with gasoline in soil and/or
4 groundwater could possibly be encountered.

5 Two other spills sites of note were located directly to the west and south of the Subject
6 Property, and they involved releases of oil from electrical transformers. Both sites had the
7 transformer oils sampled and analyzed for PCBs. Concentrations of PCB containing
8 materials were not detected in analytical results for the transformer oil from the site south
9 the Subject Property; however, detected concentrations of PCB containing materials were
10 identified in the analytical laboratory sample results from the transformer oil from the
11 spill site west of the Subject Property. Subsequently, the soil and asphalt at the site were
12 removed and disposed of properly off-site. Both sites eventually received letters of no
13 further action from NYSDEC (InfoMap 2012). Based on the information provided in the
14 InfoMap records search and the site closure granted by NYSDEC, it is believed that these
15 events have likely not impacted the Subject Property.

16 Five *LUST* sites were found within half a mile of the Subject Property. Four of the five
17 LUST sites are at either the Niagara Falls International Airport or Niagara Falls ARS.
18 The fifth LUST site is 0.45 mile west of the Subject Property at Dunn Tire, Inc.; the site
19 includes the removal of two 1,000-gallon gasoline USTs, one 300- gallon waste oil UST,
20 and one 500-gallon heating oil UST. Impacted soil was found during excavation and
21 NYSDEC was contacted. Soil was to be removed; however, there was the potential to
22 encounter low-level radiation from the soil that had been used in the past to backfill the
23 area. NYSDEC, multiple contractors, and the owner spent substantial time trying to
24 identify a remedy for the impacted soil because detected concentrations of petroleum
25 products were above state and federal standards. There were no indications of free
26 product or groundwater contamination. Therefore, NYSDEC decided to backfill the
27 excavated areas and close the site based on the cost to address the petroleum-impacted
28 soils and low-level radioactive material. The site received closure in November 2004
29 (InfoMap 2012). Based on the distance from the Subject Property and the fact that this

1 site is not hydraulically up-gradient of the parcel, it is believed that the site is not likely to
2 have impacted the Subject Property.

3 There are five Resource Conservation and Recovery Act (RCRA) generators near the
4 Subject Property. Niagara Falls ARS is a large quantity generator (LQG), which RCRA
5 defines as a generator that generates greater than 1,000 kilograms per month of hazardous
6 waste. The EPA Generator Identification Number for Niagara Falls ARS (914th Airlift
7 Wing Mission Support Group [MSG] is NY0570024273. In addition, the 107th Air
8 Reserve Wing of the New York Air National Guard (NYANG) (a major tenant
9 organization on Niagara Falls ARS) has its own EPA Identification Number,
10 NYR000087882. Processes generating hazardous waste on Niagara Falls ARS include
11 aircraft and vehicle maintenance, parts cleaning, support equipment maintenance, general
12 facility maintenance, painting, nondestructive inspection, weapons training and cleaning,
13 and expired shelf-life chemicals. The current US Air Reserve Command (Niagara Falls
14 AFRC/AMSA-76(G)) generates small amounts of hazardous waste and is a conditionally
15 exempt small quantity generator (CESQG), with EPA Identification Number
16 NY8210424273 (USACE, Mobile District 2007). Niagara Falls International Airport is a
17 CESQG (NYD986930923) that produces wastes such as ignitable wastes, chromium, and
18 lead. The Transportation Security Agency (NYR000125385) and Federal Flight
19 Administration (NY069053073) at Niagara Falls International Airport are also listed as
20 CESQGs. There are no lists of the types of wastes these agencies might produce. CRA
21 Services (NYR000001602), located 0.25 mile northeast of the Subject Property, is a
22 Small Quantity Generator that produces small amounts of corrosives, halogenated
23 solvents, and non-halogenated solvents. CALSPAN Corporation, Flight Research, Inc.,
24 (NYR000130914) is a CESQG that produces ignitable wastes. According to the records
25 search the 914th Airlift Wing and Bell none of these RCRA generators have had any
26 major non-compliance violations (InfoMap 2012). Based on the information provided in
27 the record search and 2007 BRAC Environmental Assessment, as well as distance from
28 the Subject Property, these RCRA Generators are not anticipated to impact the Subject
29 Property.

1 There are two RCRA sites/businesses near the Subject Property. The first RCRA
2 corrective action generator is the 914th Air Lift Wing, Air Force Reserves, located on
3 Niagara Falls ARS (0.45 mile northwest of the Subject Property). This generator has
4 multiple Installation Restoration Program (IRP) sites across the property that either have
5 already received no further action from state and federal regulators or are currently being
6 addressed through active remediation devices or land-use controls. During a phone
7 interview with the Niagara Falls ARS IRP representative stated that no IRP site on the
8 installation would impact the Subject Property based on the distance of the sites from the
9 Subject Property, as well as the fact that all the sites have been investigated and the
10 extent of contamination determined (Niagara Falls ARS 914th MSG/CEV Environmental
11 Site Manager Personal Communication July 2012).

12 The second RCRA site is *Bell Aerospace/Textron*. The generator's plants and buildings
13 no longer exist, but there are two remaining sites. The former plant site is approximately
14 0.8 mile northeast of the Subject Property, as well as a former neutralization pond. The
15 neutralization pond was constructed in 1949. It was used extensively for waste fluid
16 neutralization and disposal of collected waste propellants and associated flush waters
17 from rocket engine test firings in the Rocket Test Building through the 1950s and, to a
18 lesser extent, through the 1960s. During operation, neutralized water from the pond was
19 discharged to the plant's sanitary sewer. In addition to its use for neutralizing waste
20 propellants, the pond was apparently also used to dispose of solvents and fluids from
21 other parts of the plant. The Pond was physically closed in 1987.

22 The investigation was completed and a Corrective Measures Study (CMS) was approved.
23 The CMS included a remediation plan for off-site and on-site areas and a health
24 risk/environmental risk study. The off-site corrective action system, which consists of
25 four extraction wells, became operational in March 1993. The on-site corrective action
26 system became operational in late 1994, and it consists of six extraction wells and
27 groundwater treatment. A waste water treatment plant was built on plant property for this
28 purpose. The groundwater from the six off-site extraction wells is treated at the publicly
29 owned treatment works. An off-site soil vapor intrusion (SVI) study was performed in
30 2007 to assess any potential impacts from the off-site contaminant plume. Additional off-

1 site SVI assessment work was planned for 2008. This work was completed with some
2 SVI results, but it was determined that the SVIs could not be attributed to the off-site
3 contaminant plume. Site management is to continue with inspections, hydraulic
4 monitoring, groundwater quality monitoring, and groundwater extraction and treatment.
5 The last NYSDEC inspection was October 14, 2009 (InfoMap 2012).

6 In 2000 the US Geological Survey (USGS) created a model to determine the transport
7 and biodegradation of chlorinated ethenes (solvents) from the Bell Aerospace/Textron
8 site. Based on the information presented in the study, the groundwater plumes extend
9 outside the boundary of the former aviation plant to the southeast, the opposite direction
10 of the Subject Property. Groundwater in the general area is located from the top layer of
11 heavily fractured weathered bedrock, which typically occurs between 6 feet bgs (below
12 ground surface) to 150 feet bgs. Groundwater generally flows south based on the
13 groundwater model for the area (Yager, 2002). The site is still currently under active
14 remediation according to the information gathered from the US NYSDEC's website
15 (NYSDEC 2012). Based on the information collected on this site, it is believed that this
16 site has not impacted the Subject Property, since it appears that any impacted
17 groundwater is flowing south, away from the Subject Property.

18 Four sites on adjacent property have or have had USTs and/or ASTs located on the
19 property. The first site is the David Chevrolet Buick, which is owned by the same party
20 as the Subject Property and is located on the northern boundary of the Subject Property.
21 In addition to its new and used car sales, the dealership also has a full automotive shop
22 attached. The dealership has six ASTs registered to its address: two 250- gallon waste oil
23 ASTs, one 1,000-gallon waste oil AST, one 250-gallon lubrication oil AST, one 275-
24 gallon lubrication oil AST, and one 500-gallon lubrication oil AST. There are no records
25 of spills associated with these ASTs (InfoMap 2012). Therefore, it is not likely that this
26 site has impacted the Subject Property. See Appendix 14.3 for photographs of David
27 Chevrolet Buick and its 1,000 gallon waste oil AST located on the backside of the
28 dealership taken during the VSI conducted on May 14, 2012.

1 The second AST site is located at 10175 Niagara Falls Boulevard. It is an empty
2 retail/commercial building that is currently for sale, approximately 100 feet north of the
3 Subject Property and directly west of David Chevrolet Buick. The property has two
4 active waste oil ASTs with capacities of 250 gallons and 1,000 gallons (InfoMap 2012).
5 No records could be identified during the research portion of this site assessment that
6 indicated that there has ever been a recorded release documented from these ASTs. Based
7 on the information provided in the InfoMap record search, it is believed that this site is
8 not likely to impact the Subject Property.

9 The third UST site is located at a former Sunoco gas station on Porter Road 0.15 mile
10 north of the Subject Property and just south of Niagara Falls International Airport. The
11 gas station is inactive; however, it had three gasoline USTs with capacities of 8,000
12 gallons, 6,000 gallons, and 4,000 gallons. The USTs were active from 1970 to 1996.
13 There are no records of releases associated with these USTs (InfoMap 2012). Therefore,
14 this site is not likely to impact the Subject Property.

15 The fourth UST site is the NOCO Express gas station located adjacent to the northeastern
16 corner of the Subject Property. The gas station has three active 12,000-gallon gasoline
17 USTs with electronic leak monitoring systems. See Appendix 14.3 for photographs of
18 the gas station and its UST field taken on May 14, 2012.

19 **5.2. ADDITIONAL ENVIRONMENTAL RECORD SOURCES**

20 The Contractor conducted Internet searches of local, county, and state agencies to obtain
21 records and documents to assess the environmental condition of the Subject Property.

22 **5.2.1. Subject Property**

23 Records and environmental site information obtained from the websites of the US
24 Geological Survey (USGS), US Department of Agriculture (USDA), EPA, NYSDEC,
25 and US Fish and Wildlife Service (USFWS) were used in helping to determine the
26 environmental condition of the Subject Property.

5.2.2. Surrounding Properties

Records and environmental site information obtained from the websites of the USGS, USDA, EPA, NYSDEC, and USFWS were used in helping to determine the environmental condition of the adjoining and surrounding properties.

According to EPA's Air Quality website, Niagara County, New York, is completely within the Niagara Frontier Intrastate Air Quality Control Region (AQCR 162). EPA has designated Niagara County as in moderate non-attainment for the 8-hour ozone (O³) National Ambient Air Quality Standards (USEPA 2011a). Air quality permits might be required during construction and to operate the building.

5.3 TRANSACTION SCREEN QUESTIONNAIRE

As part of the Environmental Site Assessment Transaction Screen, a questionnaire as outlined in the ASTM E1528-06 standards was completed by both the owners and the Contractor who prepared this report. The transaction screen process consists of asking questions contained within the transaction screen questionnaire of owners and occupants of the property, observing site conditions at the property with direction provided by the transaction screen questionnaire, and, to the extent reasonably ascertainable, conducting limited research regarding certain government records and certain standard historical sources. The questionnaire was completed by owner representative, Joe Smith during a phone interview conducted on May 18th, 2012. A copy of the questionnaire is located in Appendix 14.8.

Based on the questionnaire interview, no additional environmental concerns were identified on the Subject Property. Mr. Smith indicated that they had conducted a Phase I Environmental Site Assessment of the Property in 2003-2004, when his family's trust bought the property. The Phase I conclusion did not identify any recognized environmental concerns. Mr. Smith was unaware of any spills, releases, or any other type of activities conducted on the Subject Property that would degrade its environmental quality. During the interview Mr. Smith believed that the former structures that once occupied the majority of the Subject Property from 1940s to approximately 1965 were

1 aircraft hangars associated with Niagara Falls Air Force Base and International Airport.
2 Mr. Smith was aware of the concrete debris and exposed water and stormwater/sewer
3 pipes located throughout the property and had removed some of the improvement to
4 increase the size of the back parking lot of his car dealership. Additionally, Mr. Smith
5 was unaware of any USTs or ASTs ever being located on the parcel as well.

6 **5.4 PHYSICAL SETTING SOURCES**

7 **Regional Physiography.** Topographic map coverage is provided by the USGS 1980
8 Tonawanda West, New York 15th 7.5-minute quadrangle. The Subject Property is
9 approximately 570 to 580 feet above mean sea level and is relatively flat (InfoMap 2012).

10 **Soil Conditions.** On the basis of the data collected from USGS Soil Maps, the parcel
11 primarily consists of Odessa silty clay loam, 0 to 2 percent slopes and the southwest
12 corner consists of Canandaigua silty clay loam. Odessa silty clay loam, formed from
13 reddish clayey and silty glaciolacustrine deposits, is not known to flood or pond and has
14 a depth to a restrictive feature of more than 80 inches. Odessa silty clay loam is
15 somewhat poorly drained, and the depth to water table in the soils is about 6 to 18 inches.
16 Odessa silty clay loam, 0 to 2 percent is not designated as a hydric soil; however,
17 Lakemont is a component of this soil type that, if found in a depression, might qualify as
18 a hydric soil (USDA NRCS 2011).

19 Canandaigua silty clay loam is formed from silty and clayey glaciolacustrine deposits, is
20 not known to flood but frequently ponds, and has depth to a restrictive feature of more
21 than 80 inches. The soil is very poorly drained, and the depth to water table in the soils is
22 0 inches. Canandaigua silty clay loam is designated as a hydric soil (USDA NRCS 2011).

23 Canandaigua silty clay loam soil does not qualify as prime farmland; however, Odessa
24 silty clay loam, 0 to 2 percent slopes is prime farmland if drained (USDA NRCS 2011).

25 **Surface Water Conditions.** The Subject Property is approximately 0.4 mile north of
26 Berholtz Creek and approximately 1 mile south of Cayuga Creek. There are no federal
27 jurisdictional wetlands (previously identified) or mapped and no NYSDEC freshwater

1 wetlands on or adjacent to the parcel (USFWS 2012a; NYSDEC 2012a). A large
2 palustrine emergent (PEM) wetland complex is located approximately 0.5 mile north of
3 the Subject Property on Niagara Falls ARS, and a 43-acre New York State-regulated
4 wetland is located approximately 0.5 mile south of the Subject Property.

5 A limited field reconnaissance survey conducted in May 2012 identified potential
6 wetland areas present on the parcel. Two emergent wetland areas were identified in the
7 shrub-covered eastern portion of the parcel. A drainage ditch and small emergent wetland
8 area were observed in the western portion of the parcel. The Subject Property was not
9 formally delineated by a wetland scientist for the analysis in this project, and
10 jurisdictional wetland delineation must be performed.

11 No Federal Emergency Management Agency (FEMA)-designated 100-year floodplain
12 occurs on or adjacent to the Subject Property. The closest FEMA-designated 100-year
13 floodplain is associated with Bergholtz Creek, approximately 0.4 mile south of the site
14 (Niagara County 2012).

15 **Groundwater Conditions.** The New York and New England Carbonate Rock Aquifer is a
16 principal aquifer that underlies a considerable portion of the southern half of Niagara
17 County. Three bedrock aquifers are contained within this principal aquifer—the
18 limestone aquifer occurring in the Onondaga Limestone, Akron Dolomite, and the Bertie
19 Limestone formations; the Camillus Aquifer occurring in the Camillus Shale formation,
20 the Syracuse formation, and the Vernon Shale formation; and the Lockport Aquifer
21 occurring in the Lockport Dolomite formation. All three bedrock aquifers yield small to
22 moderate quantities of water and are not used for significant public water withdrawals.
23 Public water supplies are provided by the Niagara County Water District (Niagara
24 County 2009). Potable water for the town of Niagara consists entirely of water pumped
25 from the Chippawa Channel of the Niagara River (townofniagara.com 2012). On-site
26 direct access to groundwater as a water supply is not expected.

27 **Geologic Conditions.** The Subject Property is on the Niagara Falls Escarpment, a
28 prominent cliff-forming feature extending from western New York into southern Ontario,
29 northward to the upper peninsula of Michigan, and bending downward into eastern

1 Wisconsin and Illinois (NYSGS 2012). The escarpment is the edge of a thick series of
2 dolomite layers of Silurian age. The rocks are resistant to erosion and stand up in relief as
3 a prominent line of bluffs (Dutch 1999). The Niagara Escarpment was cut to form
4 Niagara Falls during the last glacial melt, approximately 16,000 years ago (NYSGS
5 2012).

6 **5.5 HISTORICAL USE INFORMATION ON THE PROPERTY**

7 A history of previous uses of the Subject Property since its first developed use was
8 compiled from information obtained from standard historical sources to identify past uses
9 that could have led to RECs in connection with the Subject Property. Documentation of
10 historical ownership and uses is included in Appendices 14.4 and 14.5. The historical
11 record sources included historical aerial photographs provided by InfoMap and dated
12 1938, 1951, 1972, 1985, 1995 and 2009 and historical topographic maps provided by
13 InfoMap and dated 1900, 1948, 1950, 1951, 1965, and 1980 (Infomap 2012). Sanborn
14 Fire Insurance map coverages were not available for the Subject Property (InfoMap
15 2012). Each source is summarized below. The historical aerial photographs and
16 topographic map are provided in Appendix 14.4.

17 **5.5.1 Historical Aerial Photographs and Topographic Maps**

18 *1900 Topographic Map.* In this topographic map, the Subject Property area is
19 undeveloped and relatively flat. Tuscarora Road is visible to the west of the Subject
20 Property. Cayuga Creek is identified to the north of the Subject Property on the
21 topographic map. Bergholtz Creek, also north of the Subject Property is identified on the
22 map as well.

23 *1938 Aerial Photograph.* In this aerial photograph, the Subject Property and surrounding
24 area appear to be used for agricultural purposes. Runways associated with Niagara Falls
25 International Airport are visible north of the Subject Property. Cayuga Creek runs along
26 the northern and western border of the airfield. Niagara Falls Boulevard, north of the
27 Subject Property, and Niagara Road, south of the parcel, are visible. A few residences are

1 located along Niagara Road, which runs parallel to Bergholtz Creek, which runs from the
2 northeast to the southwest.

3 **1949 Topographic Map.** In this topographic map, the Subject Property and area
4 bordering the property are labeled as a Military Reservation. There are two buildings now
5 located on the Subject Property. It is believed that aircraft hangars were once located on
6 the Subject Property, based on information provided by the owner representative, Joe
7 Smith. The entire area has become increasingly more urbanized. A large number of
8 residential structures are visible on the map.

9 **1950 Topographic Map.** There are now 29 buildings on the Subject Property or on the
10 adjoining land. Four large buildings and more runways have been built at the Niagara
11 Falls International Airport north of the Subject Property. A group of houses is visible
12 directly west of the parcel.

13 **1951 Aerial Photograph.** Structures are still visible on the Subject Property. A large
14 warehouse or terminal associated with the airport is located northeast of the Subject
15 Property, and a group of houses is visible directly west of the parcel.

16 **1965 Aerial Photograph.** The smaller structures on the Subject Property no longer exist.
17 Only four large structures are still present on the parcel. Williams Road is now visible
18 directly east of the Subject Property. An area northwest of the Subject Property is now
19 identified as "US Mil Res." It is possible the military activities ceased and moved
20 northwest across Niagara Falls Blvd. to be closer to the airfield.

21 **1972 Aerial Photograph.** A neighborhood has been built directly west of the Subject
22 Property on a road running north to south, currently known as Caravelle Drive. No
23 structures can be seen on the Subject Property. Concrete pads or cleared areas of land can
24 be seen dotting the property. The area directly east of the Subject Property is still vacant
25 and used for agricultural purposes. A shopping mall is located southeast of the Subject
26 Property.

1 **1980 Topographic Map.** No structures are identified on the Subject Property on this
2 topographic map. All of the area to the west and southwest is now residential
3 neighborhoods. Niagara Falls Air Force Base is identified north of the Subject Property,
4 along with Niagara Falls International Airport.

5 **1985 Aerial Photograph.** There are no major changes to the Subject Property between
6 the topographic map from 1980 and the aerial photograph from 1985. Two structures are
7 visible directly north of the Subject Property, next to the runway at Niagara Falls
8 International Airport.

9 **1995 Aerial Photograph.** The Subject Property is still vacant. Trees and vegetation can
10 be observed along the eastern boundary, as well as the southeastern corner of the parcel.
11 The parcel directly east of the Subject Property is still vacant and used for agriculture.
12 The number of residential properties to the south, southeast, and west has substantially
13 increased. A long and narrow structure is located northeast of the Subject Property; it is
14 believed to be the NOCO gas station that is currently located on that property.

15 **2009 Aerial Photograph.** In this aerial photograph, the Subject Property is still vacant.
16 The amount of vegetation and trees in the southeastern corner of the parcel has increased.
17 David Chevrolet Buick is visible directly north of the Subject Property. Residential
18 properties line the entire western and southern boundaries of the Subject Property. What
19 appear to be concrete pads can be seen toward the center of the southern portion of the
20 Subject Property.

21 **5.5.2 Sanborn Fire Insurance Maps**

22 Sanborn Fire Insurance maps were requested for this Transaction Screen Environmental
23 Site Assessment; however, no maps were available for the Subject Property. The letter of
24 request is included in Appendix 14.4.

25 **5.5.3 City Directories**

26 No city directory search was conducted for this Transaction Screen Environmental Site
27 Assessment because of the Subject Property's rural location.

1 **5.5.4 Chain-of-Title**

2 A chain-of-title search that researched title records as far back as 1959 for the Subject
3 Property was obtained from Land Title Inquiries, Inc., through the record search provided
4 by InfoMap Technologies, Inc. The deed that Land Title Inquiries., Inc., acquired is as
5 follows:

6 Sold to Niagara Lodge No. 838, Loyal Order of Moose from Coregan
7 Sanoian a/k/a Corigan Sanoian, Ruben Sanoian and Sarkee Sanoian by
8 Deed recorded October, 19, 1959 in Document No. 1584/924

9 Sold to Ronald Benderson, Randall Benderson and David H. Baldauf, as
10 trustees for the Benderson 85-1 Trust from Niagara Lodge No. 838, Loyal
11 Order of Moose by Deed recorded July 11, 1990 in Document
12 2270/63.Sold to David C. Smith Sr. Enterprises, LLC by Ronald
13 Benderson, Randall Benderson and David H. Baldauf, as trustees for the
14 Benderson 85-1 Trust Deed recorded June 18, 2003 in Document
15 3240/414.

16 The legal description of the parcel is provided in Section 3.1 of this Transaction Screen
17 Environmental Site Assessment. Copies of the deeds are provided in Appendix 14.4.

18 **5.6 NON-SCOPE CONSIDERATIONS**

19 The Contractor examined the historical aerial photographs and topographic maps
20 described above to determine the historical development and use of the properties
21 adjacent to the Subject Property. The surrounding and adjacent properties have
22 historically been used for agricultural purposes.

23 **5.6.1 Asbestos-containing Building Materials**

24 It is unlikely that asbestos-containing materials would be encountered on the property;
25 however, they cannot be ruled out. Based on historical aerial photographs and
26 topographic maps, aircraft hangars and other structures occupied the Subject Property

1 from at least 1948 to sometime before 1965 (InfoMap 2012). During the VSI conducted
2 on May 14, 2012 concrete foundation pads were the only portion of the structures that
3 still exist on the property.

4 **5.6.2 Radon**

5 According the InfoMap records search of the 109 homes tested in the local area around
6 the Subject Property, the average radon reading recorded was 1.3 picocuries per liter
7 (InfoMap 2012). This level is considered below average by EPA standards and does not
8 warrant mitigation controls.

9 **5.6.3 Lead-based Paint**

10 It is unlikely that lead-based paint materials would be encountered on the property, but
11 they cannot be ruled out. Based on historical aerial photographs and topographic maps,
12 aircraft hangars and other structures occupied the Subject Property from at least 1948 to
13 sometime before 1965, (InfoMap 2012). During the VSI conducted on May 14, 2012
14 concrete foundation pads were the only portion of the structures that still exist on the
15 property.

16 **5.6.4 Lead in Drinking Water**

17 Drinking water for the Subject Property would be provided by the Town of Niagara.
18 According to the last water quality report, produced in 2008, lead was detected above
19 action levels (0.15 ug/L) in only 3 of the 53 sites/samples collected. Lead in the drinking
20 water is not considered a problem at the Subject Property. (Niagara Falls Water Board
21 2011)

22 **5.6.5 Wetlands**

23 A limited field reconnaissance survey conducted in May 2012 identified potential
24 wetland areas present on the parcel. Two emergent wetland areas were identified in the
25 shrub-covered eastern portion of the parcel. A drainage ditch and small emergent wetland
26 area were observed in the western portion of the parcel. The Subject Property was not

1 formally delineated by a wetland scientist for the analysis in this project, and
2 jurisdictional wetland delineation must be performed.

3 **5.6.6 PCBs**

4 No PCB sites were found on the Subject Property during the record search (InfoMap
5 2012). Additionally, no electrical transformers or other items that could possibly contain
6 PCB materials were observed during the VSI conducted on May 14, 2012. It is unknown
7 whether transformers or other items containing PCB materials were once located on the
8 Subject Property and removed in the past.

9 **5.6.7 Regulatory Compliance**

10 On the basis of the records search, no regulatory compliance issues or permits related to
11 the Subject Property were found.

12 **5.6.8 Cultural and Historic Resources**

13 No cultural resources surveys have been conducted on the Subject Property; however,
14 several surveys have been conducted in the vicinity. Two previously identified
15 archaeological sites or historic places were identified within 1 mile of the Subject
16 Property. No National Historic Landmarks or architectural resources listed in or eligible
17 for listing in the state register or National Register of Historic Places are present within or
18 immediately adjacent to the Subject Property. According to the New York State Historic
19 Preservation Office's GIS public access website, the Subject Property is located in an
20 area of archeological sensitivity; however, given the extent of 20th-century disturbances,
21 there is no significant factor suggesting intact prehistoric archaeological material would
22 be present. The Subject Property site was identified as containing areas with a high
23 probability of containing historic archaeological sites. Given the uncertainties of the prior
24 historic land use, a high potential for historic archaeological sites related to the early to
25 middle 20th century is likely. A review of historical maps and aerial photography failed to
26 show any historic development within or nearby the project area.

1 **5.6.9 Industrial Hygiene**

2 On the basis of the characteristics of the Subject Property, industrial hygiene is not
3 applicable.

4 **5.6.10 Health and Safety**

5 On the basis of the characteristics of the Subject Property, health and safety is not
6 applicable.

7 **5.6.11 Ecological Resources**

8 The vegetation present the Subject Property is primarily upland herbaceous vegetation,
9 dominated by Timothy grass (*P. pratense*), red clover (*T. pratense*), and other common
10 lawn grasses. The western portion of the site is cleared of most vegetation in a
11 maintained herbaceous state, evidence of prior site development and disturbance was
12 noted during the field reconnaissance survey. A wooded area in the southeast corner of
13 the parcel is dominated by green ash (*Fraxinus pennsylvanica*). During the survey in
14 May 2012, this portion of the parcel was inundated by water, and any groundcover was
15 unidentifiable. The southwest corner is an overgrown, shrub-dominated area, primarily
16 covered with honeysuckle (*Lonicera* spp.) and assorted turf grasses.

17 The most abundant native birds inhabiting the area include the red-winged black bird
18 (*Agelaius phoeniceus*), European starling (*Sturnus vulgaris*), gulls (*Laridae*), eastern
19 meadowlark (*Sturnella neglecta*), song sparrow (*Melospiza melodia*), savannah sparrow
20 (*Passerculus sandwichensis*), rock dove (*Columba livia*), mourning dove (*Streptopelia*
21 *decipiens*), killdeer (*Charadrius vociferus*), American crow (*Corvus brachyrhynchos*),
22 and great blue heron (*Ardea herodias*). During winter months, mallards (*Anas*
23 *platyrhynchos*), black ducks (*Anas rubripes*), and Canada geese (*Branta canadensis*) are
24 also common (USACE 2007, URS 2011).

25 Most of these bird species were found in areas where tree/sapling/shrub habitat
26 dominated (USACE 2007). This was also noted during the May 2012 field
27 reconnaissance surveys on the Subject Property. Many species of birds were observed

1 during the May 2012 field assessment survey, including grey catbird (*Dumetella*
2 *caroliniensis*), yellow warbler (*Setophaga petechia*), American goldfinch (*Carduelis*
3 *tristis*), and American robin (*Turdus migratorius*).

4 A variety of mammal species are commonly found in such habitats in this region.
5 Common mammal species found inhabiting the surrounding area include whitetail deer
6 (*Odocoileus virginianus*), coyote (*Canis latrans* Say), beaver (*Castor canadensis*),
7 woodchuck (*Marmota monax*), raccoon (*Procyon lotor*), Eastern cottontail (*Sylvilagus*
8 *floridanus*), gray squirrel (*Sciurus carolinensis*), opossum (*Didelphis virginiana*), striped
9 skunk (*Mephitis mephitis*), and red fox (*Vulpes vulpes*), as well as such small rodents as
10 meadow voles (*Microtus pennsylvanicus*), muskrat (*Ondatra zibethicus*), deer mouse
11 (*Peromyscus maniculatus*) (USACE 2007; URS 2011).

12 Herpetofauna consisting primarily of wood frogs (*Rana sylvatica*), northern leopard frogs
13 (*Lithobates pipiens*), green frogs (*Rana clamitans*), American toads (*Anaxyrus*
14 *americanus*), garter snakes (*Thamnophis sirtalis*), painted turtles (*Chrysemys picta*), and
15 snapping turtles (*Chelydra serpentina*) were also identified (USACE 2007; URS 2011).

16 **5.6.12 Endangered Species**

17 The eastern prairie fringed orchid (*Platanthera leucophea*) is the only Endangered
18 Species Act-protected species listed for Niagara County (USFWS 2012). The bald eagle
19 was delisted under the Endangered Species Act on August 8, 2007, but it remains
20 protected under the Bald and Golden Eagle Protection Act. Neither species would be
21 likely to occur on the Subject Property because of the lack of suitable habitat.

22 USFWS surveys confirmed the presence of six New York State-listed bird species in the
23 vicinity of the Subject Property; however, none were found directly occurring within the
24 site boundary (USFWS 2009). They include the grasshopper sparrow (*Ammodramus*
25 *savannarum*), upland sandpiper (*Bartramia longicauda*), short-eared owl (*Asio*
26 *flammeus*), northern harrier (*Circus cyaneus*), American bittern (*Botaurus lentiginosus*),
27 and horned lark (*Eremophila alpestris*). Other species were identified in site documents;

1 however, most were identified as having only historic occurrences or as migrants not
2 likely to use the site's habitats.

3 **5.6.13 Indoor Air Quality**

4 Indoor air quality is not relevant because no structures are present on the Subject
5 Property.

6 **5.6.14 Biological Agents**

7 No evidence of biological agents associated with the Subject Property were found during
8 the record search for the Subject Property (InfoMap 2012).

9 **5.6.15 Mold**

10 There is no evidence of mold because no structures are present on the Subject Property.

11 **5.7 INFORMATION ON HISTORICAL USE AND ADJOINING PROPERTIES**

12 Information regarding historical use and information on the adjoining properties is based
13 on the historical topographic and aerial maps provided in the record search (InfoMap
14 2012). The environmental condition of the adjoining properties, based on the record
15 search, is summarized in Section 5.1.2.

16 Generally, the adjoining properties have been used as agricultural land, for commercial
17 uses, and for residential properties. The area north and northeast of the Subject Property
18 was once all farmland; however, on the basis of the historical aerials, the property
19 transformed into a car dealership. Directly north of the dealership are Niagara Falls
20 International Airport and Niagara Falls ARS. The area directly east has never been
21 developed. The area south and west of the Subject Property was originally agricultural
22 land, but urbanization of the area started around the 1940s when the airport and military
23 base were established.

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SECTION 6

FINDINGS

The Contractor performed this Transaction Screen Environmental Site Assessment of the Subject Property described herein in conformance with the scope and limitations of ASTM Standard E1528-06, *Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process*, as well as routine practices from ASTM Standard E1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, subject to the limits and exceptions described in Section 2.4 of this report.

Two RECs, as defined in ASTM Standard E1527-05, were found in connection with the Subject Property. A review of historical records found that at one time multiple aircraft hangars were located on the Subject Property. Historical aerial photographs and topographic maps show structures visible from 1949 to 1965 (InfoMap 2012; Smith, personal correspondence 2012). Whether aircraft maintenance occurred on the parcel is unknown. No records of petroleum or chemical releases related to previous aircraft activities were found during the extensive review of historical records; however, it is possible that small releases of petroleum and other chemicals associated with aviation activities could have occurred within the boundaries of the Subject Property. Potential residual concentrations of petroleum and other chemicals associated with aviation could be encountered on the Subject Property if the soil or groundwater is disturbed during construction activities.

The second REC is associated with the NOCO gas station located directly northeast of the Subject Property. The gas station has three 12,000-gallon gasoline ASTs with electronic leak-monitoring systems. In 2004 a release of 3,000 gallons of gasoline occurred. Approximately 2,100 gallons was recovered during response/cleanup activities. Product was found in the sanitary and stormwater sewer systems nearby. Based on the record search, the area affected was quite large. Impacted soil was removed, and an

1 active remediation system (air stripping system) was installed to remove the
2 hydrocarbons from the soil and groundwater; however, no groundwater monitoring wells
3 or remediation systems were observed during the site visit conducted on May 18, 2012.
4 The record search details events only up to October 2010, at which point the site had not
5 yet received closure by NYSDEC. Based on the information provided in the record
6 search, it is likely that the soil and groundwater in the northeastern portion of the Subject
7 Property could have been impacted by this site. If the ground is disturbed during
8 construction activities, residual levels of hydrocarbons associated with gasoline in soil
9 and groundwater might be encountered.

10 No additional RECs were identified based on the Transaction Screen Questionnaire that
11 was completed by owner representative, Joe Smith during a phone interview conducted
12 on May 18th, 2012.

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SECTION 7

OPINION

On the basis of the information available at the time of this report's preparation, the RECs described in Section 7 were identified in connection with historical uses of the Subject Property.

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SECTION 8

CONCLUSIONS

This Transaction Screen Environmental Site Assessment was performed in accordance with ASTM Standard E1528-06, *Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process* (ASTM 2007), in compliance with EPA's AAI Final Rule (Title 40 of the *Code of Federal Regulations* Part 312). In addition to an adequate investigation of the Subject Property, the Contractor undertook routine practices from ASTM Standard E1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, for the Subject Property, Second Alternative Site (Area 2), Niagara Falls Boulevard and Williams Road, town of Wheatfield, Niagara County, New York. Any exceptions to or deletions from this practice are described in Section 10 of this report. The assessment has revealed two RECs in connection with the Subject Property.

Based on the information provided in the record search, it is possible that the soil and groundwater on the Subject Property could have been impacted by historical aircraft storage and maintenance activities, as well as the petroleum release associated with the NOCO Express gas station directly northeast of the parcel. If the ground is disturbed during construction activities, residual levels of hydrocarbons associated with gasoline in soil and groundwater might be encountered. Groundwater would be not used for drinking water at the site (USACE 2011).

Therefore, if future construction is proposed, soil and groundwater samples might need to be collected and analyzed by a laboratory to determine whether worker safety measures regarding exposure are needed and to determine proper handling and disposal of excavated soils.

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SECTION 9

DEVIATIONS FROM ASTM STANDARD E1528-06

There were no deletions or deviations from ASTM E 1528-06 with the exception of the following:

- Time gaps of more than 5 years were noted in available historical information.
- Historical aerial photographs were not available during the 1910s, 1920s, mid 1940s, and 1970s.
- Local emergency services were attempted to be reached via phone, but messages were never returned.

The Contractor does not believe that the identified deviations affect its ability to render an opinion regarding RECs or de minimis conditions for the Subject Property.

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SECTION 10

ADDITIONAL SERVICES

The Contractor provided no additional services during the drafting of this Transaction Screen Environmental Site Assessment. However, in addition to the Transaction Screen Environmental Site Assessment, an Environmental Assessment, a Phase I Cultural Resources Survey, a Biological Assessment, and a Farmland Conversion Impact Rating will be conducted as part of this project.

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SECTION 11

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SECTION 12

SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in the document have been provided in a manner consistent with the current standards of the profession and, to the best of my knowledge, comply with all applicable federal, state, and local statutes; regulations; and ordinances.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined at 40 CFR 312.10.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

David Postlewaite
Environmental Scientist

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SECTION 13

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL

13.1 DAVID POSTLEWAITE

Mr. Postlewaite is an environmental scientist with more than 5 years of experience in preparing Phase I Environmental Site Assessments and other environmental investigation documents.

He has a BS in environmental and natural resources from Clemson University.

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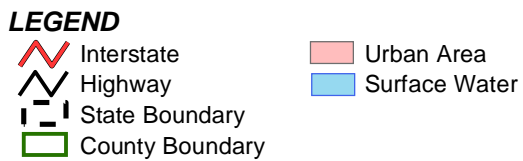
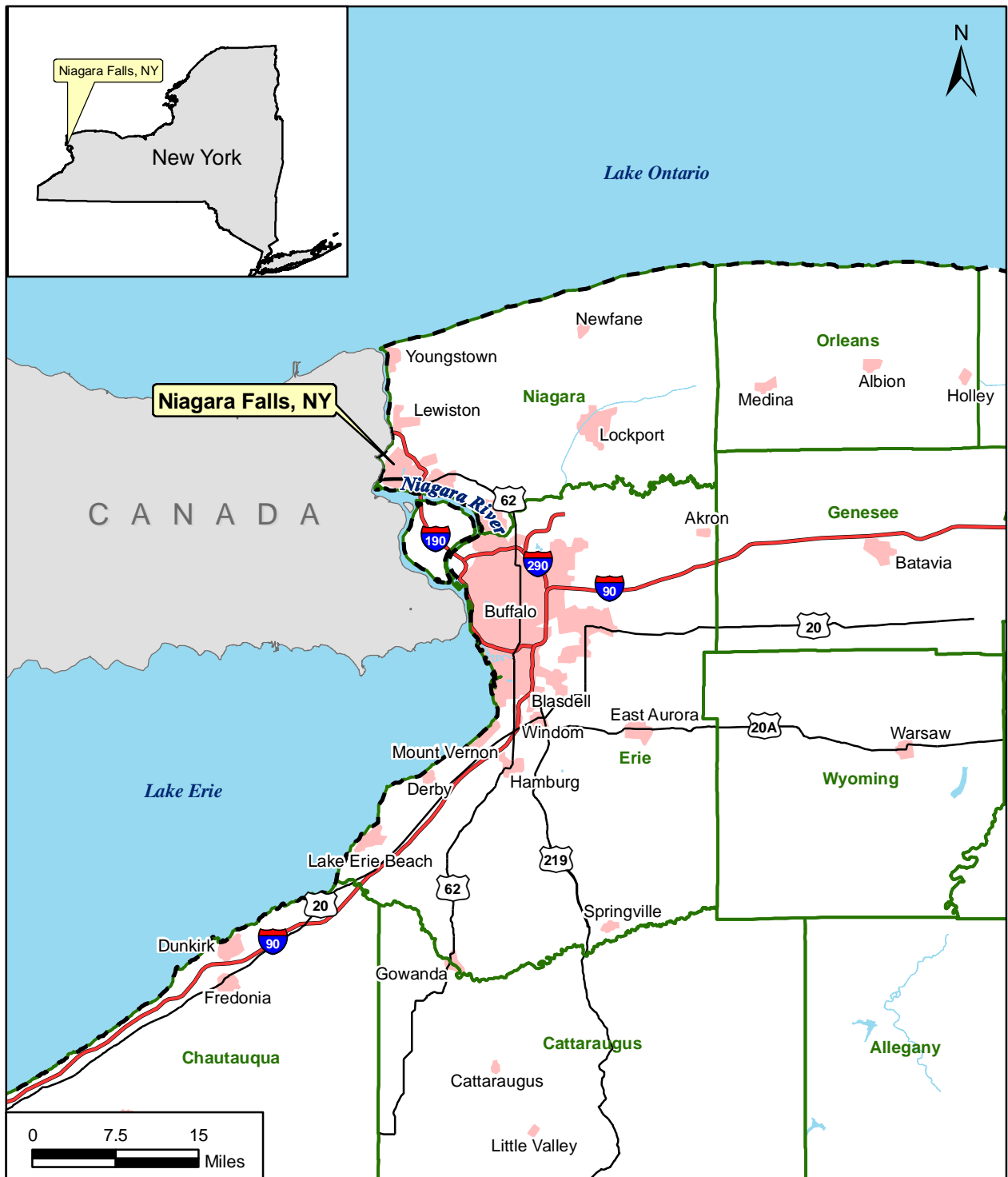
SECTION 14

APPENDICES

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14.1 - LOCATION MAP

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Project Location

Figure 14.1

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14.2 - SITE MAP

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LEGEND

- ▭ CBP Footprint
- Old Structures
- Abandoned Road
- ▭ Concrete Pads/Foundations
- Debris and Trash Piles

Site Map - Area 2

Figure 14.2

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14.3 - SITE PHOTOGRAPHS

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**Environmental Site Assessment
Niagara Real Estate Transaction Screening**

Date:
May 14, 2012

Area:
Area 2

Photo By:
D. Postlewaite

Description:
View of Area 2 from the southern boundary.



Date:
May 14, 2012

Area:
Area 2

Photo By:
D. Postlewaite

Description:
Concrete pads from former structures once located on Area 2



**Environmental Site Assessment
Niagara Real Estate Transaction Screening**

Date:
May 14, 2012

Area:
Area 2

Photo By:
D. Postlewaite

Description:
Abandoned fire hydrant located near the southwestern corner of Area 2



Date:
May 14, 2012

Area:
Area 2

Photo By:
D. Postlewaite

Description:
Exposed underground stormwater drainage pipe in the southern portion of Area 2



**Environmental Site Assessment
Niagara Real Estate Transaction Screening**

Date:
May 14, 2012

Area:
Area 2

Photo By:
D. Postlewaite

Description:
Flattened camping trailer located in southeastern corner of Area 2



Date:
May 14, 2012

Area:
Area 2

Photo By:
D. Postlewaite

Description:
Waste oil aboveground storage tank located on the backside of David Chevrolet Buick, located directly north of the Area 2.



**Environmental Site Assessment
Niagara Real Estate Transaction Screening**

Date:
May 14, 2012

Area:
Area 2

Photo By:
D. Postlewaite

Description:
NOCO Express gas station located directly adjacent to the northeastern corner of Area 2



Date:
May 14, 2012

Area:
Area 2

Photo By:
D. Postlewaite

Description:
Three 12,000 underground gasoline storage tanks that are part of the NOCO Express gas station



**Environmental Site Assessment
Niagara Real Estate Transaction Screening**

Date:
May 14, 2012

Area:
Area 2

Photo By:
D. Postlewaite

Description:
Concrete debris pile located in the northeastern corner of Area 2



Date:
May 14, 2012

Area:
Area 2

Photo By:
D. Postlewaite

Description:
Marsh area in the southeastern portion of Area 2



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14.4 HISTORICAL RESEARCH DOCUMENTS

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InfoMap
Technologies Incorporated

Environmental FirstSearch™ Report

Target Property:

AREA 2 NIAGARA FALLS CBP STATION

NIAGARA FALLS NY 14304

Job Number: 100-FFX-T28295

PREPARED FOR:

Tetra Tech, Inc.

10306 Eaton Place, Suite 340

Fairfax, VA 22030

04-20-12



Tel: (610) 430-7530

Fax: (610) 430-7535

Environmental FirstSearch Search Summary Report

Target Site: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	02-01-12	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	02-01-12	0.25	0	0	0	-	-	0	0
CERCLIS	Y	02-27-12	0.50	0	0	0	0	-	0	0
NFRAP	Y	02-27-12	0.25	0	0	0	-	-	0	0
RCRA COR ACT	Y	03-13-12	1.00	0	0	0	2	0	0	2
RCRA TSD	Y	03-13-12	0.50	0	0	0	2	-	0	2
RCRA GEN	Y	03-13-12	0.25	0	0	6	-	-	0	6
Federal Brownfield	Y	02-01-12	0.50	0	0	0	0	-	0	0
ERNS	Y	04-13-12	0.25	0	0	2	-	-	0	2
Tribal Lands	Y	12-15-08	0.25	0	0	0	-	-	0	0
State/Tribal Sites	Y	04-05-12	1.00	0	0	0	0	6	0	6
State Spills 90	Y	01-10-12	0.25	0	2	17	-	-	1	20
State/Tribal SWL	Y	01-11-12	0.50	0	0	0	0	-	0	0
State/Tribal LUST	Y	01-10-12	0.50	0	0	1	4	-	0	5
State/Tribal UST/AST	Y	04-05-12	0.25	0	0	4	-	-	0	4
State/Tribal EC	Y	04-05-12	0.50	0	0	0	0	-	0	0
State/Tribal IC	Y	04-05-12	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	04-05-12	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	04-05-12	0.50	0	0	0	0	-	0	0
Federal IC/EC	Y	03-13-12	0.50	0	0	0	0	-	0	0
- TOTALS -				0	2	30	8	6	1	47

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to InfoMap Technologies, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in InfoMap Technologies's databases. All EPA sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent NPL and state landfill the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although InfoMap Technologies uses its best efforts to research the actual location of each site, InfoMap Technologies does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of InfoMap Technologies's services proceeding are signifying an understanding of InfoMap Technologies's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

***Environmental FirstSearch
Site Information Report***

Request Date: 04-20-12
Requestor Name: Tetra Tech
Standard: ASTM-05

Search Type: COORD
Job Number: 100-FFX-T28295
Filtered Report

Target Site: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

Demographics

Sites: 47	Non-Geocoded: 1	Population: NA
Radon: OF THE 109 HOMES TESTED, THE AVG. PCI/L LEVEL WAS 1.3		

Site Location

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>		<u>UTMs</u>
Longitude:	-78.942735	-78:56:34	Easting:	667427.593
Latitude:	43.096946	43:5:49	Northing:	4773419.618
Elevation:	580		Zone:	17

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 0 Mile(s)

Services:

ZIP Code	City Name	ST	Dist/Dir	Sel

	Requested?	Date
Fire Insurance Maps	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search/Env Liens	No	
Municipal Reports	No	
Online Topos	No	

Environmental FirstSearch

Selected Sites Summary Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

TOTAL: 47 **GEOCODED:** 46 **NON GEOCODED:** 1 **SELECTED:** 47

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
12	ERNS	IPOST NORTH AMERICAN CORP 606024/FIXED FACILITY	2045 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304	0.20 NE	+ 2	1
17	ERNS	JUST EAST OF AIRPORT 2041 NIAG NRC-884622/FIXED	2041 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304	0.25 NE	+ 2	2
10	LUST	NIAGARA FALLS AIRPORT 9602893/CLOSED	NIAGARA AIRPORT NIAGARA FALLS NY 14304	0.16 NE	+ 2	4
19	LUST	AFRES 8905507/CLOSED	NIAGARA AIRPORT NIAGARA FALLS NY 14304	0.44 NW	+ 2	5
19	LUST	NIAGARA FALLS AIRPORT 9612540/HISTORIC-CLOSED	NIAGARA FALLS BLVD NIAGARA FALLS NY 14304	0.44 NW	+ 2	6
19	LUST	NIAGARA FALLS AIRPORT 9412578/CLOSED	NIAGARA FALLS BLVD NIAGARA FALLS NY 14304	0.44 NW	+ 2	8
20	LUST	DUNN TIRE 0075561/CLOSED	9540 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304	0.49 SW	- 6	10
18	RCRACOR	BELL AEROSPACE TEXTRON NYD002106276/CA	9812 NIAGARA FALLS BLVD WHEATFIELD NY 14304	0.31 NW	- 5	13
19	RCRACOR	914TH AIRLIFT WING (AFRC) NY0570024273/CA	NFAFB NIAGARA FALLS NY 14304	0.44 NW	+ 2	18
4	RCRAGN	SPILL 0703811 CARAVELLE NYP000961912/LGN	CARAVELLE DR and NIAGARA FA NIAGARA FALLS NY 14304	0.14 NW	0	25
10	RCRAGN	NIAGARA FALLS INTERNATIONAL AI NYD986930923/VGN	NIAGARA AIRPORT NIAGARA FALLS NY 14304	0.16 NE	+ 2	27
11	RCRAGN	TSA AT NIAGARA FALLS INTERNATI NYR000125385/VGN	NIAGARA FALLS BLVD and PORT NIAGARA FALLS NY 14304	0.16 NE	+ 2	28
14	RCRAGN	FAA IAG ACTCT NY0690536073/VGN	NIAGARA FALLS AT CORNER BLV WHEATFIELD NY 14304	0.21 NE	+ 2	29
16	RCRAGN	C R A SERVICES NYR000001602/SGN	2055 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304	0.23 NE	+ 2	31
17	RCRAGN	CALSPAN CORP - FLIGHT RESEARCH NYR000130914/VGN	2041 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304	0.25 NE	+ 2	32
18	RCRATSD	BELL AEROSPACE TEXTRON NYD002106276/TSD	9812 NIAGARA FALLS BLVD WHEATFIELD NY 14304	0.31 NW	- 5	33
19	RCRATSD	914 TACTICAL AIRLIFT GROUP NY0570024273/TSD	NFAFB NIAGARA FALLS NY 14304	0.44 NW	+ 2	35
1	SPILLS	NIMO TRANSFORMER SPILL 0502988/CLOSED	10313 LORETTA DR NIAGARA FALLS NY 14304	0.08 SW	- 2	37
2	SPILLS	OVERHEAD TRANS POLE 101 0703811/CLOSED	1730 CARAVELLE DR NIAGARA FALLS NY 14304	0.09 NW	0	39
5	SPILLS	NOCO 0475192/ACTIVE	6724 WILLIAMS WHEATFIELD NY 14304	0.14 NE	+ 2	41
5	SPILLS	NOCO GAS STATION 0403932/CLOSED	6724 WILLIAMS RD WHEATFIELD NY 14304	0.14 NE	+ 2	44

Environmental FirstSearch

Selected Sites Summary Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

TOTAL: 47 **GEOCODED:** 46 **NON GEOCODED:** 1 **SELECTED:** 47

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
5	SPILLS	NOCO GAS STATION 0403964/CLOSED	6724 WILLIAMS RD NIAGARA FALLS NY 14304	0.14 NE	+ 2	46
7	SPILLS	NIAGARA FALLS AIRPORT 0806987/CLOSED	2011 NIAGARA FALLS BLVD. NIAGARA FALLS NY	0.14 NW	+ 2	48
9	SPILLS	NIAGARA AIRPORT 0809151/CLOSED	NFB NIAGARA FALLS NY	0.15 NE	+ 2	50
9	SPILLS	SITE ASSESSMENT GAS STATI 9515896/CLOSED	10235 PORTER RD NIAGARA FALLS NY 14304	0.15 NE	+ 2	52
8	SPILLS	GOOSSES ROOST REST 9110315/CLOSED	10158 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304	0.15 NW	0	53
8	SPILLS	MET LIFE - SIMON OIL 9211208/CLOSED	10158 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304	0.15 NW	0	55
10	SPILLS	NIAGARA FALLS AIRPORT 0480046/CLOSED	NIAGARA FALLS BLVD AND PORT NIAGARA FALLS NY 14304	0.16 NE	+ 2	57
10	SPILLS	NIAGARA FALLS AIRPORT 0480049/CLOSED	NIAGARA FALLS BLVD AND PORT NIAGARA FALLS NY 14304	0.16 NE	+ 2	58
11	SPILLS	NIAGARA FALLS AFB 0275493/CLOSED	NIAGARA FALLS BLVD and PORT NIAGARA FALLS NY 14304	0.16 NE	+ 2	60
10	SPILLS	NIAGARA FALLS AIRPORT 9602893/CLOSED	NIAGARA AIRPORT NIAGARA FALLS NY 14304	0.16 NE	+ 2	62
12	SPILLS	IPOS NORTH AMERICAN 9811921/CLOSED	2045 NIAGARA FALLS BLVD WHEATFIELD NY 14304	0.20 NE	+ 2	63
12	SPILLS	IPOS NORTH AMERICA 9875313/CLOSED	2045 NIAGARA FALLS BLVD WHEATFIELD NY 14304	0.20 NE	+ 2	65
13	SPILLS	NIAGARA FALLS AIRPORT 1004959/CLOSED	9956 PORTER RD NIAGARA FALLS NY 14304	0.20 NW	+ 1	67
15	SPILLS	ROADWAY 0750159/CLOSED	NIAGARA FALLS BLVD and WILL NIAGARA FALLS NY 14304	0.21 NE	+ 2	68
17	SPILLS	NIAGARA FALLS AIRPORT 1103730/CLOSED	2035 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304	0.25 NE	+ 2	69
	SPILLS	BLG 850 1005680/CLOSED	NIAGARA FALLS RESERVE STA NIAGARA FALLS NY	NON GC	N/A	97
21	STATE	NIAGARA FALLS ARMY RESERVE, DO 932152	9400 PORTER RD NIAGARA FALLS NY 14304	0.67 NW	0	70
22	STATE	BELL AEROSPACE - TEXTRON 932052	NIAGARA FALLS BLVD and WALM NIAGARA FALLS NY 14304	0.81 NE	+ 4	72
23	STATE	DIBACCO SITE - OLD CREEK BED 932056A/HISTORIC	PORTER RD NIAGARA FALLS NY 14304	0.83 NW	- 7	74
24	STATE	93RD STREET SCHOOL 932078	93RD ST NIAGARA FALLS NY 14304	0.90 SW	- 10	76

Environmental FirstSearch
Selected Sites Summary Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
 NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

TOTAL: 47 **GEOCODED:** 46 **NON GEOCODED:** 1 **SELECTED:** 47

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
25	STATE	CARBORUNDUM-ABRASIVE DIVISION 932007	WALMORE RD NIAGARA FALLS NY 14304	0.93 NE	+ 5	78
26	STATE	NIAGARA FRONTIER TRANSPORTATIO 932090/HISTORIC	NIAGARA FALLS BLVD WHEATFIELD NY 14304	0.99 NE	+ 6	80
3	UST	DAVID CHEVROLET BUICK PONTIAC PBS9-600867/ACTIVE	10225 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304	0.13 NW	+ 2	82
5	UST	NOCO EXPRESS S-28 PBS9-463264/ACTIVE	6724 WILLIAMS RD NIAGARA FALLS NY 14304	0.14 NE	+ 2	87
6	UST	10175 NIAGARA FALLS BLVD PBS9-600866/ACTIVE	10175 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304	0.14 NW	0	91
9	UST	SUNOCO PBS9-073628/UNREGULATED	10235 PORTER RD NIAGARA FALLS NY 14304	0.15 NE	+ 2	94

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

ERNS

SEARCH ID: 11 **DIST/DIR:** 0.20 NE **ELEVATION:** 582 **MAP ID:** 12

NAME: IPOST NORTH AMERICAN CORP	REV: 12/22/98
ADDRESS: 2045 NIAGARA FALLS BLVD	ID1: 606024
NIAGARA FALLS NY 14304	ID2:
NIAGARA	STATUS: FIXED FACILITY
CONTACT:	PHONE:
SOURCE: EPA	

SPILL INFORMATION

DATE OF SPILL: 12/22/98 **TIME OF SPILL:** 1149

PRODUCT RELEASED (1): CARBON ACRYLIC(UN 1866)
QUANTITY (1): 1
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR:	NO	GROUNDWATER:	NO
LAND:	NO	FIXED FACILITY:	NO
WATER:	NO	OTHER:	YES

WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE

DUMPING:	NO	EQUIPMENT FAILURE:	NO
NATURAL PHENOMENON:	NO	OPERATOR ERROR:	NO
OTHER CAUSE:	NO	TRANSP. ACCIDENT:	NO
UNKNOWN:	YES		

ACTIONS TAKEN: CONTAINED ON A CARDBOARD BOX IN A WAREHOUSE / FIRE DEPT IS ON SCENE / HAZMAT TEAM WILL CONTAIN AND HAVE REMOVED

RELEASE DETECTION: 1 GALLON CONTAINER 1 GALLON CONTAINER / CAUSE IS UNKNOWN

MISC. NOTES: NO OTHER INFORMATION WAS SUPPLIED NYSDEC CASE 98-11921

DISCHARGER INFORMATION

DISCHARGER ID:	606024	DUN and BRADSTREET :
TYPE OF DISCHARGER:	PRIVATE ENTERPRISE	
NAME OF DISCHARGER:	IPOST NORTH AMERICAN CORP	
ADDRESS:	2045 NIAGARA FALLS BLVD UNIT N	
	NIAGARA FALLS NY	

Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

ERNS

SEARCH ID: 12 **DIST/DIR:** 0.25 NE **ELEVATION:** 582 **MAP ID:** 17

NAME: JUST EAST OF AIRPORT 2041 NIAGARA FALLS BLVD
ADDRESS: 2041 NIAGARA FALLS BLVD
NIAGARA FALLS NY
NIAGARA

REV: 11/17/08
ID1: NRC-884622
ID2:
STATUS: FIXED
PHONE:

CONTACT:
SOURCE: NRC

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

INCIDENT DATE: 19-SEP-2008 14:09
REPORTED DATE: 19-SEP-2008 16:26
TYPE OF INCIDENT: FIXED
CAUSE OF INCIDENT: OTHER
MEDIUM AFFECTED: LAND
MATERIAL NAME: OIL: DIESEL
LOCATION: JUST EAST OF AIRPORT 2041 NIAGARA FALLS BLVD
SUSPECTED COMPANY:

DESCRIPTION: CALLER IS REPORTING A DISCHARGE OF DIESEL FUEL ONTO THE GROUND DUE TO A CRANE TIPPING OVER AND SPILLING THE FUEL

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

LUST

SEARCH ID: 42 **DIST/DIR:** 0.16 NE **ELEVATION:** 582 **MAP ID:** 10

NAME: NIAGARA FALLS AIRPORT	REV: 1/10/12
ADDRESS: NIAGARA AIRPORT	ID1: 9602893
NIAGARA FALLS NY	ID2: 194903
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NY DEC	

SITE INFORMATION

SPILL DATE:	5/1/1996
DATE REPORTED:	5/30/1996
CLOSED DATE:	9/30/1997
INSP DATE: 9/30/1997	
MATERIAL SPILLED: JET FUEL	AMOUNT SPILLED: 0 G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 0 G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL: TANK FAILURE
WATERBODY AFFECTED:
SOURCE OF SPILL: NON MAJOR FACILITY > 1,100 GAL
REPORTED BY: RESPONSIBLE PARTY
REGION:
UST TRUST? YES

SPILL INVESTIGATOR: SACALAND
SPILL CONTACT: GARY PANE
TELEPHONE: (716) 297-4494

SPILLER: NFTA
 DAVID SKONEY
ADDRESS: 181 ELLICOTT
 BUFFALO, NY

TELEPHONE:
REPORTED BY: RESPONSIBLE PARTY

LAST DEC UPDATE: 4/4/2002
CLEAN UP MEET STANDARDS? NO
PENALTY RECOMMENDED? NO

CALLER REMARKS: CONTAMINATION FOUND DURING REMOVAL OF THE TANKS IN THE EAST FUEL FARM

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAC-NCHD 4/5/96: RECEIVED BIOREMEDIATION WORKPLAN, WHEN PLAN WAS RECEIVED NO TANK HAD BEEN REMOVED AND THEREFORE NO CONFIRMED CONTAMINATION, SPILL FILE OPEN UPON TANK REMOVAL and DISCOVERY OF CONTAMINATED SOIL. 4/29/96: COMMENT LETTER TO WORKPLAN SENT. 5/9/96: TWO 4000 GALLON TANKS REMOVED, BOB BUZZELLI ON SITE TO INSPECT. 5/13/96: BOB BUZZELLI INSPECTED PUMP HOLE, CONTAMINATION PRESENT, MORE EXCAVATION TO BE DONE. 5/23/96: RECEIVED RESULTS FROM TANK REMOVALS, TANK 307 HAD BENZENE GUIDANCE VALUE EXCEEDED, 65ppb-TANK 308 HAD N-BUTYLBENZENE AND SEC-BUTYLBENZENE GUIDANCE VALUES EXCEEDED, 180ppb FOR BOTH PARAMETERS, DETECTION LIMITS SLIGHTLY ELEVATED, WILL RESAMPLE USING TCLP METHOD FOR ANALYSIS FOR THE 8021 ON TANK 308, WATER IN TANK 307 ANALYZED AND ABOVE GW STANDARDS, WILL GET APPROVAL AND PUMP INTO SANITARY SEWER. 6/3/97: SENT LETTER TO GARY PANE/NFTA INDICATING ALL CONTAMINATED SOIL MUST BE REMOVED AND THAT A COMMENT LETTER HAD BEEN SENT TO STEPHEN GOODREAU OF BETTIGOLE, ANDREWS and CLARK

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

LUST

SEARCH ID: 42 **DIST/DIR:** 0.16 NE **ELEVATION:** 582 **MAP ID:** 10

NAME: NIAGARA FALLS AIRPORT
ADDRESS: NIAGARA AIRPORT
NIAGARA FALLS NY
NIAGARA
CONTACT:
SOURCE: NY DEC

REV: 1/10/12
ID1: 9602893
ID2: 194903
STATUS: CLOSED
PHONE:

RE: BIO-REMEDICATION WORKPLAN, COPY OF LETTER TO MR. GOODREAU INCLUDED IN THE LETTER TO MR. PANE. 6/5/96: RECEIVED SAMPLE RESULTS FOR TANK 308 8021 TCLP, ALL PARAMETERS BELOW STARS GUIDANCE VALUES, 500 GALLON TANK REMOVED- 8021 RESULTS WERE ND BUT 8270 RESULTS ELEVATED, WILL RESAMPLE. 6/20/96: SAC, BOB BUZZELLI INSPECTION WITH GARY PANE AND DAVE SKONEY-NFTA, PUMP EXCAVATION BOTTOM HAD NO OBSERVED CONTAMINATION, SHEEN NOTED IN WATER IN EXCAVATION WITH SMALL POCKET OF PRODUCT NOTED IN CORNER, WILL REMOVE REMAINING PRODUCT, WATER WILL BE PUMPED INTO SANITARY SEWER, AND SAMPLES OF EXCAVATION WERE TAKEN. 7/22/96: RECEIVED RESAMPLE RESULTS FOR 500 GALLON TANK, ALL PARAMETERS WERE NON-DETECT, PUMP PIT RESULTS WERE BELOW GUIDANCE VALUES. 12/16/96: RECEIVED NOTIFICATION OF TANK PULLS OF (3)-10000 GALS TANKS and (1) 30000 GALS. TANK. 12/27/96: RECEIVED RESULTS FOR CONTAMINATED SOIL FROM EAST FUEL FARM, SOIL IS NON-HAZARDOUS. 12/30/96: RECEIVED BIOREMEDIATION WORKPLAN FROM NATURE S WAY. 1/8/97: RECEIVED EXCAVATION BOTTOM RESULTS, TOLUENE LEVEL AT 8400 ppb, ADDITIONAL EXCAVATION WILL BE DONE. 1/9/97: AC INSPECTION WITH GARY PANE AND EMERY SIMON, BOTTOM IS RED CLAY, SIDE NEAREST PORTER ROAD HAS SOME GREY CLAY AND SLIGHT ODORS, EXCAVATION UNDER CONCRETE PAD WHERE TANK WAS TIED DOWN IS RED CLAY, WILL CLEANUP HOLE A LITTLE MORE ON ONE SIDE AND THEN RESAMPLE EXCAVATION. 1/10/97: RECEIVED EXCAVATION TEST RESULTS, 6 SAMPLES ANALYZED, GUIDANCE VALUES EXCEEDED ON A LOW-LEVEL FOR 2 OF THE 6 SAMPLES, NO FURTHER EXCAVATION WILL BE REQUIRED. 2/13/97: ENT COMMENT LETTER ON WORKPLAN BY NATURE S WAY, NEED PROPOSAL FOR NUMBER OF SAMPLES TO BE TAKEN EVERY 50 CU. YD. AND THAT 8021 AND 8270 WILL BE REQUIRED. 5/16/97: RECEIVED SAMPLING PLAN FROM NATURE S WAY, WILL FOLLOW STARS PROTOCOL FOR NUMBER OF SAMPLES. 5/21/97: SENT LETTER ACCEPTING SAMPLING PLAN. 6/30/97: RECEIVED NCHD INSPECTION REPORT FROM BOB BUZZELLI. 9/25/97: RECEIVED ANALYTICAL RESULTS FROM NATURE S WAY FOR TREATED SOIL, NO SAMPLES EXCEEDED STARS VALUES. 9/30/97: SAC INSPECT SITE WITH GARY PANE NFTA, NO ODORS OR VISUAL CONTAMINATION OBSERVED, DRAFTED I LETTER.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

LUST

SEARCH ID: 39 **DIST/DIR:** 0.44 NW **ELEVATION:** 582 **MAP ID:** 19

NAME: AFRES	REV: 1/10/12
ADDRESS: NIAGARA AIRPORT	ID1: 8905507
NIAGARA FALLS NY	ID2: 300484
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NY DEC	

SITE INFORMATION

SPILL DATE: 8/31/1989	DATE REPORTED: 9/1/1989
CLOSED DATE: 11/23/1990	INSP DATE: 11/1/1990

MATERIAL SPILLED: DIESEL	AMOUNT SPILLED: 0 G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: TANK FAILURE
WATERBODY AFFECTED:
SOURCE OF SPILL: MAJOR FACILITY > 400,000 GAL
REPORTED BY: RESPONSIBLE PARTY
CALLER REMARKS: 12000 GALLON TANK HAS HOLE IN IT OUT OF SERVICE, PUMPED OUT 8/31/89

REGION:
UST TRUST? NO

SPILL INVESTIGATOR: MJHINTON
SPILL CONTACT:
TELEPHONE:

SPILLER: AFRES

ADDRESS: NIAGARA FALLS AIRPORT
NIAGARA FALLS, NY

TELEPHONE:

REPORTED BY: RESPONSIBLE PARTY

LAST DEC UPDATE: 12/18/1990
CLEAN UP MEET STANDARDS? YES
PENALTY RECOMMENDED? NO

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was MJH 09/25/89: TANK TO BE REMOVED W/ ONGOING TANK REMOVAL PROJECT. 11/23/90: TANK REMOVED DURING BASE TANK PROJECT NO SIGNIFICANT CONTAMINATION FOUND NO FURTHER ACTION NEEDED.

THERE MAYBE MORE DEC REMARKS AVAILBLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

LUST

SEARCH ID: 43 **DIST/DIR:** 0.44 NW **ELEVATION:** 582 **MAP ID:** 19

NAME: NIAGARA FALLS AIRPORT	REV: 5/20/09
ADDRESS: NIAGARA FALLS BLVD	ID1: 9612540
NIAGARA FALLS NY 14304	ID2: 167065
NIAGARA	STATUS: HISTORIC-CLOSED
CONTACT:	PHONE:
SOURCE: NY DEC	

SITE INFORMATION

SPILL DATE: 1/21/1997	DATE REPORTED: 1/21/1997
CLOSED DATE: 2/14/1997	INSP DATE: 1/25/1997

MATERIAL SPILLED: 2 FUEL OIL	AMOUNT SPILLED: 100 G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 90 G

CAUSE OF SPILL: TANK FAILURE
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: RESPONSIBLE PARTY
CALLER REMARKS: TANK LEAKED ON TO PAVEMENT SPILL CONTAINED CONTACTING SOMEONE TO CLEAN UP REQUEST CALLBACK

REGION:
UST TRUST? NO

SPILL INVESTIGATOR: RMCROSSE
SPILL CONTACT:
TELEPHONE:

SPILLER: NFTA
RICHARD JENSON
ADDRESS: NIAGARA FALLS BLVD
NIAGARA FALLS, NY 14304-

TELEPHONE:

REPORTED BY: RESPONSIBLE PARTY

LAST DEC UPDATE: 2/26/1997
CLEAN UP MEET STANDARDS? YES
PENALTY RECOMMENDED? NO

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 01/21/97 RMC/ELLSWORTH, EPS/RICHARD JENSON, NFTA/DAVE MACY, NFTA/SITE FUEL OIL SPILL TO CONCRETE FROM 275 GALLON FUEL OIL TANK USED TO HEAT HANGER BUILDING, CLEAN UP MORE DIFFICULT DUE TO CONTAMINATED SNOW, ICE, AND RAIN EVENT TO HAPPEN WITH IN HOURS, FUEL OIL CONFIRMED IN TWO HANGERS, ONE MINOR AND ONE HAS ABOUT 25 GALLONS ON CONCRETE FLOOR, EPS ACTUAL CLEANUP BEGAN AT 1030, 01/22/97 RMC/ELLSWORTH/ SITE CLEANUP CONTINUES, FOUND TANK TO BE LEAKING INTERMITTANTELY FROM BOTTOM, EPS TO SECURE TANK AFTER NFTA TAKES PICTURES, REMOVED ABOUT 20 DRUMS OF CONTAMINATED SNOW AND ABSORBANTS, TO REINSPECT BY 1/31/97 01/27/97 RMC/FILE BOB B. NCDH INSPECTED AND FOUND SPILL CLEAN UP COMPLETE, RMC SENT LETTER REQUESTING DISPOSAL RECEIPTS, RECEIPTS DUE 2/28/97 02/14/97 RMC/FILE RECEIVED DISPOSAL RECEIPT, OK, CLOSE OUT

THERE MAYBE MORE DEC REMARKS AVAILBLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

LUST

SEARCH ID: 41 **DIST/DIR:** 0.44 NW **ELEVATION:** 582 **MAP ID:** 19

NAME:	NIAGARA FALLS AIRPORT	REV:	1/10/12
ADDRESS:	NIAGARA FALLS BLVD NIAGARA FALLS NY NIAGARA	ID1:	9412578
CONTACT:		ID2:	205028
SOURCE:	NY DEC	STATUS:	CLOSED
		PHONE:	

SITE INFORMATION

SPILL DATE:	12/1/1994
DATE REPORTED:	12/15/1994
CLOSED DATE:	7/2/1997
INSP DATE:	7/24/1996
MATERIAL SPILLED:	GASOLINE
MATERIAL CLASS:	PETROLEUM
AMOUNT SPILLED:	0 G
AMOUNT RECOVERED:	0 G

RESOURCE AFFECTED

SOIL:	YES	AIR:	NO
INDOOR AIR:	NO	GROUNDWATER:	NO
SURFACE WATER:	NO	DRINKING WATER:	NO
SEWER:	NO	IMPERVIOUS SURFACE:	NO
SUBWAY:	NO	UNDERGROUND UTILITIES:	NO

CAUSE OF SPILL:	TANK FAILURE
WATERBODY AFFECTED:	
SOURCE OF SPILL:	INSTITUTIONAL, EDUCATIONAL, GOV., OTHER
REPORTED BY:	RESPONSIBLE PARTY
REGION:	
UST TRUST?	YES

SPILL INVESTIGATOR:	SACALAND
SPILL CONTACT:	
TELEPHONE:	

SPILLER:	NFTA DAVID SKONEY
ADDRESS:	181 ELLICOTT STREET BUFFALO, NY 14203
TELEPHONE:	

REPORTED BY:	RESPONSIBLE PARTY
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LAST DEC UPDATE:	7/8/1997
CLEAN UP MEET STANDARDS?	NO
PENALTY RECOMMENDED?	NO

CALLER REMARKS: FOUND 2 UNKNOWN UST S ON-SITE. PETROLEUM ODORS NOTED IN SOIL, WHEN TANKS WERE EXCAVATED.

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAC-NCHD 02/28/95: NFTA PROPOSES REMOVING TANKS IN SUMMER OF 96 AS PART OF NEW FUEL FARM PROJECT. 08/14/95: NFTA SAMPLED CONTENTS,HIGH BTEX INDICATING TANKS STORED GASOLINE AT ONE TIME,FLASHPOINT IS >180F. 08/15/95: NFTA SAMPLE TANKS,RESULTS SHOW BTEXandTANKS HAD GAS AT ONE TIME,FLASH IS >180F,SAC INSPECT,TANKS STUCK W/PASTE INDICATE WATER IN TANKS,NO SHEEN OBSERVED BUT DISCOLORED WATER WITH ODOR IN 1 TANK. 08/16/95: NFTA WAITING FOR APPROVAL FROM NIAGARA FALLS WWTP,THEY WILL EMPTY TANKS INTO THE SEWER and REMOVE TANKS IN SPRING. 09/15/95: SAC TELECOND.SKONEY,TANKS WERE EMPTIED 9/7/95,SCHEDULED FOR REMOVAL IN SPRING 96,MAY REMOVE THEM SOONER IF THEY USE NFTA PERSONNEL and NOT CONTRACTOR. 11/1/96:RECEIVED ANALYTICAL RESULTS,GUIDANCE VALUES EXCEEDED,SAC DISCUSS W/RNL, I PER RNL ONCE NCHD REPORT IS RECEIVED. 6/30/97:RECEIVED NCHD REPORT CONFIRMING TANK PULL ON 7/24/96,WILL MAKE I AND TRACK BIOREMEDIATION

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

LUST

SEARCH ID: 41	DIST/DIR: 0.44 NW	ELEVATION: 582	MAP ID: 19
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NAME: NIAGARA FALLS AIRPORT
ADDRESS: NIAGARA FALLS BLVD
NIAGARA FALLS NY
NIAGARA

REV: 1/10/12
ID1: 9412578
ID2: 205028
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NY DEC

UNDER 9602893.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

LUST

SEARCH ID: 40 **DIST/DIR:** 0.49 SW **ELEVATION:** 574 **MAP ID:** 20

NAME: DUNN TIRE	REV: 1/10/12
ADDRESS: 9540 NIAGARA FALLS BLVD	ID1: 0075561
NIAGARA FALLS NY 14304	ID2: 81054
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NY DEC	

SITE INFORMATION

SPILL DATE:	1/16/2001
DATE REPORTED:	1/16/2001
CLOSED DATE:	11/12/2004
INSP DATE: 1/29/2003	
MATERIAL SPILLED: GASOLINE	AMOUNT SPILLED: 0 G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 0 G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL:	TANK FAILURE
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	OTHER
REGION:	
UST TRUST?	YES

SPILL INVESTIGATOR:	RMCROSSE
SPILL CONTACT:	BILL REUTER (CONTRACTOR)
TELEPHONE:	(716) 754-4148

SPILLER:	FRANK AMENDOLA
	FRANK AMENDOLA
ADDRESS:	POB 408
	NIAGARA FALLS, NY 14303-
TELEPHONE:	

REPORTED BY:	OTHER
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LAST DEC UPDATE:	11/12/2004
CLEAN UP MEET STANDARDS?	NO
PENALTY RECOMMENDED?	NO

CALLER REMARKS: DURING REMOVAL OF 4 UST S (TWO 1,000-GAL. GASOLINE; ONE 300-GAL. WASTE OIL; ONE 500-GAL. HEATING OIL TANK, CONTAMINATION NOTED AROUND GASOLINE AND WASTE OIL TANKS.

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 1/24/01:SAC TELECON JIM WEHNER - GREEN ENVIRONMENTAL SPECIALISTS, HE HAS REMOVED THE TANKS AND STAGED CONTAMINATED SOIL ON THE PROPERTY, HE HAS EXCAVATED TO THE FOUNDATION AND BELIEVES SOME HAS GONE UNDERNEATH THE BUILDING, HE WILL CONTINUE TO EXCAVATE WHERE HE CAN BUT REQUESTED AN INSPECTION, SAC SAID HE WOULD ARRANGE TO HAVE THE NIAGARA COUNTY HEALTH DEPARTMENT INSPECT THE SITE. 1/24/01:SAC TELECON PAUL DICKY - NCHD REGARDING THE SITE AND ASKED IF HE COULD DO AN INSPECTION AT THE SITE, MR. DICKY RECOGNIZED WHERE THE SITE WAS AND INDICATED THAT THIS SITE HAD SOME LOW LEVEL RADIOACTIVE CONTAMINATION AT THE SITE THAT HAD RESTRICTIONS REGARDING EXCAVATION OF THE SOIL AT THE SITE, MR. DICKY WILL INSPECT ALONG WITH JOHN ARCHIBALD FROM THE NCHD WHO IS INVOLVED WITH RADIOACTIVE MATTERS FOR THE COUNTY, SAC THEN CALLED JIM WEHNER TO NOTIFY HIM OF THE SITUATION AND TO HAVE HIM STOP THE EXCAVATING AND

- Continued on next page -

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

LUST

SEARCH ID: 40 **DIST/DIR:** 0.49 SW **ELEVATION:** 574 **MAP ID:** 20

<p>NAME: DUNN TIRE ADDRESS: 9540 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304 NIAGARA CONTACT: SOURCE: NY DEC</p>	<p>REV: 1/10/12 ID1: 0075561 ID2: 81054 STATUS: CLOSED PHONE:</p>
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THAT THE NCHD WAS GOING TO INSPECT THE SITE. 1/24/01:SAC TELECON PAUL DICKY - THEY INSPECTED THE SITE BUT THEY DID NOT HAVE A METER TO TELL IF THE SOIL WAS OF CONCERN, THE PROBLEM AT THE SITE IS THAT THE RADIOACTIVE MATERIAL WAS IN THE SLAG THAT WAS USED JUST BELOW THE PAVED AREA ON THE SITE, THIS MATERIAL WAS NOW MIXED IN WITH THE PETROLEUM CONTAMINATED SOIL AND NOW COULD NOT BE SEGREGATED EASILY SO THAT IT COULD BE TAKEN TO MODERN DISPOSAL AS WAS ORIGINALLY PLANNED, IT WOULD HAVE TO GO TO A FACILITY THAT TAKES MIXED WASTE BASED ON THE LEVEL OF RADIOACTIVITY AND THAT WOULD MEAN IT WOULD HAVE TO BE TRANSPORTED TO UTAH, THEY WILL CONTACT BARB IGNATZ WITH THE NYS HEALTH DEPT TO NOTIFY HER OF THE SITUATION, SAC NOTIFIED PJB REGARDING THE SITE.

1/24/01:SAC TELECON BARB IGNATZ - NYS HEALTH DEPT. AND DISCUSSED SITE, MS. IGNATZ WILL CONTACT ALBANY CENTRAL OFFICE OF HEALTH DEPARTMENT TO FIND OUT THEIR RECOMMENDATIONS AND GET BACK TO SAC. 1/26/01:SAC TELECON JIM WEHNER - MR. WEHNER WANTED TO KNOW WHAT WAS STATUS OF THE PROJECT, EXCAVATION REMAINS OPEN AND CONTRACTOR IS CONCERNED THAT THE FOUNDATION BEING EXPOSED FOR A LONG TIME COULD CAUSE STRUCTURAL DAMAGE, MR. WEHNER SAID THAT HE WAS IN CONTACT WITH BUTCH EGAN OF ZEBRA TECHNOLOGIES TO PROPOSE A PLAN ABOUT THE USE OF ORCS ON THE SITE SINCE THERE WAS A POSSIBILITY THE SOIL MIGHT HAVE TO BE PLACED IN THE EXCAVATION AND BECAUSE THEY WERE LOOKING INTO THIS REMEDIAL OPTION BECAUSE OF THE CONTAMINATION THAT WAS UNSDER THE FLOOR, SAC TRIED TO CONTACT BARB IGNATZ AND JOHN ARCHIBALD BUT BOTH WERE UNAVAILABLE TODAY, WILL HAVE TO WAIT UNTIL NEXT WEEK, SAC CALLED PAUL DICKY ABOUT THIS AND MR. DICKY SAID HE WOULD SPEAK TO MR. ARCHIBALD WHEN HE CAME BACK AND CALL SAC TO LET HIM KNOW WHAT THEY RECOMMENDED, SAC LATER RECEIVED MESSAGE FROM BARB YOUNGBERG - WHO IS IN DEC DIV OF SOLID AND HAZARDOUS MATERIALS - RADIATION BUREAU TO SEE IF THEY COULD BE OF ANY HELP, SAC WILL CONTACT HER NEXT WEEK. 1/29/01:SAC TELECON PAUL DICKY, MR. DICKY SPOKE TO JOHN ARCHIBALD WHO HAD SPOKEN TO BARB IGNATZ, THE HEALTH DEPARTMENT RECOMMENDED THE SOIL BE PLACED BACK IN THE EXCAVATION, SAC LATER SPOKE TO BARB YOUNGBERG ABOUT THE REMEDIAL OPTIONS AND ABOUT THE HEALTH DEPT. RECOMMENDATION ABOUT BACKFILLING THE EXCAVATION WITH THE CONTAMINATED SOIL, MS. YOUNGBERG DID NOT HAVE A PROBLEM WITH THIS AT THE TIME, SAC HAD DISCUSSED THIS WITH PJB AND IT WAS AGREED THAT IN THIS SPECIAL CASE BECAUSE OF THE POTENTIAL OF RADIOACTIVE MATERIAL IN THE SOIL THAT THIS WOULD TAKE PRECEDENCE AND THAT SOIL WOULD BE ALLOWED TO BE BACKFILLED, SAC CONTACTED JIM WEHNER TO LET HIM KNOW IT WAS OKAY TO BACKFILL THE MATERIAL ON THE SITE.

1/30/01:SAC TELECON BARB YOUNGBERG, MS. YOUNGBERG WANTED TO KNOW IF THE SOIL HAD BEEN BACKFILLED SINCE THEY MAY WANT TO INSPECT IT, SAC TOLDHER HE BELIEVES IT HAD BUT WOULD FIND OUT FOR SURE IF IT HAD BEEN, SAC CALLED JIM WEHNER WHO TOLD HIM THAT THE EXCAVATION HAD BEEN BACKFILLED BUT THEY WERE UNABLE TO BACK FILL ALL THE MATERIAL INTO THE EXCAVATION SO THERE IS STILL SOME THAT THEY STAGED ON AND COVERED WITH PLASTIC. 2/1/01:SAC TELECON BARB YOUNGBERG TO LET HER KNOW ABOUT THE SITE. 2/2/01:SAC RECEIVED MESSAGE FROM BARB YOUNGBERG THAT REPRESENTATIVES FROM THEIR GROUP WERE COMING TO THE SITE ON 2/6/01 TO INSPECT THE SITE WITH THE HEALTH DEPT., SAC e-MAILED HER BACK TO LET HER KNOW HE WOULD BE UNABLE TO ATTEND DUE TO PREVIOUS APPOINTMENT BUT THAT SHE MAY WANT TO CONTACT JIM WEHNER TO ATTEND THE MEETING. 2/7/01:SAC TELECON PAUL DICKY, MR. DICKY SAID THAT AT THE MEETING THE REPRESENTATIVES FROM ALBANY DETERMINED THAT THE SOIL THAT REMAINED ON-SITE WOULD HAVE TO BE DISPOSED AT A MIXED WASTE FACILITY DUE TO THE RADIOACTIVITY OF THE SOIL, HE SAID THAT ALBANY WOULD BE CONTACTING SAC TO DISCUSS THE SITE FURTHER. 3/14/01:SAC TELECON JIM WEHNER - GREEN ENVIRONMENT, REGARDING THE SITE, MR. WEHNER IS STILL ARRANGING FOR THE DISPOSAL OF THE MATERIAL THAT IS PRESENTLY STAGED ON-SITE, DUE TO THE COST INVOLVED IT MAY NOT BE SETTLED SOON, MR. WEHNER WILL SEND IN WORKPLAN ONCE THIS HAS BEEN SETTLED. 5/22/01:SAC TELECON JIM WEHNER, HE WAS GIVEN APPROVAL TO BACKFILL REMAINDER OF THE SOIL BY NYSDOH BY LETTER BUT LETTER INDICATED REMOVAL COULD BE REQUIRED AT A LATER DATE, HE ASKED IF HE COULD INJECT ORCS AROUND THE SITE TO ENCAPSULATE THE AREA UNTIL REMOVAL IS ARRANGED AT SOME LATER DATE, SAC DISCUSS WITH PJB, BASED ON THE NYSDOH LETTER REMOVAL OF SOIL DOES NOT HAVE A DEFINITE TIME REQUIRED SO THEREFORE TREATMENT IS REQUIRED ON THE SOIL ITSELF, SAC TELECON JIM WEHNER INFORMING HIM OF THIS, MR. WEHNER WILL PUT TOGETHER WORKPLAN FOR THE SITE. 01/28/03 RMC/FILE. REASSIGNED SITE FROM SAC. REVIEWED FILE. FOUR USTS REMOVED FROM THE SITE. AN AMOUNT OF PETROLEUM CONTAMINATED SOIL WAS STOCKPILED ON SITE. SOIL WAS LATER PUT BACK IN THE EXCAVATION DUE TO POTENTIAL LOW LEVEL RADIOACTIVITY OF THE AREA FROM SHALLOW BACKFILL USED IN THE PAST. ONE COMPOSITE EXCAVATION SAMPLE TAKEN 1/16/01 SHOWED NO EXCEEDANCES BUT NOT ALL THE STARS COMPOUNDS WERE REPORTED. ALSO NOTE THAT NO SAMPLES WERE TAKEN OF THE MATERIAL PLACED BACK IN THE EXCAVATION. DEC NEEDS THE FOLLOWING FOR PETROLEUM CLOSURE. 1. FOUR BORINGS OUTSIDE THE ORIGINAL EXCAVATION FOR STARS 8021/8270 COMPOUNDS. 2. TWO SAMPLES OF THE MATERIAL PUT BACK IN THE HOLE FOR 8021/8270 STARS COMPOUNDS. DRAFTED LETTER. UPDATE 2/28/03 01/29/03 RMC/SITE. NO SOILS FOUND TO BE STOCKPILED ON SITE. NO OPEN EXCAVATIONS NOTE. UPDATE 2/28/03 04/08/03 RMC/FILE. NO RESPONSE LETTER, REPOSENSE DUE 4/28/03 05/27/03 RMC/FILE. LETTER TO RPS ATTORNY, AS REQUESTED, RESPONDED TO 4/15/03 LETTER, RESPONSE DUE 7/30/03 10/09/03 RMC/FILE. NO REPOSENSE LETTER, TO LEGAL IF NO

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

LUST

SEARCH ID: 40 **DIST/DIR:** 0.49 SW **ELEVATION:** 574 **MAP ID:** 20

NAME: DUNN TIRE
ADDRESS: 9540 NIAGARA FALLS BLVD
NIAGARA FALLS NY 14304
NIAGARA

REV: 1/10/12
ID1: 0075561
ID2: 81054
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NY DEC

RESPONSE BY 10/30/03 10/16/03 RMC/FRANK A/PHONE. HE WILL LOOK INTO GETTING PETROLEUM SAMPLING DONE, UPDATE 11/30/03 12/16/03 RMC/FILE. NOT RECEIVED, ANOTHER LETTER TO THE RP AND HIS ATTORNEY, RESPONSE DUE 12/30/03. 01/15/04 RMC/FILE. NO RESPONSE. LEFT MESSAGE FOR PRP. CALL DUE 1/20/04. 01/26/04 RMC/FRANK A./PHONE. HE CONTACTED AN ENVIRONMENTAL FIRM. RMC ADVISED DEC HAS NOT RECEIVED ANYTHING, HE SAID HE WOULD LOOK INTO AND CALL RIGHT BACK. CALL DUE 1/31/04. 01/26/04 RMC/FRANK A./PHONE. HE SAID HE CALLED TOM OMALLI. RMC ADVISED THAT WORK NEEDS TO BE DONE AND DOCUMENTED, UPDATE 1/31/04. 02/24/04 RMC/FILE. CONTRACTOR HAS CONTACTED NYSDOH RE H AND S, REPORT DUE 3/30/04. 05/01/04 RMC/FILE. RECEIVED MESSAGE THAT HAZARD EVALUATION HAS BEEN HIRED AND THAT THEY ARE WORKING ON H AND S PLAN WITH DOH, UPDATE 5/30/04. 05/24/04 RMC/FILE. RECEIVED WORK PLAN FROM HEI. PLAN ON OBTAINING SIX SETS OF LAB RESULTS. FOUR OUTSIDE THE PREVIOUS EXCAVATION, TWO INSIDE THE PREVIOUS EXCAVATION. PLAN OK WITH DEC, RESULTS DUE 7/30/04. 08/01/04 RMC/FILE. SAC IS WORKING ON PLAN OF ACTION WITH DK, UPDATE 9/1/04. 8/?/04:DKK, SAC TELECON MARK VIRGIL - NYSDOH. DISCUSS COMMENTS BY NYSDOH FOR CONTRACTOR WORKPLAN. MR. VIRGIL WILL DISCUSS W/STEVE GAVITTS OF HIS OFFICE AND GET BACK TO DEC WITH RECOMMENDATIONS. MARK VIRGIL/STEVE GAVITTS - (518) 402-7556 8/24/04:SAC TELECON MARK VIRGIL. MR. VIRGIL WANTED TO KNOW WHERE DEC SPILLS WANTS TO INSTALL BORINGS AND HE WAS LOOKING AT HIS DATA TO DETERMINE RECOMMENDATIONS. SAC FAXED COPY OF SITE DRAWING TO MR. VIRGIL SHOWING WHERE TANKS WERE LOCATED. 8/25/04:SAC TELECON MARK VIRGIL. FURTHER DISCUSSED SITE. A TECHNICIAN FROM HIS DIVISION WILL BE IN THE AREA THIS WEEK OR NEXT ON ANOTHER MATTER. HE WILL HAVE HIM INSPECT SITE TO HELP WITH RECOMMENDATIONS. HE WILL CONTINUE TO EVALUATE HIS DATA AND WILL CALL DEC BACK ONCE EVALUATION IS COMPLETED. 9/29/04:SAC RECEIVED PHONE MESSAGE FROM SCOTT OVERHOFF - HAZARD EVALUATIONS. MR. OVERHOFF SPOKE TO NYSDOH AND THEY ANTICIPATE HAVING AN ANSWER REGARDING THE ON-SITE SOMETIME NEXT WEEK. 11/12/04 RMC/FILE. AFTER HAVING CONFERENCE CALL WITH KING, SAC, AND STATE DOH IN OCTOBER DEC THOUGHT BOINGS OUTSIDE THE RADIATION ZONE WERE GOING TO MOVE FORWARD. LETTER DATED 10/22/04 TO DAN KING FROM STATE DOH BACKTRACKED ON THAT PLAN. DUE TO COST AND SEEMINGLY MOVING TARGET OF REQUIREMENTS BY STATE DOH, DEC WILL NOT PURSUE ACTION AT THIS TIME DUE TO RADIATION RISK VS COST. PETROLEUM TANKS (SOURCE) IS GONE, NO FREE PRODUCT NOTED, NO GW NOTED, RADIATION RISK UNKNOWN IF EXCAVATED, SITE TO BE MADE INACTIVE, LETTER.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRACOR

SEARCH ID: 4 **DIST/DIR:** 0.31 NW **ELEVATION:** 575 **MAP ID:** 18

NAME:	BELL AEROSPACE TEXTRON	REV:	1/10/12
ADDRESS:	9812 NIAGARA FALLS BLVD WHEATFIELD NY 14150 NIAGARA	ID1:	NYD002106276
CONTACT:		ID2:	
SOURCE:	EPA	STATUS:	CA
		PHONE:	

SITE INFORMATION

CONTACT INFORMATION: MICHAEL HEALY
PO BOX 1
BUFFALO NY 14240

PHONE: 7162971000

OWNER NAME: BELL AEROSPACE TEXTRON
OWNER TYPE: P-PRIVATE
OPERATOR: BELL AEROSPACE TEXTRON
OPERATOR TYPE: P-PRIVATE
MAILING ADDRESS: PO BOX 1
BUFFALO, NY 142

UNIVERSE INFORMATION:

RECEIVED DATE: 01/01/2007

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:	Y - SUBJECT TO CORRECTIVE ACTION
SUBJCA TSD 3004:	Y - TSDFS POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004
SUBJCA NON TSD:	N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):	N - NO
BEGINNING OF THE YEAR SNC:	
PERMIT WORKLOAD:	----
CLOSURE WORKLOAD:	----
POST CLOSURE WORKLOAD:	L----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:	L----
CORRECTIVE ACTION WORKLOAD:	Y - CORRECTIVE ACTION WORKLOAD
GENERATOR STATUS:	CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS:
GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE	

INSTITUTIONAL CONTROL:	YES	ENGINEERING CONTROL:	Y
HUMAN EXPOSURE:	+	GW CONTROLS:	+
LAND TYPE:	P-PRIVATE	SHORT TERM GEN:	N
TRANS FACILITY:	N	REC WASTE FROM OFF SITE:	N

IMPORTER ACTIVITY:	N - NO	MIXED WASTE GEN:	N - NO
TRANS ACTIVITY:	N - NO	TSD ACTIVITY:	Y - YES
RECYCLER ACTIVITY:	N - NO	ONSITE BURNER EXEMPT:	N - NO
FURNACE EXEMPTION:	N - NO	UNDER INJECT ACTIVITY:	N - NO
REC WASTE FROM OFF SITE:	N - NO	UNIV WASTE DEST FAC:	N
USED OIL TRANS:	N - NO	USED OIL PROCESSOR:	N - NO
USED OIL REFINER:	N - NO	USED OIL FUEL BURNER:	N - NO
UO FUEL MARKETER TO BURNER:	N	USED OIL SPEC MARKETER:	N - NO

NAIC INFORMATION

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**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRACOR

SEARCH ID: 4 **DIST/DIR:** 0.31 NW **ELEVATION:** 575 **MAP ID:** 18

NAME:	BELL AEROSPACE TEXTRON	REV:	1/10/12
ADDRESS:	9812 NIAGARA FALLS BLVD	ID1:	NYD002106276
	WHEATFIELD NY 14150	ID2:	
	NIAGARA	STATUS:	CA
CONTACT:		PHONE:	
SOURCE:	EPA		

334511 - SEARCH, DETECTION, NAVIGATION, GUIDANCE, AERONAUTICAL, AND NAUTICAL SYSTEM AND INSTRUMENT MANUFACTURING
 336413 - OTHER AIRCRAFT PARTS AND AUXILIARY EQUIPMENT MANUFACTURING
 53112 - LESSORS OF NONRESIDENTIAL BUILDINGS (EXCEPT MINIWAREHOUSES)
 336611 - SHIP BUILDING AND REPAIRING
 334419 - OTHER ELECTRONIC COMPONENT MANUFACTURING
 336411 - AIRCRAFT MANUFACTURING

ENFORCEMENT INFORMATION:

AGENCY:	STATE	DATE:	84/19/1984
TYPE:	INITIAL 3008(A) COMPLIANCE		
AGENCY:	STATE	DATE:	86/02/1986
TYPE:	FINAL 3008(A) COMPLIANCE ORDER		

VIOLATION INFORMATION:

VIOLATION NUMBER:	1	RESPONSIBLE:	S - STATE
DETERMINED:	84/20/1984	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	87/14/1987
TYPE:	TSD IS-GROUND-WATER MONITORING		
VIOLATION NUMBER:	2	RESPONSIBLE:	S - STATE
DETERMINED:	84/20/1984	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	87/14/1987
TYPE:	TSD IS-GROUND-WATER MONITORING		
VIOLATION NUMBER:	3	RESPONSIBLE:	S - STATE
DETERMINED:	11/08/2011	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	11/30/2011
TYPE:	STATE STATUTE OR REGULATION		

CORRECTIVE ACTION INFORMATION

CA EVENT:	80/01/1980	CA772ID - INSTITUTIONAL CONTROLS ESTABLISHED - INFORMATION DEVICE
CA EVENT:	86/15/1986	CA100 - RFI IMPOSITION
CA EVENT:	87/30/1987	CA770NG - ENGINEERING CONTROLS ESTABLISHED - NON-GROUNDWATER CONTROL
CA EVENT:	87/15/1987	CA100 - RFI IMPOSITION
CA EVENT:	87/15/1987	CA070YE - DETERMINATION OF NEED FOR AN RFI - RFI IS NECESSARY
CA EVENT:	90/15/1990	CA050 - RFA COMPLETED
CA EVENT:	90/15/1990	CA250 - CMS IMPOSITION

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Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRACOR

SEARCH ID: 4 **DIST/DIR:** 0.31 NW **ELEVATION:** 575 **MAP ID:** 18

NAME: BELL AEROSPACE TEXTRON
ADDRESS: 9812 NIAGARA FALLS BLVD
WHEATFIELD NY 14150
NIAGARA

REV: 1/10/12
ID1: NYD002106276
ID2:
STATUS: CA
PHONE:

CONTACT:
SOURCE: EPA

CA EVENT:	91/26/1991	CA200 - RFI APPROVED
CA EVENT: CORRECTIVE ACTION PRIORITY	91/08/1991	CA075HI - CA PRIORITIZATION - FACILITY OR AREA WAS ASSIGNED A HIGH
CA EVENT:	91/21/1991	CA110 - RFI WORKPLAN RECEIVED
CA EVENT:	91/04/1991	CA140 - RFI WORKPLAN NOTICE OF DEFICIENCY ISSUED
CA EVENT:	91/14/1991	CA150 - RFI WORKPLAN APPROVED
CA EVENT:	91/07/1991	CA350 - CMS APPROVED
CA EVENT:	91/01/1991	CA200 - RFI APPROVED
CA EVENT:	91/01/1991	CA150 - RFI WORKPLAN APPROVED
CA EVENT:	91/04/1991	CA330 - CMS IMPLEMENTATION BEGUN
CA EVENT:	91/04/1991	CA300 - CMS WORKPLAN APPROVED
CA EVENT:	92/13/1992	CA400 - CA400-REMEDY DECISION
CA EVENT:	92/01/1992	CA500 - CMI WORKPLAN APPROVED
CA EVENT: CORRECTIVE ACTION PRIORITY	92/19/1992	CA075HI - CA PRIORITIZATION - FACILITY OR AREA WAS ASSIGNED A HIGH
CA EVENT:	93/14/1993	CA500 - CMI WORKPLAN APPROVED
CA EVENT:	93/14/1993	CA770GW - ENGINEERING CONTROLS ESTABLISHED - GROUNDWATER CONTROL
CA EVENT:	93/15/1993	CA770GW - ENGINEERING CONTROLS ESTABLISHED - GROUNDWATER CONTROL
CA EVENT:	94/02/1994	CA400 - CA400-REMEDY DECISION
CA EVENT:	94/28/1994	CA770GW - ENGINEERING CONTROLS ESTABLISHED - GROUNDWATER CONTROL
CA EVENT:	94/28/1994	CA550
CA EVENT:	95/13/1995	CA550
CA EVENT:	95/14/1995	CA577
CA EVENT:	95/25/1995	CA577
CA EVENT:	95/14/1995	CA550
CA EVENT: AMENABLE TO STABILIZATION ACTIVITY (OTHER REASON)	95/01/1995	CA225NR - STABILIZATION MEASURES EVALUATION - FACILITY IS NOT
CA EVENT:	96/10/1996	CA577

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Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRACOR

SEARCH ID: 4 **DIST/DIR:** 0.31 NW **ELEVATION:** 575 **MAP ID:** 18

NAME: BELL AEROSPACE TEXTRON
ADDRESS: 9812 NIAGARA FALLS BLVD
WHEATFIELD NY 14150
NIAGARA
CONTACT:
SOURCE: EPA

REV: 1/10/12
ID1: NYD002106276
ID2:
STATUS: CA
PHONE:

CA EVENT: 97/19/1997 CA577

CA EVENT: 99/29/1999 CA750YE - GROUNDWATER RELEASES CONTROLLED DETERMINATION - MIGRATION OF CONTAMINATED GW IS UNDER CONTROL

CA EVENT: 99/30/1999 CA725IN - CURRENT HUMAN EXPOSURES UNDER CONTROL - MORE INFORMATION NEEDED

CA EVENT: 99/16/1999 CA577

CA EVENT: 00/20/2000 CA725YE - CURRENT HUMAN EXPOSURES UNDER CONTROL - UNDER CONTROL

CA EVENT: 00/18/2000 CA577

CA EVENT: 01/07/2001 CA577

CA EVENT: 01/04/2001 CA577

CA EVENT: 01/02/2001 CA577

CA EVENT: 02/26/2002 CA577

HAZARDOUS WASTE INFORMATION:

D001 - Ignitable waste

F001 - The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F002 - 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 solvents listed in F001, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F003 - 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.

F005 - 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.

F007 - Spent cyanide plating bath solutions from electroplating operations.

F008 - Plating bath residues from the bottom of plating baths from electroplating operations in which cyanides are used in the process.

F009 - Spent stripping and cleaning bath solutions from electroplating operations in which cyanides are used in the process.

F010 - Quenching bath residues from oil baths from metal heat treating operations in which cyanides are used in the process.

F011 - Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.

K069 - Emission control dust/sludge from secondary lead smelting.

P015 - Beryllium

P030 - Cyanides (soluble cyanide salts), not otherwise specified

P058 - Acetic acid, fluoro-, sodium salt (OR) Fluoroacetic acid, sodium salt

P104 - Silver cyanide (OR) Silver cyanide Ag(CN)

P105 - Sodium azide

U002 - 2-Propanone (I) (OR) Acetone (I)

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Environmental FirstSearch
Site Detail Report

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NIAGARA FALLS NY 14304

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RCRACOR

SEARCH ID: 4 **DIST/DIR:** 0.31 NW **ELEVATION:** 575 **MAP ID:** 18

NAME: BELL AEROSPACE TEXTRON
ADDRESS: 9812 NIAGARA FALLS BLVD
WHEATFIELD NY 14150
NIAGARA

REV: 1/10/12
ID1: NYD002106276
ID2:
STATUS: CA
PHONE:

CONTACT:
SOURCE: EPA

- U080 - Methane, dichloro- (OR) Methylene chloride
- U113 - 2-Propenoic acid, ethyl ester (I) (OR) Ethyl acrylate (I)
- U133 - Hydrazine (R,T)
- U134 - Hydrofluoric acid (C,T) (OR) Hydrogen fluoride (C,T)
- U151 - Mercury (OR)
- U159 - 2-Butanone (I,T) (OR) Methyl ethyl ketone (MEK) (I,T)
- U210 - Ethene, tetrachloro- (OR) Tetrachloroethylene
- U220 - Benzene, methyl- (OR) Toluene
- U226 - Ethane, 1,1,1-trichloro- (OR) Methyl chloroform
- U228 - Ethene, trichloro- (OR) Trichloroethylene
- U239 - Benzene, dimethyl- (I,T) (OR) Xylene (I)

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRACOR

SEARCH ID: 3 **DIST/DIR:** 0.44 NW **ELEVATION:** 582 **MAP ID:** 19

NAME:	914TH AIRLIFT WING (AFRC)	REV:	1/10/12
ADDRESS:	NFAFB N FALLS NY 14304 NIAGARA	ID1:	NY0570024273
CONTACT:		ID2:	
SOURCE:	EPA	STATUS:	CA
		PHONE:	

SITE INFORMATION

OWNER NAME: U.S. AIR FORCE RESERVE COMMAND (AFRC)
OWNER TYPE: F-FEDERAL
OPERATOR: U.S. AIR FORCE RESERVE COMMAND (AFRC)
OPERATOR TYPE: F-FEDERAL
MAILING ADDRESS: 2405

UNIVERSE INFORMATION:

RECEIVED DATE: 02/12/2008

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: Y - SUBJECT TO CORRECTIVE ACTION
SUBJCA TSD 3004: Y - TSDFS POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004
SUBJCA NON TSD: N - NO
SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD: ----
CLOSURE WORKLOAD: ----
POST CLOSURE WORKLOAD: ----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: L--S-
CORRECTIVE ACTION WORKLOAD: Y - CORRECTIVE ACTION WORKLOAD
GENERATOR STATUS: LQG - LARGE QUANTITY GENERATORS: GENERATES MORE THAN 1000
KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:	YES	ENGINEERING CONTROL:	Y
HUMAN EXPOSURE:	+	GW CONTROLS:	+
LAND TYPE:	F-FEDERAL	SHORT TERM GEN:	N
TRANS FACILITY:	N	REC WASTE FROM OFF SITE:	N
IMPORTER ACTIVITY:	N - NO	MIXED WASTE GEN:	N - NO
TRANS ACTIVITY:	N - NO	TSD ACTIVITY:	N - NO
RECYCLER ACTIVITY:	N - NO	ONSITE BURNER EXEMPT:	N - NO
FURNACE EXEMPTION:	N - NO	UNDER INJECT ACTIVITY:	N - NO
REC WASTE FROM OFF SITE:	N - NO	UNIV WASTE DEST FAC:	N
USED OIL TRANS:	N - NO	USED OIL PROCESSOR:	N - NO
USED OIL REFINER:	N - NO	USED OIL FUEL BURNER:	N - NO
UO FUEL MARKETER TO BURNER:	N	USED OIL SPEC MARKETER:	N - NO

NAIC INFORMATION

48811 - AIRPORT OPERATIONS
92811 - NATIONAL SECURITY
811111 - GENERAL AUTOMOTIVE REPAIR

ENFORCEMENT INFORMATION:

- Continued on next page -

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRACOR

SEARCH ID: 3 **DIST/DIR:** 0.44 NW **ELEVATION:** 582 **MAP ID:** 19

<p>NAME: 914TH AIRLIFT WING (AFRC) ADDRESS: NFAFB N FALLS NY 14304 NIAGARA CONTACT: SOURCE: EPA</p>	<p>REV: 1/10/12 ID1: NY0570024273 ID2: STATUS: CA PHONE:</p>
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AGENCY: STATE **DATE:** 84/31/1984
TYPE: WRITTEN INFORMAL

AGENCY: STATE **DATE:** 86/14/1986
TYPE: WRITTEN INFORMAL

AGENCY: STATE **DATE:** 90/25/1990
TYPE: WRITTEN INFORMAL

AGENCY: STATE **DATE:** 91/16/1991
TYPE: WRITTEN INFORMAL

AGENCY: STATE **DATE:** 92/03/1992
TYPE: WRITTEN INFORMAL

AGENCY: STATE **DATE:** 94/16/1994
TYPE: WRITTEN INFORMAL

AGENCY: STATE **DATE:** 95/22/1995
TYPE: WRITTEN INFORMAL

AGENCY: EPA **DATE:** 99/26/1999
TYPE: WRITTEN INFORMAL

AGENCY: EPA **DATE:** 09/16/2009
TYPE: WRITTEN INFORMAL

VIOLATION INFORMATION:

VIOLATION NUMBER: 1 **RESPONSIBLE:** S - STATE
DETERMINED: 84/31/1984 **DETERMINED BY:** S - STATE
CITATION: **RESOLVED:** 85/16/1985
TYPE: TSD - GENERAL

VIOLATION NUMBER: 2 **RESPONSIBLE:** S - STATE
DETERMINED: 85/23/1985 **DETERMINED BY:** S - STATE
CITATION: **RESOLVED:** 86/14/1986
TYPE: TSD - GENERAL

VIOLATION NUMBER: 3 **RESPONSIBLE:** E - EPA
DETERMINED: 86/23/1986 **DETERMINED BY:** E - EPA
CITATION: **RESOLVED:** 90/08/1990
TYPE: TSD - GENERAL

VIOLATION NUMBER: 4 **RESPONSIBLE:** E - EPA
DETERMINED: 98/29/1998 **DETERMINED BY:** E - EPA
CITATION: **RESOLVED:** 99/04/1999
TYPE: GENERATORS - GENERAL

VIOLATION NUMBER: 14 **RESPONSIBLE:** S - STATE
DETERMINED: 89/28/1989 **DETERMINED BY:** S - STATE
CITATION: **RESOLVED:** 90/08/1990

- Continued on next page -

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRACOR

SEARCH ID: 3 **DIST/DIR:** 0.44 NW **ELEVATION:** 582 **MAP ID:** 19

<p>NAME: 914TH AIRLIFT WING (AFRC) ADDRESS: NFAFB N FALLS NY 14304 NIAGARA CONTACT: SOURCE: EPA</p>	<p>REV: 1/10/12 ID1: NY0570024273 ID2: STATUS: CA PHONE:</p>
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TYPE:	TSD - GENERAL		
VIOLATION NUMBER:	15	RESPONSIBLE:	S - STATE
DETERMINED:	91/16/1991	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	91/23/1991
TYPE:	TSD - GENERAL		
VIOLATION NUMBER:	16	RESPONSIBLE:	S - STATE
DETERMINED:	92/03/1992	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	92/21/1992
TYPE:	TSD - GENERAL		
VIOLATION NUMBER:	17	RESPONSIBLE:	S - STATE
DETERMINED:	94/16/1994	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	94/01/1994
TYPE:	LDR - GENERAL		
VIOLATION NUMBER:	18	RESPONSIBLE:	S - STATE
DETERMINED:	95/22/1995	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	95/03/1995
TYPE:	TSD - GENERAL		
VIOLATION NUMBER:	19	RESPONSIBLE:	E - EPA
DETERMINED:	08/23/2008	DETERMINED BY:	E - EPA
CITATION:		RESOLVED:	//
TYPE:	GENERATORS - PRE-TRANSPORT		
VIOLATION NUMBER:	20	RESPONSIBLE:	E - EPA
DETERMINED:	08/23/2008	DETERMINED BY:	E - EPA
CITATION:		RESOLVED:	//
TYPE:	TSD IS-CONTINGENCY PLAN AND EMERGENCY PROCEDURES		

CORRECTIVE ACTION INFORMATION

CA EVENT:	87/12/1987	CA770NG - ENGINEERING CONTROLS ESTABLISHED - NON-GROUNDWATER CONTROL
CA EVENT:	87/12/1987	CA100 - RFI IMPOSITION
CA EVENT:	87/12/1987	CA100 - RFI IMPOSITION
CA EVENT:	87/12/1987	CA772EP - INSTITUTIONAL CONTROLS ESTABLISHED - ENFORCEMENT AND PERMIT TOOLS
CA EVENT:	89/30/1989	CA150 - RFI WORKPLAN APPROVED
CA EVENT:	89/31/1989	CA050 - RFA COMPLETED
CA EVENT:	90/27/1990	CA070YE - DETERMINATION OF NEED FOR AN RFI - RFI IS NECESSARY
CA EVENT:	90/30/1990	CA250 - CMS IMPOSITION
CA EVENT:	90/30/1990	CA200 - RFI APPROVED

- Continued on next page -

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRACOR

SEARCH ID: 3 **DIST/DIR:** 0.44 NW **ELEVATION:** 582 **MAP ID:** 19

<p>NAME: 914TH AIRLIFT WING (AFRC) ADDRESS: NFAFB N FALLS NY 14304 NIAGARA CONTACT: SOURCE: EPA</p>	<p>REV: 1/10/12 ID1: NY0570024273 ID2: STATUS: CA PHONE:</p>
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CA EVENT:	90/27/1990	CA100 - RFI IMPOSITION
CA EVENT:	91/15/1991	CA260 - CMS WORKPLAN RECEIVED
CA EVENT:	92/24/1992	CA225YE - STABILIZATION MEASURES EVALUATION - FACILITY IS AMENABLE TO STABILIZATION ACTIVITY
CA EVENT:	92/01/1992	CA155 - RFI SUPPLEMENTAL INFORMATION REQUESTED BY AGENCY
CA EVENT:	92/08/1992	CA075HI - CA PRIORITIZATION - FACILITY OR AREA WAS ASSIGNED A HIGH CORRECTIVE ACTION PRIORITY
CA EVENT:	92/17/1992	CA770GW - ENGINEERING CONTROLS ESTABLISHED - GROUNDWATER CONTROL
CA EVENT:	92/01/1992	CA190 - RFI REPORT RECEIVED
CA EVENT:	92/01/1992	CA190 - RFI REPORT RECEIVED
CA EVENT:	92/17/1992	CA300 - CMS WORKPLAN APPROVED
CA EVENT:	92/01/1992	CA190 - RFI REPORT RECEIVED
CA EVENT:	92/01/1992	CA155 - RFI SUPPLEMENTAL INFORMATION REQUESTED BY AGENCY
CA EVENT:	94/18/1994	CA190 - RFI REPORT RECEIVED
CA EVENT:	94/01/1994	CA155 - RFI SUPPLEMENTAL INFORMATION REQUESTED BY AGENCY
CA EVENT:	94/30/1994	CA170 - RFI SUPPLEMENTAL INFORMATION DEEMED SATISFACTORY
CA EVENT:	94/30/1994	CA200 - RFI APPROVED
CA EVENT:	94/01/1994	CA160 - RFI SUPPLEMENTAL INFORMATION RECEIVED
CA EVENT:	94/30/1994	CA155 - RFI SUPPLEMENTAL INFORMATION REQUESTED BY AGENCY
CA EVENT:	94/19/1994	CA260 - CMS WORKPLAN RECEIVED
CA EVENT:	94/30/1994	CA250 - CMS IMPOSITION
CA EVENT:	94/11/1994	CA155 - RFI SUPPLEMENTAL INFORMATION REQUESTED BY AGENCY
CA EVENT:	94/30/1994	CA200 - RFI APPROVED
CA EVENT:	95/04/1995	CA140 - RFI WORKPLAN NOTICE OF DEFICIENCY ISSUED
CA EVENT:	95/12/1995	CA155 - RFI SUPPLEMENTAL INFORMATION REQUESTED BY AGENCY
CA EVENT:	95/31/1995	CA145
CA EVENT:	95/01/1995	CA190 - RFI REPORT RECEIVED

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Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRACOR

SEARCH ID: 3 **DIST/DIR:** 0.44 NW **ELEVATION:** 582 **MAP ID:** 19

<p>NAME: 914TH AIRLIFT WING (AFRC) ADDRESS: NFAFB N FALLS NY 14304 NIAGARA CONTACT: SOURCE: EPA</p>	<p>REV: 1/10/12 ID1: NY0570024273 ID2: STATUS: CA PHONE:</p>
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CA EVENT:	95/26/1995	CA340 - CMS REPORT RECEIVED
CA EVENT:	95/04/1995	CA160 - RFI SUPPLEMENTAL INFORMATION RECEIVED
CA EVENT:	95/25/1995	CA270 - CMS WORKPLAN MODIFICATION REQUESTED BY AGENCY
CA EVENT:	95/21/1995	CA305 - CMS SUPPLEMENTAL INFORMATION REQUESTED BY AGENCY
CA EVENT:	95/15/1995	CA300 - CMS WORKPLAN APPROVED
CA EVENT:	95/25/1995	CA260 - CMS WORKPLAN RECEIVED
CA EVENT:	95/27/1995	CA150 - RFI WORKPLAN APPROVED
CA EVENT:	96/01/1996	CA615
CA EVENT:	96/28/1996	CA200 - RFI APPROVED
CA EVENT:	96/30/1996	CA610
CA EVENT:	96/15/1996	CA400 - CA400-REMEDY DECISION
CA EVENT: AND/OR TREATMENT	96/21/1996	CA600SR - STABILIZATION MEASURES IMPLEMENTED - SOURCE REMOVAL
CA EVENT:	96/21/1996	CA350 - CMS APPROVED
CA EVENT:	96/16/1996	CA155 - RFI SUPPLEMENTAL INFORMATION REQUESTED BY AGENCY
CA EVENT:	96/09/1996	CA380 - DATE FOR PUBLIC NOTICE ON PROPOSED REMEDY
CA EVENT:	96/27/1996	CA310 - CMS SUPPLEMENTAL INFORMATION RECEIVED
CA EVENT:	97/18/1997	CA150 - RFI WORKPLAN APPROVED
CA EVENT:	97/23/1997	CA500 - CMI WORKPLAN APPROVED
CA EVENT:	97/20/1997	CA650 - STABILIZATION CONSTRUCTION COMPLETED
CA EVENT:	98/30/1998	CA195 - RFI PROGRESS REPORTS RECEIVED
CA EVENT:	98/30/1998	CA190 - RFI REPORT RECEIVED
CA EVENT:	98/13/1998	CA150 - RFI WORKPLAN APPROVED
CA EVENT:	98/29/1998	CA200 - RFI APPROVED
CA EVENT:	98/29/1998	CA160 - RFI SUPPLEMENTAL INFORMATION RECEIVED
CA EVENT:	98/16/1998	CA155 - RFI SUPPLEMENTAL INFORMATION REQUESTED BY AGENCY
CA EVENT:	98/11/1998	CA170 - RFI SUPPLEMENTAL INFORMATION DEEMED SATISFACTORY

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**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRACOR

SEARCH ID: 3 **DIST/DIR:** 0.44 NW **ELEVATION:** 582 **MAP ID:** 19

NAME: 914TH AIRLIFT WING (AFRC)	REV: 1/10/12
ADDRESS: NFAFB	ID1: NY0570024273
N FALLS NY 14304	ID2:
NIAGARA	STATUS: CA
CONTACT:	PHONE:
SOURCE: EPA	

CA EVENT: 98/30/1998 CA150 - RFI WORKPLAN APPROVED

CA EVENT: 98/04/1998 CA577

CA EVENT: 98/17/1998 CA110 - RFI WORKPLAN RECEIVED

CA EVENT: 98/01/1998 CA110 - RFI WORKPLAN RECEIVED

CA EVENT: 99/06/1999 CA550

CA EVENT: 99/03/1999 CA577

CA EVENT: 99/30/1999 CA577

CA EVENT: 00/02/2000 CA190 - RFI REPORT RECEIVED

CA EVENT: 00/02/2000 CA340 - CMS REPORT RECEIVED

CA EVENT: 00/29/2000 CA772GC - INSTITUTIONAL CONTROLS ESTABLISHED - GOVERNMENTAL CONTROL

CA EVENT: 00/29/2000 CA750YE - GROUNDWATER RELEASES CONTROLLED DETERMINATION - MIGRATION OF CONTAMINATED GW IS UNDER CONTROL

CA EVENT: 00/29/2000 CA725YE - CURRENT HUMAN EXPOSURES UNDER CONTROL - UNDER CONTROL

CA EVENT: 00/28/2000 CA610

CA EVENT: 00/22/2000 CA600GW - STABILIZATION MEASURES IMPLEMENTED - GROUNDWATER EXTRACTION AND TREATMENT

CA EVENT: 00/31/2000 CA577

CA EVENT: 00/11/2000 CA200 - RFI APPROVED

CA EVENT: 01/16/2001 CA577

CA EVENT: 01/06/2001 CA200 - RFI APPROVED

CA EVENT: 07/26/2007 CA550RC - REMEDY CONSTRUCTION - REMEDY CONSTRUCTED

CA EVENT: 07/26/2007 CA400 - CA400-REMEDY DECISION

HAZARDOUS WASTE INFORMATION:

B001
B002
B003
B004
B005
B006
B007
D001 - Ignitable waste

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Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRACOR

SEARCH ID: 3 **DIST/DIR:** 0.44 NW **ELEVATION:** 582 **MAP ID:** 19

NAME: 914TH AIRLIFT WING (AFRC)
ADDRESS: NFAFB
N FALLS NY 14304
NIAGARA
CONTACT:
SOURCE: EPA

REV: 1/10/12
ID1: NY0570024273
ID2:
STATUS: CA
PHONE:

D002 - Corrosive waste

D003 - Reactive waste

D004 - Arsenic

D005 - Barium

D006 - Cadmium

D007 - Chromium

D008 - Lead

D009 - Mercury

D010 - Selenium

D011 - Silver

D016 - 2,4-D (2,4-Dichlorophenoxyacetic acid)

D018 - Benzene

D026 - Cresol

D027 - 1,4-Dichlorobenzene

D029 - 1,1-Dichloroethylene

D032 - Hexachlorobenzene

D035 - Methyl ethyl ketone

D037 - Pentachlorophenol

D039 - Tetrachloroethylene

D040 - Trichloroethylene

D043 - Vinyl chloride

F001 - The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F002 - 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 solvents listed in F001, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F003 - 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.

F005 - 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.

LABP - Lab Pack

P030 - Cyanides (soluble cyanide salts), not otherwise specified

P098 - Potassium cyanide (OR) Potassium cyanide K(CN)

P105 - Sodium azide

U002 - 2-Propanone (I) (OR) Acetone (I)

U019 - Benzene (I,T)

U041 - Epichlorohydrin (OR) Oxirane, (chloromethyl)-

U103 - Dimethyl sulfate (OR) Sulfuric acid, dimethyl ester

U117 - Ethane, 1,1 -oxybis-(I) (OR) Ethyl ether (I)

U154 - Methanol (I) (OR) Methyl alcohol (I)

U159 - 2-Butanone (I,T) (OR) Methyl ethyl ketone (MEK) (I,T)

U217 - Nitric acid, thallium(1+) salt (OR) Thallium(I) nitrate

U279 - Carbaryl (OR) 1-Naphthalenol, methylcarbamate

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRAGN

SEARCH ID: 9 **DIST/DIR:** 0.14 NW **ELEVATION:** 580 **MAP ID:** 4

NAME:	SPILL 0703811 CARAVELLE	REV:	1/10/12
ADDRESS:	CARAVELLE DR and NIAGARA FALLS BLVD RA FALLS NY 14304 NIAGARA	ID1:	NYP000961912
CONTACT:		ID2:	
SOURCE:	EPA	STATUS:	LGN
		PHONE:	

SITE INFORMATION

OWNER NAME: NIAGARA MOHAWK
OWNER TYPE: P-PRIVATE
OPERATOR: NIAGARA MOHAWK
OPERATOR TYPE: P-PRIVATE
MAILING ADDRESS: 300 ERIE BLVD WEST
 SYRACUSE, NY 132024250

UNIVERSE INFORMATION:

RECEIVED DATE: 03/03/2008

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO
SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO
SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD: ----
CLOSURE WORKLOAD: ----
POST CLOSURE WORKLOAD: ----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: ----
CORRECTIVE ACTION WORKLOAD: N - NO
GENERATOR STATUS: LQG - LARGE QUANTITY GENERATORS: GENERATES MORE THAN 1000
 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:	N-NO	ENGINEERING CONTROL:	N
HUMAN EXPOSURE:	N-NO	GW CONTROLS:	N- NO
LAND TYPE:	P-PRIVATE	SHORT TERM GEN:	N
TRANS FACILITY:	N	REC WASTE FROM OFF SITE:	N
IMPORTER ACTIVITY:	N - NO	MIXED WASTE GEN:	N - NO
TRANS ACTIVITY:	N - NO	TSD ACTIVITY:	N - NO
RECYCLER ACTIVITY:	N - NO	ONSITE BURNER EXEMPT:	N - NO
FURNACE EXEMPTION:	N - NO	UNDER INJECT ACTIVITY:	N - NO
REC WASTE FROM OFF SITE:	N - NO	UNIV WASTE DEST FAC:	N
USED OIL TRANS:	N - NO	USED OIL PROCESSOR:	N - NO
USED OIL REFINER:	N - NO	USED OIL FUEL BURNER:	N - NO
UO FUEL MARKETTER TO BURNER:	N	USED OIL SPEC MARKETTER:	N - NO

NAIC INFORMATION

221122 - ELECTRIC POWER DISTRIBUTION

ENFORCEMENT INFORMATION:

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRAGN

SEARCH ID: 9 **DIST/DIR:** 0.14 NW **ELEVATION:** 580 **MAP ID:** 4

NAME: SPILL 0703811 CARAVELLE
ADDRESS: CARAVELLE DR and NIAGARA FALLS BLVD
RA FALLS NY 14304
NIAGARA

REV: 1/10/12
ID1: NYP000961912
ID2:
STATUS: LGN
PHONE:

CONTACT:
SOURCE: EPA

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

B007

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRAGN

SEARCH ID: 8 **DIST/DIR:** 0.16 NE **ELEVATION:** 582 **MAP ID:** 10

<p>NAME: NIAGARA FALLS INTERNATIONAL AIRPORT ADDRESS: NIAGARA AIRPORT NIAGARA FALLS NY 14304 NIAGARA CONTACT: SOURCE: EPA</p>	<p>REV: 1/10/12 ID1: NYD986930923 ID2: STATUS: VGN PHONE:</p>
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SITE INFORMATION

CONTACT INFORMATION: JEFFREY J PITTNER
NIAGARA FALLS BLVD and PORTER RD
NIAGARA FALLS NY 14304

PHONE: 7168557683

OWNER NAME: NFTA
OWNER TYPE: M-MUNICIPAL
OPERATOR: NFTA
OPERATOR TYPE: M-MUNICIPAL
MAILING ADDRESS: NIAGARA FALLS BLVD and PORTER RD
NIAGARA FALLS, NY 14304

UNIVERSE INFORMATION:

RECEIVED DATE: 01/01/2007

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:	N - NO
SUBJCA TSD 3004:	N - NO
SUBJCA NON TSD:	N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):	N - NO
BEGINNING OF THE YEAR SNC:	
PERMIT WORKLOAD:	----
CLOSURE WORKLOAD:	----
POST CLOSURE WORKLOAD:	----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:	----
CORRECTIVE ACTION WORKLOAD:	N - NO
GENERATOR STATUS:	CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS:
GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE	

INSTITUTIONAL CONTROL:	N-NO	ENGINEERING CONTROL:	N
HUMAN EXPOSURE:	N-NO	GW CONTROLS:	N- NO
LAND TYPE:	O-OTHER	SHORT TERM GEN:	N
TRANS FACILITY:	N	REC WASTE FROM OFF SITE:	N
IMPORTER ACTIVITY:	N - NO	MIXED WASTE GEN:	N - NO
TRANS ACTIVITY:	N - NO	TSD ACTIVITY:	N - NO
RECYCLER ACTIVITY:	N - NO	ONSITE BURNER EXEMPT:	N - NO
FURNACE EXEMPTION:	N - NO	UNDER INJECT ACTIVITY:	N - NO
REC WASTE FROM OFF SITE:	N - NO	UNIV WASTE DEST FAC:	N
USED OIL TRANS:	N - NO	USED OIL PROCESSOR:	N - NO
USED OIL REFINER:	N - NO	USED OIL FUEL BURNER:	N - NO
UO FUEL MARKETER TO BURNER:	N	USED OIL SPEC MARKETER:	N - NO

NAIC INFORMATION

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRAGN

SEARCH ID: 8 **DIST/DIR:** 0.16 NE **ELEVATION:** 582 **MAP ID:** 10

NAME: NIAGARA FALLS INTERNATIONAL AIRPORT
ADDRESS: NIAGARA AIRPORT
NIAGARA FALLS NY 14304
NIAGARA

REV: 1/10/12
ID1: NYD986930923
ID2:
STATUS: VGN
PHONE:

CONTACT:
SOURCE: EPA

488119 - OTHER AIRPORT OPERATIONS

ENFORCEMENT INFORMATION:

AGENCY: STATE **DATE:** 03/07/2003
TYPE: WRITTEN INFORMAL

VIOLATION INFORMATION:

VIOLATION NUMBER: 1 **RESPONSIBLE:** S - STATE
DETERMINED: 03/24/2003 **DETERMINED BY:** S - STATE
CITATION: **RESOLVED:** 03/11/2003
TYPE: GENERATORS - GENERAL

HAZARDOUS WASTE INFORMATION:

D001 - Ignitable waste
D007 - Chromium
D008 - Lead

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRAGN

SEARCH ID: 10 **DIST/DIR:** 0.16 NE **ELEVATION:** 582 **MAP ID:** 11

NAME: TSA AT NIAGARA FALLS INTERNATIONAL IAG	REV: 6/6/06
ADDRESS: NIAGARA FALLS BLVD and PORTER RD NIAGARA FALLS NY 14304 NIAGARA	ID1: NYR000125385
CONTACT: THOMAS KOCH	ID2:
SOURCE: EPA	STATUS: VGN
	PHONE: 7166332417 214

SITE INFORMATION

CONTACT INFORMATION: THOMAS KOCH
NIAGARA FALLS BLVD and PORTER RD
NIAGARA FALLS NY 14304

PHONE: 7166332417

UNIVERSE INFORMATION:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

GPRA PERMIT:	N - NO
GPRA POST CLOSURE:	N - NO
GPRA CA:	N - NO
GPRA COMPLIANCE MONITORING and ENFORCEMENT:	N - NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:	N - NO
SUBJCA TSD 3004:	N - NO
SUBJCA NON TSD:	N - NO

SIGNIFICANT NON-COMPLIANCE(SNC):	N - NO
BEGINNING OF THE YEAR SNC:	N - NO
PERMIT WORKLOAD:	----
CLOSURE WORKLOAD:	----
POST CLOSURE WORKLOAD:	----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:	----
CORRECTIVE ACTION WORKLOAD:	N - NO

GENERATOR STATUS: CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZA

NAIC INFORMATION

488119 - OTHER AIRPORT OPERATIONS

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRAGN

SEARCH ID: 7 **DIST/DIR:** 0.21 NE **ELEVATION:** 582 **MAP ID:** 14

NAME: FAA IAG ACTCT	REV: 6/6/06
ADDRESS: NIAGARA FALLS AT CORNER BLVD WHEATFIELD NY 14304 NIAGARA	ID1: NY0690536073
CONTACT: LARRY WEIBEL	ID2:
SOURCE: EPA	STATUS: VGN
	PHONE: 3154557941

SITE INFORMATION

CONTACT INFORMATION: LARRY WEIBEL
100 NORTHERN CONCOURSE
NORTH SYRACUSE NY 13212

PHONE: 3154557941

UNIVERSE INFORMATION:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

GPRA PERMIT:	N - NO
GPRA POST CLOSURE:	N - NO
GPRA CA:	N - NO
GPRA COMPLIANCE MONITORING and ENFORCEMENT:	N - NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:	N - NO
SUBJCA TSD 3004:	N - NO
SUBJCA NON TSD:	N - NO

SIGNIFICANT NON-COMPLIANCE(SNC):	N - NO
BEGINNING OF THE YEAR SNC:	N - NO
PERMIT WORKLOAD:	----
CLOSURE WORKLOAD:	----
POST CLOSURE WORKLOAD:	----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:	----
CORRECTIVE ACTION WORKLOAD:	N - NO

GENERATOR STATUS: CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZA

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Benzene
Ignitable waste

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRAGN

SEARCH ID: 5 **DIST/DIR:** 0.23 NE **ELEVATION:** 582 **MAP ID:** 16

NAME: C R A SERVICES	REV: 1/10/12
ADDRESS: 2055 NIAGARA FALLS BLVD	ID1: NYR000001602
NIAGARA FALLS NY 14304	ID2:
NIAGARA	STATUS: SGN
CONTACT:	PHONE:
SOURCE: EPA	

SITE INFORMATION

CONTACT INFORMATION: ANTHONY YING
NIAGARA FALLS BLVD SUITE 3
NIAGARA FALLS NY 14304

PHONE: 7162972160

OWNER NAME: NIAGARA COUNTY IND DEV AGENCY
OWNER TYPE: P-PRIVATE
OPERATOR: NIAGARA COUNTY IND DEV AGENCY
OPERATOR TYPE: P-PRIVATE
MAILING ADDRESS: 2055 NIAGARA FALLS BL

UNIVERSE INFORMATION:

RECEIVED DATE: 01/01/2007

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:	N - NO
SUBJCA TSD 3004:	N - NO
SUBJCA NON TSD:	N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):	N - NO
BEGINNING OF THE YEAR SNC:	
PERMIT WORKLOAD:	----
CLOSURE WORKLOAD:	----
POST CLOSURE WORKLOAD:	----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:	----
CORRECTIVE ACTION WORKLOAD:	N - NO
GENERATOR STATUS:	SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000
KG/MONTH OF HAZARDOUS WASTE	

INSTITUTIONAL CONTROL:	N-NO	ENGINEERING CONTROL:	N
HUMAN EXPOSURE:	N-NO	GW CONTROLS:	N- NO
LAND TYPE:	P-PRIVATE	SHORT TERM GEN:	N
TRANS FACILITY:	N	REC WASTE FROM OFF SITE:	N

IMPORTER ACTIVITY:	N - NO	MIXED WASTE GEN:	N - NO
TRANS ACTIVITY:	N - NO	TSD ACTIVITY:	N - NO
RECYCLER ACTIVITY:	N - NO	ONSITE BURNER EXEMPT:	N - NO
FURNACE EXEMPTION:	N - NO	UNDER INJECT ACTIVITY:	N - NO
REC WASTE FROM OFF SITE:	N - NO	UNIV WASTE DEST FAC:	N
USED OIL TRANS:	N - NO	USED OIL PROCESSOR:	N - NO
USED OIL REFINER:	N - NO	USED OIL FUEL BURNER:	N - NO
UO FUEL MARKETER TO BURNER:	N	USED OIL SPEC MARKETER:	N - NO

NAIC INFORMATION

- Continued on next page -

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRAGN

SEARCH ID: 5 **DIST/DIR:** 0.23 NE **ELEVATION:** 582 **MAP ID:** 16

<p>NAME: C R A SERVICES ADDRESS: 2055 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304 NIAGARA CONTACT: SOURCE: EPA</p>	<p>REV: 1/10/12 ID1: NYR000001602 ID2: STATUS: SGN PHONE:</p>
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ENFORCEMENT INFORMATION:

AGENCY:	STATE	DATE:	06/15/2006
TYPE:	WRITTEN INFORMAL		
AGENCY:	EPA	DATE:	09/01/2009
TYPE:	VERBAL INFORMAL		

VIOLATION INFORMATION:

VIOLATION NUMBER:	1	RESPONSIBLE:	S - STATE
DETERMINED:	06/07/2006	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	06/06/2006
TYPE:	GENERATORS - PRE-TRANSPORT		
VIOLATION NUMBER:	2	RESPONSIBLE:	S - STATE
DETERMINED:	06/07/2006	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	06/06/2006
TYPE:	STATE STATUTE OR REGULATION		
VIOLATION NUMBER:	3	RESPONSIBLE:	E - EPA
DETERMINED:	09/31/2009	DETERMINED BY:	E - EPA
CITATION:		RESOLVED:	//
TYPE:	LISTING - GENERAL		

HAZARDOUS WASTE INFORMATION:

D002 - Corrosive waste
 F002 - 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 solvents listed in F001, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
 F003 - 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.

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRAGN

SEARCH ID: 6 **DIST/DIR:** 0.25 NE **ELEVATION:** 582 **MAP ID:** 17

NAME:	CALSPAN CORP - FLIGHT RESEARCH	REV:	6/6/06
ADDRESS:	2041 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304 NIAGARA	ID1:	NYR000130914
CONTACT:	JOHN MICHALOVIC	ID2:	
SOURCE:	EPA	STATUS:	VGN
		PHONE:	7166316948

SITE INFORMATION

CONTACT INFORMATION: JOHN MICHALOVIC
PO BOX 400
BUFFALO NY 14225

PHONE: 7166316948

UNIVERSE INFORMATION:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

GPRA PERMIT:	N - NO
GPRA POST CLOSURE:	N - NO
GPRA CA:	N - NO
GPRA COMPLIANCE MONITORING and ENFORCEMENT:	N - NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:	N - NO
SUBJCA TSD 3004:	N - NO
SUBJCA NON TSD:	N - NO

SIGNIFICANT NON-COMPLIANCE(SNC):	N - NO
BEGINNING OF THE YEAR SNC:	N - NO
PERMIT WORKLOAD:	----
CLOSURE WORKLOAD:	----
POST CLOSURE WORKLOAD:	----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:	----
CORRECTIVE ACTION WORKLOAD:	N - NO

GENERATOR STATUS: CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZA

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Ignitable waste

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRATSD

SEARCH ID: 2 **DIST/DIR:** 0.31 NW **ELEVATION:** 575 **MAP ID:** 18

NAME:	BELL AEROSPACE TEXTRON	REV:	12/9/02
ADDRESS:	9812 NIAGARA FALLS BLVD WHEATFIELD NY 14304 NIAGARA	ID1:	NYD002106276
CONTACT:		ID2:	
SOURCE:	EPA	STATUS:	TSD
		PHONE:	

SITE INFORMATION

CONTACT INFORMATION: MICHAEL HEALY
SAFETY ENGINEER
9812 NIAGARA FALLS BLVD
WHEATFIELD NY 14150

PHONE: 7162971000

UNIVERSE NAME:

DF: LAND DISPOSAL FACILITY
INCINERATOR
TSDS SUBJECT TO CORRECTIVE ACT
SUBJECT TO CEI
ST: STORAGE AND TREATMENT
SUBJECT TO CORRECTIVE ACTION

SIC INFORMATION:

3679 - MANUFACTURING - ELECTRONIC COMPONENTS, NEC
3728 - MANUFACTURING - AICRAFT PARTS AND EQUIPMENT, NEC
3662 - UNKNOWN (FLORIDA DATA)
3729 -
3722 -
3731 - MANUFACTURING - SHIP BUILDING AND REPAIRING
3721 - MANUFACTURING - AIRCRAFT

ENFORCEMENT INFORMATION:

AGENCY:	S - STATE	DATE:	02-JUN-86
TYPE:	310 - FINAL 3008(A) COMPLIANCE ORDER		
AGENCY:	S - STATE	DATE:	19-DEC-84
TYPE:	210 - INITIAL 3008(A) COMPLIANCE ORDER		

VIOLATION INFORMATION:

VIOLATION NUMBER:	0001	RESPONSIBLE:	S - STATE
DETERMINED:	20-JUN-84	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	07/14/1987
TYPE:	DGW - TSD GROUNDWATER MONITORING REQUIREMENTS		
VIOLATION NUMBER:	0002	RESPONSIBLE:	S - STATE
DETERMINED:	20-JUN-84	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	07/14/1987
TYPE:	DGW - TSD GROUNDWATER MONITORING REQUIREMENTS		

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRATSD

SEARCH ID: 1 **DIST/DIR:** 0.44 NW **ELEVATION:** 582 **MAP ID:** 19

<p>NAME: 914 TACTICAL AIRLIFT GROUP ADDRESS: NFAFB NIAGARA FALLS NY 14304 Niagara</p> <p>CONTACT: SOURCE: EPA</p>	<p>REV: 12/9/02 ID1: NY0570024273 ID2: STATUS: TSD PHONE:</p>
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SITE INFORMATION

CONTACT INFORMATION: DERMOTT F SMYTH
CHIEF ENG PLNG
NIAGARA FALLS INTL APRT
NIAGARA FALLS INTL APRT NY 14304

PHONE: 7167548123

UNIVERSE NAME:

DF: LAND DISPOSAL FACILITY
INCINERATOR
TSDS SUBJECT TO CORRECTIVE ACT
ST: STORAGE AND TREATMENT
SUBJECT TO CEI
SUBJECT TO CORRECTIVE ACTION

SIC INFORMATION:

9711 - PUBLIC ADMIN. - NATIONAL SECURITY

ENFORCEMENT INFORMATION:

AGENCY:	S - STATE	DATE:	16-MAY-91
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	DATE:	14-FEB-86
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	DATE:	03-JAN-92
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	E - EPA	DATE:	26-JAN-99
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	DATE:	16-MAR-94
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	DATE:	31-OCT-84
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	DATE:	25-JAN-90
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	DATE:	22-FEB-95
TYPE:	120 - WRITTEN INFORMAL		

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Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

RCRATSD

SEARCH ID: 1 **DIST/DIR:** 0.44 NW **ELEVATION:** 582 **MAP ID:** 19

<p>NAME: 914 TACTICAL AIRLIFT GROUP ADDRESS: NFAFB NIAGARA FALLS NY 14304 Niagara CONTACT: SOURCE: EPA</p>	<p>REV: 12/9/02 ID1: NY0570024273 ID2: STATUS: TSD PHONE:</p>
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VIOLATION INFORMATION:

VIOLATION NUMBER:	0001	RESPONSIBLE:	S - STATE
DETERMINED:	31-OCT-84	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	01/16/1985
TYPE:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0002	RESPONSIBLE:	S - STATE
DETERMINED:	23-JUL-85	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	03/14/1986
TYPE:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0003	RESPONSIBLE:	E - EPA
DETERMINED:	23-JUN-86	DETERMINED BY:	E - EPA
CITATION:		RESOLVED:	03/08/1990
TYPE:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0004	RESPONSIBLE:	E - EPA
DETERMINED:	29-SEP-98	DETERMINED BY:	E - EPA
CITATION:	372.2(a)(8)(i)	RESOLVED:	02/04/1999
TYPE:	GER - GENERATOR ALL REQUIREMENTS		

VIOLATION NUMBER:	0014	RESPONSIBLE:	S - STATE
DETERMINED:	28-DEC-89	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	03/08/1990
TYPE:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0015	RESPONSIBLE:	S - STATE
DETERMINED:	16-MAY-91	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	09/23/1991
TYPE:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0016	RESPONSIBLE:	S - STATE
DETERMINED:	03-JAN-92	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	12/21/1992
TYPE:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0017	RESPONSIBLE:	S - STATE
DETERMINED:	16-MAR-94	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	06/01/1994
TYPE:	DLB - TSD LAND BAN REQUIREMENTS		

VIOLATION NUMBER:	0018	RESPONSIBLE:	S - STATE
DETERMINED:	22-FEB-95	DETERMINED BY:	S - STATE
CITATION:		RESOLVED:	04/03/1995
TYPE:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 28 **DIST/DIR:** 0.08 SW **ELEVATION:** 578 **MAP ID:** 1

NAME: NIMO TRANSFORMER SPILL	REV: 4/5/12
ADDRESS: 10313 LORETTA DR	ID1: 0502988
NIAGARA FALLS NY	ID2: 347493
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	6/12/2005
DATE REPORTED:	6/12/2005
CLOSED DATE:	10/6/2005
INSP DATE:	
MATERIAL SPILLED: TRANSFORMER OIL	AMOUNT SPILLED: 25 G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 25 G

RESOURCE AFFECTED

SOIL: NO	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: YES

CAUSE OF SPILL:	EQUIPMENT FAILURE
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	RESPONSIBLE PARTY
REGION:	
UST TRUST?	NO

SPILL INVESTIGATOR:	RJJONAK
SPILL CONTACT:	LISA FREDERICKS
TELEPHONE:	(716) 479-5339

SPILLER:	NIAGARA MOHAWK
	LISA FREDERICKS
ADDRESS:	144 KENSINGTON AVENUE
	BUFFALO, NY 14214
TELEPHONE:	

REPORTED BY:	RESPONSIBLE PARTY
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LAST DEC UPDATE:	10/6/2005
CLEAN UP MEET STANDARDS?	YES
PENALTY RECOMMENDED?	NO

CALLER REMARKS: TRANSFORMER DETERIORATED, CAUSING 25 GALLONS OF TRANSFORMER OIL TO SPILL TO BELOW GRADE. NOT CLEANED UP AS OF YET.

DEC REMARKS:

6/13/2005: RJJ TELECON LISA FREDRICKS,NIMO,SHE SAID THAT ONE OF THEIR SUBMERSIBLE TRANSFORMERS LEAKED,SPILLING ABOUT 25 GAL OF OIL...NIMO RESPONDED AND TOOK A WATER SAMPLE AND PUMPED OUT THE OIL/WATER MIXTURE AND WILL DISPOSE THE PRODUCT...ALL THE OIL WAS CONTAINED IN THEIR CONTAINMENT AREA...LISA WILL SEND ME HER REPORT AND DISPOSAL RECEIPTS...FAXED A COPY OF SPILL TO PAUL DICKEY,NCHD. 9/26/2005; RECEIVED THE DISPOSAL RECEIPTS FROM NIMO FOR THE SLUDGE TAKEN TO AMERICAN RE-FUEL. 10/6/2005: RECEIVED THE PCB ANALYSIS REPORT FOR OILS FROM NIMO...IT INDICATES ALL NON-DETECT FOR ANY PCBs...THE SPILL HAS BEEN CLEANED UP AND PROPERLY DISPOSED OF...NO FURTHER ACTION NEEDED...SPILL CLOSED OUT.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER

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***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 28	DIST/DIR: 0.08 SW	ELEVATION: 578	MAP ID: 1
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NAME: NIMO TRANSFORMER SPILL
ADDRESS: 10313 LORETTA DR
NIAGARA FALLS NY
NIAGARA

REV: 4/5/12
ID1: 0502988
ID2: 347493
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NYSDEC

INFORMATION

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 32 **DIST/DIR:** 0.09 NW **ELEVATION:** 580 **MAP ID:** 2

NAME: OVERHEAD TRANS POLE 101	REV: 4/5/12
ADDRESS: 1730 CARAVELLE DR	ID1: 0703811
NIAGRA FALLS NY	ID2: 383830
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	7/3/2007
DATE REPORTED:	7/3/2007
CLOSED DATE:	1/4/2008
INSP DATE:	7/6/2007
MATERIAL SPILLED:	TRANSFORMER OIL
MATERIAL CLASS:	PETROLEUM
AMOUNT SPILLED:	G
AMOUNT RECOVERED:	0 G

RESOURCE AFFECTED

SOIL:	YES	AIR:	NO
INDOOR AIR:	NO	GROUNDWATER:	NO
SURFACE WATER:	NO	DRINKING WATER:	NO
SEWER:	NO	IMPERVIOUS SURFACE:	NO
SUBWAY:	NO	UNDERGROUND UTILITIES:	NO

CAUSE OF SPILL:	EQUIPMENT FAILURE
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	LOCAL AGENCY
REGION:	
UST TRUST?	NO

SPILL INVESTIGATOR:	rmcrosse
SPILL CONTACT:	LISA MONTESANO
TELEPHONE:	(716) 479-5339

SPILLER:	NATIONAL GRID
	LISA MONTESANO
ADDRESS:	144 KENSINGTON AVENUE
	BUFFALO, NY 14214
TELEPHONE:	

REPORTED BY:	LOCAL AGENCY
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LAST DEC UPDATE:	1/4/2008
CLEAN UP MEET STANDARDS?	YES
PENALTY RECOMMENDED?	NO

CALLER REMARKS: SPILL AMOUNT LESS THAN ONE GALLON, ONTO GRASS AND BLACKTOP, POLE IS LOCATED AT CORNER OF CARAVELLE DRIVE AND NIAGARA FALLS BLVD: CLEANUP CREWS EN ROUTE:

DEC REMARKS:

7/6/07:SAC TELECON PAUL DICKY - NCHD. MR. DICKY SAID HE INSPECTED SITE AND WAS NOT HAPPY WITH THE CLEANUP. HE SAID THE SPILL SITE IS AN APARTMENT COMPLEX W/NEWER PAVEMENT AND THAT THE SPILL CAUSED THE PAVEMENT TO BE BROKEN DOWN. SAC WILL FOLLOW UP W/LISA MONTESANO - NATIONAL GRID. 7/6/07:SAC TELECON LISA MONTESANO. MS. MONTESANO IS AWARE OF THE SITUATION. SHE SAID THAT BOTH NATIONAL GRID AND OP-TECH EMPLOYEES HAVE BEEN TO THE SITE TO CLEANUP THE SPILL. MS. MONTESANO SAID THAT THE SPILLED MATERIAL WAS FIELD TESTED AND THAT THE RESULTS WERE POSITIVE FOR PCBs. MS. MONTESANO SAID THAT THEY BELIEVE THAT THE FIELD TESTS MAY BE AFFECTED BY THE HEAT OF BEING IN THE VEHICLE WHERE IT WILL GIVE YOU A FALSE POSITIVE. THEY ARE GOING TO HAVE THE SAMPLES ANALYZED BY A LABORATORY TO MAKE SURE. ALSO, SHE SPOKE TO BRIAN HUTZLER OF OP-TECH WHO SAID IT LOOKS LIKE THE LOT WAS OLD PAVEMENT THAT WAS NEWLY SEALED SO WHEN THE OIL SPILLED IT BROKE DOWN THE SEALER EXPOSING THE OLD

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**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 32 **DIST/DIR:** 0.09 NW **ELEVATION:** 580 **MAP ID:** 2

NAME: OVERHEAD TRANS POLE 101
ADDRESS: 1730 CARAVELLE DR
NIAGARA FALLS NY
NIAGARA

REV: 4/5/12
ID1: 0703811
ID2: 383830
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NYSDEC

PAVEMENT. IT WAS A VERY SMALL AMOUNT OF SPILLED OIL WHICH WAS MORE OF A SPRAY. IF THE LAB TESTS SHOW THAT THE SPILLED MATERIAL WAS PCB OIL, THEN THEY WILL REPLACE THE PAVEMENT. IF IT TESTS AS NON-PCB OIL, THEN THEY WILL DISCUSS WITH THE PROPERTY OWNER WHAT THEY WOULD LIKE AND POSSIBLY HAVE HIM FILE A CLAIM WITH THE NATIONAL GRID CLAIMS DEPT. THE AFFECTED PARTY COULD THEN ARRANGE TO HAVE THE PAVEMENT REPAIRED. MS. MONTESANO SAID THAT SHE WILL CALL PAUL DICKY TO UPDATE HIM OF THE SITE STATUS. 7/9/07:SAC TELECON LISA MONTESANO. MS. MONTESANO SAID THE RESULTS OF THE TEST OF THE OIL WERE GREATER THAN 50 ppm PCBs. SO THEY WILL BE REMOVING THE AFFECTED PAVEMENT AND SOIL FOR DISPOSAL AT CWM. MS. MONTESANO SAID THEY WILL BE REMOVING AN ADDITIONAL FT OF MATERIAL TO BE CONSERVATIVE. BRIAN HUTZLER AND LINDA SCOTT OF OP-TECH WILL BE DOING THE WORK THIS THURSDAY, 7/12. ANY REPAVING AND RELANDSCAPING WILL BE HANDLED BASED ON WHAT THE PROPERTY OWNER REQUESTS. EITHER NATIONAL GRID WILL ARRANGE TO HAVE THE AREA REPAVED AND RELANDSCAPED OR THE PROPERTY OWNER WILL WORK THROUGH NATIONAL GRID S CLAIMS OFFICE WHERE THE OWNER WILL ARRANGE FOR THE WORK HIMSELF. SHE IS GOING TO CALL PAUL DICKY TO UPDATE HIM ON THE SITE STATUS. 07/13/07 RMC/FILE. NEED INSPECTION AND NATIONAL GRID REPORT. DUE 8/15/07. 10/01/07 RMC/FILE. INSPECTED SITE LAST MONTH. ADDITIONAL CLEANUP WAS DONE AND THE SITE RESTORED. DISPOSAL DUE 10/30/07. 01/2/08 RMC/FILE. CALLED LISA MONTESANO, REQUESTED DISPOSAL RECEIPTS. DUE 1/30/08. 01/04/08 RMC/FILE. RECEIVED DISPOSAL RECEIPTS. NO SPILL ACTION REQUIRED. CLOSE OUT.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 29 **DIST/DIR:** 0.14 NE **ELEVATION:** 582 **MAP ID:** 5

NAME: NOCO	REV: 4/5/12
ADDRESS: 6724 WILLIAMS WHEATFIELD NY NIAGARA	ID1: 0475192
	ID2: 282342
CONTACT:	STATUS: ACTIVE
SOURCE: NYSDEC	PHONE:

SITE INFORMATION

SPILL DATE: 7/13/2004
DATE REPORTED: 7/13/2004
CLOSED DATE:
INSP DATE: 7/22/2004
MATERIAL SPILLED: GASOLINE **AMOUNT SPILLED:** 3000 G
MATERIAL CLASS: PETROLEUM **AMOUNT RECOVERED:** 1500 G

RESOURCE AFFECTED

SOIL: NO	AIR: NO
INDOOR AIR: NO	GROUNDWATER: YES
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL: EQUIPMENT FAILURE
WATERBODY AFFECTED:
SOURCE OF SPILL: GASOLINE STATION
REPORTED BY: RESPONSIBLE PARTY
REGION:
UST TRUST? YES

SPILL INVESTIGATOR: RMCROSSE
SPILL CONTACT: MIKE YOUNT
TELEPHONE: (716) 479-7932

SPILLER: NOCO
MIKE YOUNT
ADDRESS: 700 GRAND ISLAND BLVD
TONAWANDA, NY -

TELEPHONE:
REPORTED BY: RESPONSIBLE PARTY

LAST DEC UPDATE: 10/26/2010
CLEAN UP MEET STANDARDS? NO
PENALTY RECOMMENDED? NO

CALLER REMARKS: TANK FAILURE, APPROX 2100 GALLONS. NOCO NOTIFIED 911 AND HAVE CLOSED DOWN THE TANK 1, NO LEAD. THEY WILL PUMP OUT THE TANK CONTENTS IMMEDIATELY AND PROCEED WITH THE CLEANUP.

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 07/13/04 RMC/SITE 1230 APPROXIMATELY 3000 GALLONS LOST INTO UST FIELD. UNKNOWN WHY. PRODUCT IN STORM AND SANITARY SEWERS FOR AT LEAST A MILE TO THE WEST ALONG NFB. NFB AND WILLIAMS CLOSED UNKNOWN AS TO HOW PRODUCT IS LEAVING THE SITE. 1300 FREE PRODUCT NOTED IN THE STORM SEWERS 1000 FEET DOWN GRADE REPORTED STRONG ODORS IN THE SANITARY. NOCO VACING PRODUCT FROM SUBMERSIBLE SUMPS IMMEDIATE RECHARGE OF MOSTLY PRODUCT. DAVID GM AND APT. CARAVELLE, EVACUATED DUE TO EXP POTENTIAL. RMC NOTIFIED DD. 1330 PRODUCT ENTERS STORM SEWERS FROM PRIVATE STORM SEWER INSTALLED LAST YEAR BY NOCO. HAS FRENCH DRAIN TO THE UST FIELD. TO PLUG AT STREET. ALSO TO SHUT OFF SITE SANITARY LIFT AS IT IS UNKNOWN HOW PRODUCT GETS INTO THE SANITARY. 1400 CONTRACTORS PREPARING TO VAC OUT AND FLUSH STORM. 1415 STARTED CLEANING STORM SEWERS. 1430 RECOVERED 1500 GALLONS OF MOSTLY PRODUCT SO FAR FROM TANK FIELD.

- Continued on next page -

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 29 **DIST/DIR:** 0.14 NE **ELEVATION:** 582 **MAP ID:** 5

<p>NAME: NOCO ADDRESS: 6724 WILLIAMS WHEATFIELD NY NIAGARA CONTACT: SOURCE: NYSDEC</p>	<p>REV: 4/5/12 ID1: 0475192 ID2: 282342 STATUS: ACTIVE PHONE:</p>
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NOCO HAS THREE CONTRACTORS ON SITE. 1500 EXP. FAN INSTALLED AT CARAVELLE APT SEWER. 100% LEL IN SANITARY TO 89TH. LEAK WAS FOUND TO BE A PRESSURE REGULATION FAILURE BEFORE THE LEAK DETECTOR. 1530 NOTIFIED STP IMPACTED AT 1320. STP OPERATOR ON SITE BELIEVES TREATMENT OF GASOLINE WILL NOT BE A PROBLEM. THEY HAVE LARGE CARBON BEDS. RMC NOTIFIED DOW. 1700 CONCLUDED STORM/SANITARY CONNECTED SOME HOW. NO PRODUCT IN CAYUGA AT ALL. FLUSHED THOUSANDS OF GALLONS OF WATER. CAN SEE SEEPS OF SOAP PUT INTO THE STORM SEWER IN THE SANITARY IN FRONT OF DAVID GM. ALSO THE WHEN STORMS ARE FLUSHED THE SANITARY ALSO PICKS UP NOTICEABLY AT 100TH. NO PRODUCT NOTED IN THE SANITARY UNTIL THE WEST EDGE OF DAVIDS PROPERTY. 100% LEL FOR MILES OF SANITARY. FD IS FIELDING NUMEROUS 911 CALLS FOR IMPACTED HOMES. THEY ARE DEALING WITH THEM. 1800 FLUSHING CONTINUES AS DOES PRODUCT REMOVAL FROM THE TANK PIT. 1900. LEL 100 PERCENT IN NUMEROUS LOCATION IN SANITARY ALL THE WAY TO THE STP. STORM IS CLEAR OF PRODUCT BUT 2020 SHOWS HIGH LEVEL. SEWER CLEANING CONTINUES. 2100 CONTINUE FLUSHING./MONITORING 911 CALLS. 7/14/04 0000 TO START CUTTING DOWN ON FD RESPONSE. TO OPEN WILLIAMS AND PART OF NFB. LEL 100% PORTER TO THE TREATMENT PLANT IN SEVERAL SPOTS. 0145 LET SITE FOR NIGHT. NFB REMAINS CLOSED WITH MH ALL OPEN AND VENTING. LEL STILL ABOVE 100% AT NUMEROUS POINTS ALONG THE SANITARY 0830 LEL STILL 100 % IN THE SANITARY FROM 100TH TO 56TH. NO APPRECIABLE SHEEN NOTED IN CAYUGA. VENTS STILL PRODUCING RAW GASOLINEG ODOR. TWO LANES NFB OPEN. MH STILL OPEN. NOCO WILL DIG PIT TO DIVERT STORM WATER FROM UST FIELD. AND TO CAPTURE PRODUCT. 1500 LEL STILL 100% IN AREAS. CONTRACTED TO 97 TO CAYUGA CREEK. METER NOT AS QUICK TO REACT TO CONCENTRATION. IMPROVING 07/15/04 LEVELS IN SANITARY MUCH IMPROVED BUT STILL 100% IN AROUND CAYUGA VILLAGE LEVELS VARY GREATLY. VACING CONTINUES. SEWER VENTING CONTINUES. NOCO DUG CONTAINMENT PIT TO WORK FROM. 07/16/04. 0930 5% LEL AT ANTHONY. HIGH HYDROCARBON READING NOTED FROM 56TH TO 98TH. NO LEL DEFLECTION IN THESE AREAS. 1100 RMC MET WITH MIKE YOUNT. DEC WANTS 1. SYSTEM TESTS WITHIN A WEEK TO BE SURE THERE ARE NO OTHER PROBLEMS. 2. STORM SEWERS EXCAVATED ON SITE AND REINSTALLED WITH SOLID PIPING ALONG TANK FIELD WITH BENT. PLUG. 3. GW TREATMENT FROM TP. ALONG WITH PLAN TO REMOVE PRODUCT. MIN DESIGN FLOW 5GPM. 4. WELL OUTSIDE THE TP TO ASSURE CONTAINMENT. ALL AGREED AT SOME POINT DEC WILL DECIDE IF WORK WILL BE NECESSARY OFF SITE. RMC ADVISED THAT ALTHOUGH LEL READINGS OFF SITE HAVE IMPROVED HYDROCARBON READINGS REMAIN VERY HIGH FROM 56TH TO 98TH. 7/21/04:SAC INSPECT SITE. JACK FISHER FROM SENTINEL ON-SITE AND AIR STRIPPING WATER IN BAKER TANK. K and T PUMP AND TANK WILL BE EXCAVATING AREA OF ON-SITE STORM SEWER WHERE PIPE IS PERFORATED, CHECKED SOME SEWER MANHOLES. WORST MANHOLE CHECKED IS NEXT TO ELECTRIC UNION BUILDING WITH PID METER READING 15 ppm, 0% LEL IN THIS MANHOLE. 7/22/04:SAC INSPECT SITE. SMALL AMOUNT OF SOIL WAS EXCAVATED BETWEEN NEWLY INSTALLED COLLECTION MANHOLE AND TANK FIELD. SOIL STAGED ON PLASTIC. 08/2/04 RMC/FILE. NEARLY DAILY INSPECTION ONGOING. NO LEL READING IN THE STORM OR SANITARY. PID READINGS UP TO 20 PPM IN THE SANITARY CONTINUE. BELIEVED TO BE SOURCED BY TH BEDDING BETWEEN THE STORM AN SANITARY. SITE WORK CONTINUES. STORM SEWER AND CONTAMINATION EXCAVATED TO THE STREET. REINSTALLED WITH SOLID PIPING, AND BEDDING PLUGS AT BOTH SIDES WHERE IT PASSES THE TANK FIELD. WATER IN THE TANK FIELD HAS SHEEN. WELL TO BE INSTALLED IN THE UST FIELD. WELLS TO BE INSTALLED OUTSIDE THE UST FIELD. UPDATE 8/15/04. 09/15/04 RMC/FILE RECEIVED DISPOSAL RECEIPTS FOR 79.74 TONS. UPDATE 9/30/04. 10/30/05 RMC/FILE. RECEIVED CALL FROM JACK FISHER, HE WILL SAMPLE WELLS IN AND AROUND UST FIELD, DUE 1/30/05 02/02/05 RMC/JACK FISHER/PHONE. JUST SAMPLED TODAY, REPORT DUE 2/28/05. 03/08/05 RMC/FILE. RECEIVED REPORT, LEVELS IN GW IN UST FIELD REQUIRE REMEDIATION. CONTRACTOR WANTS TO MONITOR, RMC LEFT MESSAGE FOR MIKE YOUNT REQUESTING A MORE ACTIVE APPROACH, UPDATE 4/30/05 03/11/05 RMC/MIKE YOUNT/PHONE. THEY WILL DEWATER THE UST FIELD THRU CARBON AND RETEST. REPORT DUE 4/30/05. 10/03/05 RMC/FILE. CALLED MIKE YOUNT, LEFT MESSAGE REQUESTING REPORT. DUE 10/15/05. 10/20/05 RMC/FILE. RECEIVED THREE SAMPLE EVENS FROM TP MW. ALL SHOW EXCEEDANCES, REMEDIAITON IS REQUIRED, RMC CONTACTED MIKE YOUNT, HE WILL TALK TO HIS CONSULTANT AND GET BACK TO ME WITH A PLAN. UPDATE 11/15/05. 03/01/06 RMC/FILE. NO PLAN RECEIVED, LEFT MESSAGE FOR MIKE YOUNT. CALL DUE 3/10/06. 03/01/06 RMC/FILE. RECEIVED CALL FROM JACK FISHER. DID AIR STRIPPING AND RECYCLING BACK INTO THE UST FIELD. WELLS WERE SAMPLED. REPORT DUE 3/30/06. 03/30/06 RMC/FILE. RECEIVED REPORT. DRAW DOWN OF UST FIELD HAS LOWERED THE CONTAMINATE LEVELS. REMEDIATION STILL REQUIRED, LEFT MESSAGE FOR JACK FISHER. UPDATE 4/30/06. 05/03/06 RMC/FILE. RECEIVED CALL FROM JACK FISHER. PLAN ON MORE PUMP AND TREAT EVENTS. REPORT DUE 7/30/06. 12/29/06 RMC/JACK FISHER/PHONE. HE IS UNSURE IF WORK WAS DONE AS PLANNED, HE WAS IN THE HOSPITAL AND OUT OF WORK FOR A LONG TIME. RMC REQUESTED REPORT AND SAMPLING OF SITE IF NONE HAS BEEN DONE. REPORT DUE 1/30/07. 01/03/07 RMC/MIKE YOUNT/PHONE. THEY HIRED A DIFFERENT CONSULTANT. WORK WILL BE DONE. REPORT DUE 2/28/07. 03/01/07 RMC/FILE. NO REPORT RECEIVED. LEFT MESSAGE FOR MIKE YOUNT. REPORT DUE 3/15/07. 03/05/07 RMC/FILE. RECEIVED SAMPLING REPORT. LEVELS TRENDING DOWN. EXCEEDANCES CONTINUED. MORE PUMPING PLANNED FOR THIS SPING. UPDATE 5/30/07. 07/31/07 RMC/FILE. NOTHING RECEIVED. LEFT MESSAGE FOR MIKE YOUNT. UPDATE 8/7/07. 08/01/07 RMC/FILE. RECEIVED REPORT. PUMPED 40 GALLONS AND SAMPLED. LEVELS CONTINUE TO GO DOWN FROM 52PPM IN 2/05 TO 18PPM IN 6/06.

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 29 **DIST/DIR:** 0.14 NE **ELEVATION:** 582 **MAP ID:** 5

NAME: NOCO	REV: 4/5/12
ADDRESS: 6724 WILLIAMS WHEATFIELD NY NIAGARA	ID1: 0475192
	ID2: 282342
CONTACT:	STATUS: ACTIVE
SOURCE: NYSDEC	PHONE:

RMC CONTACTED CONSULTANT GIANNA AIEZZA AT 518-438-6808 X113 AND ADVISED DEC UNDERSTOOD THEY WOULD PERFORM ACTIVE REMEDIATION AND THAT WE DO NOT CONSIDER REMOVING 40 GALLONS ACTIVE REMEDIATION. SHE WILL TALK TO MIKE YOUNT AND GET BACK TO ME UPDATE 8/15/07. 01/04/08 RMC/MIKE YOUNT/PHONE. REPORT WILL BE SENT IN TEN DAYS. DUE 1/15/08. 01/30/08 RMC/MIKE YOUNT/PHONE. THEY HAVE LET GO AND HIRED ANOTHER CONTRACTOR. PLAN DUE 2/15/08. REVISED TO 3/10/08. 08/05/08 RMC/FILE. NOTHING FROM NOCO ON THE SITE. LEFT MESSAGE FOR MIKE YOUNT. CALL DUE 8/15/08. 08/27/08 RMC/MIKE LESAKOWSKI, BENCHMARK, 856-0597/PHONE. WILL SEND REGULAR REPORTS. DUE 9/15/08. 10/28/08 RMC/FILE. RECEIVED LETTER PLANNING HIGH VAC EVENTS, REPORT DUE 12/30/08. 01/08/09 RMC/MIKE LESAKOWSKI/PHONE. LAST SAMPLE ON RECORD 1/28/08. HIGH VAC WORK NOT DONE YET. RMC ADVISED QUARTERLY MONITORING AND REMEDIATION REQUIRED. AGREED TO DO. FIRST ROUND REPORT DUE 3/30/09. 07/03/09 RMC/FILE. NO REPORTS RECEIVED. LEFT MESSAGE FOR MIKE YOUNT TO GET SITE ON TRACK OR DEC WILL SEEK ORDER ON CONSENT. UPDATE 7/10/09. 07/13/09 RMC/FILE. RECEIVED REPORT. THREE HIGH VAC EVENTS REPORTED TO HAVE BEEN DONE IN 2009. SAMPLING DONE AFTER THE EVENT. POST TESTING SHOWS VOCS AT 11.5 PPM IN THE TANK PIT WELL. LETTER ASKED FOR INACTIVE. RMC CALLED MIKE LESAKOWSKI, BENCHMARK AND MESSAGED MIKE YOUNT THAT THE TESTING NEEDS TO BE DONE PRIOR TO THE HIGH VAC. FOR CONSIDERATION OF STATUS CHANGE AND THAT THE POST EVENT SAMPLING IS STILL WELL BEYOND INACTIVE. NEXT ROUND DUE 9/30/09. 02/24/10 RMC/FILE. FILE REVIEW. NO REPORTS HAVE BEEN SUBMITTED SINCE 7/13/09. TWO QUARTERS BEHIND, RMC LEFT MESSAGE FOR MIKE YOUNT REQUESTING MEETING TO WORK OUT AN ORDER WITH NOCO. CALL DUE 2/28/10. 03/01/10 RMC/FILE. RECEIVED REPORT FROM BENCHMARK. NOCO HAS BEEN DOING THE QUARTERLY SAMPLING. LEVELS APPEAR TO BE DECREASING OVER TIME. HOWEVER THE RATE OF DECREASE IS TOO SLOW. ROUGH PROJECTION IS THAT IT WOULD TAKE MORE THAN TEN MORE YEARS TO CLOSE THE SITE. RMC CONTACTED MIKE LESAKOWSKI, HE WILL DISCUSS WITH NOCO WAYS TO SPEED THE CLEAN UP. UPDATE 4/15/10. 10/26/10 RMC/FILE. NO PLAN RECEIVED. LEFT MESSAGE FOR MIKE YOUNT REQUESTING A MEETING TO DISCUSS STIP TERMS. CALL DUE 11/1/10.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 30 **DIST/DIR:** 0.14 NE **ELEVATION:** 582 **MAP ID:** 5

NAME: NOCO GAS STATION	REV: 4/5/12
ADDRESS: 6724 WILLIAMS RD	ID1: 0403932
WHEATFIELD NY	ID2: 256798
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	7/13/2004
DATE REPORTED:	7/13/2004
CLOSED DATE:	7/13/2004
INSP DATE:	
MATERIAL SPILLED: GASOLINE	AMOUNT SPILLED: 0 L
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 0 L

RESOURCE AFFECTED

SOIL: NO	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: YES	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL:	HUMAN ERROR
WATERBODY AFFECTED:	
SOURCE OF SPILL:	GASOLINE STATION
REPORTED BY:	POLICE DEPARTMENT
REGION:	
UST TRUST?	NO

SPILL INVESTIGATOR:	RMCROSSE
SPILL CONTACT:	SARGEANT WEBER
TELEPHONE:	(716) 438-3397

SPILLER: NOCO ENERGY CORPORATION

ADDRESS: 700 GRAND ISLAND BLVD
TONAWANDA, NY 14150-

TELEPHONE:

REPORTED BY: POLICE DEPARTMENT

LAST DEC UPDATE:	7/13/2004
CLEAN UP MEET STANDARDS?	YES
PENALTY RECOMMENDED?	NO

CALLER REMARKS: UNSURE ALL DETAILS AT THIS TIME JUST MAKING NOTIFICATIONS : FIRE DEPT. HAZMAT TEAM AND SEWER DEPT. ON WAY TO SCENE:

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 7/13/04:DUPLICATE OF SPILL NUMBER 0475192, FURTHER FOLLOW UP WILL BE DONE UNDER THAT SPILL NUMBER, CLOSEOUT THIS FILE.

***** NO COMPUTER FILE - PAPER FILE ONLY *****

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

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***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 30	DIST/DIR: 0.14 NE	ELEVATION: 582	MAP ID: 5
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NAME: NOCO GAS STATION
ADDRESS: 6724 WILLIAMS RD
WHEATFIELD NY
NIAGARA

REV: 4/5/12
ID1: 0403932
ID2: 256798
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NYSDEC

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 31 **DIST/DIR:** 0.14 NE **ELEVATION:** 582 **MAP ID:** 5

NAME: NOCO GAS STATION	REV: 4/5/12
ADDRESS: 6724 WILLIAMS RD	ID1: 0403964
NIAGARA FALLS NY	ID2: 285743
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	7/13/2004
DATE REPORTED:	7/13/2004
CLOSED DATE:	7/14/2004
INSP DATE:	
MATERIAL SPILLED: GASOLINE	AMOUNT SPILLED: 0 L
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 0 L

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL:	HUMAN ERROR
WATERBODY AFFECTED:	
SOURCE OF SPILL:	GASOLINE STATION
REPORTED BY:	FEDERAL GOVERNMENT
REGION:	
UST TRUST?	NO

SPILL INVESTIGATOR:	RMCROSSE
SPILL CONTACT:	UNKNOWN
TELEPHONE:	

SPILLER:	NOCO GAS STATION
ADDRESS:	700 GRAND ISLAND BLVD. TONAWANDA, NY 14150-
TELEPHONE:	

REPORTED BY:	FEDERAL GOVERNMENT
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LAST DEC UPDATE:	7/14/2004
CLEAN UP MEET STANDARDS?	YES
PENALTY RECOMMENDED?	NO

CALLER REMARKS: THIRD PARTY REPORT VIA NATIONAL RESPONSE CENTER. NO FURTHER INFORMATION AVAILABLE. INITIAL REPORT FROM MARK RIDGEWAY 716-990-1318

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 7/14/04:DUPLICATE OF SPILL NUMBER 0475192, FURTHER FOLLOWUP WILL BE DONE UNDER THAT SPILL NUMBER, CLOSEOUT THIS SPILL FILE.

+*****
***** COMPUTER FILE ONLY - NO PAPER FILE

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 31	DIST/DIR: 0.14 NE	ELEVATION: 582	MAP ID: 5
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NAME: NOCO GAS STATION
ADDRESS: 6724 WILLIAMS RD
NIAGARA FALLS NY
NIAGARA

REV: 4/5/12
ID1: 0403964
ID2: 285743
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NYSDEC

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 46 **DIST/DIR:** 0.14 NW **ELEVATION:** 582 **MAP ID:** 7

NAME: NIAGARA FALLS AIRPORT	REV: 4/5/12
ADDRESS: 2011 NIAGARA FALLS BLVD. NIAGARA FALLS NY NIAGARA	ID1: 0806987
	ID2: 404297
CONTACT:	STATUS: CLOSED
SOURCE: NYSDEC	PHONE:

SITE INFORMATION

SPILL DATE:	9/19/2008
DATE REPORTED:	9/19/2008
CLOSED DATE:	9/24/2008
INSP DATE:	
MATERIAL SPILLED: DIESEL	AMOUNT SPILLED: 25 G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 25 G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: YES
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL:	EQUIPMENT FAILURE
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	DEC
REGION:	
UST TRUST?	NO

SPILL INVESTIGATOR:	sacaland
SPILL CONTACT:	
TELEPHONE:	

SPILLER:	NFTA ED IDHE
ADDRESS:	NIAGARA FALLS BLVD. NIAGARA FALLS, NY
TELEPHONE:	

REPORTED BY:	DEC
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LAST DEC UPDATE:	9/24/2008
CLEAN UP MEET STANDARDS?	YES
PENALTY RECOMMENDED?	NO

CAUSE OF SPILL:	EQUIPMENT FAILURE
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	DEC
REGION:	
UST TRUST?	NO

SPILL INVESTIGATOR:	sacaland
SPILL CONTACT:	
TELEPHONE:	

SPILLER:	CLARK RIGGING
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- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 46 **DIST/DIR:** 0.14 NW **ELEVATION:** 582 **MAP ID:** 7

NAME: NIAGARA FALLS AIRPORT	REV: 4/5/12
ADDRESS: 2011 NIAGARA FALLS BLVD. NIAGARA FALLS NY NIAGARA	ID1: 0806987
	ID2: 404297
CONTACT:	STATUS: CLOSED
SOURCE: NYSDEC	PHONE:

ADDRESS: , NY

TELEPHONE:

REPORTED BY: DEC

LAST DEC UPDATE: 9/24/2008

CLEAN UP MEET STANDARDS? YES

PENALTY RECOMMENDED? NO

CALLER REMARKS: CRANE TIPPED OVER. NIAGARA COUNTY SHERIFF ON-SITE, (716)438-3394.

CALLER REMARKS: CRANE TIPPED OVER. NIAGARA COUNTY SHERIFF ON-SITE, (716)438-3394.

DEC REMARKS:

9/19/08:SAC TELECON RON GWOZDEK - NCHD. DENNIS REY FROM HIS AGENCY IS RESPONDING TO COMPLAINT. SAC TELECON RMC TO NOTIFY HIM OF SPILL REPORT. 9/22/08:SAC SPOKE TO RMC. RMC SPOKE TO DENNIS REY ON 9/19 AND DID NOT HAVE TO RESPOND. SAC TELECON PAUL DICKY - NCHD. MR. REY IS FOLLOWING UP ANOTHER INSPECTION, TODAY. 9/23/08:RECEIVED NCHD INSPECTION REPORT BY DENNIS REY FROM PAUL DICKY. CLEANUP COMPLETED. 9/24/08:RECEIVED DISPOSAL RECEIPT. NO FURTHER WORK REQUIRED.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

DEC REMARKS:

9/19/08:SAC TELECON RON GWOZDEK - NCHD. DENNIS REY FROM HIS AGENCY IS RESPONDING TO COMPLAINT. SAC TELECON RMC TO NOTIFY HIM OF SPILL REPORT. 9/22/08:SAC SPOKE TO RMC. RMC SPOKE TO DENNIS REY ON 9/19 AND DID NOT HAVE TO RESPOND. SAC TELECON PAUL DICKY - NCHD. MR. REY IS FOLLOWING UP ANOTHER INSPECTION, TODAY. 9/23/08:RECEIVED NCHD INSPECTION REPORT BY DENNIS REY FROM PAUL DICKY. CLEANUP COMPLETED. 9/24/08:RECEIVED DISPOSAL RECEIPT. NO FURTHER WORK REQUIRED.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 45 **DIST/DIR:** 0.15 NE **ELEVATION:** 582 **MAP ID:** 9

NAME: NIAGARA AIRPORT	REV: 4/5/12
ADDRESS: NFB	ID1: 0809151
NIAGARA NY 14304	ID2: 406592
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	11/12/2008
DATE REPORTED:	11/12/2008
CLOSED DATE:	6/3/2009
INSP DATE:	
MATERIAL SPILLED: UNKNOWN PETROLEUM	AMOUNT SPILLED: G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL:	EQUIPMENT FAILURE
WATERBODY AFFECTED:	
SOURCE OF SPILL:	INSTITUTIONAL, EDUCATIONAL, GOV., OTHER
REPORTED BY:	RESPONSIBLE PARTY
REGION:	
UST TRUST?	NO

SPILL INVESTIGATOR:	rncrosse
SPILL CONTACT:	KIM MINKEL
TELEPHONE:	(716) 855-7470

SPILLER: NFTA

ADDRESS: , NY

TELEPHONE:

REPORTED BY: RESPONSIBLE PARTY

LAST DEC UPDATE:	6/3/2009
CLEAN UP MEET STANDARDS?	YES
PENALTY RECOMMENDED?	NO

CALLER REMARKS: CONTAMINATION FOUND WHILE PUTTING IN DRAINAGE FOR NEW TERMINAL.

DEC REMARKS:

11/13/08 RMC/JEFF PITTNER/SITE. INSTALLING NEW RECEIVER AT THE CORNER OF THE APRON PAD. FOUND SOILS WITH FAINT PETROLEUM ODOR. PERCHED WATER HAS SHEEN. RMC ADVISED TO TANK WATER, STOCKPILE SOILS NEEDED TO INSTALL RECEIVER AND CONTACT ME FOR AN INSPECTION. CALL DUE 11/30/08. 01/09/09 RMC/FILE. RMC INSPECTED SITE AFTER ADDITIONAL EXCAVATION WAS DONE. SMALL AMOUNT OF SOIL GENERATED AREA CLEANED UP QUICKLEY. NO READING ABOVE BACKGROUND ON THE PPB. CONTACTED JEFF PITTNER, NFTA, 855-7683, REQUESTED DISPOSAL REPORT. DUE 1/30/09. 06/02/09 RMC/FILE. REVIED REPORT RECEIVED 5/12/09. WATER IN EXCAVATION SHOWED NO EXCEEDANCES OF TOGS BUT WAS DISPOSED OF ALSO DISPOSED OF 33.49 TONS OF SOIL THAT WAS IMPACTED AROUND RECEIVER. NO FURTHER ACTION REQUIRED. CLOSE OUT.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 45 **DIST/DIR:** 0.15 NE **ELEVATION:** 582 **MAP ID:** 9

NAME: NIAGARA AIRPORT
ADDRESS: NFB
NIAGARA NY 14304
NIAGARA

REV: 4/5/12
ID1: 0809151
ID2: 406592
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NYSDEC

INFORMATION

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 34 **DIST/DIR:** 0.15 NE **ELEVATION:** 582 **MAP ID:** 9

NAME: SITE ASSESSMENT GAS STATI	REV: 4/5/12
ADDRESS: 10235 PORTER RD	ID1: 9515896
NIAGARA FALLS NY	ID2: 262551
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE: 3/1/1996
DATE REPORTED: 3/12/1996
CLOSED DATE: 3/15/1996

INSP DATE:	
MATERIAL SPILLED: WASTE OIL/USED OIL	AMOUNT SPILLED: 0 G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 0 G

MATERIAL SPILLED: GASOLINE	AMOUNT SPILLED: 0 G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 0 G

RESOURCE AFFECTED

SOIL: NO	AIR: NO
INDOOR AIR: NO	GROUNDWATER: YES
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

RESOURCE AFFECTED

SOIL: NO	AIR: NO
INDOOR AIR: NO	GROUNDWATER: YES
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL: OTHER
WATERBODY AFFECTED:
SOURCE OF SPILL: GASOLINE STATION
REPORTED BY: OTHER
REGION:
UST TRUST? YES

SPILL INVESTIGATOR: SACALAND
SPILL CONTACT:
TELEPHONE:

SPILLER: EUGENE DIMET

ADDRESS: 481 MOUNTAINVIEW DRIVE
LEWISTON, NY 14092-

TELEPHONE:

REPORTED BY: OTHER

LAST DEC UPDATE: 3/15/1996
CLEAN UP MEET STANDARDS? NO
PENALTY RECOMMENDED? NO

CALLER REMARKS: CONFIRMATORY EXCAVATION SAMPLE RESULTS FROM A TANK REMOVAL - INDICATE GUIDANCE VALVES WERE EXCEEDED

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Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 34 **DIST/DIR:** 0.15 NE **ELEVATION:** 582 **MAP ID:** 9

NAME: SITE ASSESSMENT GAS STATI
ADDRESS: 10235 PORTER RD
NIAGARA FALLS NY
NIAGARA

REV: 4/5/12
ID1: 9515896
ID2: 262551
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NYSDEC

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAC 3/12/96:RECEIVED TANK CLOSURE REPORT,GUIDANCE VALUES EXCEEDED AT A LOW LEVEL,INACTIVE LETTER SENT.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 19 **DIST/DIR:** 0.15 NW **ELEVATION:** 580 **MAP ID:** 8

NAME: GOOSSES ROOST REST	REV: 4/5/12
ADDRESS: 10158 NIAGARA FALLS BLVD	ID1: 9110315
NIAGARA FALLS NY	ID2: 223242
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	10/18/1991
DATE REPORTED:	10/21/1991
CLOSED DATE:	2/2/1992
INSP DATE: 10/30/1991	
MATERIAL SPILLED: UNKNOWN PETROLEUM	AMOUNT SPILLED: 0 G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 0 G

RESOURCE AFFECTED

SOIL: NO	AIR: NO
INDOOR AIR: NO	GROUNDWATER: YES
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL: OTHER
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: HEALTH DEPARTMENT
REGION:
UST TRUST? NO

SPILL INVESTIGATOR: MJHINTON
SPILL CONTACT:
TELEPHONE:

SPILLER: UNKNOWN

ADDRESS: , NY

TELEPHONE:

REPORTED BY: HEALTH DEPARTMENT

LAST DEC UPDATE: 12/2/2003
CLEAN UP MEET STANDARDS? YES
PENALTY RECOMMENDED? NO

CALLER REMARKS: SUSOECTED CONTAMINATED SOIL FOUND DURING FOUNDATION EXCAVATION

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was MJH 01/08/92: NCHD INSPECTION AND TEST RESULTS FOUND NO PETROLEUM CONTAMINATION.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 22 **DIST/DIR:** 0.15 NW **ELEVATION:** 580 **MAP ID:** 8

NAME: MET LIFE - SIMON OIL	REV: 4/5/12
ADDRESS: 10158 NIAGARA FALLS BLVD	ID1: 9211208
NIAGARA FALLS NY	ID2: 194728
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	12/1/1992
DATE REPORTED:	12/28/1992
CLOSED DATE:	6/16/1993
INSP DATE: 12/28/1992	
MATERIAL SPILLED: UNKNOWN PETROLEUM	AMOUNT SPILLED: 0
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 0

RESOURCE AFFECTED

SOIL: NO	AIR: YES
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL: UNKNOWN
WATERBODY AFFECTED:
SOURCE OF SPILL: PRIVATE DWELLING
REPORTED BY: AFFECTED PERSONS
REGION:
UST TRUST? NO

SPILL INVESTIGATOR: SACALAND
SPILL CONTACT:
TELEPHONE:

SPILLER: NONE

ADDRESS: , NY

TELEPHONE:

REPORTED BY: AFFECTED PERSONS

LAST DEC UPDATE: 7/8/1993
CLEAN UP MEET STANDARDS? YES
PENALTY RECOMMENDED? NO

CALLER REMARKS: GAS ODOR IN BUILDING NEAR OLD SERVICE STATION (SUNOCO). ODOR ONLY APPEARS TO BE INSIDE BUILDING.

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAC 12/28/92: SAC/RUDY MARD/TELECON - R. MARD INSPECTED SITE. MET WITH DIANE MALONEY; SAID SHE COULD ONLY SMELL SLIGHTLY; R. MARD COULDN T SMELL. MALONEY SAYS ODORS BAD ON MONDAYS. 06/16/93: TANKS TESTED ON SUNOCO PROPERTY TESTED TIGHT,NO FURTHER COMPLAINTS ABOUT ODORS AT THE SITE.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

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***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 22	DIST/DIR: 0.15 NW	ELEVATION: 580	MAP ID: 8
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NAME: MET LIFE - SIMON OIL
ADDRESS: 10158 NIAGARA FALLS BLVD
NIAGARA FALLS NY
NIAGARA

REV: 4/5/12
ID1: 9211208
ID2: 194728
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NYSDEC

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 25 **DIST/DIR:** 0.16 NE **ELEVATION:** 582 **MAP ID:** 10

NAME: NIAGARA FALLS AIRPORT	REV: 4/5/12
ADDRESS: NIAGARA FALLS BLVD AND PORTER AVE	ID1: 0480046
NIAGARA FALLS (C) NY 14304	ID2: 331512
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	9/30/2004
DATE REPORTED:	9/30/2004
CLOSED DATE:	1/6/2006
INSP DATE:	
MATERIAL SPILLED: JET FUEL	AMOUNT SPILLED: G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL: HUMAN ERROR
WATERBODY AFFECTED:
SOURCE OF SPILL: NON MAJOR FACILITY > 1,100 GAL
REPORTED BY: RESPONSIBLE PARTY
REGION:
UST TRUST? NO

SPILL INVESTIGATOR: RMCROSSE
SPILL CONTACT:
TELEPHONE:

SPILLER:

ADDRESS:

TELEPHONE:

REPORTED BY: RESPONSIBLE PARTY

LAST DEC UPDATE: 1/6/2006
CLEAN UP MEET STANDARDS? NO
PENALTY RECOMMENDED? NO

CALLER REMARKS: PRODUCT FOUND EHEN DIGGING NEAR A 100 K UST. CONTRACTOR S ARE BEING HIRED TO PUMP OUT PRODUCT AND REMOVE UST.

DEC REMARKS:

09/30/04 RMC/KIM MINKEL/SITE. 15 INCH LINE 3000 FEET LONG FOUND TO NOT HAVE BEEN CLEANED, NFTA TO CLEAN PIPE AND SEND IN DOCUMENTATION. NO SPILLAGE BELIEVED TO BE OUTSIDE THE PIPE. 02/03/05 RMC/KIM MINKEL/PHONE. NFTA WILL FIND OUT STATUS OF PROJECT AND CALL BACK, UPDATE 2/28/05. 02/03/05 RMC/FILE. RECEIVED MESSAGE FROM JEFF PITNER, NFTA, 855-7683. QUOTING OUT JOB NOW. WILL DO IN EARLY SPRING. UPDATE 5/1/05. 06/28/05 RMC/JEFF PITNER, NFTA/PHONE. WORK TO START SOON, THEY PLAN ON UNCOVERING THE PIPE IN SEVERAL AREAS AND PUMPING OUT. RMC ADVISED THAT WHAT WE WERE LOOKING FOR IS A CLEANING OF THE PIPE. PITNER CONFIRMED THAT THE PIPE IS A 12 INCH LINE FEEDING 8 INCH FILL HYDRANTS. CALL DUE 7/7/05. 07/15/05 RMC/FILE. TALKED WITH JEFF PITNER LAST WEEK RE PIPE. RMC WAS ADVISED THAT CONTAMINATION WAS FOUND IN THE EXCAVATION FOR THE PIPE. RMC ADVISED AGAIN THAT DEC WAS LOOKIN FOR THE PIPE TO BE CLEANED BY SOME METHOD. RMC RECEIVED MESSAGE FROM PITNER TODAY THAT THEY TOOK 275 GALLONS PRODUCT AND

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Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 25 **DIST/DIR:** 0.16 NE **ELEVATION:** 582 **MAP ID:** 10

NAME: NIAGARA FALLS AIRPORT
ADDRESS: NIAGARA FALLS BLVD AND PORTER AVE
NIAGARA FALLS (C) NY 14304
NIAGARA

REV: 4/5/12
ID1: 0480046
ID2: 331512
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NYSDEC

6 TONS OF CONTAMINATED SOIL. RMC LEFT MESSAGE FOR KIM MINKLE REGARDING CONTAMINATION FOUND AND CLEANING OF THE LINE. UPDATE 8/1/05. 08/23/05 RMC/FILE. DISCUSSED FILE WITH PITNER, MINKEL, SAC AND DK. LINE WAS EXPOSED AT LOWEST POINT BG PER THE EXISTING DRAWINGS. CONTAMINATION FOUND WAS DUE TO LEAKING FITTING WHICH WAS IDENTIFIED AND THE CONTAMINATED AREA IMPACTED WAS EXCAVATED TO VISUAL CLEAN. LINE WAS THEN TAPPED AND THE PRODUCT WAS REMOVED. SITE TO BE MADE INACTIVE ONCE THE DISPOSAL IS COMPLETED, DISPOSAL DUE 9/15/05. 01/0606 RMC/FILE. RECEIVED DISPOSAL DOCUMENTS FOR 22 TONS IMPACTED SOILS, NO FUTHER ACTION REQUIRED AT THIS TIME. INACTIVE. LETTER.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 24 **DIST/DIR:** 0.16 NE **ELEVATION:** 582 **MAP ID:** 10

NAME: NIAGARA FALLS AIRPORT	REV: 4/5/12
ADDRESS: NIAGARA FALLS BLVD AND PORTER AVE	ID1: 0480049
NIAGARA FALLS (C) NY 14304	ID2: 331740
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE: 9/30/2004
DATE REPORTED: 9/30/2004
CLOSED DATE: 10/1/2004

INSP DATE:
MATERIAL SPILLED: JET FUEL **AMOUNT SPILLED:** 0 G
MATERIAL CLASS: PETROLEUM **AMOUNT RECOVERED:** 0 G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL: OTHER
WATERBODY AFFECTED:
SOURCE OF SPILL: NON MAJOR FACILITY > 1,100 GAL
REPORTED BY: RESPONSIBLE PARTY
REGION:
UST TRUST? NO

SPILL INVESTIGATOR: RMCROSSE
SPILL CONTACT: KIM MINKEL
TELEPHONE: (716) 855-7470

SPILLER:

ADDRESS:

TELEPHONE:

REPORTED BY: RESPONSIBLE PARTY

LAST DEC UPDATE: 10/1/2004
CLEAN UP MEET STANDARDS? YES
PENALTY RECOMMENDED? NO

CALLER REMARKS: PRODUCT FOUND WHEN DIGGING NEAR A 100 K UST. CONTRACTOR IS BEING HIRED TO PUMP OUT PRODUCT AND REMOVE UST

DEC REMARKS:

10/1/04:Same as Spill Number 0480046. Further followup will be done under that spill number. No further work required.
 ***** Computer File Only - No Paper File *****

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 23 **DIST/DIR:** 0.16 NE **ELEVATION:** 582 **MAP ID:** 11

NAME: NIAGARA FALLS AFB	REV: 4/5/12
ADDRESS: NIAGARA FALLS BLVD and PORTER RD	ID1: 0275493
NIAGARA FALLS NY	ID2: 97703
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	1/23/2003
DATE REPORTED:	1/23/2003
CLOSED DATE:	2/5/2003
INSP DATE:	
MATERIAL SPILLED: UNKNOWN NON-PETRO/NON-HAZ MATERIAL	AMOUNT SPILLED: 12000 G
MATERIAL CLASS: OTHER	AMOUNT RECOVERED: 12000 G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL:	EQUIPMENT FAILURE
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	RESPONSIBLE PARTY
REGION:	
UST TRUST?	NO

SPILL INVESTIGATOR:	RJJONAK
SPILL CONTACT:	ELLEN MARION
TELEPHONE:	(716) 236-3123

SPILLER: SAME

ADDRESS: , NY

TELEPHONE:

REPORTED BY: RESPONSIBLE PARTY

LAST DEC UPDATE:	2/5/2003
CLEAN UP MEET STANDARDS?	YES
PENALTY RECOMMENDED?	NO

CALLER REMARKS: CALLER SAID THAT THEIR FIRE SURPRESSANT SYSTEM WENT OFF IN THE HANGER, SPILLING 12,000 GAL OF AFFF...THEY WILL CLEAN UP AND DISPOSE.

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was RJJ 1/23/2003: ELLEN MARION, NFAFB, TELECON RJJ, SAID THAT AT 0100 LAST NIGHT, THEIR FIRE SURPRESSANT SYSTEM WENT OFF, SPILLING 12,000 GAL OF AFFF (FIRE SURPRESSANT FOAM) ALL IN THE HANGER...THEY WILL HIRE THEIR CONTRACTOR AND CLEAN UP AND DISPOSE IT AND SEND ME THE REPORT...FAXED A COPY OF THE SPILL REPORT AND CALLED PAUL DICKEY, NCHD, HE SAID THAT THEY WILL NOT RESPOND SINCE IT IS ALL CONTAINED. 2/5/2003: RECEIVED THE INCIDENT REPORT AND DISPOSAL RECEIPTS FROM THE DEPT. OF AIR FORCE...THE SPILL HAS BEEN CLEANED UP AND PROPERLY DISPOSED OF...NO FURTHER ACTION NEEDED...SPILL CLOSED OUT.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

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***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 23	DIST/DIR: 0.16 NE	ELEVATION: 582	MAP ID: 11
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NAME: NIAGARA FALLS AFB	REV: 4/5/12
ADDRESS: NIAGARA FALLS BLVD and PORTER RD	ID1: 0275493
NIAGARA FALLS NY	ID2: 97703
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 26 **DIST/DIR:** 0.16 NE **ELEVATION:** 582 **MAP ID:** 10

NAME:	NIAGARA FALLS AIRPORT	REV:	4/5/12
ADDRESS:	NIAGARA AIRPORT NIAGARA FALLS NY NIAGARA	ID1:	9602893
CONTACT:		ID2:	194903
SOURCE:	NYSDEC	STATUS:	CLOSED
		PHONE:	

SITE INFORMATION

SPILL DATE:	5/1/1996
DATE REPORTED:	5/30/1996
CLOSED DATE:	9/30/1997
INSP DATE:	9/30/1997
MATERIAL SPILLED:	JET FUEL
MATERIAL CLASS:	PETROLEUM
AMOUNT SPILLED:	0 G
AMOUNT RECOVERED:	0 G

RESOURCE AFFECTED

SOIL:	YES	AIR:	NO
INDOOR AIR:	NO	GROUNDWATER:	NO
SURFACE WATER:	NO	DRINKING WATER:	NO
SEWER:	NO	IMPERVIOUS SURFACE:	NO
SUBWAY:	NO	UNDERGROUND UTILITIES:	NO

CAUSE OF SPILL:	TANK FAILURE
WATERBODY AFFECTED:	
SOURCE OF SPILL:	NON MAJOR FACILITY > 1,100 GAL
REPORTED BY:	RESPONSIBLE PARTY
REGION:	
UST TRUST?	YES

SPILL INVESTIGATOR:	SACALAND
SPILL CONTACT:	GARY PANE
TELEPHONE:	(716) 297-4494

SPILLER:	NFTA
	DAVID SKONEY
ADDRESS:	181 ELLICOTT
	BUFFALO, NY

REPORTED BY:	RESPONSIBLE PARTY
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LAST DEC UPDATE:	4/4/2002
CLEAN UP MEET STANDARDS?	NO
PENALTY RECOMMENDED?	NO

CALLER REMARKS:	CONTAMINATION FOUND DURING REMOVAL OF THE TANKS IN THE EAST FUEL FARM
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DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAC-NCHD 4/5/96: RECEIVED BIOREMEDIATION WORKPLAN, WHEN PLAN WAS RECEIVED NO TANK HAD BEEN REMOVED AND THEREFORE NO CONFIRMED CONTAMINATION, SPILL FILE OPEN UPON TANK REMOVAL and DISCOVERY OF CONTAMINATED SOIL. 4/29/96: COMMENT LETTER TO WORKPLAN SENT. 5/9/96: TWO 4000 GALLON TANKS REMOVED, BOB BUZZELLI ON SITE TO INSPECT. 5/13/96: BOB BUZZELLI INSPECTED PUMP HOLE, CONTAMINATION PRESENT, MORE EXCAVATION TO BE DONE. 5/23/96: RECEIVED RESULTS FROM TANK REMOVALS, TANK 307 HAD BENZENE GUIDANCE VALUE EXCEEDED,65ppb-TANK 308 HAD N-BUTYLBENZENE AND SEC-BUTYLBENZENE GUIDANCE VALUES EXCEEDED,180ppb FOR BOTH PARAMETERS, DETECTION LIMITS SLIGHTLY ELEVATED, WILL RESAMPLE USING TCLP METHOD FOR ANALYSIS FOR THE 8021 ON TANK 308, WATER IN TANK 307 ANALYZED AND ABOVE GW STANDARDS, WILL GET APPROVAL AND PUMP INTO SANITARY SEWER. 6/3/97: SENT LETTER TO GARY PANE/NFTA INDICATING ALL CONTAMINATED SOIL MUST BE REMOVED AND THAT A COMMENT LETTER HAD BEEN SENT TO STEPHEN GOODREAU OF BETTIGOLE,ANDREWS and CLARK

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Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 26 **DIST/DIR:** 0.16 NE **ELEVATION:** 582 **MAP ID:** 10

NAME: NIAGARA FALLS AIRPORT

REV: 4/5/12

ADDRESS: NIAGARA AIRPORT

ID1: 9602893

NIAGARA FALLS NY

ID2: 194903

NIAGARA

STATUS: CLOSED

CONTACT:

PHONE:

SOURCE: NYSDEC

RE: BIO-REMEDICATION WORKPLAN, COPY OF LETTER TO MR. GOODREAU INCLUDED IN THE LETTER TO MR. PANE. 6/5/96: RECEIVED SAMPLE RESULTS FOR TANK 308 8021 TCLP, ALL PARAMETERS BELOW STARS GUIDANCE VALUES, 500 GALLON TANK REMOVED- 8021 RESULTS WERE ND BUT 8270 RESULTS ELEVATED, WILL RESAMPLE. 6/20/96: SAC, BOB BUZZELLI INSPECTION WITH GARY PANE AND DAVE SKONEY-NFTA, PUMP EXCAVATION BOTTOM HAD NO OBSERVED CONTAMINATION, SHEEN NOTED IN WATER IN EXCAVATION WITH SMALL POCKET OF PRODUCT NOTED IN CORNER, WILL REMOVE REMAINING PRODUCT, WATER WILL BE PUMPED INTO SANITARY SEWER, AND SAMPLES OF EXCAVATION WERE TAKEN. 7/22/96: RECEIVED RESAMPLE RESULTS FOR 500 GALLON TANK, ALL PARAMETERS WERE NON-DETECT, PUMP PIT RESULTS WERE BELOW GUIDANCE VALUES. 12/16/96: RECEIVED NOTIFICATION OF TANK PULLS OF (3)-10000 GALS TANKS and (1) 30000 GALS. TANK. 12/27/96: RECEIVED RESULTS FOR CONTAMINATED SOIL FROM EAST FUEL FARM, SOIL IS NON-HAZARDOUS. 12/30/96: RECEIVED BIOREMEDIATION WORKPLAN FROM NATURE S WAY. 1/8/97: RECEIVED EXCAVATION BOTTOM RESULTS, TOLUENE LEVEL AT 8400 ppb, ADDITIONAL EXCAVATION WILL BE DONE. 1/9/97: AC INSPECTION WITH GARY PANE AND EMERY SIMON, BOTTOM IS RED CLAY, SIDE NEAREST PORTER ROAD HAS SOME GREY CLAY AND SLIGHT ODORS, EXCAVATION UNDER CONCRETE PAD WHERE TANK WAS TIED DOWN IS RED CLAY, WILL CLEANUP HOLE A LITTLE MORE ON ONE SIDE AND THEN RESAMPLE EXCAVATION. 1/10/97: RECEIVED EXCAVATION TEST RESULTS, 6 SAMPLES ANALYZED, GUIDANCE VALUES EXCEEDED ON A LOW-LEVEL FOR 2 OF THE 6 SAMPLES, NO FURTHER EXCAVATION WILL BE REQUIRED. 2/13/97: ENT COMMENT LETTER ON WORKPLAN BY NATURE S WAY, NEED PROPOSAL FOR NUMBER OF SAMPLES TO BE TAKEN EVERY 50 CU. YD. AND THAT 8021 AND 8270 WILL BE REQUIRED. 5/16/97: RECEIVED SAMPLING PLAN FROM NATURE S WAY, WILL FOLLOW STARS PROTOCOL FOR NUMBER OF SAMPLES. 5/21/97: SENT LETTER ACCEPTING SAMPLING PLAN. 6/30/97: RECEIVED NCHD INSPECTION REPORT FROM BOB BUZZELLI. 9/25/97: RECEIVED ANALYTICAL RESULTS FROM NATURE S WAY FOR TREATED SOIL, NO SAMPLES EXCEEDED STARS VALUES. 9/30/97: SAC INSPECT SITE WITH GARY PANE NFTA, NO ODORS OR VISUAL CONTAMINATION OBSERVED, DRAFTED I LETTER.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 21 **DIST/DIR:** 0.20 NE **ELEVATION:** 582 **MAP ID:** 12

NAME: IPOS NORTH AMERICAN	REV: 4/5/12
ADDRESS: 2045 NIAGARA FALLS BLVD	ID1: 9811921
WHEATFIELD NY	ID2: 299536
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	12/22/1998
DATE REPORTED:	12/22/1998
CLOSED DATE:	12/23/1998
INSP DATE:	
MATERIAL SPILLED: UNKNOWN HAZARDOUS MATERIAL	AMOUNT SPILLED: 1 G
MATERIAL CLASS: HAZARDOUS MATERIAL	AMOUNT RECOVERED: 1 G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL:	EQUIPMENT FAILURE
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	LOCAL AGENCY
REGION:	
UST TRUST?	NO

SPILL INVESTIGATOR:	SACALAND
SPILL CONTACT:	MICHELLE WERLEY
TELEPHONE:	(716) 297-0300

SPILLER:	IPOS NORTH AMERICAN
	ROSE MARIE MATHISON
ADDRESS:	2045 NIAGARA FALLS BLVD
	WHEATFIELD, NY 14304-
TELEPHONE:	

REPORTED BY:	LOCAL AGENCY
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LAST DEC UPDATE:	2/16/1999
CLEAN UP MEET STANDARDS?	YES
PENALTY RECOMMENDED?	NO

CALLER REMARKS: PRODUCT IS CARBON ACRYLIC UN 1866. SPILL IS CONTAINED ON CARDBOARD BOX. FIRE DEPT HAZMAT TEAM ON SCENE. SPILL WILL BE CLEANED BY FIRE DEPT.

DEC REMARKS:
Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAC-NCHD 12/23/98: SAME AS SPILL NUMBER 9875313, FOLLOWUP WILL BE DONE UNDER THAT SPILL, CLOSEOUT THIS SPILL.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 20 **DIST/DIR:** 0.20 NE **ELEVATION:** 582 **MAP ID:** 12

NAME: IPOS NORTH AMERICA	REV: 4/5/12
ADDRESS: 2045 NIAGARA FALLS BLVD	ID1: 9875313
WHEATFIELD NY	ID2: 299537
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	12/22/1998
DATE REPORTED:	12/22/1998
CLOSED DATE:	1/14/1999
INSP DATE: 1/14/1999	
MATERIAL SPILLED: UNKNOWN HAZARDOUS MATERIAL	AMOUNT SPILLED: 1 G
MATERIAL CLASS: HAZARDOUS MATERIAL	AMOUNT RECOVERED: 1 G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL:	OTHER
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	RESPONSIBLE PARTY
REGION:	
UST TRUST?	NO

SPILL INVESTIGATOR:	SACALAND
SPILL CONTACT:	DUANE DELGOLICE
TELEPHONE:	(716) 297-0300

SPILLER:	IPOS NORTH AMERICA
	ROSE MARIE MATHISON
ADDRESS:	2045 NIAGARA FALLS BLVD
	WHEATFIELD, NY 14304-
TELEPHONE:	

REPORTED BY:	RESPONSIBLE PARTY
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LAST DEC UPDATE:	2/16/1999
CLEAN UP MEET STANDARDS?	YES
PENALTY RECOMMENDED?	NO

CALLER REMARKS: BOX OF ACRYLIC RESIN BROKE UPON DELIVERY BY UPS. 1 GALLON SPILLED. CALLER WANT SOMEONE TO DISPOSE OF IT.

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAC-NCHD 12/22/98: SAC TELECON DAVE MARTIN, NCHD, MR. MARTIN SAID HE WAS NOTIFIED OF THE INCIDENT AND WOULD BE FOLLOWING UP, HE DID NOT BELIEVE ANYTHING SPILLED OUT OF THE CONTAINER BUT HE WOULD BE FOLLOWING UP WITH THE COMPANY. THE HAZ-MAT TEAM IS ON THE SCENE AND HELPING WITH THE CONTAINMENT OF THE INCIDENT, HE SPOKE TO ROSE MARIE MATHISON. 12/22/98: SAC TELECON ROSE MARIE MATHISON OF I POST NORTH AMERICAN, THEY HAD CALLED SEVENSON IN TO HELP CLEANUP BUT SEVENSON WAS UNAVAILABLE SO JOHN DIPASQUALE WITH INDUSTRIAL SERVICES ON SCENE TO HELP WITH CLEANUP AND DISPOSAL OF PRODUCT, THIS WAS A SHIPMENT THROUGH UPS OF SIX 1 GALLON BOTTLES AND IT APPEARED 1 BOTTLE BROKE. 01/14/99: SAC RECEIVED DISPOSAL RECEIPT 01/14/99; SAC TELECON TO DAVE MARTIN, NO INSPECTION DONE SINCE MATERIAL DID NOT SPILL OUT OF THE BOX, NO FURTHER ACTION REQUIRED.

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 20	DIST/DIR: 0.20 NE	ELEVATION: 582	MAP ID: 12
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NAME: IPOS NORTH AMERICA
ADDRESS: 2045 NIAGARA FALLS BLVD
WHEATFIELD NY
NIAGARA

REV: 4/5/12
ID1: 9875313
ID2: 299537
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NYSDEC

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 27 **DIST/DIR:** 0.20 NW **ELEVATION:** 581 **MAP ID:** 13

NAME: NIAGARA FALLS AIRPORT	REV: 4/5/12
ADDRESS: 9956 PORTER RD	ID1: 1004959
NIAGARA FALLS NY	ID2: 438252
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	8/2/2010
DATE REPORTED:	8/2/2010
CLOSED DATE:	8/17/2010
INSP DATE:	
MATERIAL SPILLED: A TRIPLE F FOAM	AMOUNT SPILLED: 2000 G
MATERIAL CLASS: OTHER	AMOUNT RECOVERED: G

RESOURCE AFFECTED

SOIL: NO	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: YES
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL: OTHER
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: RESPONSIBLE PARTY
REGION:
UST TRUST? NO

SPILL INVESTIGATOR: SACALAND
SPILL CONTACT:
TELEPHONE:

SPILLER: NFTA
KIM MINKEL
ADDRESS: 181 ELLICOTT STREET
BUFFALO, NY 14203
TELEPHONE:

REPORTED BY: RESPONSIBLE PARTY

LAST DEC UPDATE: 8/17/2010
CLEAN UP MEET STANDARDS? YES
PENALTY RECOMMENDED? NO

CALLER REMARKS: TROLLEY CAUGHT FIRE. AIRFORCE RESERVE RESPONDED AND APPLIED 2000 GALLONS OF FIRE FIGHTING FOAM. SITE IS CONTAINED AND DIKE VALVE HAS BEEN CLOSED. NO PRODUCT LEACHED OFF THE SITE. OP-TECH HAS BEEN CALLED IN TO CLEAN UP. THEY HAVE ARRANGED FOR A BAKER TANK TO BE DELIVERED TO THE SITE SO THAT THE PRODUCT CAN BE VACUUMED UP AND PLACED INTO IT. THEY ARE ARRANGING DISPOSAL THROUGH A WWTP. HOWEVER, IT IS A CRIME SCENE, SO THE CLEAN UP WILL HAVE TO WAIT UNTIL THEY ARE GIVEN CLEARANCE TO PROCEED.

DEC REMARKS:
8/2/10:SAC TELECON RON GWOZDEK - NCHD NOTIFYING HIM OF THE INCIDENT. SENT COPY OF REPORT TO HIM. 8/17/10:SAC TELECON KIM MINKEL - NFTA. MS. MINKEL SAID THAT ALTHOUGH 2000 GALLONS OF AFFF FIRE FIGHTING FOAM WAS APPLIED IT ENDED UP BEING ONLY 200 GALLONS. THEY VACUUMED UP THE MATERIAL AND PLACED IT INTO DRUMS FOR DISPOSAL. THEY ARE WAITING FOR THE WASTE CHARACTERIZATION ANALYTICAL RESULTS AND THEN COMPLETE THE DISPOSAL. THE TROLLEY IS POWERED BY BOTH NATURAL GAS AND GASOLINE. NO GASOLINE WAS OBSERVED TO HAVE BEEN SPILLED AND WAS MOST LIKELY CONSUMED IN THE FIRE. NO FURTHER WORK REQUIRED.

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 27	DIST/DIR: 0.20 NW	ELEVATION: 581	MAP ID: 13
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NAME: NIAGARA FALLS AIRPORT
ADDRESS: 9956 PORTER RD
NIAGARA FALLS NY
NIAGARA

REV: 4/5/12
ID1: 1004959
ID2: 438252
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NYSDEC

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 33 **DIST/DIR:** 0.21 NE **ELEVATION:** 582 **MAP ID:** 15

NAME: ROADWAY	REV: 4/5/12
ADDRESS: NIAGARA FALLS BLVD and WILLIAMS RD	ID1: 0750159
NY	ID2: 380732
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	4/30/2007
DATE REPORTED:	4/30/2007
CLOSED DATE:	4/30/2007
INSP DATE:	4/30/2007
MATERIAL SPILLED:	UNKNOWN PETROLEUM
MATERIAL CLASS:	PETROLEUM
AMOUNT SPILLED:	G
AMOUNT RECOVERED:	G

RESOURCE AFFECTED

SOIL:	NO	AIR:	NO
INDOOR AIR:	NO	GROUNDWATER:	NO
SURFACE WATER:	NO	DRINKING WATER:	NO
SEWER:	NO	IMPERVIOUS SURFACE:	YES
SUBWAY:	NO	UNDERGROUND UTILITIES:	NO

CAUSE OF SPILL: UNKNOWN
WATERBODY AFFECTED:
SOURCE OF SPILL: UNKNOWN
REPORTED BY: LOCAL AGENCY
REGION:
UST TRUST? NO

SPILL INVESTIGATOR: rmcrosse
SPILL CONTACT:
TELEPHONE:

SPILLER:

ADDRESS:

TELEPHONE:

REPORTED BY: LOCAL AGENCY

LAST DEC UPDATE: 7/27/2007
CLEAN UP MEET STANDARDS? YES
PENALTY RECOMMENDED? NO

CALLER REMARKS: UNKNOWN PETROLEUM SPILLED ONTO ROAD WAY, HIGH SPEED LANE SOUTHBOUND AT WALMOR AND WILLIAMS. TWO DIFFERENT AREAS.

DEC REMARKS:
04/30/07 RMC/SITE. ROAD STAINED, NO SPILL ACTION REQUIRED. CLOSE OUT NO PAPER FILE.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 47 **DIST/DIR:** 0.25 NE **ELEVATION:** 582 **MAP ID:** 17

NAME: NIAGARA FALLS AIRPORT
ADDRESS: 2035 NIAGARA FALLS BLVD
WHEATFIELD NY 14304
NIAGARA

REV: 4/5/12
ID1: 1103730
ID2: 451302
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NYSDEC

DETAILS NOT AVAILABLE

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 17 **DIST/DIR:** 0.67 NW **ELEVATION:** 580 **MAP ID:** 21

NAME: NIAGARA FALLS ARMY RESERVE, DOD
ADDRESS: 9400 PORTER RD
NIAGARA FALLS NY 14304
NIAGARA

REV: 4/5/12
ID1: 932152
ID2: 441103.00
STATUS:
PHONE:

CONTACT:
SOURCE: NYSDEC

SITE INFORMATION

SITE OWNER/OPERATOR INFORMATION:

NAME: INGRID WEGAND
COMPANY: NIAGARA FALLS ARMY RESERVE
ADDRESS: 9400 PORTER ROAD
NIAGARA FALLS NY 14304-5713
COUNTRY: UNITED STATES OF AMERICA

HAZARDOUS WASTE:
PCB-AROCLOR 1254

QUANTITY:
UNKNOWN

Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 14 **DIST/DIR:** 0.81 NE **ELEVATION:** 584 **MAP ID:** 22

NAME: BELL AEROSPACE - TEXTRON	REV: 4/5/12
ADDRESS: NIAGARA FALLS BLVD and WALMORE RD	ID1: 932052
WHEATFIELD NY 14240	ID2: 56690.00
NIAGARA	STATUS:
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

REGION: 9 **SIZE (ACRES):** .500

SITE TYPE:

OPEN DUMP: NO	STRUCTURE: NO
LAGOON: NO	LANDFILL: NO
POND: NO	

SITE OWNER/OPERATOR INFORMATION:

NAME:
COMPANY: BELL AIRCRAFT - ALLIED SIGNAL CORP.
ADDRESS:
ZZ
COUNTRY: UNITED STATES OF AMERICA

NAME:
COMPANY: BELL AIRCRAFT - ALLIED SIGNAL CORP.
ADDRESS: 40 WESTMINISTER STREET
PROVIDENCE RI 02903
COUNTRY: UNITED STATES OF AMERICA

NAME:
COMPANY: TEXTRON, INCORPORATED
ADDRESS: 40 WESTMINISTER STREET
PROVIDENCE RI 02903
COUNTRY: UNITED STATES OF AMERICA

NAME:
COMPANY: BELL AIRCRAFT - ALLIED SIGNAL CORP.
ADDRESS: PO BOX 1
NIAGARA FALLS NY 14240
COUNTRY: UNITED STATES OF AMERICA

NAME:
COMPANY: BELL AEROSPACE-TEXTRON
ADDRESS: 9182 NIAGARA FALLS BOULEVARD
NORTH TONAWANDA NY 14240
COUNTRY: UNITED STATES OF AMERICA

NAME:
COMPANY: TEXTRON, INCORPORATED
ADDRESS: 40 WESTMINISTER STREET
PROVIDENCE RI 02903
COUNTRY: UNITED STATES OF AMERICA

HAZARDOUS WASTE:
SPILLED OR RESIDUES FROM ROCKET FUEL

QUANTITY:

- Continued on next page -

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 14 **DIST/DIR:** 0.81 NE **ELEVATION:** 584 **MAP ID:** 22

NAME: BELL AEROSPACE - TEXTRON	REV: 4/5/12
ADDRESS: NIAGARA FALLS BLVD and WALMORE RD WHEATFIELD NY 14240 NIAGARA	ID1: 932052
	ID2: 56690.00
CONTACT:	STATUS:
SOURCE: NYSDEC	PHONE:

CHLORINATED SOLVENTS UNKNOWN
MISCELLANEOUS CHEMICALS

HAZARDOUS WASTE DISPOSAL PERIOD: 1950 TO 1980

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Groundwater contaminated with various halogenated organics. The implementation of corrective measures, which has required pumping and treating the contaminated groundwater on and off site by extraction wells along with other remedial measures, is addressing the environmental problems at this site.

ASSESSMENT OF HEALTH PROBLEMS:

The pond is closed and site access is restricted so exposures on-site are not expected. Exposures via drinking water are not expected as all area homes are connected to public water. The potential for underground utility workers to be exposed to contaminated groundwater near the Plant site has been eliminated by the installation of clay plugs in the sewer bedding. NYSDEC conducted soil vapor sampling in off-site locations in 2006. Sampling of subslab vapor and indoor air at nearby residences was conducted in early 2007, and expanded to include other residences in early 2008.

DESCRIPTION:

This site is located on Niagara Falls Blvd. and Walmore Rd. in the Town of Wheatfield, Niagara County. It is a 0.5 acre site that consists of a former Neutralization Pond which was approximately rectangular in shape, at about 100 feet by 60 feet in plan dimension. Records indicate the Neutralization Pond was constructed in 1949 and used extensively for waste fluid neutralization and disposal of collected waste propellants and associated flush waters from rocket engine test firings in the Rocket Test Building through the 1950 s and to a lesser extent through the 1960 s. During operation, neutralized water from the Pond was discharged to the Plant s sanitary sewer. In addition to the use of the Pond for neutralizing the waste propellants, it was apparently also used for disposal of solvents and fluids from other parts of the plant. The Pond was physically closed in 1987. The site is part of the larger Bell Aerospace Textron - Wheatfield Plant which is located near the western boundary of the Town of Wheatfield, Niagara County. This large industrial facility is bounded by Niagara Falls Boulevard (U.S. Route 62) to the south, Walmore Road to the east, Carborundum Abrasives Company Plant to the north, and the Niagara Falls International Airport to the west and northwest. Bell Aircraft Corporation began operations at the Wheatfield Plant in 1942. In 1960, Textron purchased the military defense business from Bell Aircraft Corporation and established the Bell Aerospace Division of Textron (BAT). In 1973, BAT acquired the real property which comprises the Wheatfield plant. Aircraft construction and a variety of manufacturing and research activities have been conducted at the Plant. A comprehensive hydrogeologic investigation was completed at this site. An interim report on the results of the investigations was submitted by Bell s consultant, Golder Associates, in 1987. More work was done in 1988-89 that included additional off-site investigation, investigation of the local sewer trenches, potential for soil gas migration, survey of private wells in the area and a pump test to define aquifer characteristics for use in evaluating the potential remedial measures. The neutralization pond was physically closed in 1988 in accordance with an approved closure plan. The investigation was completed and a Corrective Measures Study (CMS) has been approved. The CMS includes a remediation plan for off-site and on-site areas and a health risk/environmental risk study. The NYCRR Part 373 permit has been issued for post-closure care and corrective action. The off-site corrective action system which consists of four extraction wells, became operational in March 1993. The on-site corrective action system became operational in late 1994 and consists of six extraction wells and treatment of groundwater. A waste water treatment plant was built on plant property for this purpose. The groundwater from the off-site extraction wells (6)is treated at the Publicly Owned Treatment Works (POTW). An off-site soil vapor intrusion (SVI) was performed in 2007 to assess any potential impacts from the off-site contaminant plume. Additional off-site SVI assessment work is planned for 2008. This work was completed with some SVI results, but it was determined that the SVI s were not attributed to SIC s. Site Management to continue with inspections, hydraulic monitoring, groundwater quality monitoring and groundwater extraction and treatment. The last DEC inspection was October 14, 2009.

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 16 **DIST/DIR:** 0.83 NW **ELEVATION:** 573 **MAP ID:** 23

<p>NAME: DIBACCO SITE - OLD CREEK BED 1 ADDRESS: PORTER RD NIAGARA FALLS NY 14304 NIAGARA</p> <p>CONTACT: SOURCE:</p>	<p>REV: 05/20/99 ID1: 932056A ID2: NYD980508097 STATUS: HISTORIC PHONE:</p>
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CLASS CODE: D1 **REGION:** 9 **ESTIMATED SIZE:** 0.5 ACRES

SITE TYPE:
OPEN DUMP: **STRUCTURE:**
LAGOON: **LANDFILL:** X
POND:

SITE OWNER/OPERATOR INFORMATION:

CURRENT OWNER(S) NAME: Maureen Webber
CURRENT OWNER(S) ADDRESS: 2137 Roberts Dr.
Niagara Falls NY 14304

OPERATOR(S) DURING DISPOSAL: Apex Salvage Company
OPERATOR(S) ADDRESS:
NY

HAZARDOUS WASTE DISPOSAL PERIOD: 1977 **TO:** 1978

SITE DESCRIPTION:

The site has been used for disposal of fill with rocks, broken concrete, and some inert wastes from a Carborundum Warehouse that burned in 1977. Also, Hooker Chemical indicated that some hexachlorocyclopentadiene (C-56) catalyst may have been disposed here. The USGS sampling team inspected the site during the Niagara River Toxics study; however, no test holes could be drilled on site because of access difficulties and the nature of the fill. Four surface water samples were collected in Cayuga Creek which flows adjacent to the site. The results indicate low concentrations of iron and trace quantities of copper, lead, and organic compounds. Also, an electromagnetic survey was conducted over this site. A Phase I Investigation was completed in September of 1983. A Phase II Investigation was completed in 1990. Additional groundwater sampling was performed in 1991, the results of which indicated no contamination. Additional soil sampling was performed in June 1992, December 1993 and June 1994 in an attempt to determine the presence and extent of hazardous waste. Because of the promulgation of TCLP (for hazardous waste determination) a Preliminary Site Assessment (PSA) Investigation was conducted in 1997. Additional subsurface soils were collected in to determine if hazardous waste wastes were present. It was determined that C-56 existed in a small area (5 sq/ft) of the site in such low levels that it was determined to be an inconsequential amount. Based on all of the investigations conducted at this site, a consequential amount of hazardous waste disposal could not be documented.

CONFIRMED HAZARDOUS WASTE DISPOSAL: **QUANTITY:**

ANALYTICAL DATA AVAILABLE FOR:

GROUNDWATER: X	SURFACE WATER: X
AIR:	SEDIMENT: X
SOIL: X	

APPLICABLE STANDARDS EXCEEDED FOR:

GROUNDWATER: X	SURFACE WATER:
AIR:	DRINKING WATER:

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 16	DIST/DIR: 0.83 NW	ELEVATION: 573	MAP ID: 23
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NAME: DIBACCO SITE - OLD CREEK BED 1	REV: 05/20/99
ADDRESS: PORTER RD	ID1: 932056A
NIAGARA FALLS NY 14304	ID2: NYD980508097
NIAGARA	STATUS: HISTORIC
CONTACT:	PHONE:
SOURCE:	

GEOTECHNICAL INFORMATION:

SOIL/ROCK TYPE: Unknown
DEPTH TO GROUNDWATER: Unknown

LEGAL ACTION:

TYPE:
STATUS:

REMEDIATION:

PROPOSED:	DESIGN:
ACTIVE:	COMPLETE:

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

There are no environmental problems associated with the disposal of hazardous waste at this site.

ASSESSMENT OF HEALTH PROBLEMS:

The site is not fenced. Persons have been observed crossing the site and there is evidence of unauthorized use taking place. Waste material, predominately flyash and construction and demolition material, are exposed or appear only covered with decayed vegetative matter. Exposures via drinking water are not expected because the area is supplied with municipal water and there are no known area residents who use groundwater.

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 13 **DIST/DIR:** 0.90 SW **ELEVATION:** 570 **MAP ID:** 24

<p>NAME: 93RD STREET SCHOOL ADDRESS: 93RD ST NIAGARA FALLS NY 10278 NIAGARA CONTACT: SOURCE: NYSDEC</p>	<p>REV: 4/5/12 ID1: 932078 ID2: 58945.00 STATUS: PHONE:</p>
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SITE INFORMATION

REGION: 9 **SIZE (ACRES):** 19.400

SITE TYPE:

OPEN DUMP: YES	STRUCTURE: NO
LAGOON: NO	LANDFILL: NO
POND: NO	

SITE OWNER/OPERATOR INFORMATION:

NAME:
COMPANY: NIAGARA FALLS BOARD OF EDUC.
ADDRESS: 607 WALNUT AVE.
NIAGARA FALLS NY 14301
COUNTRY: UNITED STATES OF AMERICA

NAME:
COMPANY: NIAGARA FALLS BOARD OF EDUC.
ADDRESS:
ZZ
COUNTRY: UNITED STATES OF AMERICA

NAME:
COMPANY: NIAGARA FALLS BOARD OF EDUCATION
ADDRESS: 607 WALNUT AVENUE
NIAGARA FALLS NY 14301
COUNTRY: UNITED STATES OF AMERICA

HAZARDOUS WASTE:

FLY ASH AND BHC CAKES
FROM LOVE CANAL

QUANTITY:

3000 CUBIC YARDS
UNKNOWN

HAZARDOUS WASTE DISPOSAL PERIOD: 1954 TO 1980

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

The site remediation plan has been implemented, no further action is needed at this site.

ASSESSMENT OF HEALTH PROBLEMS:

The remedial activities have been completed and the site is used as a ball diamond complex. Public water is supplied to the area.

DESCRIPTION:

The 93rd Street School Site is a 19.4 acre site located on 93rd Street in the City of Niagara Falls, Niagara County. The site is less than one mile north of the Love Canal Site (932020). The school was built in 1950. Prior to the schools construction a on-site drainage swale was filled with soil, rock and debris. In 1954, the Niagara Falls Board of Education reportedly contracted to have 3000 cubic yards of fill material from the 99th Street School property. This material reportedly contained fly ash and hexachlorocyclohexane hauled from the adjacent Love Canal site. Subsequently, the fill was covered by 3 ft. of top soil. Several studies were conducted since 1979 because of problems associated with the Love Canal fill. The studies found that benzene, toluene, hexachlorocyclo-hexane, lindane and dioxin have been detected in the soil, surface and ground- water, storm sewers and sediment. A State Superfund Phase I Investigation was completed in June 1983. A Phase II Field Investigation was undertaken in June -July 1984. This investigation

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 13 **DIST/DIR:** 0.90 SW **ELEVATION:** 570 **MAP ID:** 24

NAME: 93RD STREET SCHOOL
ADDRESS: 93RD ST
NIAGARA FALLS NY 10278
NIAGARA

REV: 4/5/12
ID1: 932078
ID2: 58945.00
STATUS:
PHONE:

CONTACT:
SOURCE: NYSDEC

revealed the presence of dioxin in subsurface soils on site. The USEPA conducted surface soil sampling during 1985. A Remedial Investigation/ Feasibility Study (RI/FS) at this site was completed in 1988. EPA signed a Record of Decision (ROD) in September 1988 which called for excavation and on-site solidification/ stabilization of soils. During the Remedial Investigation and other follow up supplementary investigations, dioxin was not detected at EPA's level of concern of 1 ppb for residential soils. Consequently a Post Decision Proposed Plan (PDPP) was prepared and EPA Issued an Amendment to the ROD in May 1991 replacing on site solidification/ stabilization by off-site disposal. The remedial work was completed in June 1992 with the 15,757.47 tons of materials excavated and stored in a secure cell at the 102nd Street Site for use as part of the fill during remediation of the 102nd Street Landfill. 260 tons of soil were determined to be hazardous (failed for TCLP lead) and were transported and disposed of at TSDf in Michigan. The site has been remediated, no further action is needed. The site was removed from the Registry in October 1994.

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 15 **DIST/DIR:** 0.93 NE **ELEVATION:** 585 **MAP ID:** 25

NAME: CARBORUNDUM-ABRASIVE DIVISION	REV: 4/5/12
ADDRESS: WALMORE RD	ID1: 932007
WHEATFIELD NY 14304	ID2: 58272.00
NIAGARA	STATUS:
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

REGION: 9 **SIZE (ACRES):** 1.000

SITE TYPE:

OPEN DUMP: YES	STRUCTURE: NO
LAGOON: NO	LANDFILL: NO
POND: NO	

SITE OWNER/OPERATOR INFORMATION:

NAME:
COMPANY: CARBORUNDUM CORPORATION
ADDRESS:
ZZ
COUNTRY: UNITED STATES OF AMERICA

NAME: MR. GEORGE DAVIS
COMPANY: SAINT GOBAIN ABRASIVES
ADDRESS: P.O. BOX 301 6600 WALMORE ROAD
NIAGARA FALLS NY 14304
COUNTRY: UNITED STATES OF AMERICA

NAME: THOMAS J. CIARLONE C/O PATRIOT EQUITIES
COMPANY: PATRIOT WHEATFIELD ASSOCIATES, LP
ADDRESS: 1200 LIBERTY RIDGE DRIVE SUITE 115
WAYNE PA 19087
COUNTRY: UNITED STATES OF AMERICA

HAZARDOUS WASTE:

PHENOLS
FLOOR SWEEPINGS
SOLIDIFIED RESINS, CALCIUM
CARBONATE CLAYS, ANIMAL GLUE

QUANTITY:

800-1600 LBS.
400 TONS TOTAL
UNKNOWN
UNKNOWN

HAZARDOUS WASTE DISPOSAL PERIOD: 1968 TO 1976

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

The remedial program has addressed the environmental concerns at this site. Site Management continues to be provided.

ASSESSMENT OF HEALTH PROBLEMS:

Contact exposures are unlikely because the site is capped and the surrounding area is fenced and guarded. Exposures via drinking water are not expected because public water serves the area.

DESCRIPTION:

Location: This site is located in Niagara Falls, New York; Niagara County on Walmore Rd. near Niagara Falls Boulevard. It is bordered by the Niagara Falls Air Force Base and Cayuga Creek to the north, light industrial complexes or undeveloped areas to the east and south and the Niagara Falls Airport to the west. **Site Features:** The site is a rectangular 1 acre clay capped landfill. It measures approximately 450 by 25 feet. Monitoring points are situated to the north, west and south, some of which are on a former parking lot. **History:** The site formerly served the adjacent 60 acre Carborundum Abrasives

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 15 **DIST/DIR:** 0.93 NE **ELEVATION:** 585 **MAP ID:** 25

NAME: CARBORUNDUM-ABRASIVE DIVISION
ADDRESS: WALMORE RD
WHEATFIELD NY 14304
NIAGARA

REV: 4/5/12
ID1: 932007
ID2: 58272.00
STATUS:
PHONE:

CONTACT:
SOURCE: NYSDEC

Division which disposed of phenols and solids from 1968-1976. It is reported that 800-1,600 pounds of phenols and 400 tons of solid resins, floor sweepings, and waste fillers, including calcium carbonate, clays and animal glue. The Carborundum Abrasives Division shut down operations in 2003. A hydrogeological investigation of the site was conducted in 1981. Monitoring wells confirmed the presence of phenols in the groundwater. In the late summer of 1982, a remedial program was implemented which consisted of the installation of an improved clay cap over the landfill area. The company investigated the groundwater quality at the site; no evidence of groundwater contamination was found. The Carborundum Abrasive Co.(now St. Gobains)prepared a revised sampling and analysis plan that includes an operation, maintenance and monitoring section (Site Management). Site inspections are performed quarterly and groundwater quality monitoring is done bi-annually. Groundwater results have not shown a release of contaminants. Site Management is ongoing.

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 18 **DIST/DIR:** 0.99 NE **ELEVATION:** 586 **MAP ID:** 26

<p>NAME: NIAGARA FRONTIER TRANSPORTATION AUTH. ADDRESS: NIAGARA FALLS BLVD WHEATFIELD NY 14304 NIAGARA</p> <p>CONTACT: SOURCE:</p>	<p>REV: 05/20/99 ID1: 932090 ID2: NYD980654321 STATUS: HISTORIC PHONE:</p>
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CLASS CODE: D1 **REGION:** 9 **ESTIMATED SIZE:** 2.75 ACRES

SITE TYPE:
OPEN DUMP: **STRUCTURE:**
LAGOON: X **LANDFILL:**
POND:

SITE OWNER/OPERATOR INFORMATION:

CURRENT OWNER(S) NAME: Niagara Falls Transportation Auth.
CURRENT OWNER(S) ADDRESS: 181 Ellicott St.
Buffalo NY 14203

OPERATOR(S) DURING DISPOSAL: NFTA
OPERATOR(S) ADDRESS: Niagara Falls Blvd.
Wheatfield NY 14304

HAZARDOUS WASTE DISPOSAL PERIOD: **TO:**

SITE DESCRIPTION:

This site is a lagoon located on NFTA property north of the Carborundum Corp. plant. A phenol spill from Carborundum in 1978 released phenol to this pond. The pond drains across the airport to Cayuga Creek. Carborundum does have a SPDES permit to discharge to this pond. A cleanup of the spill occurred in 1979. The USGS collected two soil samples adjacent to the lagoon in 1982. No significant contamination was found. A Phase I Investigation was completed in 1987. In 1989, DEC collected sediment samples from the pond at the Carborundum outfalls. No phenol was detected in the sediments. A Preliminary Site Assessment (PSA) which included sediment sampling was conducted during 1993. No phenol was detected. The PSA determined that there is not a consequential amount of hazardous waste at this site.

CONFIRMED HAZARDOUS WASTE DISPOSAL: **QUANTITY:**

ANALYTICAL DATA AVAILABLE FOR:

GROUNDWATER:	SURFACE WATER: X
AIR:	SEDIMENT: X
SOIL: X	

APPLICABLE STANDARDS EXCEEDED FOR:

GROUNDWATER:	SURFACE WATER: X
AIR:	DRINKING WATER:

GEOTECHNICAL INFORMATION:

SOIL/ROCK TYPE: Silty Clay Loam
DEPTH TO GROUNDWATER: Unknown

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 18 **DIST/DIR:** 0.99 NE **ELEVATION:** 586 **MAP ID:** 26

NAME: NIAGARA FRONTIER TRANSPORTATION AUTH. **REV:** 05/20/99
ADDRESS: NIAGARA FALLS BLVD **ID1:** 932090
WHEATFIELD NY 14304 **ID2:** NYD980654321
NIAGARA **STATUS:** HISTORIC
CONTACT: **PHONE:**
SOURCE:

LEGAL ACTION:

TYPE:
STATUS:

REMEDATION:

PROPOSED: **DESIGN:**
ACTIVE: **COMPLETE:**

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

There are no significant environmental problems at this site associated with the disposal of hazardous waste.

ASSESSMENT OF HEALTH PROBLEMS:

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 36 **DIST/DIR:** 0.13 NW **ELEVATION:** 582 **MAP ID:** 3

<p>NAME: DAVID CHEVROLET BUICK PONTIAC ADDRESS: 10225 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304 NIAGARA CONTACT: SOURCE: NY DEC</p>	<p>REV: 4/5/12 ID1: PBS9-600867 ID2: STATUS: ACTIVE PHONE:</p>
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PETROLEUM BULK STORAGE FACILITY INFORMATION

SITE STATUS: ACTIVE
EXPIRATION DATE: 2015/10/17

CONTACT INFORMATION

COMPANY NAME: DAVID SMITH
CONTACT : JOE SMITH

,NN,

COMPANY NAME: DAVID CHEVROLET BUICK PONTIAC
CONTACT : BILL HUTCHINSON

,NN,

(716) 298-9700

COMPANY NAME: DAVID CHEVROLET BUICK PONTIAC
CONTACT : JOE SMITH

10225 NIAGARA FALLS BLVD
NIAGARA FALLS,NY, 14304

(716) 298-9700

DAVIDCHE

COMPANY NAME: DAVID SMITH
CONTACT : BRAD CASPER
SERVICE DIRECTOR
10225 NIAGARA FALLS BLVD
NIAGARA FALLS,NY, 14304

(716) 298-9700

TANK INFORMATION

TANK NUMBER: 01	TANK ID: 208360	
TANKS STATUS: IN SERVICE	INSTALL DATE: 1/1/2003	
CAPACITY(GAL): 250	DATE OF TEST:	
NEXT TEST:	CLOSED DATE:	
REGISTERED: YES	TANK TYPE: STEEL/CARBON STEEL	
TANK LOCATION: ABOVEGROUND: 10% OR MORE BELOW GROUND		

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 36 **DIST/DIR:** 0.13 NW **ELEVATION:** 582 **MAP ID:** 3

NAME:	DAVID CHEVROLET BUICK PONTIAC	REV:	4/5/12
ADDRESS:	10225 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304 NIAGARA	ID1:	PBS9-600867
CONTACT:		ID2:	
SOURCE:	NY DEC	STATUS:	ACTIVE
		PHONE:	

TANK NUMBER:	02	TANK ID:	208361
TANKS STATUS:	IN SERVICE	INSTALL DATE:	1/1/2003
CAPACITY(GAL):	250	DATE OF TEST:	
NEXT TEST:		CLOSED DATE:	
REGISTERED:	YES	TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND: 10% OR MORE BELOW GROUND		

TANK NUMBER:	03	TANK ID:	208362
TANKS STATUS:	IN SERVICE	INSTALL DATE:	1/1/2003
CAPACITY(GAL):	1000	DATE OF TEST:	
NEXT TEST:		CLOSED DATE:	
REGISTERED:	YES	TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND: 10% OR MORE BELOW GROUND		

TANK NUMBER:	04	TANK ID:	208363
TANKS STATUS:	IN SERVICE	INSTALL DATE:	1/1/2003
CAPACITY(GAL):	250	DATE OF TEST:	
NEXT TEST:		CLOSED DATE:	
REGISTERED:	YES	TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND: 10% OR MORE BELOW GROUND		

TANK NUMBER:	05	TANK ID:	231411
TANKS STATUS:	IN SERVICE	INSTALL DATE:	1/1/2003
CAPACITY(GAL):	275	DATE OF TEST:	
NEXT TEST:		CLOSED DATE:	
REGISTERED:	YES	TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND: 10% OR MORE BELOW GROUND		

TANK NUMBER:	6	TANK ID:	235780
TANKS STATUS:	IN SERVICE	INSTALL DATE:	1/1/2003
CAPACITY(GAL):	500	DATE OF TEST:	
NEXT TEST:		CLOSED DATE:	
REGISTERED:	YES	TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND: 10% OR MORE BELOW GROUND		

HISTORIC TANK INFORMATION FROM 2007

<u>TANK NUMBER:</u>	01	TANK STATUS:	IN SERVICE
ACTIVE STATUS:	ACTIVE	INSTALLED:	1/1/2003
CLOSED:		TANK CAPACITY:	250 GALLONS
PRODUCT:	WASTE OIL/USED OIL (HEATING)		

TANK TYPE:	STEEL/CARBON STEEL/IRON
TANK LOCATION:	ABOVEGROUND ON CRIB, RACK, OR CRADLE
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING

- Continued on next page -

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 36 **DIST/DIR:** 0.13 NW **ELEVATION:** 582 **MAP ID:** 3

NAME: DAVID CHEVROLET BUICK PONTIAC	REV: 4/5/12
ADDRESS: 10225 NIAGARA FALLS BLVD	ID1: PBS9-600867
NIAGARA FALLS NY 14304	ID2:
NIAGARA	STATUS: ACTIVE
CONTACT:	PHONE:
SOURCE: NY DEC	

EXTERNAL PROTECTION 2:

PIPE TYPE: GALVANIZED STEEL
PIPE LOCATION: ABOVEGROUND
EXTERNAL PROTECTION: NONE
EXTERNAL PROTECTION 2:

SECONDARY CONTAINMENT: NONE
SECONDARY CONTAINMENT 2:
LEAK DETECTION: IMPERVIOUS BARRIER/CONCRETE PAD (A/G)
LEAK DETECTION 2:

OVERFILL PROTECTION: PRODUCT LEVEL GAUGE (A/G)
OVERFILL PROTECTION 2:
DISPENSER: SUCTION
SPILL PREVENTION: NONE
DATE TESTED:
NEXT TEST:
TEST METHOD: TESTING NOT REQUIRED

<u>TANK NUMBER:</u> 02	TANK STATUS: IN SERVICE
ACTIVE STATUS: ACTIVE	INSTALLED: 1/1/2003
CLOSED:	TANK CAPACITY: 250 GALLONS
PRODUCT: WASTE OIL/USED OIL (HEATING)	

TANK TYPE: STEEL/CARBON STEEL/IRON
TANK LOCATION: ABOVEGROUND ON CRIB, RACK, OR CRADLE
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
EXTERNAL PROTECTION 2:

PIPE TYPE: GALVANIZED STEEL
PIPE LOCATION: ABOVEGROUND
EXTERNAL PROTECTION: NONE
EXTERNAL PROTECTION 2:

SECONDARY CONTAINMENT: NONE
SECONDARY CONTAINMENT 2:
LEAK DETECTION: IMPERVIOUS BARRIER/CONCRETE PAD (A/G)
LEAK DETECTION 2:

OVERFILL PROTECTION: PRODUCT LEVEL GAUGE (A/G)
OVERFILL PROTECTION 2:
DISPENSER: SUCTION
SPILL PREVENTION: NONE
DATE TESTED:
NEXT TEST:
TEST METHOD: TESTING NOT REQUIRED

<u>TANK NUMBER:</u> 03	TANK STATUS: IN SERVICE
ACTIVE STATUS: ACTIVE	INSTALLED: 1/1/2003
CLOSED:	TANK CAPACITY: 1000 GALLONS
PRODUCT: WASTE OIL/USED OIL (HEATING)	

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Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 36 **DIST/DIR:** 0.13 NW **ELEVATION:** 582 **MAP ID:** 3

NAME:	DAVID CHEVROLET BUICK PONTIAC	REV:	4/5/12
ADDRESS:	10225 NIAGARA FALLS BLVD NIAGARA FALLS NY 14304 NIAGARA	ID1:	PBS9-600867
CONTACT:		ID2:	
SOURCE:	NY DEC	STATUS:	ACTIVE
		PHONE:	

TANK TYPE: STEEL/CARBON STEEL/IRON
TANK LOCATION: ABOVEGROUND ON CRIB, RACK, OR CRADLE
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
EXTERNAL PROTECTION 2:

PIPE TYPE: GALVANIZED STEEL
PIPE LOCATION: ABOVEGROUND
EXTERNAL PROTECTION: NONE
EXTERNAL PROTECTION 2:

SECONDARY CONTAINMENT: DIKING (ABOVEGROUND)
SECONDARY CONTAINMENT 2:
LEAK DETECTION: OTHER
LEAK DETECTION 2:

OVERFILL PROTECTION: PRODUCT LEVEL GAUGE (A/G)
OVERFILL PROTECTION 2:
DISPENSER: SUCTION
SPILL PREVENTION: TRANSFER STATION CONTAINMENT
DATE TESTED:
NEXT TEST:
TEST METHOD: TESTING NOT REQUIRED

<u>TANK NUMBER:</u>	04	TANK STATUS:	IN SERVICE
ACTIVE STATUS:	ACTIVE	INSTALLED:	1/1/2003
CLOSED:		TANK CAPACITY:	500 GALLONS
PRODUCT:	LUBE OIL		

TANK TYPE: STEEL/CARBON STEEL/IRON
TANK LOCATION: ABOVEGROUND ON CRIB, RACK, OR CRADLE
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
EXTERNAL PROTECTION 2:

PIPE TYPE: GALVANIZED STEEL
PIPE LOCATION: ABOVEGROUND
EXTERNAL PROTECTION: NONE
EXTERNAL PROTECTION 2:

SECONDARY CONTAINMENT: NONE
SECONDARY CONTAINMENT 2:
LEAK DETECTION: IMPERVIOUS BARRIER/CONCRETE PAD (A/G)
LEAK DETECTION 2:

OVERFILL PROTECTION: PRODUCT LEVEL GAUGE (A/G)
OVERFILL PROTECTION 2:
DISPENSER: SUCTION
SPILL PREVENTION: NONE
DATE TESTED:
NEXT TEST:
TEST METHOD: TESTING NOT REQUIRED

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***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 36	DIST/DIR: 0.13 NW	ELEVATION: 582	MAP ID: 3
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NAME: DAVID CHEVROLET BUICK PONTIAC
ADDRESS: 10225 NIAGARA FALLS BLVD
NIAGARA FALLS NY 14304
NIAGARA

REV: 4/5/12
ID1: PBS9-600867
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:
SOURCE: NY DEC

Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 37 **DIST/DIR:** 0.14 NE **ELEVATION:** 582 **MAP ID:** 5

NAME: NOCO EXPRESS S-28	REV: 4/5/12
ADDRESS: 6724 WILLIAMS RD	ID1: PBS9-463264
NIAGARA FALLS NY 14304	ID2:
NIAGARA	STATUS: ACTIVE
CONTACT:	PHONE:
SOURCE: NY DEC	

PETROLEUM BULK STORAGE FACILITY INFORMATION

SITE STATUS: ACTIVE
EXPIRATION DATE: 2013/11/01

CONTACT INFORMATION

COMPANY NAME: NOCO ENERGY CORP
CONTACT : ART MUELLER

,NN,
(716) 208-6894

COMPANY NAME: NOCO ENERGY CORP
CONTACT : MICHAEL YOUNT

2440 SHERIDAN DRIVE
TONAWANDA,NY, 14150

(716) 504-3319
MYOUNT NOCO.COM

COMPANY NAME: NOCO ENERGY CORP
CONTACT : MICHAEL YOUNT
DIRECTOR OF RISK MANAGEMENT
2440 SHERIDAN DRIVE
TONAWANDA,NY, 14150

(716) 833-6626

COMPANY NAME: NOCO EXPRESS 28
CONTACT : NOCO EXPRESS

,NY,
(716) 297-6523

TANK INFORMATION

TANK NUMBER: 1	TANK ID: 168113
TANKS STATUS: IN SERVICE	INSTALL DATE: 10/1/1988
CAPACITY(GAL): 12000	DATE OF TEST: 8/2/2004
NEXT TEST:	CLOSED DATE:
REGISTERED: YES	TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS	

- Continued on next page -

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 37 **DIST/DIR:** 0.14 NE **ELEVATION:** 582 **MAP ID:** 5

NAME: NOCO EXPRESS S-28	REV: 4/5/12
ADDRESS: 6724 WILLIAMS RD	ID1: PBS9-463264
NIAGARA FALLS NY 14304	ID2:
NIAGARA	STATUS: ACTIVE
CONTACT:	PHONE:
SOURCE: NY DEC	

TANK NUMBER: 2	TANK ID: 168114	
TANKS STATUS: IN SERVICE	INSTALL DATE: 10/1/1988	
CAPACITY(GAL): 12000	DATE OF TEST: 8/2/2004	
NEXT TEST:	CLOSED DATE:	
REGISTERED: YES	TANK TYPE: STEEL/CARBON STEEL	
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS		

TANK NUMBER: 3	TANK ID: 168115	
TANKS STATUS: IN SERVICE	INSTALL DATE: 10/1/1988	
CAPACITY(GAL): 12000	DATE OF TEST:	
NEXT TEST:	CLOSED DATE:	
REGISTERED: YES	TANK TYPE: STEEL/CARBON STEEL	
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS		

HISTORIC TANK INFORMATION FROM 2007

<u>TANK NUMBER:</u> 1	TANK STATUS: IN SERVICE	
ACTIVE STATUS: ACTIVE	INSTALLED: 10/1/1988	
CLOSED:	TANK CAPACITY: 12000 GALLONS	
PRODUCT: GASOLINE		

TANK TYPE:	STEEL/CARBON STEEL/IRON
TANK LOCATION:	UNDERGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
EXTERNAL PROTECTION 2:	ORIGINAL SACRIFICIAL ANODE

PIPE TYPE:	FIBERGLASS REINFORCED PLASTIC (FRP)
PIPE LOCATION:	UNDERGROUND/ON-GROUND
EXTERNAL PROTECTION:	FIBERGLASS
EXTERNAL PROTECTION 2:	

SECONDARY CONTAINMENT:	DOUBLE-WALLED (UNDERGROUND)
SECONDARY CONTAINMENT 2:	
LEAK DETECTION:	INTERSTITIAL - ELECTRONIC MONITORING
LEAK DETECTION 2:	IN-TANK SYSTEM (ATG)

OVERFILL PROTECTION:	FLOAT VENT VALVE
OVERFILL PROTECTION 2:	
DISPENSER:	SUBMERSIBLE
SPILL PREVENTION:	CATCH BASIN
DATE TESTED:	8/2/2004
NEXT TEST:	
TEST METHOD:	VACUTEST

<u>TANK NUMBER:</u> 2	TANK STATUS: IN SERVICE	
ACTIVE STATUS: ACTIVE	INSTALLED: 10/1/1988	
CLOSED:	TANK CAPACITY: 12000 GALLONS	
PRODUCT: GASOLINE		

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Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 37 **DIST/DIR:** 0.14 NE **ELEVATION:** 582 **MAP ID:** 5

NAME: NOCO EXPRESS S-28	REV: 4/5/12
ADDRESS: 6724 WILLIAMS RD	ID1: PBS9-463264
NIAGARA FALLS NY 14304	ID2:
NIAGARA	STATUS: ACTIVE
CONTACT:	PHONE:
SOURCE: NY DEC	

TANK TYPE: STEEL/CARBON STEEL/IRON
TANK LOCATION: UNDERGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
EXTERNAL PROTECTION 2: ORIGINAL SACRIFICIAL ANODE

PIPE TYPE: FIBERGLASS REINFORCED PLASTIC (FRP)
PIPE LOCATION: UNDERGROUND/ON-GROUND
EXTERNAL PROTECTION: FIBERGLASS
EXTERNAL PROTECTION 2:

SECONDARY CONTAINMENT: DOUBLE-WALLED (UNDERGROUND)
SECONDARY CONTAINMENT 2:
LEAK DETECTION: INTERSTITIAL - ELECTRONIC MONITORING
LEAK DETECTION 2: IN-TANK SYSTEM (ATG)

OVERFILL PROTECTION: FLOAT VENT VALVE
OVERFILL PROTECTION 2:
DISPENSER: SUBMERSIBLE
SPILL PREVENTION: CATCH BASIN
DATE TESTED: 8/2/2004
NEXT TEST:
TEST METHOD: VACUTEST

<u>TANK NUMBER:</u> 3	TANK STATUS: IN SERVICE
ACTIVE STATUS: ACTIVE	INSTALLED: 10/1/1988
CLOSED:	TANK CAPACITY: 12000 GALLONS
PRODUCT: GASOLINE	

TANK TYPE: STEEL/CARBON STEEL/IRON
TANK LOCATION: UNDERGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
EXTERNAL PROTECTION 2: ORIGINAL SACRIFICIAL ANODE

PIPE TYPE: FIBERGLASS REINFORCED PLASTIC (FRP)
PIPE LOCATION: UNDERGROUND/ON-GROUND
EXTERNAL PROTECTION: FIBERGLASS
EXTERNAL PROTECTION 2:

SECONDARY CONTAINMENT: DOUBLE-WALLED (UNDERGROUND)
SECONDARY CONTAINMENT 2:
LEAK DETECTION: INTERSTITIAL - ELECTRONIC MONITORING
LEAK DETECTION 2: IN-TANK SYSTEM (ATG)

OVERFILL PROTECTION: FLOAT VENT VALVE
OVERFILL PROTECTION 2:
DISPENSER: SUBMERSIBLE
SPILL PREVENTION: CATCH BASIN
DATE TESTED:
NEXT TEST:
TEST METHOD: TESTING NOT REQUIRED

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 37	DIST/DIR: 0.14 NE	ELEVATION: 582	MAP ID: 5
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NAME: NOCO EXPRESS S-28
ADDRESS: 6724 WILLIAMS RD
NIAGARA FALLS NY 14304
NIAGARA

REV: 4/5/12
ID1: PBS9-463264
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:
SOURCE: NY DEC

Environmental FirstSearch
Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 35 **DIST/DIR:** 0.14 NW **ELEVATION:** 580 **MAP ID:** 6

NAME: 10175 NIAGARA FALLS BLVD **REV:** 4/5/12
ADDRESS: 10175 NIAGARA FALLS BLVD **ID1:** PBS9-600866
NIAGARA FALLS NY 14304 **ID2:**
NIAGARA **STATUS:** ACTIVE
CONTACT: **PHONE:**
SOURCE: NY DEC

PETROLEUM BULK STORAGE FACILITY INFORMATION

SITE STATUS: ACTIVE
EXPIRATION DATE: 2010/10/17

CONTACT INFORMATION

COMPANY NAME: 10175 NIAGARA FALLS BLVD
CONTACT : BRAD CASPER

,NN,
(716) 298-9700

COMPANY NAME: DAVID C. SMITH ENT.
CONTACT : BRAD CASPER

,NN,
(716) 298-9700

COMPANY NAME: DAVID C. SMITH ENT.
CONTACT : JANICE STOVER

6009 S TRANSIT RD
LOCKPORT,NY, 14094
(716) 625-9625

COMPANY NAME: DAVID C. SMITH ENT.
CONTACT : JANICE STOVER

6009 SOUTH TRANSIT RD
LOCKPORT,NY, 14094
(716) 625-9625

TANK INFORMATION

TANK NUMBER: 01 **TANK ID:** 208358
TANKS STATUS: IN SERVICE **INSTALL DATE:** 9/1/2005
CAPACITY(GAL): 250 **DATE OF TEST:**
NEXT TEST: **CLOSED DATE:**
REGISTERED: YES **TANK TYPE:** STEEL/CARBON STEEL

- Continued on next page -

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 35 **DIST/DIR:** 0.14 NW **ELEVATION:** 580 **MAP ID:** 6

NAME: 10175 NIAGARA FALLS BLVD	REV: 4/5/12
ADDRESS: 10175 NIAGARA FALLS BLVD	ID1: PBS9-600866
NIAGARA FALLS NY 14304	ID2:
NIAGARA	STATUS: ACTIVE
CONTACT:	PHONE:
SOURCE: NY DEC	

TANK LOCATION: ABOVEGROUND: 10% OR MORE BELOW GROUND

TANK NUMBER: 02	TANK ID: 208359	
TANKS STATUS: IN SERVICE	INSTALL DATE: 9/1/2005	
CAPACITY(GAL): 1000	DATE OF TEST:	
NEXT TEST:	CLOSED DATE:	
REGISTERED: YES	TANK TYPE: STEEL/CARBON STEEL	
TANK LOCATION: ABOVEGROUND: 10% OR MORE BELOW GROUND		

HISTORIC TANK INFORMATION FROM 2007

<u>TANK NUMBER:</u> 01	TANK STATUS: IN SERVICE	
<u>ACTIVE STATUS:</u> ACTIVE	INSTALLED: 9/1/2005	
<u>CLOSED:</u>	TANK CAPACITY: 250 GALLONS	
<u>PRODUCT:</u> WASTE OIL/USED OIL (HEATING)		

TANK TYPE: STEEL/CARBON STEEL/IRON
TANK LOCATION: ABOVEGROUND ON CRIB, RACK, OR CRADLE
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
EXTERNAL PROTECTION 2:

PIPE TYPE: COPPER
PIPE LOCATION: ABOVEGROUND
EXTERNAL PROTECTION: NONE
EXTERNAL PROTECTION 2:

SECONDARY CONTAINMENT: NONE
SECONDARY CONTAINMENT 2:
LEAK DETECTION: IMPERVIOUS BARRIER/CONCRETE PAD (A/G)
LEAK DETECTION 2:

OVERFILL PROTECTION: PRODUCT LEVEL GAUGE (A/G)
OVERFILL PROTECTION 2:
DISPENSER: SUCTION
SPILL PREVENTION: NONE
DATE TESTED:
NEXT TEST:
TEST METHOD: TESTING NOT REQUIRED

<u>TANK NUMBER:</u> 02	TANK STATUS: IN SERVICE	
<u>ACTIVE STATUS:</u> ACTIVE	INSTALLED: 9/1/2005	
<u>CLOSED:</u>	TANK CAPACITY: 1000 GALLONS	
<u>PRODUCT:</u> WASTE OIL/USED OIL (HEATING)		

TANK TYPE: STEEL/CARBON STEEL/IRON
TANK LOCATION: ABOVEGROUND ON CRIB, RACK, OR CRADLE
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
EXTERNAL PROTECTION 2:

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 35 **DIST/DIR:** 0.14 NW **ELEVATION:** 580 **MAP ID:** 6

NAME: 10175 NIAGARA FALLS BLVD
ADDRESS: 10175 NIAGARA FALLS BLVD
NIAGARA FALLS NY 14304
NIAGARA

REV: 4/5/12
ID1: PBS9-600866
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:
SOURCE: NY DEC

PIPE TYPE: STEEL/CARBON STEEL/IRON
PIPE LOCATION: ABOVEGROUND
EXTERNAL PROTECTION: NONE
EXTERNAL PROTECTION 2:

SECONDARY CONTAINMENT: DIKING (ABOVEGROUND)
SECONDARY CONTAINMENT 2:

LEAK DETECTION: OTHER
LEAK DETECTION 2:

OVERFILL PROTECTION: PRODUCT LEVEL GAUGE (A/G)
OVERFILL PROTECTION 2:

DISPENSER: SUCTION
SPILL PREVENTION: NONE
DATE TESTED:
NEXT TEST:
TEST METHOD: TESTING NOT REQUIRED

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 38 **DIST/DIR:** 0.15 NE **ELEVATION:** 582 **MAP ID:** 9

NAME: SUNOCO	REV: 4/5/12
ADDRESS: 10235 PORTER RD	ID1: PBS9-073628
NIAGARA FALLS NY 14304	ID2:
NIAGARA	STATUS: UNREGULATED
CONTACT:	PHONE:
SOURCE: NY DEC	

PETROLEUM BULK STORAGE FACILITY INFORMATION

SITE STATUS: UNREGULATED
EXPIRATION DATE: N/A

CONTACT INFORMATION

COMPANY NAME: SIMON OIL COMPANY INC
CONTACT :

1316 MAIN ST
NIAGARA FALLS,NY, 14301

(716) 285-9641

COMPANY NAME: SIMON OIL COMPANY INC
CONTACT : KENNETH KIMMINS

,NN,

(716) 633-4718

COMPANY NAME: SUNOCO
CONTACT : DANIEL BARRETT

,NN,

(716) 297-3232

TANK INFORMATION

TANK NUMBER: 1	TANK ID: 162085
TANKS STATUS: CLOSED - REMOVED	INSTALL DATE: 1/1/1970
CAPACITY(GAL): 8000	DATE OF TEST: 4/1/1993
NEXT TEST:	CLOSED DATE: 2/1/1996
REGISTERED: YES	TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS	

TANK NUMBER: 2	TANK ID: 162086
TANKS STATUS: CLOSED - REMOVED	INSTALL DATE: 1/1/1970
CAPACITY(GAL): 6000	DATE OF TEST: 4/1/1993
NEXT TEST:	CLOSED DATE: 2/1/1996
REGISTERED: YES	TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS	

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 38 **DIST/DIR:** 0.15 NE **ELEVATION:** 582 **MAP ID:** 9

NAME: SUNOCO	REV: 4/5/12
ADDRESS: 10235 PORTER RD	ID1: PBS9-073628
NIAGARA FALLS NY 14304	ID2:
NIAGARA	STATUS: UNREGULATED
CONTACT:	PHONE:
SOURCE: NY DEC	

TANK NUMBER: 3	TANK ID: 162087
TANKS STATUS: CLOSED - REMOVED	INSTALL DATE: 1/1/1970
CAPACITY(GAL): 4000	DATE OF TEST: 4/1/1993
NEXT TEST:	CLOSED DATE: 2/1/1993
REGISTERED: YES	TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS	

HISTORIC TANK INFORMATION FROM 2007

<u>TANK NUMBER:</u> 1	TANK STATUS: CLOSED - REMOVED
ACTIVE STATUS: INACTIVE	INSTALLED: 1/1/1970
CLOSED: 2/1/1996	TANK CAPACITY: 8000 GALLONS
PRODUCT: GASOLINE	

TANK TYPE: STEEL/CARBON STEEL/IRON
TANK LOCATION: UNDERGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
EXTERNAL PROTECTION 2:

PIPE TYPE: GALVANIZED STEEL
PIPE LOCATION: NO PIPING
EXTERNAL PROTECTION: NONE
EXTERNAL PROTECTION 2:

SECONDARY CONTAINMENT: NONE
SECONDARY CONTAINMENT 2:
LEAK DETECTION: NONE
LEAK DETECTION 2:

OVERFILL PROTECTION: NONE
OVERFILL PROTECTION 2:
DISPENSER: SUCTION
SPILL PREVENTION:
DATE TESTED: 4/1/1993
NEXT TEST:
TEST METHOD: HORNER EZ CHECK I OR II

<u>TANK NUMBER:</u> 2	TANK STATUS: CLOSED - REMOVED
ACTIVE STATUS: INACTIVE	INSTALLED: 1/1/1970
CLOSED: 2/1/1996	TANK CAPACITY: 6000 GALLONS
PRODUCT: GASOLINE	

TANK TYPE: STEEL/CARBON STEEL/IRON
TANK LOCATION: UNDERGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
EXTERNAL PROTECTION 2:

PIPE TYPE: GALVANIZED STEEL

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

UST

SEARCH ID: 38 **DIST/DIR:** 0.15 NE **ELEVATION:** 582 **MAP ID:** 9

NAME: SUNOCO	REV: 4/5/12
ADDRESS: 10235 PORTER RD	ID1: PBS9-073628
NIAGARA FALLS NY 14304	ID2:
NIAGARA	STATUS: UNREGULATED
CONTACT:	PHONE:
SOURCE: NY DEC	

PIPE LOCATION: NO PIPING
EXTERNAL PROTECTION: NONE
EXTERNAL PROTECTION 2:

SECONDARY CONTAINMENT: NONE
SECONDARY CONTAINMENT 2:
LEAK DETECTION: NONE
LEAK DETECTION 2:

OVERFILL PROTECTION: NONE
OVERFILL PROTECTION 2:
DISPENSER: SUCTION
SPILL PREVENTION:
DATE TESTED: 4/1/1993
NEXT TEST:
TEST METHOD: HORNER EZ CHECK I OR II

TANK NUMBER: 3	TANK STATUS: CLOSED - REMOVED	
ACTIVE STATUS: INACTIVE	INSTALLED: 1/1/1970	
CLOSED: 2/1/1993	TANK CAPACITY: 4000 GALLONS	
PRODUCT: GASOLINE		

TANK TYPE: STEEL/CARBON STEEL/IRON
TANK LOCATION: UNDERGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
EXTERNAL PROTECTION 2:

PIPE TYPE: GALVANIZED STEEL
PIPE LOCATION: NO PIPING
EXTERNAL PROTECTION: NONE
EXTERNAL PROTECTION 2:

SECONDARY CONTAINMENT: NONE
SECONDARY CONTAINMENT 2:
LEAK DETECTION: NONE
LEAK DETECTION 2:

OVERFILL PROTECTION: NONE
OVERFILL PROTECTION 2:
DISPENSER: SUCTION
SPILL PREVENTION:
DATE TESTED: 4/1/1993
NEXT TEST:
TEST METHOD: HORNER EZ CHECK I OR II

Environmental FirstSearch Site Detail Report

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 44 **DIST/DIR:** NON GC **ELEVATION:** **MAP ID:**

NAME: BLG 850	REV: 4/5/12
ADDRESS: NIAGARA FALLS RESERVE STA	ID1: 1005680
NIAGARA FALLS NY	ID2: 439005
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	8/21/2010
DATE REPORTED:	8/21/2010
CLOSED DATE:	9/21/2010
INSP DATE:	
MATERIAL SPILLED: OTHER - AQUEOUS FILM FORMING FOAM 3%	AMOUNT SPILLED: 48000 G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 47950 G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: YES	DRINKING WATER: NO
SEWER: YES	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL:	EQUIPMENT FAILURE
WATERBODY AFFECTED:	CAYUGA CREEK
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	FIRE DEPARTMENT
REGION:	
UST TRUST?	NO

SPILL INVESTIGATOR:	RJJONAK
SPILL CONTACT:	ELLEN MARIEN
TELEPHONE:	(716) 534-0091

SPILLER: AIR RESERVE STA

ADDRESS: , NY

TELEPHONE:

REPORTED BY: FIRE DEPARTMENT

LAST DEC UPDATE:	9/21/2010
CLEAN UP MEET STANDARDS?	YES
PENALTY RECOMMENDED?	NO

CALLER REMARKS: 48000 GALLONS IS IN THE TRIBUTARY TO THE CREEK; STORM DRAIN; CAYUGA CREEK; AND SANITARY SEWER SYSTEM; CLEAN UP IS IN PROGRESS

DEC REMARKS:

8/21/2010: RJJ AT SITE AT 2300...MEET WITH ELLEN MARIEN and LT. COMMANDER MCCOY FROM THE NIAGARA FALLS RESERVE AIR FORCE BASE STATION...IN BUILDING 850(A LARGE AIRPLANE HANGAR),THE FIRE SUPPRESSION SYSTEM ACCIDENTLY WENT OFF ALLOWING 48,000 GALS. OF A TRIPLE F FIRE SUPPRESSION FOAM TO DISCHARGE...THIS RESULTED IN 2-3 DEPTH OF FOAM IN THE BUILDING...A SMALL AMOUNT OF THIS FOAM MIGRATED OUTSIDE,INTO A TRIBUTARY CREEK,WHICH THEN RUNS INTO CAYUGA CREEK...WE INSPECTED THE CREEKS AND FOUND NO EVIDENCE OF ANY FISH KILL...IT APPEARS THAT THE HEAVY RAINS HAVE FLUSHED/DILUTED THIS FOAM DOWNSTREAM..THE AIR FORCE BASE HAS HIRED GREEN ENVIRONMENTAL,WITH ASSISTANCE FROM THEIR OWN FIRE DEPT.,TO WATER DOWN THIS FOAM,THEN VAC UP THE PRODUCT INTO THEIR VAC-TRUCKS...THIS IS EXCEPTED TO TAKE 3-4 HOURS...I WILL RETURN EARLY NEXT MORNING TO INSPECT BOTH,THE CREEKS AND THE CLEAN UP...ALSO,THEY ARE INVESTIGATING WHY THIS DISCHARGED(IT MIGHT HAVE BEEN A POWER SURGE FROM A NEARBY DOWNED

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 44 **DIST/DIR:** NON GC **ELEVATION:** **MAP ID:**

NAME: BLG 850	REV: 4/5/12
ADDRESS: NIAGARA FALLS RESERVE STA	ID1: 1005680
NIAGARA FALLS NY	ID2: 439005
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

LINE) AND WHY SOME OF THE FOAM MIGRATED INTO THEIR STORM WATER SYSTEM,NOT INTO THEIR SANITARY SYSTEM,AS IT SHOULD HAVE...I ALSO NOTIFIED GREG SUTTON AND NCDOH...AND I INFORMED DLE LT. SCOTT,WHO WILL SEND CENTRAL OFFICE A SIGNIFICANT INCIDENT REPORT . 8/22/2010: RJJ AT SITE AT 1000...GREEN ENVIRONMENTAL/FIRE DEPT. HAVE COMPLETED THEIR CLEAN UP IN THE BUILDING...THEY HAVE COLLECTED THE FOAM/WATER INTO VAC TRUCKS,WHICH THEY WILL DISCHARGE INTO THE NIAGARA CO. SEWER SYSTEM,WITH THEIR APPROVAL...ALSO,THERE IS NO EVIDENCE OF ANY FOAM IN THE CREEKS,IT HAS ALL BEEN FLUSHED THROUGH...AND THERE IS NO FISH KILL OF ANY KIND...ELLEN MARIEN WILL SEND ME THEIR REPORT. 8/23/2010: RJJ INFORMED DOW OF THIS EVENT AND FAXED ELLEN MARIEN A COPY OF THIS SPILL REPORT,PER HER REQUEST...SHE ALSO SAID THAT THEIR INVESTIGATION IS STILL ON GOING. 9/20/2010: RECEIVED THE SPILL INCIDENT REPORT FROM THE DEPT. OF THE AIR FORCE,WHICH INCLUDES THE DISPOSAL RECEIPTS FOR THE 4000 GAL OF AFFF,WASH WATER and DEFOAMER,DISPOSED AT THE NIAGARA CO. SEWER DISTRICT 1,WHICH WAS USED IN THE CLEAN UP...THE REPORT ALSO EXPLAINS ALL THEIR ACTIVITIES AND THE RESULTS OF THEIR INVESTIGATION OF THIS INCIDENT...WHEN THE AFFF SYSTEM ACTIVATED ON 8/21/2010,IT IS SUSPECTED THAT THE DOWNSTREAM VALVE ON THE STORM SEWER DID NOT FUNCTION PROPERLY,ALLOWING FOAM TO ESCAPE TO THE CREEK...THE PROBLEMATIC VALVES WILL BE REPAIRED TO PREVENT FUTURE DISCHARGES TO THE CREEK...THE SPILL HAS BEEN CLEANED UP and PROPERLY DISPOSED OF...NO FURTHER ACTION NEEDED...SPILL CLOSED OUT.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

Environmental FirstSearch Descriptions

NPL: EPA NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.

A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

FINAL - Currently on the Final NPL

PROPOSED - Proposed for NPL

NPL DELISTED: EPA NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. 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 - Deleted from the Final NPL

CERCLIS: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

PART OF NPL- Site is part of NPL site

DELETED - Deleted from the Final NPL

FINAL - Currently on the Final NPL

NOT PROPOSED - Not on the NPL

NOT VALID - Not Valid Site or Incident

PROPOSED - Proposed for NPL

REMOVED - Removed from Proposed NPL

SCAN PLAN - Pre-proposal Site

WITHDRAWN - Withdrawn

NFRAP: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). 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.

NFRAP – No Further Remedial Action Plan

P - Site is part of NPL site

D - Deleted from the Final NPL

F - Currently on the Final NPL

N - Not on the NPL

O - Not Valid Site or Incident

P - Proposed for NPL

R - Removed from Proposed NPL

S - Pre-proposal Site

W – Withdrawn

RCRA COR ACT: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: EPA/MA DEP/CT DEP RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that generate or transport hazardous waste or meet other RCRA requirements.

LGN - Large Quantity Generators

SGN - Small Quantity Generators

VGN – Conditionally Exempt Generator.

Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

CONNECTICUT HAZARDOUS WASTE MANIFEST – Database of all shipments of hazardous waste within, into or from Connecticut. The data includes date of shipment, transporter and TSD info, and material shipped and quantity. This data is appended to the details of existing generator records.

MASSACHUSETTES HAZARDOUS WASTE GENERATOR – database of generators that are regulated under the MA DEP.

VQN-MA = generates less than 220 pounds or 27 gallons per month of hazardous waste or waste oil.

SQN-MA = generates 220 to 2,200 pounds or 27 to 270 gallons per month of waste oil.

LQG-MA = generates greater than 2,200 lbs of hazardous waste or waste oil per month.

ERNS: EPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: DOI/BIA INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.

BUREAU OF INDIAN AFFIARS CONTACT - Regional contact information for the Bureau of Indian Affairs offices.

State/Tribal Sites: NYSDEC ENVIRONMENTAL SITE REMEDIATION DATABASE - database of sites being remediated under a DER remedial program/s (i.e. State Superfund, Brownfield Cleanup, etc.). This database also includes the Registry of Institutional and Engineering Controls in New York State.

REGISTRY OF INACTIVE HAZARDOUSE WASTE DISPOSAL SITES –

HAZARDOUS SUBSTANCE SITE STUDY - (STATIC) This study was done in 1998 and was prepared by the NY DEC, Hazardous Substances Waste Disposal Task Force In consultation with N.Y. Department of Health

State Spills 90: NYSDEC SPILL INCIDENTS DATABASE - database of chemical and petroleum spill incidents that occurred since 1990.

State/Tribal SWL: *NYSDEC* ACTIVE FACILITIES REGISTRY - database of solid waste landfill facilities. The data includes location, waste type, owner and permit number.

State/Tribal LUST: *NYSDEC* SPILL INCIDENTS DATABASE SUBSET - database of chemical and petroleum spill incidents where the cause was a tank test failure or tank failure

State/Tribal UST/AST: *NYSDEC* DATABASE OF PETROLEUM BULK STORAGE, MAJOR OIL STORAGE (MOSF), AND CHEMICAL BULK STORAGE (CBS) FACILITIES - database of petroleum or chemical storage facilities. The data includes status, tank type, capacity and contents. The data also includes Nassau County Department of Health's PBS Tanks
Nassau County Fire Marshall's PBS Tanks
Suffolk County Department of Health Services PBS Tanks
Cortland County Health Department PBS Tanks
Rockland County Department of Health PBS Tanks
Westchester County Department of Health PBS Tanks.

State/Tribal EC: *NYSDEC* REGISTRY OF INSTITUTIONAL AND ENGINEERING CONTROLS Subset - database of sites from the Registry that have Engineering Controls.

State/Tribal IC: *NYSDEC* REGISTRY OF INSTITUTIONAL AND ENGINEERING CONTROLS Subset - database of sites from the Registry that have Institutional Controls.

State/Tribal VCP: *NYSDEC* VOLUNTARY CLEANUP PROGRAM - static database of voluntary clean up sites. The Brownfield Cleanup program has replaced the Voluntary Cleanup Program.

State/Tribal Brownfields: *NYSDEC* BROWNFIELD - database of old brownfield programs, brownfield cleanup programs, environmental restoration projects.

RADON: *NTIS* NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

Environmental FirstSearch Database Sources

NPL: *EPA* Environmental Protection Agency

Updated quarterly

NPL DELISTED: *EPA* Environmental Protection Agency

Updated quarterly

CERCLIS: *EPA* Environmental Protection Agency

Updated quarterly

NFRAP: *EPA* Environmental Protection Agency.

Updated quarterly

RCRA COR ACT: *EPA* Environmental Protection Agency.

Updated quarterly

RCRA TSD: *EPA* Environmental Protection Agency.

Updated quarterly

RCRA GEN: *EPA/MA DEP/CT DEP* Environmental Protection Agency, Massachusetts Department of Environmental Protection, Connecticut Department of Environmental Protection

Updated quarterly

ERNS: *EPA/NRC* Environmental Protection Agency

Updated annually

Tribal Lands: *DOI/BIA* United States Department of the Interior

Updated annually

State/Tribal Sites: *NYSDEC* New York Department of Environmental Remediation
New York State Department of Environmental Conservation

Updated quarterly

State Spills 90: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal SWL: *NYSDEC* New York State Department of Environmental Conservation

Updated annually

State/Tribal LUST: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal UST/AST: *NYSDEC* New York State Department of Environmental Conservation
Nassau County Department of Health
Nassau County Fire Marshal
Cortland County Health Department
Rockland County Department of Health

Updated quarterly

State/Tribal EC: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal IC: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal VCP: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal Brownfields: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

RADON: *NTIS* Environmental Protection Agency, National Technical Information Services

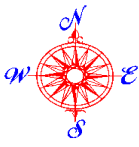
Updated periodically

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

Target Property: AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

Street Name	Dist/Dir	Street Name	Dist/Dir
100th St	0.20 NW		
101st St	0.15 SW		
102nd St	0.18 SW		
104th St	0.13 SW		
99th St	0.20 NW		
Benjamin Dr	0.12 SW		
Caravelle Dr	0.07 SW		
Loretta Cir	0.08 SE		
Loretta Dr	0.08 SW		
Marine Memorial Dr	0.13 S-		
Niagara Falls Blvd	0.13 NW		
Porter Rd	0.16 N-		
State Highway 182	0.16 N-		
United States Highwa	0.13 NW		
Williams Rd	0.13 SE		

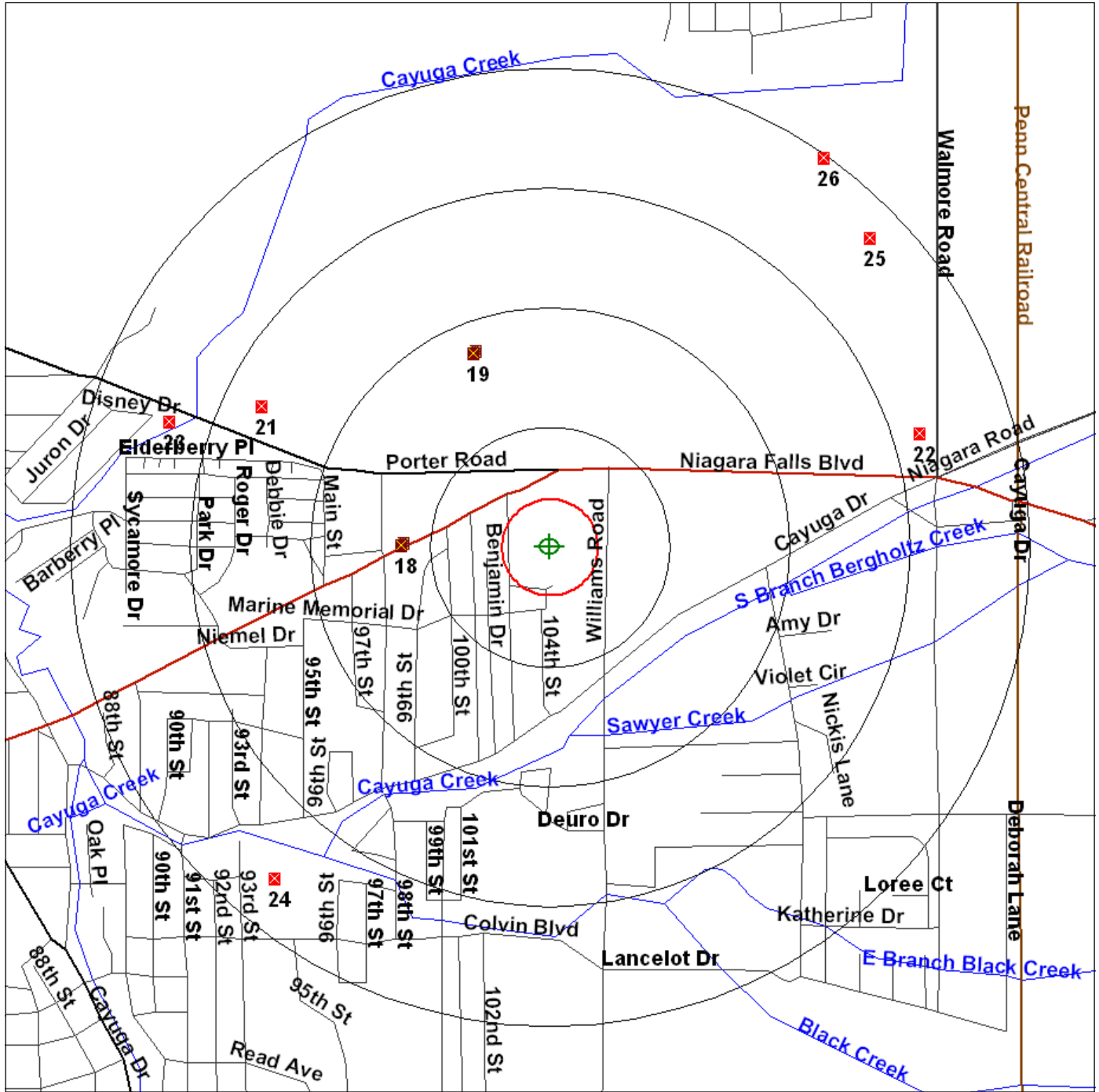


Environmental FirstSearch

1 Mile Radius
ASTM Map: NPL, RCACOR, STATE Sites

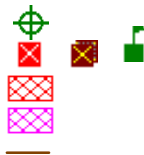


AREA 2 NIAGARA FALLS CBP STATION , NIAGARA FALLS NY 143



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 43.096946 Longitude: -78.942735)
- Identified Site, Multiple Sites, Receptor
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
- Triballand.....
- Railroads
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



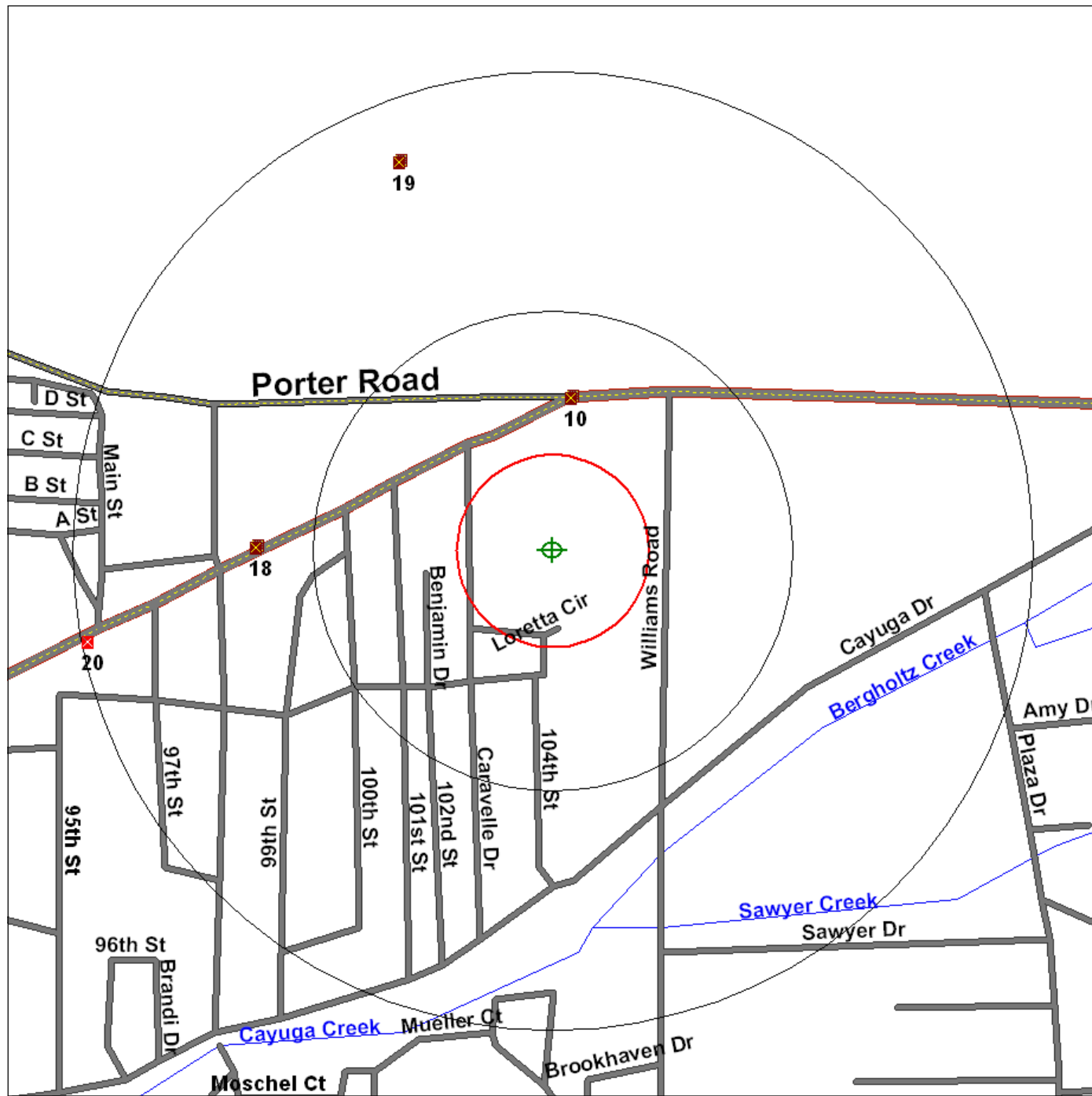


Environmental FirstSearch

.5 Mile Radius
ASTM Map: CERCLIS, RCRATSD, LUST, SWL

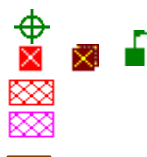


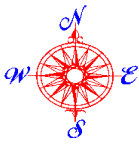
AREA 2 NIAGARA FALLS CBP STATION , NIAGARA FALLS NY 143



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 43.096946 Longitude: -78.942735)
- Identified Site, Multiple Sites, Receptor
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
- Triballand.....
- Railroads
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius





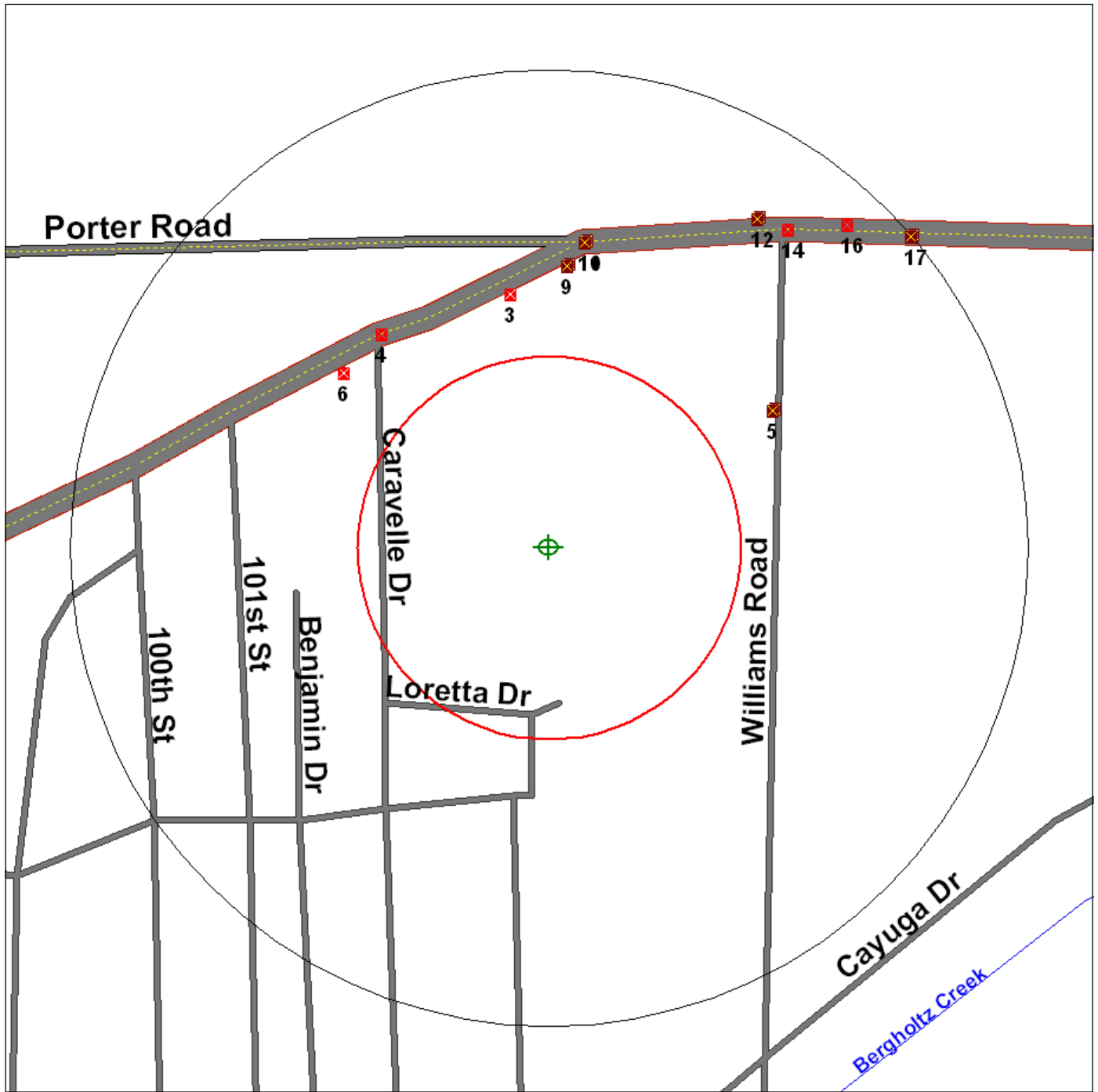
Environmental FirstSearch

.25 Mile Radius

ASTM Map: RC RAGEN, ERNS, UST, FED IC/EC, METH LABS



AREA 2 NIAGARA FALLS CBP STATION , NIAGARA FALLS NY 143



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 43.096946 Longitude: -78.942735)
- Identified Site, Multiple Sites, Receptor
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
- Triballand.....
- Railroads
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



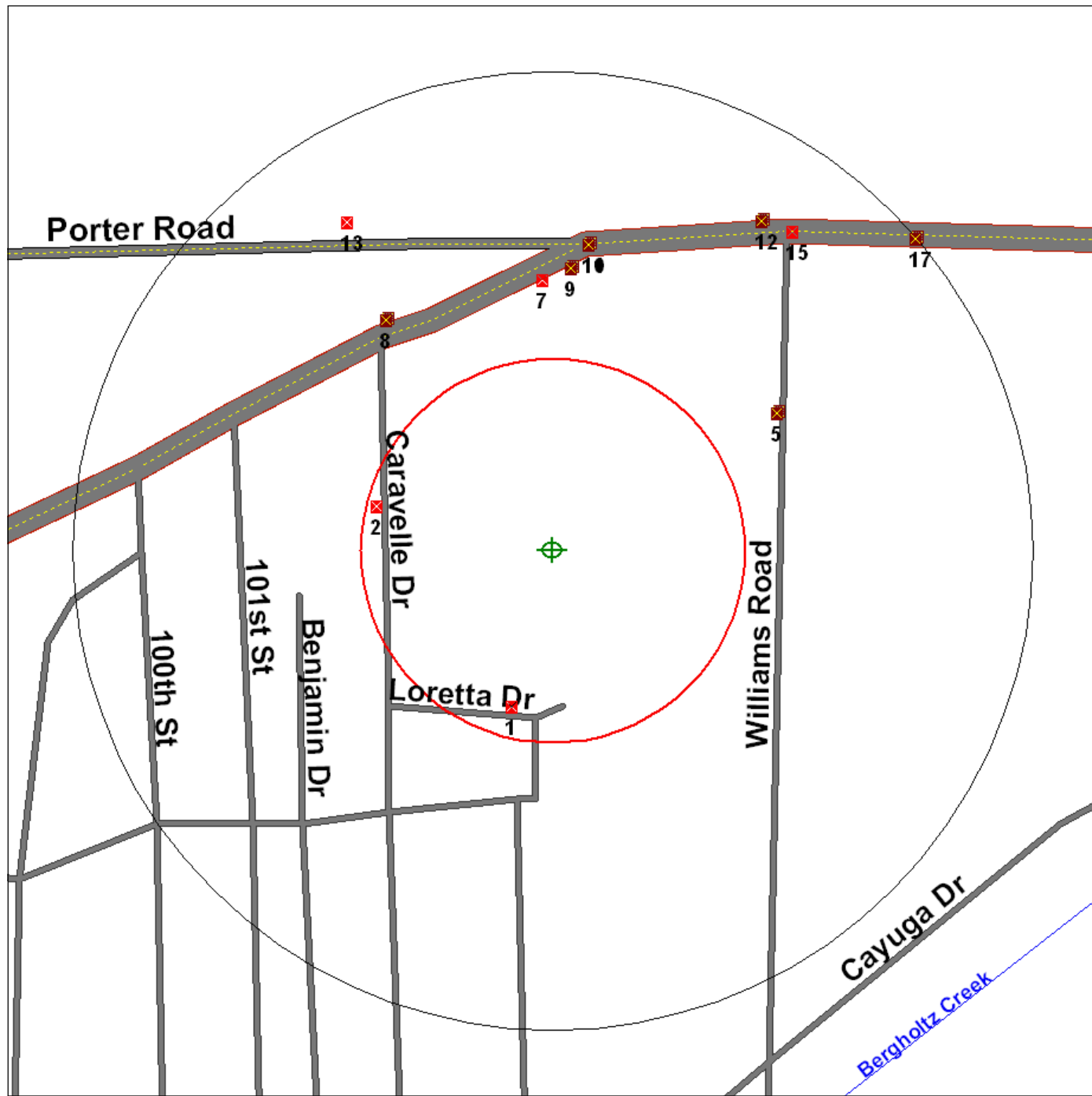


Environmental FirstSearch

.25 Mile Radius
Non-ASTM Map: Spills 90



AREA 2 NIAGARA FALLS CBP STATION , NIAGARA FALLS NY 143



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 43.096946 Longitude: -78.942735)
- Identified Site, Multiple Sites, Receptor
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
- Triballand.....
- National Historic Sites and Landmark Sites
- Railroads
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius





Historical Aerial Photo
2009

**AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.096946 -78.942735; Job Number: 100-FFX-T28295



1 inch equals 750 feet



Historical Aerial Photo
1995

**AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.096946 -78.942735; Job Number: 100-FFX-T28295



1 inch equals 750 feet



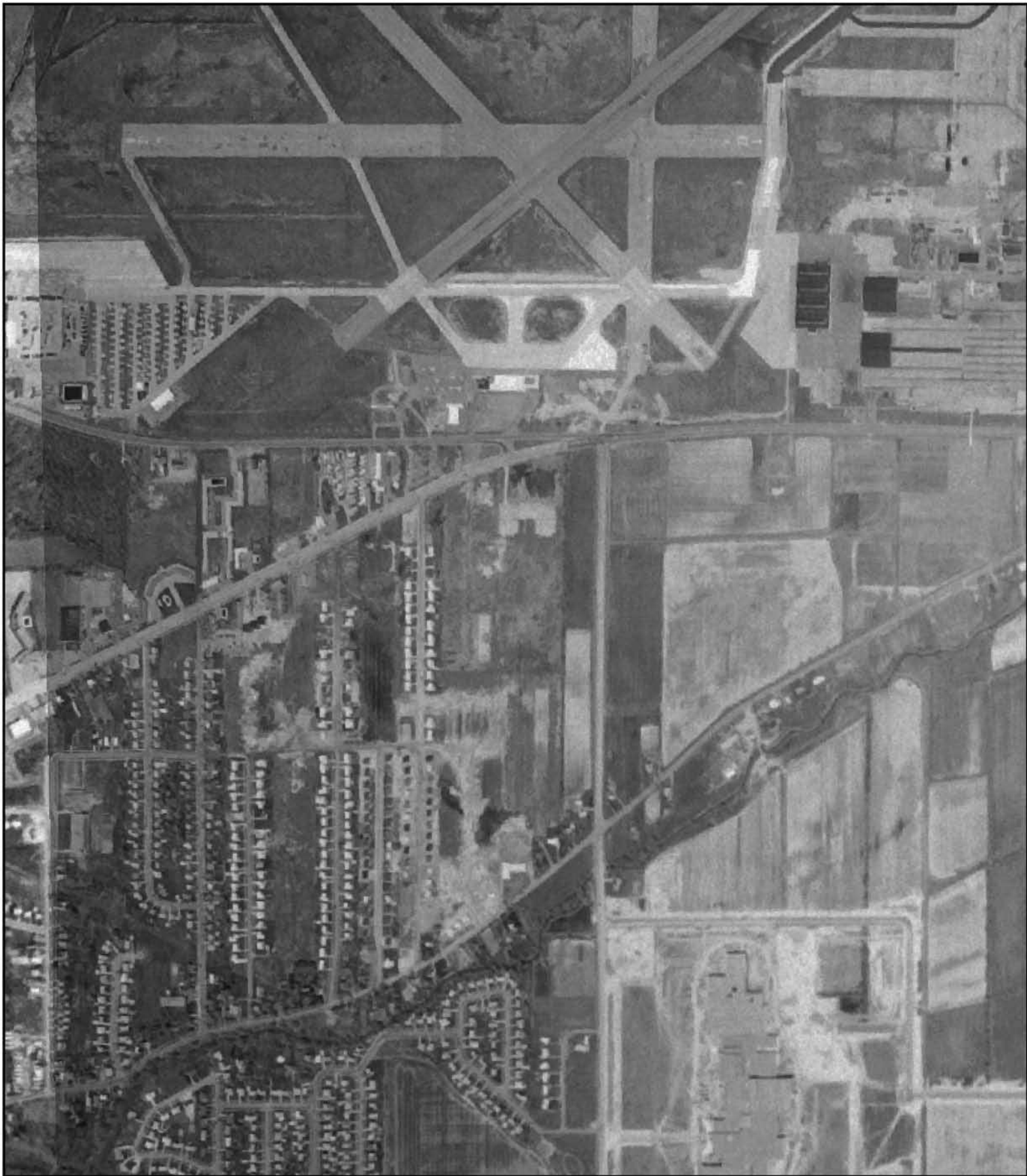
Historical Aerial Photo
1985

**AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.096946 -78.942735; Job Number: 100-FFX-T28295



1 inch equals 750 feet



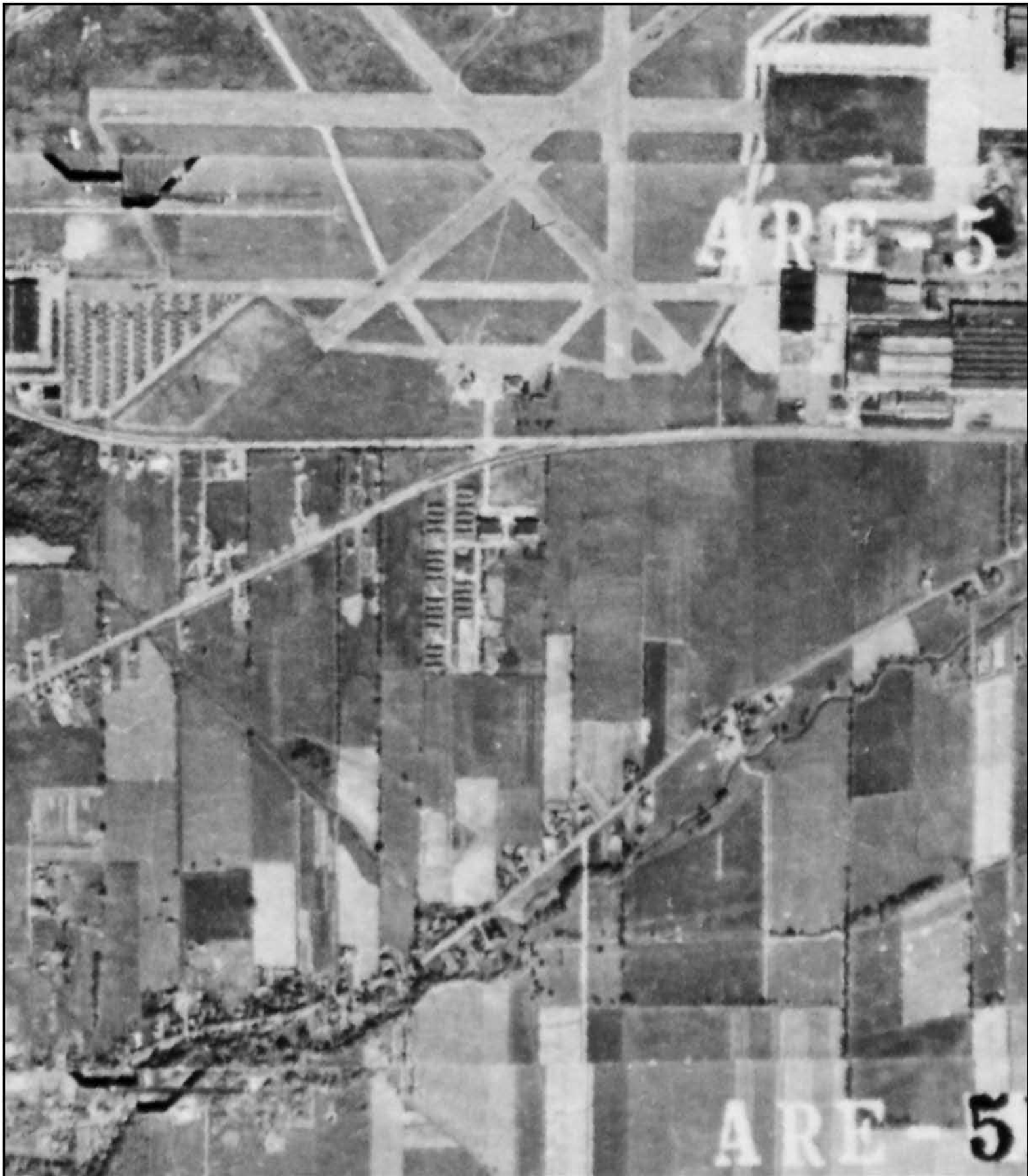
Historical Aerial Photo
1972

**AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.096946 -78.942735; Job Number: 100-FFX-T28295



1 inch equals 750 feet



Historical Aerial Photo
1951

**AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.096946 -78.942735; Job Number: 100-FFX-T28295



1 inch equals 750 feet



Historical Aerial Photo
1938

**AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.096946 -78.942735; Job Number: 100-FFX-T28295



1 inch equals 750 feet



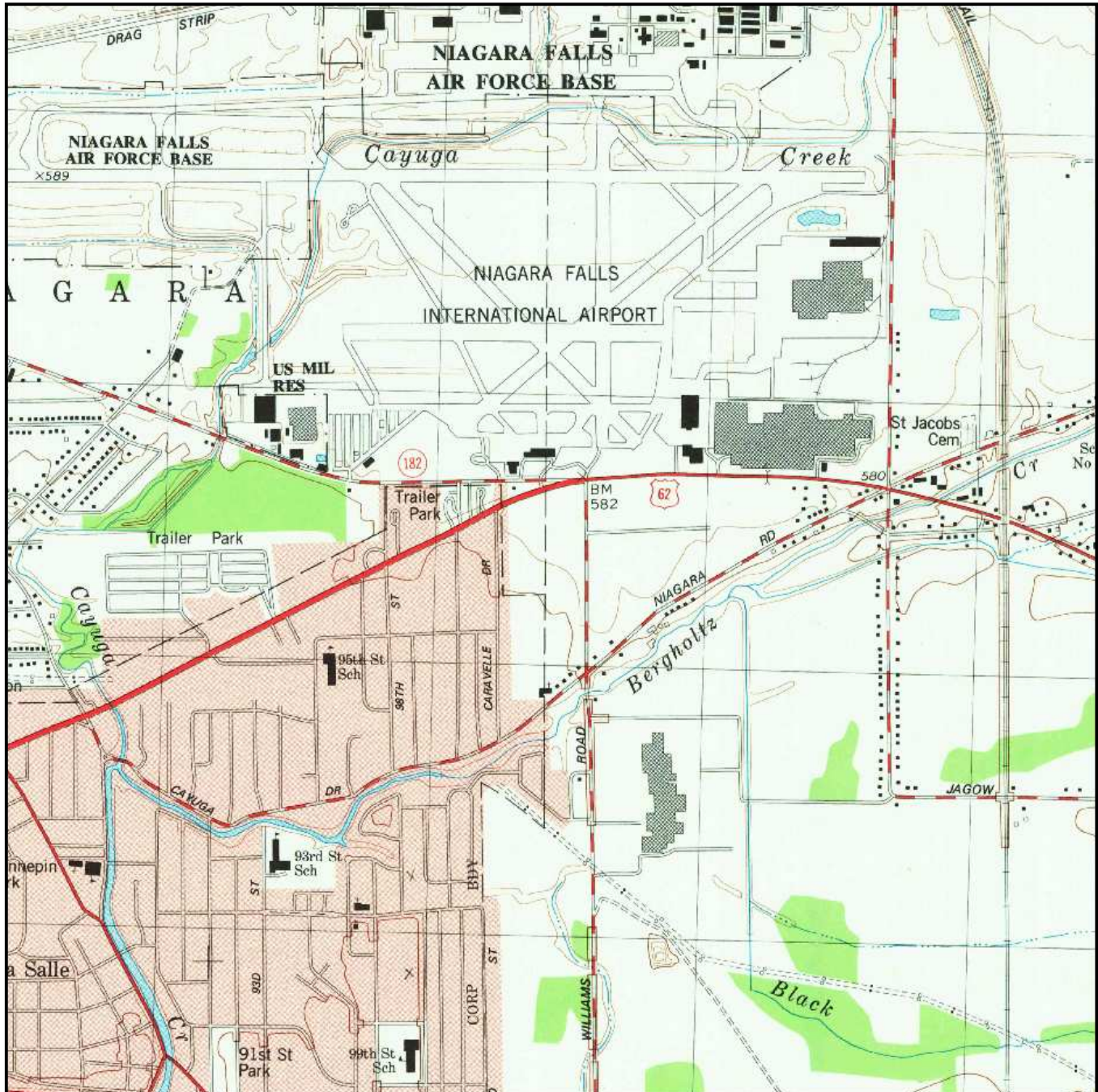
Environmental FirstSearch

Historical Topographic Map

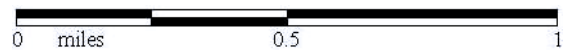


Quad Name: Tonawanda West, NY
Year: 1980 Original Map Scale: 1: 25000

AREA 2 NIAGARA FALLS CBP STATION, NIAGARA FALLS, NY



Job Number: 100-FFX-T28295
Target Site: -78.942735, 43.096946



Building	---■---■---	Railroad	—+—+—+—+—
Topo Contour	—6000—	Tanks	●●●●●
Depression	—()—	Primary Highway	—+—+—+—+—
Quarry or Open Pit Mine	×	Trail	---+---



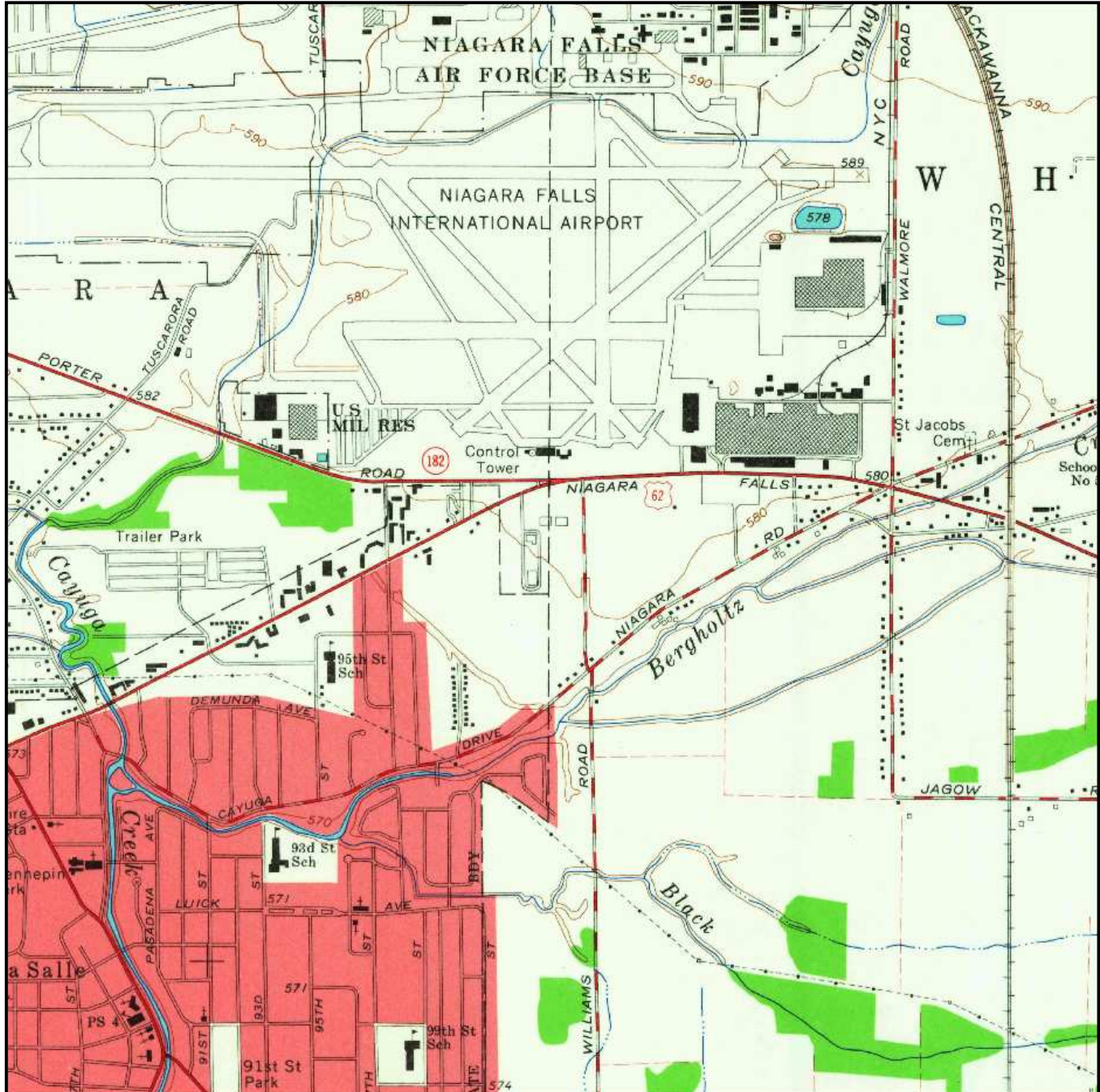
Environmental FirstSearch

Historical Topographic Map

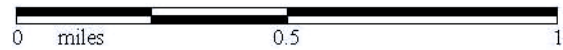


Quad Name: Tonawanda West, NY
Year: 1965 Original Map Scale: 1: 24000

AREA 2 NIAGARA FALLS CBP STATION, NIAGARA FALLS, NY



Job Number: 100-FFX-T28295
Target Site: -78.942735, 43.096946



Building	---	Railroad	—+—
Topo Contour	—6000—	Tanks	•●●
Depression	—()—	Primary Highway	—
Quarry or Open Pit Mine	×	Trail	- - -



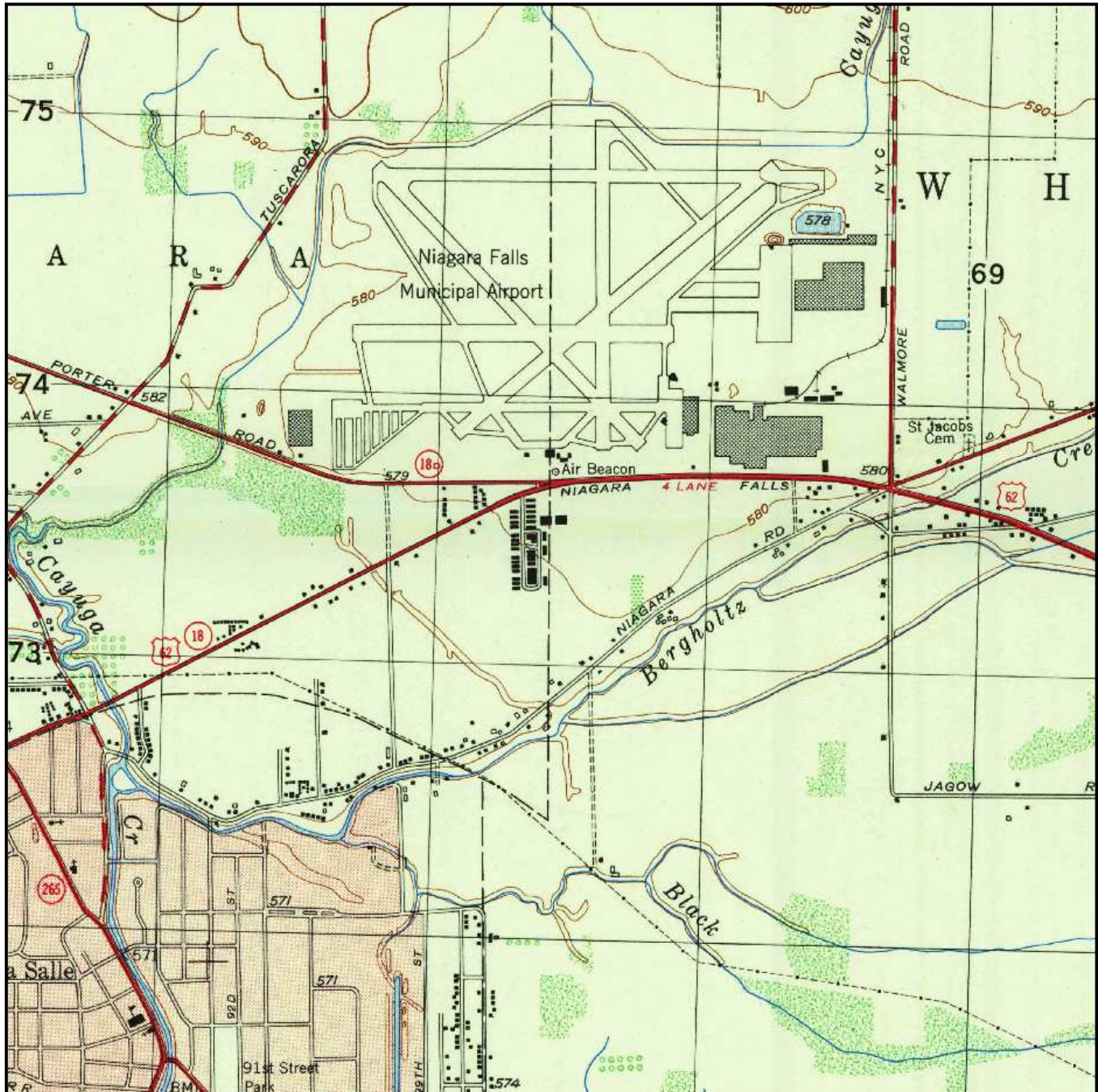
Environmental FirstSearch

Historical Topographic Map

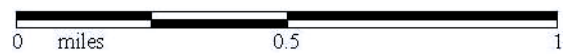


Quad Name: Tonawanda West, NY
Year: 1951 Original Map Scale: 1: 25000

AREA 2 NIAGARA FALLS CBP STATION, NIAGARA FALLS, NY



Job Number: 100-FFX-T28295
Target Site: -78.942735, 43.096946



Building		Railroad	
Topo Contour		Tanks	
Depression		Primary Highway	
Quarry or Open Pit Mine		Trail	



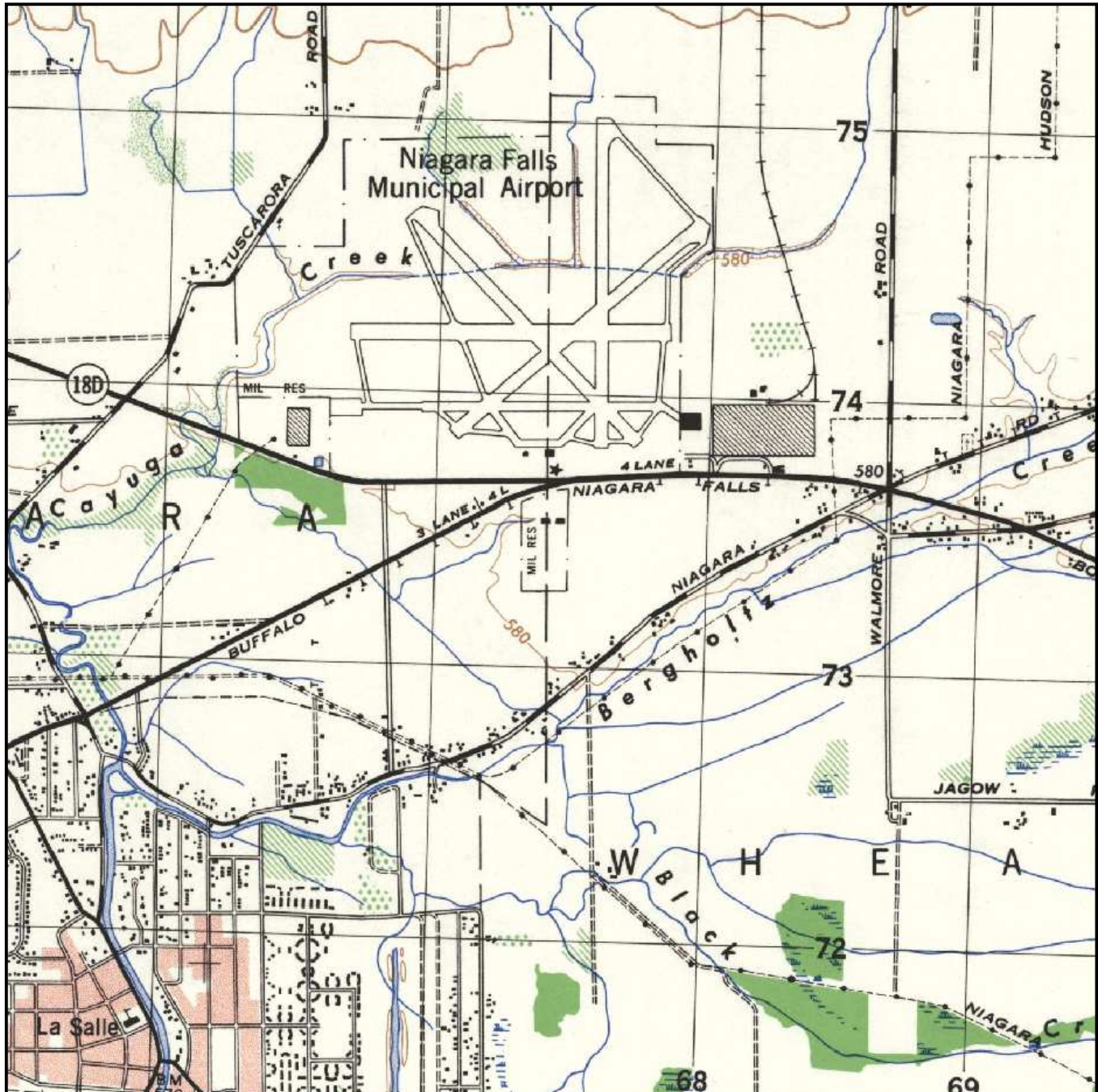
Environmental FirstSearch

Historical Topographic Map

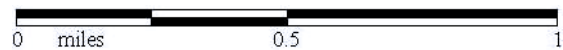


Quad Name: Tonawanda West, NY
Year: 1949 Original Map Scale: 1: 25000

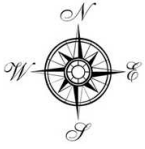
AREA 2 NIAGARA FALLS CBP STATION, NIAGARA FALLS, NY



Job Number: 100-FFX-T28295
Target Site: -78.942735, 43.096946



Building	---■---□---	Railroad	—+—+—+—+—
Topo Contour	—6000—	Tanks	●●●●
Depression	—()—	Primary Highway	—+—+—+—+—
Quarry or Open Pit Mine	×	Trail	—+—+—+—+—



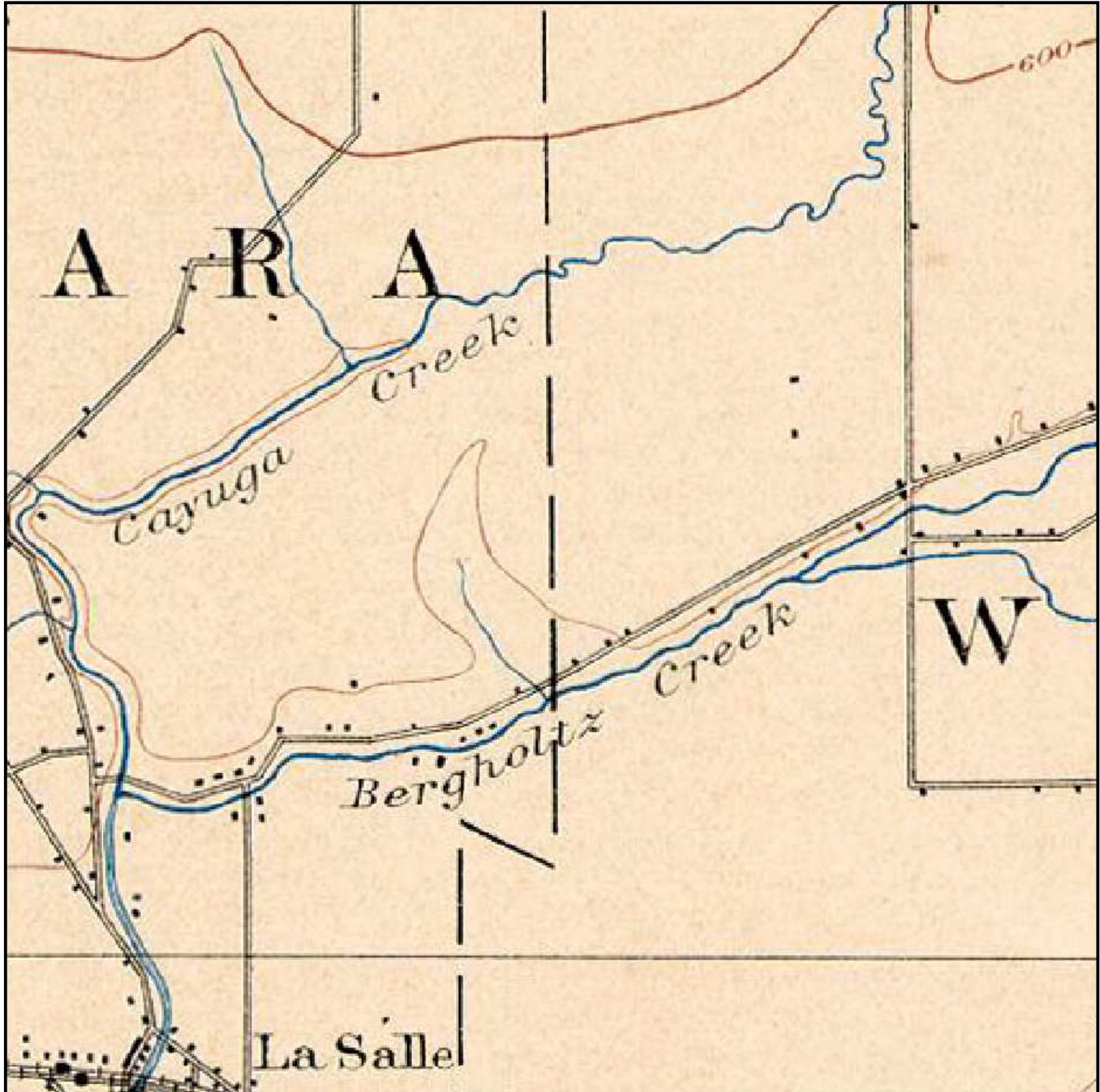
Environmental FirstSearch

Historical Topographic Map

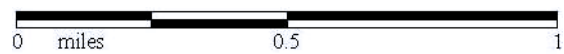


Quad Name: Tonawanda, NY
 Year: 1900 Original Map Scale: 1: 62500

AREA 2 NIAGARA FALLS CBP STATION, NIAGARA FALLS, NY



Job Number: 100-FFX-T28295
 Target Site: -78.942735, 43.096946



Building	■	Railroad	—+—+—
Topo Contour	—6000—	Tanks	●●●●
Depression	⊖	Primary Highway	—
Quarry or Open Pit Mine	×	Trail	- - - - -



HISTORICAL FIRE INSURANCE MAPS
NO MAPS AVAILABLE

09-28-2011
100-FFX-T28295
AREA 2 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY, 14304

A search of the Library of Congress database of historical fire insurance map availability confirmed that there are NO MAPS AVAILABLE for the Subject Location as shown above.

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FirstSearch Technology Corporation

Environmental Chain of Title Report

TARGET PROPERTY:

Area 2 Niagara Falls CBP Station

Niagara Falls, NY 14304

Job Number: 100-FFX-T28295

FirstSearch #: 280780

Date 10/21/11



Tel: (781) 551-0470

Fax: (781) 551-0471

SOURCES & LIMITATIONS

FirstSearch Technology Corporation

This report has been produced from a limited search of the public land records and/or real property deed records of the county and state as defined in the legal description below for a 50-year period up through the indicated date as shown on this report. This limited search includes only the recorded deeds and most easements and surface leases affecting the ownership history of the subject property. This report is being provided for use only as a limited part of an overall Phase I Environmental Site Assessment as performed by a qualified Environmental Engineer/Consultant as specified in the ASTM Standard E 1527-05, AAI, and as specified in the Comprehensive Environmental Response, Compensation and Liabilities Act of 1980, as amended, and may not be relied upon for any other purpose.

This report is not to be considered an Abstract, a Title Commitment, Title Opinion, Title Guaranty, or a representation of the legal status of the property. The information presented is simply a report of instruments filed of record pertaining to the above property and was obtained from the county public records. No guaranty as to the integrity or correctness of said records is implied. In the process of compiling the information presented in this report, the public records were accessed primarily by the name(s) shown in the vesting instrument only and although reasonable care was taken to provide accuracy, this report and provider does not claim responsibility for instruments filed under any variation of name(s) and/or legal description.

Although great care has been taken by FirstSearch in compiling and verifying the information contained in this report to insure that it is accurate, FirstSearch disclaims any and all liability for any errors, omissions, or inaccuracies in such information and data.

FirstSearch Technology Corporation

Environmental Chain of Title Report

LEGAL DESCRIPTION: All that certain plot, piece and parcel of land, situate, lying and being in the city of Niagara Falls, County of Niagara, and State of NY, described in the County of Niagara land records as parcel 146.19-2-4

SUBJECT PARCEL: All that certain plot, piece and parcel of land, situate, lying and being in the city of Niagara Falls, County of Niagara, and State of NY, described in the County of Niagara land records as parcel 146.19-2-4

FirstSearch Technology Corporation

Environmental Chain of Title Report

TABLE SUMMARY

DATE	DOCUMENT TYPE	GRANTOR (Seller/Lessor)	GRANTEE (Buyer/Lessee)	PARCEL or LOT #	DOCUMENT NUMBER
6/18/2003	Deed	Ronald Benderson, Randall Benderson and David H. Baldauf, as trustees for the Benderson 85-1 Trust	David C. Smith Sr. Enterprises, LLC	146.19-2-4	Document #: 3240/414
7/11/1990	Deed	Niagara Ledge No. 838, Loyal Order of Mooseq	Ronald Benderson, Randall Benderson and David H. Baldauf, as trustees for the Benderson 85-1 Trust	146.19-2-4	Document #: 2270/63
10/19/1959	Deed	Coregan Sanoian a/k/a Corigan Sanoian, Ruben Sanoian and Sarkee Sanoian	Niagara Lodge No. 838, Loyal Order of Moose	146.19-2-4	Document #: 1584/924
No Environmental Liens were found during the course of this search					
No AUL's were found during the course of this search					

FirstSearch Technology Corporation

Environmental Chain of Title Report

TITLE RESEARCH NOTES:

ASTM Notes: ASTM E 1527-05, Section 8.3 on Historical Use Information requires a review of “*Reasonably Ascertainable standard historical sources.*”

“Reasonably Ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.”

This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful.

AAI Notes: The Environmental Protection Agency published a final rule setting federal standards for the conduct of all appropriate inquiries (AAI). The final rule establishes specific regulatory requirements for conducting all appropriate inquiries into *the previous ownership*, uses, and environmental conditions of a property for the purposes of qualifying for certain landowner liability protections under CERCLA.

After November 1, 2006, parties must comply with the requirements of All Appropriate Inquiries Final Rule, to satisfy the statutory requirements for conducting all appropriate inquiries. All appropriate inquiries must be conducted to obtain protection from potential liability under CERCLA as an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser.

Inquiries conducted by or for the prospective landowner or grantee:

- *environmental liens*
- *easements*
- *restrictions*
- *activity and use limitations*

FirstSearch Technology Corporation

ENVIRONMENTAL CHAIN OF TITLE SEARCH GLOSSARY

There are certain terms used in Chain of Title searches, which may require clarification. This glossary is designed to provide definitions for some of the most common terms.

1. ENVIRONMENTAL LIEN:	The Environmental Lien is a record of a document/instrument filed by the City, County, State or Federal Government that prevents the conveyance of a property because of severe environmental problems existing on the premises.
2. BREAK IN CHAIN:	<p>There may appear to be a break in the chain of title as indicated when the sequential tracing of ownership fails. An example of a break would be: <i>Samson to James. . .James to Watson. . .Black to White</i>. The missing link is from Watson to Black. There are several possible reasons for this occurrence.</p> <ul style="list-style-type: none">• Due to the size or other physical characteristics of the property, there could be multiple owners at any time when tracing the history of the ownership of the property.• There could be an “easement title” over some portion of the property, allowing for use of that portion for a specific purpose.• There could be a “multi-percentage interest” in the property, with concurrent multiple owners making up 100% of the fee title. Then, a percentage owner deeds out his particular interest or a percentage of this interest to one or more parties. This causes a perceived break in the chain.
3. EASEMENT:	An easement is the right to enter and use another person’s property: a non-possessor right to use another person’s real property. Traditionally easements are granted to utility companies and other service organizations or as a right of access to another property.
4. MULTIPLE OWNERS:	<p>When “others” or “et al” appears on the report in the owner category, it indicates multiple ownership of a single parcel, with too many names to record in summary. It is frequently used to denote more than a single owner. If the owners are a married couple, both names may appear on the report or may be denoted by “et ux”.</p> <p>The term “owners’ is usually used to indicate owners of multiple parcels, all recorded under a document that covers the multiple parcels.</p>
5. MULTIPLE PARCELS:	Some properties are created by combining several adjoining parcels into one large parcel. When this occurs; there might be several different owners until the time of unification of the property. Sometimes the ownership appears to be cloudy until each owner conveys his/her interest to the single owner of the new larger parcel.
6. INSTITUTIONAL CONTROLS:	Institutional controls are a form of “deed restriction” placed on a property by a governing authority to reduce exposure to contaminants. A common deed restriction might be to prohibit residential or school use on a property.

DO NOT DETACH - THIS IS PAGE 1 OF RECORDED DOCUMENT

NIAGARA COUNTY CLERK RECORDING PAGE

OFFICE OF THE CLERK COUNTY OF NIAGARA

WAYNE F. JAGOW, COUNTY CLERK

County Courthouse, 175 Hawley Street, P.O. Box 461, Lockport, NY 14095

Phone (716) 439-7027

Fax (716) 439-7066

INSTRUMENT DATE 16th June '03

DOCUMENT TYPE deed (3)

Parties: (Print Names In Full) Ronald Bendersow, Randell Bendersow, 1st Part E. David H. Baldauf, LLC, 2nd Part David C. Smith Sr. Enterprises, Town/City Niagara

Return To: Harris Beach, LLP, One Grimsby, Hamburg, NY 14025

THIS SPACE RESERVED FOR COUNTY CLERK

MORTGAGE#

MORTGAGE AMOUNT \$

() One/two family () Other

[] Check if to be apportioned

DOCUMENT # 1005271, BOOK 3240 PAGE 414 DEEDS, NUMBER OF PAGES 3, RECORDED 06/18/2003 01:42:23 P.M., RECEIPT # 15755 DOCUMENT TOTAL: \$2,691.00, PAID - COUNTY CLERK WAYNE F. JAGOW

RECORDING TAX RECEIPT

BASIC \$, ADDITIONAL \$, SPECIAL \$, TOTAL \$

State of New York ss County of Niagara I do hereby certify that I have Received on the within Mortgage, being the amount of the Recording Tax Imposed thereon & paid at recording.

Dated , 20

Mortgage Tax Clerk of Niagara County

#6334 REAL ESTATE TRANSFER TAX \$2600.00 6-18-2003 NIAGARA COUNTY

This sheet constitutes the Clerk's endorsement required by section 319 of the Real Property Law of the State of New York

FIDUCIARY DEED

THIS INDENTURE, made this 16th day of June, Two Thousand Three

Between Ronald Benderson, Randall Benderson and David H. Baldauf as Trustees under a Trust Agreement dated October 14, 1985 known as the Benderson 85-1 Trust (**Grantor**), and David C. Smith Sr. Enterprises, LLC (**Grantee**),

WITNESSETH, that Grantor, in consideration of Six Hundred Fifty Thousand and 00/100 Dollars (\$650,000.00) lawful money of the United States, paid by the Grantee, does hereby grant and release unto Grantee and assigns forever,

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Niagara and the Town of Wheatfield, County of Niagara and State of New York, being part of Lot No. 1 and Lot No. 52, Township 13, Range 8 and Range 9 according to the Holland Land Company's Survey, bounded and described as follows:

BEGINNING at a point on the westerly line of said Lot No. 52 which line is also the westerly line of the Town of Wheatfield and the easterly line of Lot No. 1 and the easterly line of the Town of Niagara, said point being 506.9 feet southerly of the southerly right of way line of Niagara Falls Boulevard; running thence easterly a distance of 176.44 feet; running thence southerly at a right angle to the last described line and parallel with said westerly line of Lot No. 52 a distance of 758 feet; running thence westerly at a right angle to the last described line a distance of 740.18 feet; running thence northerly at a right angle to the last described line and parallel with said westerly line of Lot No. 52 a distance of 1607.78 feet to the southerly right of way line of Niagara Falls Boulevard; running thence easterly along the southerly right of way line of Niagara Falls Boulevard, which curves to the right having a radius of 2,814.90 feet, a distance of 331.6 feet, measured on a chord; of Lot No. 1, a distance of 436.41 feet; running thence easterly at a right angle to the last described line a distance of 250.28 feet to the point or place of beginning.

SUBJECT to and together with all easements, covenants and restrictions of record.

TOGETHER with the appurtenances,

TO HAVE AND TO HOLD, the premises herein granted unto the Grantee, its successors AND assigns forever.

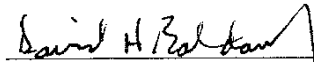
AND Grantor covenants that they have not done or suffered anything whereby the said premises have been encumbered in any way whatever.

AND Subject to the trust fund provisions of Section 13 of the Lien Law.

IN WITNESS WHEREOF, the Grantor has hereunto set hand and seal the day and year first above written.

Ronald Benderson, Randall Benderson and David H. Baldauf as Trustees under a Trust Agreement dated October 14, 1985 known as the Benderson 85-1 Trust

DMJ



David H. Baldauf, Trustee

STATE OF NEW YORK)
)ss:
COUNTY OF ERIE)

On the 16th day of June in the year 2005 before me, the undersigned, a notary public in and for said state, personally appeared David H. Polcaw, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s) or the person upon behalf of which the individual(s) acted, executed the instrument.

Nancy Marie Scalzi
Notary Public

Record and Return to:
Anastasia Stefanou, Counsel
Benderson Development Company, Inc.
570 Delaware Avenue
Buffalo, New York 14202

NANCY MARIE SCALZI
NOTARY PUBLIC, STATE OF NEW YORK
Reg. No. 01SC6006469
QUALIFIED IN ERIE COUNTY
My Commission Expires May 4, 2006

14.5 REGULATORY RECORDS DOCUMENTATION

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14.6 INTERVIEW DOCUMENTATION

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ENVIRONMENTAL SITE ASSESSMENT TRANSACTION SCREEN QUESTIONNAIRE

This document is an excerpt of Practice E1528-06: Standard Practice for Environmental Site Assessments: Transaction Screen Process, which is under the jurisdiction of ASTM Committee E50 on Environmental Assessment as is the direct responsibility of Subcommittee E50.02 on Commercial Real Estate Transactions. This questionnaire represents only Sections 5 and 6 of Practice E 1528-06 and should not be construed as being the complete standard. It is necessary to refer to the full standard prior to using this questionnaire. COPYRIGHT © 2006 ASTM INTERNATIONAL, West Conshohocken, PA. Prior edition copyrighted 2000. Stock # ADJE152806. For the complete standard, or to order additional copies of this questionnaire, contact ASTM Customer service at (610) 832-9585.

5. Introduction to Transaction Screen Questionnaire

5.1 *Process*--The *transaction screen process* consists of asking questions contained within the *transaction screen questionnaire* of *owners* and *occupants* of the *property*, observing site conditions at the *property* with direction provided by the *transaction screen questionnaire*, and, to the extent *reasonably ascertainable*, conducting limited research regarding certain government records and certain standard historical sources. The questions asked of *owners* are the same questions as those asked of *occupants*.

5.2 *Guide*--The *transaction screen questionnaire* is followed by a guide designed to assist the person completing the *transaction screen questionnaire*. The guide to the *transaction screen questionnaire* is set out in Sections 7-10 of this practice. The guide is divided into three sections: Guide for Owner/Occupant Inquiry, Guide to Site Visit, and Guide to Government Records/Historical Sources Inquiry.

5.2.1 To assist the *user*, its employee or agent, or the preparer in preparing a report, the guide repeats each of the questions set out in the *transaction screen questionnaire* in both the guide for *owner/occupant* inquiry and the guide to *site visit*. The questions regarding government records/historical sources inquiry are also repeated in the guide to that section.

5.2.2 The guide also describes the procedures to be followed to determine if reliance upon the information in a prior *transaction screen* is appropriate under this practice.

5.2.3 A *user*, his employee or agent, or preparer conducting the *transaction screen process* should not use the *transaction screen questionnaire* without reference to or without familiarity with the guide based on prior use of the guide.

5.3 The *user* may either conduct the *transaction screen process*, or delegate it to an employee or agent or may contract with a third party to prepare the questionnaire on behalf of the *user*. No matter who prepares the questionnaire, the *user* remains responsible for the decision to conduct limited environmental *due diligence* and the impact of that decision on risk management.

5.4 The preparer conducting the *transaction screen process* should use good faith efforts in determining answers to the questions set forth in the *transaction screen questionnaire*. The *user* should take time and care to check whatever records are in the *user's* possession and forward relevant information or specialized knowledge to the preparer.

5.5 *Knowledge*--All answers should be given to the best of the *owner's* or *occupant's* knowledge. The most knowledgeable person available should be chosen to answer the questions.

5.5.1 While the person conducting the *transaction screen* has an obligation to ask the questions in the *transaction screen questionnaire*, others may have no obligation to answer them.

5.5.2 The *transaction screen questionnaire* and the *transaction screen guide* sometimes include the phrase "to the best of your knowledge." This phrase does not impose a constructive knowledge standard. It is intended as an assurance to the person being questioned that he or she is not obligated to search out information he or she does not currently have in order to answer the particular question.

5.6 *Conclusions Regarding Affirmative or Unknown Answers*--Once a *transaction screen questionnaire* has been completed, it shall be presented to the user. Subject to 5.6 through 5.7, an affirmative, unknown, or no response is presumed to be a *potential environmental concern*. If any of the questions set forth in the *transaction screen questionnaire* are answered in the affirmative, the preparer must document the reason for the affirmative answer. If any of the questions are not answered or the answer is unknown, the *user* should document such nonresponse or answer of unknown and evaluate it in light of the other information obtained in the *transaction screen process*, including, in particular, the site visit and the government records/historical sources inquiry. If the *user* decides no further inquiry is warranted after receiving no response, an answer of unknown, or an affirmative answer, the *user* must document the reasons for any such conclusion.

5.6.1 Upon obtaining an affirmative answer, an answer of unknown or no response, the *user* should first refer to the guide. The guide may provide sufficient explanation to allow a *user* to conclude that no further inquiry is appropriate with respect to the particular question.

5.6.2 If the guide to a particular question does not, in itself, permit a user to conclude that no further inquiry is appropriate, then the user should consider other information obtained from the *transaction screen process* relating to this question. For example, while on the site performing a *site visit*, a person may find a storage tank on the *property* and therefore answer Question 10 of the *transaction screen questionnaire* in the affirmative. However, during or subsequent to the *owner/occupant* inquiry, the *owner* may establish that substances now or historically contained in the tank (for example, water) are not likely to cause contamination.

5.6.3 If either the guide to the question or other information obtained during the *transaction screen process* does not permit a *user* to conclude no further inquiry is appropriate with respect to such question, then the user must determine, in the exercise of the *user's* reasonable business judgment, based upon the totality of unresolved affirmative answers or answers of unknown received during the *transaction screen process*, whether further inquiry may be limited to those specific issues identified as of concern.

5.7 *Presumption*--A presumption exists that further inquiry is necessary if an affirmative answer is given to a question or because the answer was unknown or no response was given. In rebutting this presumption, the *user* should evaluate information obtained from each component of the *transaction screen process* and consider whether sufficient information has been obtained to conclude that no further inquiry is necessary. The *user* must determine, in the exercise of the *user's* reasonable business judgment, the scope of such further inquiry.

5.8 *Further Inquiry*--Upon completing the *transaction screen questionnaire*, if the *user* concludes that further inquiry or action is needed (for example, consult with an environmental consultant, contractor, governmental authority, or perform additional governmental and/or historical records review), the *user* should proceed with such inquiry. (Note that if the *user* determines to proceed with a Phase I Environment Site Assessment, the *user* may apply the current Practice E 1527 or alternatively the provisions of EPA's regulation "Standards and Practices for All Appropriate Inquiries," 40 C.F.R. Part 312.)

5.9 *Signature*--The *user* and the preparer of the *transaction screen questionnaire* must complete and sign the questionnaire as provided at the end of the questionnaire.

6. Transaction Screen Questionnaire

6.1 *Persons to Be Questioned*-The following questions should be asked of (1) the current owner of the property, (2) any major occupant of the property or, if the property does not have any major occupants, at least 10 % of the occupants of the property, and (3) in addition to the current owner and the occupants identified in (2), any occupant likely to be using, treating, generating, storing, or disposing of hazardous substances or petroleum products or from the property. A major occupant is any occupant using at least 40 % of the leasable area of the property or any anchor tenant when the property is a

shopping center. In a multifamily property containing both residential and commercial uses, the preparer does not need to ask questions of the residential occupants. The preparer should ask each person to answer all questions to the best of the respondent's actual knowledge and in good faith. When completing the site visit column, the preparer should be sure to observe the property and any buildings and other structures on the property. The guide to this transaction screen questionnaire (see Sections 7-10) provides further details on the appropriate use of this questionnaire. (See Note 2.)
NOTE 2-Unk = "unknown" or "no response."

Description of Site Address:

Question	Owner			Occupants (if applicable)			Observed During Site Visit		If yes, provide description
	Yes	No	Unk	Yes	No	Unk	Yes	No	
1a. Is the property used for an industrial use?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
1b. Is any adjoining property used for an industrial use?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
2a. Did you observe evidence or do you have any prior knowledge that the property has been used for an industrial use in the past?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
2b. Did you observe evidence or do you have any prior knowledge that any adjoining property has been used for an industrial use in the past?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
3a. Is the property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
3b. Is any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
4a. Did you observe evidence or do you have any prior knowledge that the property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
4b. Did you observe evidence or do you have any prior knowledge that any adjoining property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
5a. Are there currently any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
5b. Did you observe evidence or do you have any prior knowledge that there have been previously any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
6a. Are there currently any industrial drums (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
6b. Did you observe evidence or do you have any prior knowledge that there have been previously any industrial drums (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
7a. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	

* Unk = "unknown" or "no response"

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This document is an excerpt of E 1528-06, Standard Practice for Environmental Site Assessments: Transaction Screen Process, which is under the jurisdiction of ASTM Committee E50 on Environmental Assessments and is the indirect responsibility of Subcommittee E50.02 on Commercial Real Estate Transactions. This questionnaire represents only Sections 5 and 6 of Practice E 1528-06 and should not be construed as being the complete standard. It is necessary to refer to the full standard prior to using this questionnaire. For the complete standard, or to order additional copies of this questionnaire, contact ASTM Customer Service at (610) 832-9585.

Question	Owner			Occupants (if applicable)			Observed During Site Visit		If yes, provide description
7b. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that is of an unknown origin?	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input checked="" type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	No; however, Piles of concrete debris were observed throughout the site
8a. Are there currently any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
8b. Did you observe evidence or do you have any prior knowledge that there have been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
9a. Is there currently any stained soil on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
9b. Did you observe evidence or do you have any prior knowledge that there has been previously, any stained soil on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
10a. Are there currently any registered or unregistered storage tanks (above or underground) located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
10b. Did you observe evidence or do you have any prior knowledge that there have been previously, any registered or unregistered storage tanks (above or underground) located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
11a. Are there currently any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
11b. Did you observe evidence or do you have any prior knowledge that there have been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
12a. Is there currently evidence of leaks, spills or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
12b. Did you observe evidence or do you have any prior knowledge that there have been previously any leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring drains, walls, ceilings or exposed grounds on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
13a. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
13b. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that the well has been designated as contaminated by any government environment health agency?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Water would be provided by the Town of Niagara
14. Does the owner or occupant of the property have any knowledge of environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			
15a. Has the owner or occupant of the property been informed of the past existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			
15b. Has the owner or occupant of the property been informed of the current existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			
15c. Has the owner or occupant of the property been informed of the past existence of environmental violations with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			
15d. Has the owner or occupant of the property been informed of the current existence of environmental violations with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			

Question	Owner			Occupants (if applicable)			Observed During Site Visit		If yes, provide description
16. Does the owner or occupant of the property have any knowledge of any environmental site assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assessment of the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			Owner conducted Phase I ESA in 2004. No RECs were identified.
17. Does the owner or occupant of the property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			
18a. Does the property discharge waste-water (not including sanitary waste or storm water) onto or adjacent to the property and/or into a storm water system?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
18b. Does the property discharge waste water (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary sewer system?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
19. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried and/or burned on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input checked="" type="radio"/>	No <input type="radio"/>	Concrete debris and tires were observed on the property
20. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	

Government Records/Historical Sources Inquiry
(See guide, Section 10)

21. Do any of the following federal, state, or tribal government record systems list the property or any property within the search distance noted below (where available):	Approximate Minimum Search Distance, miles (kilometres)	Yes <input type="radio"/>	No <input type="radio"/>	
Federal NPL site	1.0	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
Federal Delisted NPL site	0.5	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
Federal CERCLIS	0.5	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
Federal CERCLIS NFRAP site	0.5	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
Federal RCRA CORRACTS facilities	1.0	Yes <input checked="" type="radio"/>	No <input type="radio"/>	
Federal RCRA non-CORRACTS TSD	0.5	Yes <input checked="" type="radio"/>	No <input type="radio"/>	
Federal RCRA generators	property and adjoining properties	Yes <input checked="" type="radio"/>	No <input type="radio"/>	
Federal institutional control/engineering control registries	property only			
Federal ERNS	property only	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
State and tribal lists of hazardous waste sites identified for investigation or remediation:				
State-and tribal-equivalent NPL	1.0	Yes <input checked="" type="radio"/>	No <input type="radio"/>	
State-and tribal-equivalent	0.5	Yes <input checked="" type="radio"/>	No <input type="radio"/>	
State-and tribal-landfill and/or solid waste disposal site lists	0.5	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
State-and tribal-leaking storage tank lists	0.5	Yes <input checked="" type="radio"/>	No <input type="radio"/>	
State and tribal registered storage tank lists	property and adjoining properties	Yes <input checked="" type="radio"/>	No <input type="radio"/>	
State and tribal institutional control/engineering control registries	property only	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
State and tribal voluntary cleanup sites	0.5	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
State and tribal Brownfield sites	0.5	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
22. Based upon a review of fire insurance maps (10.2.3) or local street directories (10.2.3), all as specified in the guide, are any buildings or other improvements on the property or on an adjoining property identified as having been used for an industrial use or uses likely to lead to contamination of the property?		Yes <input type="radio"/>	No <input type="radio"/>	Unavailable <input checked="" type="radio"/>

Result

The Owner questionnaire answers were provided was completed by:

Name Joe Smith
Title Owner of David Chevrolet and Buick
Firm NA
Address 10225 Niagara Falls Blvd

Phone Number 716-297-0682
Date 5/21/2012
Role (s) at the site Representative of David Smith Enterprises Trust
Number of years at the site 10 years
Relationship to use (e.g. principal, employee, agent, consultant) Owner

The Occupant questionnaire answers were provided by:

Name N/A
Title _____
Firm _____
Address _____

Phone Number _____
Date _____
Role (s) at the site _____
Number of years at the site _____
Relationship to use (e.g. principal, employee, agent, consultant) _____

The Site Visit questionnaire was completed by:

Name David Postlewaite
Title Environmental Scientist
Firm Tetra Tech, Inc
Address 10308 Eaton Place Suite 340
Fairfax, VA 22030
Phone Number 703-385-6000
Date 5/14/2012
Role (s) at the site Transaction Screen Preparer
Number of years at the site 0
Relationship to use (e.g. principal, employee, agent, consultant) Contractor

It is the user's responsibility to draw conclusions regarding affirmative or unknown answers.

The Government Records and Historical Sources Inquiry questionnaire was completed by:

Name David Postlewaite with aid and resources from InfoMap
Title Technologies, Inc
Firm Tetra Tech and InfoMap Technologies
Address _____

Phone Number _____
Date April through June 2012
Role (s) at the site Contractor
Number of years at the site 0
Relationship to use (e.g. principal, employee, agent, consultant) Contractor

User's relationship to the site (for example, owner, prospective purchaser, lender, etc.)

If the preparer (s) is different from the user, complete the following:


Name of User USACE Buffalo District and US CBP
User's Address _____

User's Phone Number _____

Copies of the completed questionnaires have been filed at:

Copies of the completed questionnaires have been mailed or delivered to:

Preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct and to the best of the preparer's actual knowledge no material facts have been suppressed or misstated.

Signature: 
Date: 5/22/2012

Signature: _____
Date: _____

Signature: _____
Date: _____

To order additional copies of this questionnaire,
contact ASTM International, Customer Service.

phone: (610) 832-9585

fax: (610) 9555

e-mail: service@astm.org



100 Barr Harbor Drive
PO Box C700
West Conshohocken, PA 19428-2959

Transaction Screen Environmental Site Assessment

**Area 3 (3rd Alternative Site)
Tuscarora Rd and Lockport Road
Niagara Falls, New York**

Prepared for:

**Department of the Army
USACE, Buffalo District
1776 Niagara Street
Buffalo, NY 14207-3199**

October 2012

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SECTION 1

EXECUTIVE SUMMARY

Tetra Tech was contracted by U.S. Army Corp of Engineers (USACE) - Buffalo District to conduct a Transaction Screen Environmental Site Assessment (ESA) of property under consideration for acquisition by U.S. Customs and Border Protection (CBP) for construction of a new U.S. Border Patrol (USBP) station in Niagara Falls, New York. The property is a rectangular 46.7-acre parcel located within the town of Niagara, Niagara County, New York, across Tuscarora Road and west of the Site 1 on Niagara Falls Air Reserve Station (ARS). The Subject Property is 2 miles east of Interstate 190 (I-190), 7 miles from the border crossing at I-190, and 6.6 miles east of the border crossing at Niagara Falls State Park. Niagara Falls ARS is east of the Subject Property. The parcel has 2,600 linear feet (LF) of frontage on Tuscarora Road to the east. Lockport Road is north of the parcel, and some residences and open land along Lockport Road separate the parcel from that roadway. Farmland and residences lie to the west. The parcel is vacant, flat, and grass-covered; it is zoned Light Industrial.

The Subject Property is an undeveloped, relatively level lot. It meets the CBP selection criteria for establishing a new Border Patrol Station (BPS) for the Niagara area of responsibility (AOR): (1) it is within the defined 60-square-mile search area for potential locations for a new BPS; (2) it has sufficient land area for establishing a BPS (10 acres minimum); and (3) it has two access points (Tuscarora Road and through the Air Reserve Station). In addition, the parcel has the appropriate shape, terrain, drainage, and soil conditions for the proposed construction and use; it is not within a 100-year floodplain; utilities are available at the location (water, sewer, electric power, and natural gas are available at the parcel, while telephone and cable television are available nearby); the price is within budget; it is zoned appropriately; it could be obtained from a willing seller

1 in a timely manner; and it has no known detrimental cultural or environmental
2 characteristics (USACE, Detroit District 2011b).

3 This Transaction Screen Environmental Site Assessment was performed in accordance
4 with ASTM International (ASTM) Standard E1528-06, *Standard Practice for Limited*
5 *Environmental Due Diligence: Transaction Screen Process* (ASTM 2007) in compliance
6 with the US Environmental Protection Agency's (EPA) All Appropriate Inquiries (AAI)
7 Final Rule (Title 40 of the *Code of Federal Regulations* Part 312). In addition to an
8 adequate investigation of the Subject Property, the Contractor undertook routine practices
9 from the ASTM Standard E1527-05, *Standard Practice for Environmental Site*
10 *Assessments: Phase I Environmental Site Assessment Process*.

11 The purpose of the Transaction Screen Environmental Site Assessment is to identify, to
12 the extent feasible and pursuant to the processes prescribed herein, recognized
13 environmental conditions (RECs) in connection with the Subject Property, to assist the
14 CBP in its decision-making process for the proposed acquisition of the Subject Property.
15 *RECs* are defined in ASTM Standard E1527-05 as "the presence or likely presence of any
16 hazardous substances or petroleum products on the property under conditions that
17 indicate an existing release, a past release, or a material threat of release of any hazardous
18 substances or petroleum products into structures on the property or into the ground,
19 groundwater, or surface water of the property." The term includes hazardous substances
20 or petroleum products even under conditions in compliance with laws (ASTM 2005). The
21 investigation included a record review, site reconnaissance, chain-of-title search, and
22 preparation of this report.

23 Two RECs, as defined in ASTM Standard E1527-05, were found in connection with the
24 Subject Property. On the basis of a review of historical records and historical topographic
25 maps and aerials, the Subject Property was used for agricultural purposes from at least
26 1907 to 2012. Fertilizers, pesticides, and herbicides were likely applied to crops to
27 prevent, destroy, repel, or mitigate pests and unwanted flora. A potential exists for
28 residual fertilizers, pesticides, and herbicides in the Subject Property soils. In addition,
29 the southern portion of the Subject Property was used as a racetrack known as Niagara

1 Falls International Drag Strip. The racetrack was operated from 1961 until 1974, after
2 which the property was converted back into agricultural land with the exception of the
3 asphalt race track. Over this period of time, small releases of fuel, petroleum, and other
4 chemicals associated with automobiles may have been released onto the Subject Property.
5 There are no historical records indicating that large releases occurred; however, a
6 potential exists for residual chemicals to be present in the soils of the parcel.

7 Although there is a potential for residual pesticides and petroleum products on the
8 Subject Property, the surface soils have a vegetative cover that prevents windblown dust
9 and erosion. However, if future construction or additions to the facility that disturb the
10 ground are proposed, soil samples might need to be collected and analyzed to determine
11 whether worker safety measures regarding exposure are needed and to determine proper
12 handling and disposal of excavated soils.

13 No additional RECs were identified based on the Transaction Screen Questionnaire that
14 was completed by owner representative, Harold J. Smith during a phone interview
15 conducted on May 18th, 2012.

16 This executive summary is provided for convenience only. Although the executive
17 summary is an integral part of the report, it should not be used in lieu of reading the
18 entire report, including the appendices. Reliance on this report should be based on the
19 findings and conclusions presented, including the limitations discussed in Section 2.4.

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SECTION 2

INTRODUCTION

2.1. PURPOSE

This Transaction Screen Environmental Site Assessment reports the results of an inquiry into the previous ownership and uses of the Subject Property, known as Area 3, which is being considered as the site for a new 50-person Customs and Border Protection Station. The Subject Property is described as a 46.7-acre rectangular parcel with 2,600 LF of frontage along the western side of Tuscarora Road, directly west of Niagara Falls ARS, in the town of Niagara, Niagara County, New York. The property is undeveloped and is owned by the Trust of Felicia E. Smith. This inquiry is consistent with good commercial or customary practice as defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 *United States Code* (U.S.C.) 9601(35)(B), and it was designed to meet the standards of ASTM standard E1528-06, *Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process* (ASTM 2007). In addition to an adequate investigation of the Subject Property, the Contractor undertook routine practices from ASTM Standard E1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, in compliance with EPA's AAI Final Rule (Title 40 of the *Code of Federal Regulations* Part 312).

Through compliance with the AAI Final Rule, this Transaction Screen Environmental Site Assessment is intended to meet some of the threshold requirements of a bona fide prospective purchaser, contiguous property owner, or innocent landowner to qualify for landowner liability protection under the Brownfields Amendments to CERCLA, or other liability projects that might be available to landowners under state statutes.

On behalf of the Department of Homeland Security, Customs and Border Protection, Office of Border Patrol, the user of this Transaction Screen Environmental Site

1 Assessment requested that the US Army Corps of Engineers, Buffalo District, to the
2 extent feasible and pursuant to the processes prescribed herein, identify recognized
3 environmental conditions (RECs) in connection with the Subject Property to help the
4 Department in its decision-making process for the proposed acquisition of the Subject
5 Property. *RECs* are defined in ASTM Standard E1527-05 as “the presence or likely
6 presence of any hazardous substances or petroleum products on the property under
7 conditions that indicate an existing release, a past release, or a material threat of release
8 of any hazardous substances or petroleum products into structures on the property or into
9 the ground, groundwater, or surface water of the property. The term includes hazardous
10 substances or petroleum products, even under conditions in compliance with laws. The
11 term is not intended to include de minimis conditions that generally do not present a
12 threat to human health or the environment and that generally would not be the subject of
13 an enforcement action if brought to the attention of appropriate governmental agencies.
14 Conditions determined to be de minimis are not [RECs]” (ASTM 2005).

15 2.2. DETAILED SCOPE OF SERVICES

16 This Transaction Screen Environmental Site Assessment inquiry included the following
17 tasks:

18 ***Record Review.*** Reasonably ascertainable records of standard sources, including
19 environmental record sources (specified regulatory agency lists and files); physical
20 setting sources (topographic maps); historical ownership information (chain of title); and
21 historical use information (such as aerial photographs, fire and flood insurance company
22 maps, and historical topographic maps), were reviewed. Internet searches of county, state,
23 and federal agencies were also conducted to find *reasonably ascertainable* data and
24 information. Data failures and the significance of gaps in the historical record are
25 discussed in Section 2.4.

26 ***Site Reconnaissance.*** An inspection of the Subject Property was performed to identify
27 possible hazardous substance storage or disposal; pathways for contamination to enter
28 soil or groundwater, such as leaking underground storage tanks (LUSTs), sumps, or
29 drains; poor management of hazardous substances; and the possible presence of

1 polychlorinated biphenyls (PCBs). The environmental setting and indications of the
2 current and past uses of the property, adjoining properties, and the surrounding area were
3 observed.

4 ***Interviews.*** Property owners and representative of the owners of the Subject Property, as
5 well as local emergency response personnel and state officials, were interviewed to
6 collect information on the Subject Property.

7 ***Transaction Screen Questionnaire.*** A transaction screen questionnaire as outlined in the
8 ASTM E1528-06 standards was completed by both the owners and the Contractor who
9 prepared this report. The transaction screen process consists of asking questions
10 contained within the transaction screen questionnaire of owners and occupants of the
11 property, observing site conditions at the property with direction provided by the
12 transaction screen questionnaire, and, to the extent reasonably ascertainable, conducting
13 limited research regarding certain government records and certain standard historical
14 sources.

15 ***Report.*** The data attained by the Contractor (Tetra Tech, Inc.) during the review of
16 historical records, site reconnaissance, and interviews was evaluated and used to prepare
17 this report and its conclusions.

18 **2.3. SIGNIFICANT ASSUMPTIONS**

19 Data provided by the owner representatives is assumed to be true and correct. The maps
20 presenting the boundaries of the property are assumed to be accurate.

21 **2.4. LIMITATIONS AND EXCEPTIONS**

22 No Transaction Screen Environmental Site Assessment can wholly eliminate uncertainty
23 regarding the potential for RECs in connection with a site. Performance of ASTM
24 Standards E1528-06 and E1527-05 is intended to reduce, but not eliminate, uncertainty
25 regarding the potential for RECs in connection with a site. The information presented in

1 this report is based on professional opinions from a thorough review of documents
2 acquired from database and record searches provided by InfoMap Technologies, Inc.

3 It should be recognized that this study is not intended to be a definitive investigation of
4 potential environmental concerns at the Subject Property. The scope of services for this
5 investigation was limited and should not be construed as a guarantee that no currently
6 unrecognized environmental concerns exist at the Subject Property. However, the
7 Contractor undertook this study and completed the report in accordance with the
8 professional standards and generally accepted practices of environmental consultants at
9 the time of preparation. Business environmental risk that is beyond the scope of this
10 investigation might exist on the property.

11 Opinions and recommendations presented in this report apply to the Subject Property
12 conditions existing at the time of the Contractor's investigation and those reasonably
13 foreseeable. They do not necessarily apply to Subject Property changes of which the
14 Contractor is not aware and which the Contractor has not had the opportunity to evaluate.

15 **2.5. SPECIAL TERMS AND CONDITIONS**

16 The conclusions and recommendations herein are based solely on the information the
17 Contractor obtained in compiling the report. Because the facts forming the basis for the
18 report are subject to professional interpretation, differing conclusions could be reached.

19 The Contractor does not assume responsibility for the discovery and elimination of
20 hazards that could cause accidents, injuries, or damage. Compliance with submitted
21 recommendations or suggestions does not assure elimination of hazards or the fulfillment
22 of the client's obligations under local, state, or federal laws or any modifications or
23 changes to such laws.

24 None of the work performed hereunder will constitute or be represented as a legal
25 opinion of any kind or nature but will be a representation of findings of fact from records
26 examined.

2.6. USER RELIANCE

1
2 This report was compiled partially from information supplied from outside sources and
3 from other information that is in the public domain. The Contractor makes no warranty as
4 to the accuracy of statements made by others that might be contained in the report; nor
5 are any other warranties or guarantees, express or implied, included or intended by the
6 report, except that it has been prepared in accordance with the current generally accepted
7 practices and standards consistent with the level of care and skill exercised under similar
8 circumstances by other professional consultants or firms performing the same or similar
9 services.

10 This report is intended for the sole use of the Office of Border Protection. The scope of
11 services performed in execution of this investigation might not be appropriate to satisfy
12 the needs of other users, and any use or reuse of this document or the findings,
13 conclusions, or recommendations presented is at the sole risk of the other user.

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SECTION 3

SITE DESCRIPTION

3.1. LOCATION AND LEGAL DESCRIPTION

The Subject Property occupies a rectangular parcel of approximately 46.7 acres in the town of Niagara, Niagara County, New York, across Tuscarora Road and west of Niagara Falls ARS. The Subject Property it is 2 miles east of I-190, 7 miles from the border crossing at I-190, and 6.6 miles east from the border crossing at Niagara Falls State Park. Niagara Falls ARS is east of the Subject Property. The parcel has 2,600 LF of frontage on Tuscarora Road to the east. Lockport Road is north of the parcel, and some residences and open land along Lockport Road separate the parcel from that roadway. The approximate center point of the parcel is 43° 06' 59.73" north latitude and 78° 57' 17.29" west longitude. The Subject Property is shown in figures provided in Appendices 14.1 and 14.2.

The legal description of the Subject Property, as provided by Land Title Inquiries, Inc., through InfoMap Technologies, Inc., is provided in the title in Appendix 14.4.

3.2. SITE AND VICINITY CHARACTERISTICS

The parcel is currently vacant, flat, and covered in grasses, as well as sporadic pockets of woody shrubs and trees ; it is zoned Light Industrial. The surrounding land is predominantly agricultural to the south and east. Niagara Falls ARS is adjacent to and east of the site, and Niagara Falls International Airport is to the south. Outside the boundaries of the airport, the surrounding area consists of residential neighborhoods, open land, and various types of commercial businesses.

1 **3.3. CURRENT USE OF THE PROPERTY**

2 The Subject Property is vacant and undeveloped. At the time of the visual site inspection
3 (VSI) conducted on May 14, 2012 approximately two-thirds of the parcel was planted
4 with wheat. The other third is remnants of the former racetrack, Niagara Falls
5 International Drag Strip, which was used between 1961 and 1974. Two small, dilapidated
6 structures, as well as the quarter-mile asphalt track, are still present; however, the asphalt
7 track has deteriorated substantially. The area near the track is covered with relatively
8 mature trees and woody vegetation.

9 **3.4. DESCRIPTIONS OF STRUCTURES, ROADS, AND OTHER**
10 **IMPROVEMENTS ON THE SITE**

11 Historical topographic maps and aeriels show that parcel was used as a racetrack known
12 as Niagara Falls International Drag Strip that included large parking areas/fairgrounds
13 between the mid-1960s and early 1970s (InfoMap 2012). An old quarter-mile drag strip
14 and two dilapidated structures are still present toward the center of the property, within a
15 group of trees that divide two fields of wheat crops. Service utilities for natural gas,
16 three-phase power, telephone, cable TV, potable water, and sewer are available near the
17 site.

18 **3.5. CURRENT USES OF THE ADJOINING PROPERTY**

19 Residential houses are located north of the Subject Property, along Lockport Road. A
20 large rock quarry is farther to the northwest. To the west of the Subject Property is an
21 agricultural field with small areas of woody vegetation. Niagara ARS and an inactive
22 access gate onto ARS from Tuscarora Road are directly east of the Subject Property.
23 Niagara Falls International Airport is directly south of the Subject Property.

SECTION 4

USER-PROVIDED INFORMATION

4.1. TITLE RECORDS

A chain-of-title search of the Subject Property was obtained from Land Title Inquiries, Inc., through the record search provided by InfoMap Technologies, Inc. Based on the results of the title search, the land that the subject property is composed of was sold by a group made up of members of the Fahrwald, Haseley, Korening families to Norris Hilts, Ardon Bradt and Wray Hilts in September 1957. In August 1979, the property was sold to Donald H. Smith, Gordon F. Smith, Stanley Grossman and Morree Levine. In December 1998, the property was sold by Carolyn Grossman (the executor of the estate of Stanley Grossman) to another group of Grossman family members. In January 2000 the property was sold back to Carolyn Grossman. In August 2007, Gordon Smith (assumed inheritor of the land) sold the land to Felicia Smith. In April 2011 Harold Smith and Gordon Smith became owner representatives of the Felicia Smith Trust that the land is part of when she passed away. The chain of title is provided in Appendix 14.4.

4.2. ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

InfoMap Technologies, Inc., conducted an environmental lien search of the Subject Property. The environmental lien search identified no environmental liens and use limitations against the Subject Property. See Appendix 14.4 for the title search documentation.

4.3. SPECIALIZED KNOWLEDGE

Specialized knowledge pertaining to the current owner, local utilities, and current property conditions were provided by the US Army Corps of Engineers, Buffalo District,

1 which had authorized the US Army Corps of Engineers, Detroit District to conduct a
2 market study deliverable (US Army Corps of Engineers 2012).

3 **4.4. COMMONLY KNOWN OR REASONABLY ASCERTAINABLE**
4 **INFORMATION**

5 The US Army Corps of Engineers and CBP did not have and were not aware of any
6 commonly known and reasonably ascertainable information other than the documents
7 provided to the Contractor.

8 **4.5. VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES**

9 The market study conducted by the US Army Corps of Engineers, Detroit District, states
10 that the price of the Subject Property is currently unknown. It is assumed that the entire
11 46.7 acres would be sold to Customs and Border Protection. Eventually, a price would
12 need to be negotiated with the owner (US Army Corps of Engineers 2011). The
13 Contractor does not believe that any environmental issues on or near the property affect
14 the value of the property.

15 **4.6. OWNER, PROPERTY MANAGER, AND OCCUPANT**
16 **INFORMATION**

17 The Subject Property is owned by the Trust of Felicia S. Smith. Harold Smith and
18 Gordon Smith are the owner representatives of the property (InfoMap 2012).

19 **4.7. INTERVIEWS**

20 An interview was conducted with the owner representative of the Trust that owns the
21 Subject Property, Harold Smith. Based on the interview conducted, no additional
22 environmental concerns were identified through the discussion. Mr. Smith indicated that
23 an environmental impact study (EIS) was conducted by URS recently of the Subject
24 Property and some of the neighboring properties to investigate the potential impacts of
25 the construction of a business park. The EIS identified no major impacts as a result of

1 developing the property. Unavoidable impacts identified in the EIS included the
2 conversion of vacant land into impervious land, disturbance of less than 0.1 acres of
3 wetlands (construction of a road crossing), loss of prime farmland, and increases in local
4 traffic (URS 2011).

5 **4.8. REASON FOR PERFORMING TRANSACTION SCREEN**
6 **ENVIRONMENTAL SITE ASSESSMENT**

7 This transaction screen environmental assessment is intended to provide CBP with an
8 understanding of any significant potential environmental liabilities or risks relative to the
9 investigated area.

10 **4.9. OTHER**

11 No other information relevant to RECs at the Subject Property was obtained from the
12 user of this Transaction Screen Environmental Site Assessment.

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SECTION 5

RECORD REVIEW

5.1. REVIEW OF FEDERAL, STATE, AND TRIBAL ENVIRONMENTAL RECORDS

A record search that reviewed federal, state, local, and tribal environmental records pertaining to the Subject Property and its vicinity was conducted. In performing the review, services were provided by InfoMap, Inc., a vendor specializing in the search and retrieval of governmental environmental databases. The federal, state, local, and tribal databases include information regarding reported hazardous materials use and storage; facilities that treat, store, dispose of, or generate hazardous waste; solid waste landfills, transfer stations, and incinerators; LUSTs; discharges of petroleum and other hazardous substances; and reported incidents of contamination. The databases conform to the standard record sources identified in ASTM Standard E1528-06 (ASTM 2007). The InfoMap report is presented in Appendix 14.4.

5.1.1. Subject Property

On the basis of the results of the record search conducted by InfoMap, no sites of concern were found within the boundaries of the Subject Property (InfoMap 2012).

5.1.2. Surrounding Properties

Two geocoded environmental sites and one non-geocoded site were found near the Subject Property during the InfoMap record search (InfoMap 2012). Non-geocoded sites are properties referenced in federal, state, local, or tribal environmental records that cannot be accurately mapped because of incomplete or inadequate location information; however, the sites are listed within a common ZIP Code. The Contractor reviewed the list of non-geocoded sites in the InfoMap report to ascertain their potential to affect the

1 Subject Property. On the basis of distance or type of database finding, none of the non-
2 geocoded sites are likely to affect the Subject Property

3 One geocoded LUST site was identified 0.41 mile southeast of the Subject Property. The
4 site, **LUST Tank 920D at Building 920**, was described as a 5,000-gallon No. 2 fuel oil
5 underground storage tank (UST) that was removed in the summer of 1998. Soil samples
6 collected from the excavated site showed levels of analytes above New York State
7 Department of Environmental Conservation (NYSDEC) Spills Technology and
8 Remediation Series (STARS) Guidance Values. Groundwater was not impacted. The
9 impacted soil was removed from the excavation, along with the excavated tank, and
10 disposed of off-site. A letter requesting no further action was drafted and sent to
11 NYSDEC for concurrence. NYSDEC concurred that the site was closed. On the basis of
12 the proper removal and disposal of the impacted soil, the absence of groundwater
13 contamination, and NYSDEC's concurrence with the no further action request, this site is
14 not likely to impact the Subject Property (InfoMap 2012).

15 The second geocoded site was identified as **Ross Steel Company, Inc.**, located 0.57 mile
16 northwest of the Subject Property on Packard Road. There were two apparent landfill
17 sites on Pine Avenue used by Ross Steel (approximately 3.5 miles southwest of the
18 Subject Property). The site was bought by Niagara Mohawk Power Corporation, which
19 installed large power conduits that pass through the property. During the installation,
20 large excavations were performed to install the infrastructure. Thus, the entire site is now
21 either excavated or covered and seeded. A Phase I investigation for this site was
22 completed in 1989, and it concluded that no hazardous waste is present on the site. Based
23 on the site's distance from the Subject Property, it is not likely to have impacted the
24 Subject Property.

25 The only non-geocoded site, known as **Building 850**, was located using a map of Niagara
26 Falls ARS that put the building approximately 0.4 mile southeast of the Subject Property.
27 Building 850 is a large maintenance hangar for the aircraft under the 914th Air Force
28 Reserve Airlift Wing. According to the record search, the hangar's fire suppression
29 system went off unexpectedly on August 21, 2010, releasing approximately 48,000

1 gallons of fire suppression foam. Most of the foam was contained in the hangar; however,
2 some of foam made its way outside into a neighboring tributary that runs into Cayuga
3 Creek (approximately 0.4 mile southeast of the Subject Property). The waters
4 downstream were inspected for fish kills and other environmental indicators of a
5 hazardous release into the environment, but not indications of the foam release were
6 identified. The remaining foam that had been released was collected and disposed of off-
7 site. NYSDEC received a spill incident report from the Department of the US Air Force
8 that described the incident, why it occurred, and what was released into the environment
9 and local sewer system. The spill incident report requested no further action. NYSDEC
10 concurred and the case was closed September 21, 2010 (InfoMap 2012). Based on the
11 distance of the site from the Subject Property, as well as the nature and type of substance
12 released, this event is not expected to impact the Subject Property.

13 **5.2. ADDITIONAL ENVIRONMENTAL RECORD SOURCES**

14 The Contractor conducted Internet searches of local, county, and state agencies to obtain
15 records and documents to assess the environmental condition of the Subject Property.
16 Additional information obtained for the Subject Property and adjacent properties from
17 internet and database searches is provided in section 5.6.

18 **5.2.1. Subject Property**

19 Records and environmental site information obtained from the websites of the US
20 Geological Survey (USGS), US Department of Agriculture (USDA), EPA, NYSDEC,
21 and the US Fish and Wildlife Service (USFWS) were used in helping to determine the
22 environmental condition of the Subject Property.

23 According to the EPA's Air Quality website, Niagara County, New York, is completely
24 within the Niagara Frontier Intrastate Air Quality Control Region (AQCR 162). USEPA
25 has designated Niagara County as in moderate non-attainment for the 8-hour ozone (O³)
26 National Ambient Air Quality Standards (USEPA, 2011). Air quality permits might be
27 required during construction and to operate the building.

5.2.2. Surrounding Properties

Records, site information, and GIS data were obtained from the Niagara Falls ARS 914th Airlift Wing Base Civil Engineering Command. Websites of the USGS, US Army Corps of Engineers (USACE), USDA, EPA, NYSDEC, and USFWS were used in helping to determine the environmental condition of the adjoining and surrounding properties.

According to the July 2007 *EA for the Construction of an Armed Forces Reserve Complex and Implementation of BRAC Realignment Actions in Niagara Falls, New York*, There are three RCRA generators located on Niagara Falls ARS, which is located on the adjoining land, directly east of the Subject Property. Niagara Falls ARS is a large quantity generator (LQG), which is defined as generator that generates greater than 1,000 kilograms per month of hazardous waste. The EPA Generator Identification Number for Niagara Falls ARS (914th AW) is NY0570024273. In addition, the 107th Air Reserve Wing of the New York Air National Guard (a major tenant organization on Niagara Falls ARS) has its own EPA Identification Number, NYR000087882. Processes generating hazardous wastes on Niagara Falls ARS include aircraft and vehicle maintenance, parts cleaning, support equipment maintenance, general facility maintenance, painting, nondestructive inspection, weapons training and cleaning, and expired shelf-life chemicals. The current US Air Reserve Command (USARC) (Niagara Falls AFRC/AMSA-76(G)) generates small amounts of hazardous waste and is a conditionally exempt small quantity generator (CESQG), with EPA Identification Number NY8210424273 (USACE Mobile District 2007).

Most of the USARC's hazardous waste is generated by vehicle maintenance activities. The USARC generates approximately 150–200 gallons of used motor oil, 10 gallons of used hydraulic oil, 40 gallons of used transmission fluid, 20 gallons of waste brake fluid, 55 gallons of contaminated diesel fuel, and 20 gallons of used antifreeze per year (USACE Mobile District 2007).

There is an Installation Restoration Program (IRP) site, *Site 11–Fire Training Area #2*, on Niagara Falls ARS, 0.01 mile directly east of the southeastern corner of the Subject Property. Figure 14.2 shows the location of IRP site in relation to the Subject Property.

1 The IRP site was described as a fire protection training site that was reportedly used 10
2 times during the late 1950s for fire training exercises conducted by base personnel. The
3 site consists of an open grassy area west of Building 936 in the southwestern corner of
4 the main area of Niagara Falls ARS. In 1984, two soil boring samples were collected and
5 analyzed for oil and grease, total organic compounds, total organic halogens, and
6 phenols. In 1989, two additional soil boring samples were collect from the site and
7 analyzed for volatile organics, semivolatile organics, total petroleum hydrocarbons
8 (TPH), and total metals. TPH concentrations were detected in the shallow intervals of the
9 soil borings. Based on these results, no further action was recommended at the site
10 (USAFR 1990). NYSDEC concurred with this recommendation in 1996 (AFARS 2010).
11 Based on the distance from the Subject Property and NYSDEC concurrence of NFA, this
12 site is not likely to impact the Subject Property.

13 *UST 950 Site* is approximately 0.1 mile east of the Subject Property, between Buildings
14 901 and recently built Building 2503. Figure 14.2 shows the location of IRP site in
15 relation to the Subject Property. According to installation personnel from the 914th Airlift
16 Wing's Civil Engineer Department and 107th Air National Guard's environmental office,
17 this site consisted of an underground heating oil tank (HOT) that was closed and removed
18 in 1989. The site was subsequently closed without collecting and analyzing confirmation
19 samples from the soil around the HOT (107th Air National Guard, Environmental
20 Management Representative). Approximately five years ago the site was reopened by the
21 NYANG and Air Force. Groundwater and soil samples were collected and analyzed.
22 Sample results confirmed that detected concentrations of polycyclic aromatic
23 hydrocarbons associated with petroleum products were present in the soil and
24 groundwater around the former HOT; however, the detected concentrations were only
25 slightly above regulatory action levels. Groundwater was encountered around 4.5 feet to
26 6.5 feet bgs (NYANG 2009). The impacted area has been determined and is isolated. The
27 investigation report recommended further investigation near the site; however, no further
28 environmental activities have been performed.

29 The area surrounding the UST 950 has been recently developed as part of the
30 construction of a new Army National Guard Campus. No known contamination was

1 found during the development of this area (107th Air National Guard, Environmental
2 Management Representative). The concentrations of hydrocarbons in the soil and
3 groundwater at this site are only slightly above regulatory action levels, as well as the
4 impacts to the environment appear to be isolated. Therefore, based on its proximity to
5 the Subject Property it is believed that site is not likely to impact the Subject Property.

6 **5.3. TRANSACTION SCREEN QUESTIONNAIRE**

7 As part of the Environmental Site Assessment Transaction Screen, a questionnaire as
8 outlined in the ASTM E1528-06 standards was completed by both the owners and the
9 Contractor who prepared this report. The transaction screen process consists of asking
10 questions contained within the transaction screen questionnaire of owners and occupants
11 of the property, observing site conditions at the property with direction provided by the
12 transaction screen questionnaire, and, to the extent reasonably ascertainable, conducting
13 limited research regarding certain government records and certain standard historical
14 sources. The questionnaire was completed by owner representative, Harold J. Smith
15 during a phone interview conducted on May 18th, 2012. A copy of the questionnaire is
16 located in Appendix 14.8.

17 Based on the questionnaire interview, no additional environmental concerns were
18 identified on the Subject Property. Mr. Smith indicated that URS Corp had recently
19 conducted an Environmental Impact Statement (EIS) on the Subject Property, as well as
20 approximately 200 adjoining acres. Mr. Smith stated that the EIS identified no major
21 adverse environmental impacts in regards to the parcel of land (the Subject Property).
22 This area is certified as a “shovel ready” property by the State of New York, meaning
23 that owners/developers have addressed all major permitting issues, prior to a business
24 expressing interest in the location.

25 During the interview Mr. Smith also had no additional information on the former Niagara
26 Falls Drag Strip that once operated on the Subject Property. Mr. Smith’s family did not
27 own the property when it was used as a race track.

5.4. PHYSICAL SETTING SOURCES

1
2 **Regional Physiography.** Topographic map coverage is provided by the USGS 1980
3 Tonawanda West, New York 7.5-minute quadrangle. The Subject Property is
4 approximately 585 to 600 feet above mean sea level and is relatively flat (InfoMap 2012).

5 **Geologic Conditions.** Niagara Falls is on the Niagara Falls Escarpment, a prominent
6 cliff-forming feature extending from western New York into southern Ontario, northward
7 to the upper peninsula of Michigan, and bending downward into eastern Wisconsin and
8 Illinois (NYSGS 2012). The escarpment is the edge of a thick series of dolomite layers of
9 Silurian age. The rocks are resistant to erosion and stand up in relief as a prominent line
10 of bluffs (Dutch 1999). The Niagara Escarpment was cut to form Niagara Falls during the
11 last glacial melt, approximately 16,000 years ago (NYSGS 2012).

12 **Soil Conditions.** The soils on the Subject Property consists of Odessa silty clay loam, 0 to
13 2 percent slopes. Odessa silty clay loam is formed from reddish clayey and silty
14 glaciolactustrine deposits, is not known to flood or pond, and has a depth to a restrictive
15 feature of more than 80 inches. The soils are somewhat poorly drained, and the depth to
16 water table in the soils is about 6 to 18 inches. Odessa silty clay loam, 0 to 2 percent is
17 not designated as a hydric soil; however, Lakemont is a component of this soil type that,
18 if found in a depression, may qualify as a hydric soil. The soil is designated as prime
19 farmland if drained (USDA NRCS 2012).

20 **Surface Water Conditions.** The Subject Property is approximately 0.40 mile north of
21 Cayuga Creek. The northern portion of the site is an active agricultural field. The
22 southern portion is covered with secondary successional growth, consisting of dense
23 shrub, as well as an abandoned drag racing strip and associated impermeable surfaces.

24 A limited field reconnaissance survey conducted in May 2012 identified potential
25 wetland areas on the parcel. The survey identified an emergent wetland area near the
26 middle of the parcel along the southern boundary of the agricultural field. This wetland
27 area was associated with drainage flowing north to south through the center of the field.
28 Four additional emergent wetland areas were identified in the shrub-covered portion of

1 the site surrounding the abandoned drag strip. The largest of these wetland areas is
2 located in the southeast corner of the site and is associated with drainage flowing from
3 the drag strip.

4 No FEMA-designated 100-year floodplain occurs on or adjacent to the Subject Property.
5 The closest FEMA-designated 100-year floodplain is associated the tributary located on
6 the westernmost portion of Niagara Falls ARS, approximately 0.5 mile southwest of the
7 site (Niagara County 2012).

8 ***Groundwater Conditions.*** The New York and New England Carbonate Rock Aquifer is a
9 principal aquifer that underlies a considerable portion of the southern half of Niagara
10 County. Three bedrock aquifers are contained within this principal aquifer—the
11 limestone aquifer occurring in the Onondaga Limestone, Akron Dolomite, and Bertie
12 Limestone formations; the Camillus Aquifer occurring in the Camillus Shale formation,
13 the Syracuse formation, and the Vernon Shale formation; and the Lockport Aquifer
14 occurring in the Lockport Dolomite formation. All three bedrock aquifers yield small to
15 moderate quantities of water and are not used for significant public withdrawals of water.
16 Public water supplies are provided by the Niagara County Water District Niagara County
17 2009). Potable water for the town of Niagara consists entirely of water pumped from the
18 Chippawa Channel of the Niagara River (townofniagara.com 2012). On-site direct access
19 to groundwater as a water supply is not expected.

20 Bedrock groundwater flows through horizontal bedding planes, vertical fractures, and
21 joints within the Lockport Dolostone. The most permeable zone is the upper 5-15 feet of
22 more heavily fractured and weathered bedrock. The generalized regional groundwater
23 flow direction in the bedrock aquifer is to the south-southwest. Specifically, the shallow
24 bedrock groundwater flow direction varies locally and seasonally on a site-by-site basis
25 but has a primary component to the south.

26 Based on groundwater data collected over decades environmental investigations, ongoing
27 long term monitoring and remediation projects at the 12 IRP sites located across Niagara
28 Falls ARS (directly east of the subject property), depth to groundwater in the top aquifer
29 (glacial overburden) has been observed between approximately 2.5 feet bgs to 17 feet

1 bgs. The horizontal flow of groundwater locally at Niagara Falls ARS has been observed
2 to flow towards the east, southeast, south, or southwest. Groundwater depth varies from
3 site to site and is influenced by its proximity to surface water and drainages features
4 (USAF 2012).

5 ***Prime Farmland.*** The USDA defines *prime farmland* as land that has the best
6 combination of physical and chemical characteristics for producing food, feed, forage,
7 fiber, and oilseed crops and that is available for such uses. Section 1541(b) of the
8 Farmland Protection Policy Act of 1980 and 1995 [7 U.S.C. 4202(b)] requires that federal
9 and state agencies, and projects funded with federal funds, (1) identify and take into
10 account the adverse effects of their programs on the preservation of farmland; (2)
11 consider alternative actions, as appropriate, that could lessen adverse effects; and (3)
12 ensure that their programs, to the extent practicable, are compatible with state, local
13 government, and private programs and policies to protect farmland. The soil on the
14 Subject Property is considered prime farmland if drained (USDA NRCS 2011).

15 **5.5. HISTORICAL USE INFORMATION ON THE PROPERTY**

16 A history of previous uses of the Subject Property since its first developed use was
17 compiled from information obtained from standard historical sources to identify past uses
18 that could have led to RECs in connection with the Subject Property. Documentation of
19 the historical ownership and uses is included in Appendices 14.4 and 14.5. The historical
20 record sources included historical topographic maps provided by InfoMap and dated
21 1900, 1951, 1965 and 1980 and historical aerial photographs provided by InfoMap and
22 dated 1938, 1963, 1972, 1985, 1995 and 2009 (Infomap 2012). Sanborn Fire Insurance
23 map coverages were not available for the Subject Property (InfoMap 2012). Each source
24 is summarized below. The historical aerial photographs and topographic maps are
25 provided in Appendix 14.4.

26 **5.5.1. Historical Aerial Photographs and Topographic Maps**

27 ***1900 Topographic Map.*** In this topographic map, the Subject Property area is
28 undeveloped and relatively flat. Two small structures are shown north and east of the

1 Subject Property. Tuscarora Road to the east and Lockport Road to the north are both
2 visible. The New York Central Railroad runs from the southeast to the northeast, north of
3 the Subject Property and Lockport Road. Cayuga Creek is southeast of the Parcel.

4 ***1938 Aerial Photograph.*** In this aerial photograph, the Subject Property is used for
5 agricultural purpose. There is a farm northwest of the Subject Property, and two farms are
6 located northeast of the Subject Property. The entire area is primarily agriculture fields.

7 ***1951 Topographic Map.*** In this topographic map, the Subject Property and area
8 bordering the property have not changed significantly. Niagara International Airport and
9 multiple runways are visible approximately half a mile southeast of the Subject Property.
10 More structures have been built north and west of the Subject Property.

11 ***1963 Aerial Photograph.*** The Niagara Falls International Drag Strip is now visible on the
12 Subject Property. A quarter-mile track runs northeast to the southwest. A parking lot can
13 be seen above the track along Tuscarora Road. A rock quarry is visible northwest of the
14 Subject Property. Niagara Falls Air Force Base is now visible east of the Subject
15 Property. Hangars and planes can be seen along the runway that the installation shares
16 with Niagara Falls International Airport. Larger structures have built west of the Subject
17 Property.

18 ***1965 Topographic Map.*** In this aerial, more structures associated with the Niagara Falls
19 Air Force Base are visible to the south and east. The drag strip can still be seen in the
20 southern portion of the Subject Property. More houses have been built along Lockport
21 Road.

22 ***1972 Aerial Photograph.*** It appears that the entire Subject Property is being used as a
23 fairground or parking lot for the drag strip. Multiple rows of parking can be seen running
24 parallel from north to south. The rock quarry northwest of the Subject Property has
25 expanded east toward the parcel.

1 **1980 Topographic Map.** There are no significant changes to the Subject Property or
2 surrounding area. The Niagara Falls International Drag Strip is illustrated on the map;
3 however, the race track was shut down in 1974.

4 **1985 Aerial Photograph.** The Subject Property appears to have been converted back to
5 agricultural fields. The former Niagara Falls International Drag Strip is still visible.

6 **1995 Aerial Photograph.** The area directly east of the Subject Property on Niagara Falls
7 ARS is being developed. A new structure is located directly east as well. The former
8 Niagara Falls International Drag Strip is still visible, but it appears to be overgrown by
9 vegetation.

10 **2009 Aerial Photograph.** There are no significant changes to the Subject Property. The
11 surrounding area is still used predominantly for agriculture, with the exception of the
12 military installation east of the Subject Property and rock quarry to the northwest. The
13 drag strip is still visible, but it is still overgrown with vegetation, with the exception of
14 the quarter-mile race track.

15 **5.5.2. Sanborn Fire Insurance Maps**

16 Sanborn Fire Insurance maps were requested for this Transaction Screen Environmental
17 Site Assessment; however, no maps were available for the Subject Property. The letter of
18 request is included in Appendix 14.4.

19 **5.5.3. City Directories**

20 No city directory search was conducted for this Transaction Screen Environmental Site
21 Assessment because of the Subject Property's rural location.

22 **5.5.4. Chain-of-Title**

23 A chain-of-title search that researched title records as far back as 1946 for the Subject
24 Property was obtained from Land Title Inquiries, Inc., through the record search provided
25 by InfoMap Technologies, Inc. The deed that Land Title Inquiries, Inc., acquired is as
26 follows:

1 Parcel 146.06-1-2 was sold by Phillip Fahrwald, Emma Fahrwald,
2 Harvey Haseley, Minnie Korening, Sigmund Pfuhl, John Pfuhl, Martha
3 Haseley, Louis Pfuhl Verone Haseley, Max Pfuhl, Lizzie Pfuhl and
4 Eleanor Pfuhl Goeseke to Norris Hilts, Ardon Bradt and Wray Hilts by
5 Deed recorded September 26, 1957 in Document No. 1272/586.

6 Parcel 146.07-1-2 was sold by Norris Hilts, Ardon Bradt and Wray Hilts
7 to Donald H. Smith, Gordon F. Smith, Stanley Grossman and Morree
8 Levine by Deed recorded August 2, 1979 in Document No. 1667/160.

9 Parcel 146.07-1-2 was sold by Carolyn J. Grossman, executrix of the
10 estate of Stanley Grossman to Anita S. Grossman, Mark D. Grossman,
11 Eric B. Grossman, Sheryl A. Grossman, Lisa B. Soicher and Claudia L.
12 Chaffe by Deed recorded December 10, 1998 in Document No. 2885/46.

13 Parcel 146.07-1-2 was sold by Anita S. Grossman, Mark D. Grossman,
14 Eric B. Grossman, Sheryl A. Grossman, Lisa B. Soicher and Claudia L.
15 Chaffe to Carolyn J. Grossman by Deed recorded January 1, 2000 in
16 Document No. 2992/208.

17 Parcel 146.07-1-2 was sold by Gordon F. Smith to Felicia S. Smith by
18 Deed recorded August 24, 2007 in Document No. 3411/28.

19 Parcel 146.07-1-2 was sold by C Harold J. Smith, as executor of the last
20 will and testament of Felicia S. Smith to Gordon F. Smith and Harold J.
21 Smith, Trustees of the Article "3" Trust of Felicia S. Smith f/b/o Gordon
22 E. Smith by Deed recorded April 1, 2011 in Document No. 2011-05835.

23 The legal description for the parcel is provided in Section 3.1 of this Transaction Screen
24 Environmental Site Assessment. Copies of the deeds are provided in Appendix 14.4.

1 **5.6. NON-SCOPE CONSIDERATIONS**

2 The Contractor examined the historical aerial photographs and topographic maps
3 described above to determine the historical development and use of the properties
4 adjacent to the Subject Property. It was determined that the Subject Property was not
5 developed until 1961 when the Niagara Falls International Drag Strip was built and
6 opened.

7 **5.6.1. Asbestos-containing Building Materials**

8 It is unlikely that asbestos-containing materials would be encountered on the property,
9 but it cannot be ruled out. Based on historical aerial photographs and topographic maps, a
10 drag strip, as well as small support structures and grandstands, once occupied the
11 southern portion of the Subject Property (InfoMap 2012).

12 **5.6.2. Radon**

13 According to the InfoMap record search of the 109 homes tested in the local area around
14 the Subject Property, the average radon reading recorded was 1.3 picocuries per liter
15 (InfoMap 2012). This level is considered below average by EPA standards and does not
16 warrant mitigation controls.

17 **5.6.3. Lead-based Paint**

18 It is possible that lead-based materials exist on the two existing buildings observed near
19 the race track area of the Subject Property. The structures were observed to have peeling
20 paint on their exteriors and interiors during the VSI conducted on May 14, 2012. The
21 structures were built pre-1978 and have the possibility of being painted with lead-based
22 paints. Impacts to the Subject Property would be minimal and isolated to the area
23 surrounding the structures since the structures were relatively small. See Appendix 14.3
24 for a picture of one of the two structures located on the Subject Property.

1 **5.6.4. Lead in Drinking Water**

2 Drinking water for Niagara Falls ARS is provided by the Town of Niagara. According to
3 the last water quality report, produced in 2008, lead was detected above action levels
4 (0.15 ug/L) in only 3 of the 53 sites/samples collected. Lead in the drinking water is not
5 considered a problem (Town of Niagara 2011).

6 **5.6.5. Wetlands**

7 No federal National Wetland Inventory wetlands or New York State-regulated wetlands
8 are mapped on the property (USFWS 2012a, NYSDEC 2012a). However, a National
9 Wetland Inventory wetland is mapped adjacent to the northeastern corner of the Subject
10 Property. In 2009, URS Corporation delineated an approximately 200-acre area that
11 included the 46.7-acre Subject Property. URS identified 11 wetlands on the property
12 totaling 3.81 acres, with the largest of these wetlands (1.49 acres) located outside and
13 adjacent to the lower southwest portion of the Subject Property boundary. This wetland
14 appears to have been created from drainage disruption on the north side of the former
15 drag strip. Five of the delineated wetlands were associated with drainage ditches. Of the
16 eleven wetlands delineated during the study conducted by URS Corporation, three of the
17 wetlands occur on the Subject Property (URS 2011).

18 A limited field reconnaissance survey conducted in May 2012 identified potential
19 wetland areas on the parcel. The survey identified an emergent wetland area near the
20 middle of the parcel along the southern boundary of the agricultural field. This wetland
21 area was associated with drainage flowing north to south through the center of the field.
22 Four additional emergent wetland areas were identified in the shrub-covered portion of
23 the site surrounding the abandoned drag strip. The largest of these wetland areas is in the
24 southeast corner of the site, and it is associated with drainage flowing from the drag strip.
25 The Subject Property was not formally delineated by a wetland scientist for the analysis
26 in this project, and a jurisdictional wetland delineation must be conducted.

1 **5.6.6. PCBs**

2 No PCB sites were found during the record search. Additionally no electrical
3 transformers or other items that could possibly contain PCB materials were observed
4 during the VSI conducted on May 14th, 2012. It is unknown to whether transformers or
5 other items containing PCB materials were once located on the Subject Property and
6 removed in the past.

7 **5.6.7. Regulatory Compliance**

8 On the basis of the record search, no regulatory compliance issues or permits regarding
9 the Subject Property were found.

10 **5.6.8. Cultural and Historic Resources**

11 The parcel was studied as part of the New York State Shovel Ready Certification
12 Program, which facilitates site development permitting processes. The Town of Niagara,
13 the lead agency, issued a Draft Generic Environmental Impact Statement in 2011.

14 No previous cultural resources surveys were conducted of the Subject Property, although
15 several were completed in the immediate vicinity. Two previously identified
16 archaeological sites (the same identified for Alternative site 1) were identified within 1
17 mile of the Alternative 3 parcel. No National Historic Landmarks or architectural
18 resources listed in or eligible for listing in the state register or National Register of
19 Historic Places (NRHP) are present within or immediately adjacent to the Subject
20 Property.

21 *Archaeological Resources.* Although the nearest prehistoric archaeological site is nearly
22 0.75 mile from the Subject Property, the nearby Cayuga Creek and Niagara River would
23 have attracted seasonal hunting groups and later semi-permanent precontact settlement.
24 Background research suggests that past land uses by Native Americans were either
25 limited or ephemeral, or that evidence of past land uses by Native Americans has not yet
26 been identified for the area and its immediate environs. According to the New York State

1 Historic Preservation Office’s GIS-Public Access website, the Subject Property is not in
2 an area of archeological sensitivity.

3 Background research and field reconnaissance indicate that the Subject Property was
4 cleared for cropland by at least the early 19th century and later for recreational
5 motorsports in the 20th century. Today, active agricultural lands cover the northern
6 portions of the Subject Property, while the southern portion is now an abandoned
7 automobile racing facility. The former drag strip is still visible, but the parking lots and
8 ancillary features are overgrown with heavy, thick brush. A review of historical maps of
9 the parcel indicated that no structural improvements have been made on the parcel,
10 suggesting a low potential for historic archaeological sites related to early historic
11 occupation of the property.

12 There is no significant factor suggesting intact archaeological material would be present.
13 The project was identified as containing areas with a low probability of containing
14 historic archaeological sites. A review of historical maps and aerial photography failed to
15 show any historic development within or nearby the project area.

16 ***Architectural Resources.*** There are no NRHP-listed or eligible properties within or
17 immediately adjacent to the Subject Property. The nearest NRHP is the Town of Niagara
18 District School No. 2, which is approximately 1,000 feet to the northeast across Lockport
19 Road. No other NRHP-listed properties are within 1 mile of the Subject Property. Beyond
20 the agricultural fields to the north, there are several residential buildings along Lockport
21 Road; they are circa mid-20th-century vernacular style houses.

22 **5.6.9. Industrial Hygiene**

23 On the basis of the characteristics of the Subject Property, industrial hygiene is not
24 applicable.

25 **5.6.10. Health and Safety**

26 On the basis of the characteristics of the Subject Property, health and safety is not
27 applicable.

1 **5.6.11. Ecological Resources**

2 The north half of the Subject Property is an active agricultural field. The field is planted
3 with erosion control plants, most likely winter wheat. A drainage ditch in the center of
4 this field flows from north to south, draining the field into a large drainage ditch that runs
5 east to west near the center of the parcel. An abandoned drag racing strip and numerous
6 associated impermeable surfaces are located in the southern half of the property. The
7 southern portion of the site is covered with secondary successional growth, consisting of
8 dense shrub. The vegetation includes grey stem dogwood (*Cornus racemosa*),
9 honeysuckle (*Lonicera* spp.), and black willow (*Salix nigra*). In addition, drainage and
10 potential wetland areas are present throughout this half of the Subject Property, with
11 cattails the dominant species. Dense, wet shrublands provide habitat for many resident
12 and migratory bird species and could provide a unique habitat for wildlife species that
13 could be sensitive to human disturbance.

14 **5.6.12. Endangered Species**

15 The eastern prairie fringed orchid (*Platanthera leucophea*) is the only Endangered
16 Species Act-protected species listed for Niagara County (USFWS 2012). The bald eagle
17 was delisted under the Endangered Species Act on August 8, 2007, but it remains
18 protected under the Bald and Golden Eagle Protection Act. Neither species would be
19 likely to occur on the Subject Property because of the lack of suitable habitat.

20 USFWS surveys confirmed the presence of six New York State-listed bird species in the
21 vicinity of the Subject Property; however, none were found directly occurring within the
22 site boundary (USFWS 2009). These include the grasshopper sparrow (*Ammodramus*
23 *savannarum*), upland sandpiper (*Bartramia longicauda*), short-eared owl (*Asio*
24 *flammeus*), northern harrier (*Circus cyaneus*), American bittern (*Botaurus lentiginosus*),
25 and horned lark (*Eremophila alpestris*). Other species were identified in site documents;
26 however, most were identified as having only historic occurrences or as migrants not
27 likely to use the site's habitats.

1 **5.6.13. Indoor Air Quality**

2 Indoor air quality is not relevant because there are no structures that could be occupied on
3 the Subject Property. Two small dilapidated structures were observed on the Subject
4 Property during the VSI conducted on May 14, 2012; however, the structures would be
5 demolished if the site were to be developed.

6 **5.6.14. Biological Agents**

7 No evidence of biological agents associated with the Subject Property were found during
8 the record search for the Subject Property (InfoMap 2012).

9 **5.6.15. Mold**

10 Some mold was observed on the two dilapidated structures located on the Subject
11 Property. This mold is not a concern since the structures are not inhabited and would be
12 demolished if the parcel is developed.

13 **5.7. INFORMATION ON HISTORICAL USE AND ADJOINING**
14 **PROPERTIES**

15 Information regarding the historical use and adjoining properties is based on the historical
16 topographic and aerial maps provided in the record search (InfoMap 2012). The
17 environmental condition of the adjoining properties, based on the record search, is
18 summarized in Section 5.1.2.

19 Generally, the adjoining properties have been used as agricultural land and residential
20 properties. The area north and west of the Subject Property was and mostly still is
21 agricultural land. The Subject Property was home to the Niagara Falls International Drag
22 Strip from 1961 to 1974. The asphalt race track and a few dilapidated buildings are still
23 standing. The area surrounding the track has been overgrown by woody vegetation. The
24 area to the south and east was also agricultural land until the Niagara International
25 Airport was built in 1926. Niagara Falls Air Force Base, east of the Subject Property, was
26 established in the mid-1940s. It is now known as Niagara Falls Air Reserve Station.

SECTION 6

FINDINGS

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3 The Contractor performed this Transaction Screen Environmental Site Assessment of the Subject
4 Property described herein in conformance with the scope and limitations of ASTM Standard
5 E1528-06, *Standard Practice for Limited Environmental Due Diligence: Transaction Screen*
6 *Process*, as well as routine practices from ASTM Standard E1527-05, *Standard Practice for*
7 *Environmental Site Assessments: Phase I Environmental Site Assessment Process*, subject to the
8 limits and exceptions described in Section 2.4 of this report.

9 Two RECs, as defined in ASTM Standard E1527-05, were found in connection with the Subject
10 Property. On the basis of a review of historical records and historical topographic maps and
11 aerials, the Subject Property was used for agricultural purposes from at least 1907 to 2012.
12 Fertilizers, pesticides, and herbicides were likely applied to crops to prevent, destroy, repel, or
13 mitigate pests and unwanted flora. A potential exists for residual fertilizers, pesticides, herbicides
14 in the Subject Property soils. In addition, the southern portion of the Subject Property was used
15 as a racetrack known as Niagara Falls International Drag Strip. The racetrack was operated from
16 1961 to 1974, after which the property was converted back into agricultural land with the
17 exception of the asphalt race track. Over this period, small releases of fuel, petroleum, and other
18 chemicals associated with automobiles may have been released onto the Subject Property. There
19 are no historical records indicating that large releases occurred; however, a potential for residual
20 chemicals in the soils of the parcel exists.

21 Although there is a potential for residual pesticides and petroleum products on the Subject
22 Property, the surface soils have a vegetative cover that prevents windblown dust and erosion.
23 However, if future construction or additions to the facility that disturb the ground are proposed,
24 soil samples might need to be collected and analyzed to determine whether worker safety
25 measures regarding exposure are needed and to determine proper handling and disposal of
26 excavated soils.

1 No additional RECs were identified based on the Transaction Screen Questionnaire that was
2 completed by owner representative, Harold J. Smith during a phone interview conducted on May
3 18th, 2012.

SECTION 7

OPINION

On the basis of the information available at the time of this report's preparation, the RECs mentioned in Section 7 were identified in connection with historical uses of the Subject Property.

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SECTION 8

CONCLUSIONS

This Transaction Screen Environmental Site Assessment was performed in accordance with ASTM Standard E1528-06, *Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process* (ASTM 2007), in compliance with EPA's AAI Final Rule (Title 40 of the *Code of Federal Regulations* Part 312). In addition to an adequate investigation of the Subject Property, the Contractor undertook routine practices from ASTM Standard E1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* for the Subject Property, Second Alternative Site (Area 3), located in Niagara Falls, New York, along Lockport Road and Tuscarora Road. Any exceptions to or deletions from this practice are described in Section 10 of this report. The assessment has revealed two RECs in connection with the Subject Property.

On the basis of the findings and conclusions of this Transaction Screen Environmental Site Assessment, a potential exists for residual fertilizers, pesticides, herbicides and petroleum products to be encountered on the Subject Property soils. The surface soils have a vegetative cover that prevents windblown dust and erosion. Groundwater will be not used for drinking water at the site. If future construction or additions to the existing facility are proposed, soils might need to be analyzed to determine whether worker safety measures regarding exposure are needed and to determine proper handling and disposal of excavated soils.

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SECTION 9

DEVIATIONS FROM ASTM STANDARD E1528-06

There were no deletions or deviations from ASTM Standard E1528-06, with the exception of the following:

- Time gaps of more than 5 years were noted in available historical information.
- Historical aerial photographs were not available during the 1940s and early 2000s
- Local emergency services were attempted to be reached via phone, but messages were never returned.

The Contractor does not believe that the identified deviations affect its ability to render an opinion regarding RECs or de minimis conditions for the Subject Property.

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SECTION 10

ADDITIONAL SERVICES

The Contractor provided no additional services during the drafting of this Transaction Screen Environmental Site Assessment. However, in addition to the Transaction Screen Environmental Site Assessment, an Environmental Assessment, a Phase I Cultural Resources Survey, a Wetlands/Biological Assessment, and a Farmland Conversion Impact Rating will be conducted as part of this project.

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SECTION 11

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29 2010.

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SECTION 12

SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in the document have been provided in a manner consistent with the current standards of the profession and, to the best of my knowledge, comply with all applicable federal, state, and local statutes; regulations; and ordinances.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined at 40 CFR 312.10.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

David Postlewaite
Environmental Scientist

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SECTION 13

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL

13.1. DAVID POSTLEWAITE

Mr. Postlewaite is an environmental scientist with more than 5 years of experience in preparing Phase I Environmental Site Assessments and other environmental investigation documents.

He has a BS in environmental and natural resources from Clemson University.

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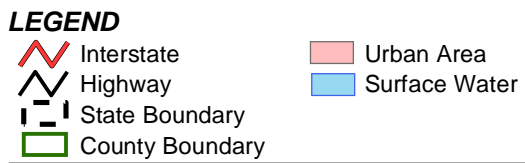
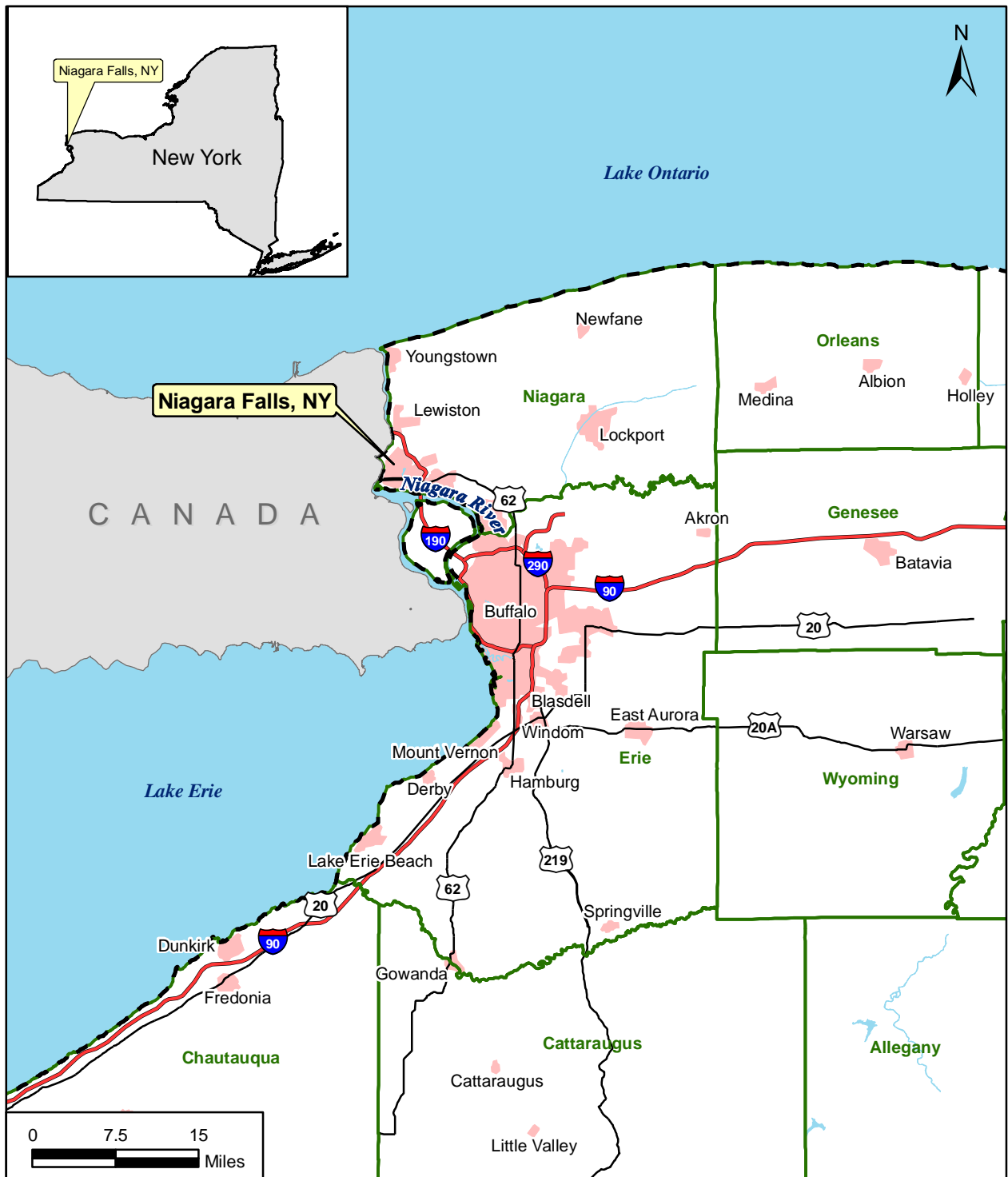
SECTION 14

APPENDICES

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14.1. LOCATION MAP

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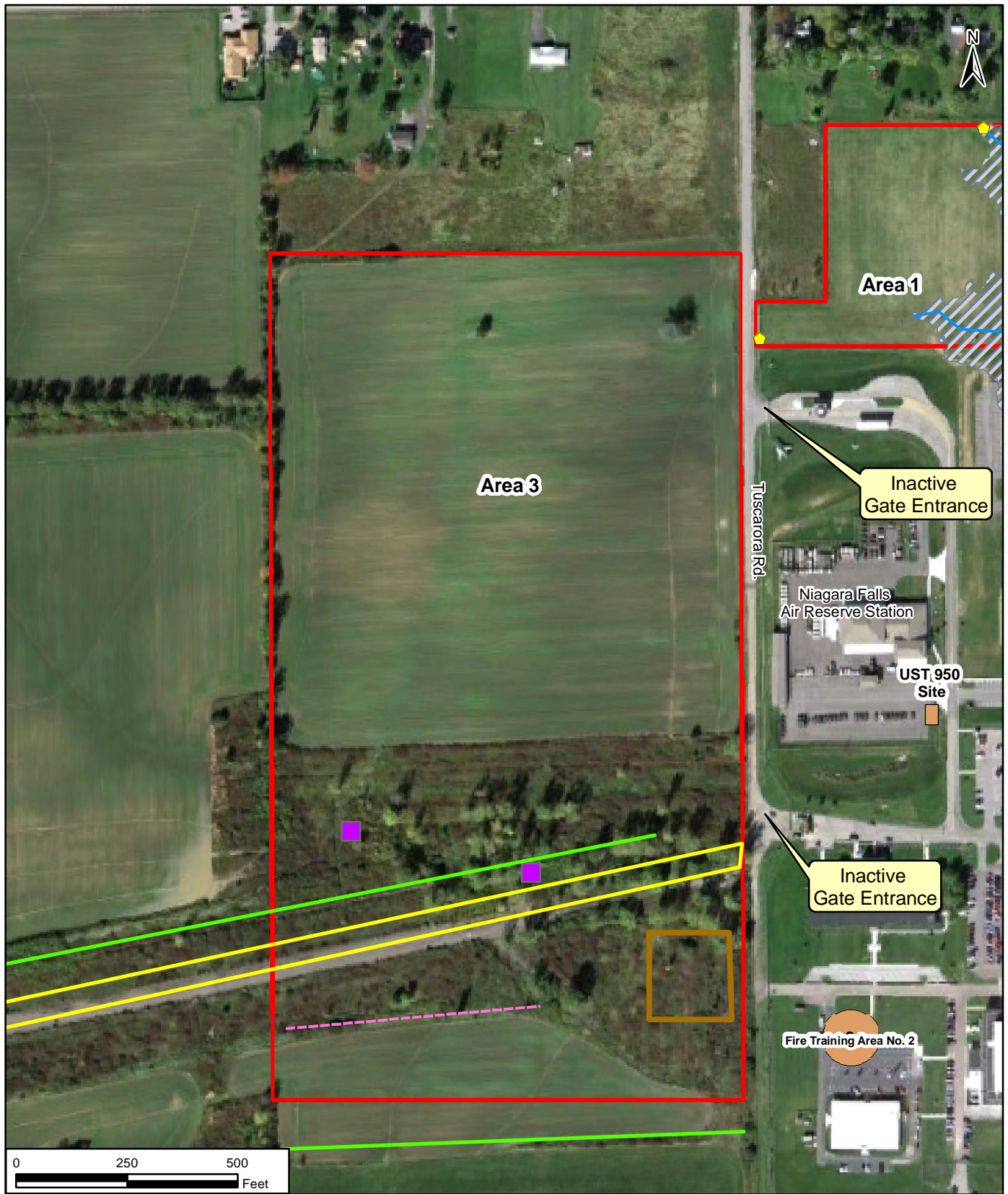
Project Location

Figure 14.1

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14.2. SITE MAP

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LEGEND

- | | |
|--|---|
|  CBP Footprint |  Former Asphalt Roads |
|  Old Structures |  Niagara Falls ARS Installation Restoration Program (IRP) Site |
|  Abandoned Race Track |  Surfacewater Outfall |
|  Asphalt Pad |  100 Year Floodplain |
|  Former Fence | |

Site Map - Area 3

Figure 14.2

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14.3. SITE PHOTOGRAPHS

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**Environmental Site Assessment
Niagara Real Estate Transaction Screening**

Date:
May 14, 2012

Area:
Area 3

Photo By:
D. Postlewaite

Description:
Woody vegetation and shrubs on the eastern boundary towards the middle of Area 3



Date:
May 14, 2012

Area:
Area 3

Photo By:
D. Postlewaite

Description:
View of the wheat field on Area 3 looking northwest from the southeastern corner.



**Environmental Site Assessment
Niagara Real Estate Transaction Screening**

Date:
May 14, 2012

Area:
Area 3

Photo By:
D. Postlewaite

Description:
View from the western boundary center point looking east towards Niagara Falls Air Reserve Station



Date:
May 14, 2012

Area:
Area 3

Photo By:
D. Postlewaite

Description:
Quarter mile drag strip the runs east to west across Area 3



**Environmental Site Assessment
Niagara Real Estate Transaction Screening**

Date:
May 14, 2012

Area:
Area 3

Photo By:
D. Postlewaite

Description:
One of the two small race track structures that were observed on Area 3 during the VSI



Date:
May 14, 2012

Area:
Area 3

Photo By:
D. Postlewaite

Description:
An old metal chain link fence pole in concrete that had been cut at the bottom



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14.4. HISTORICAL RESEARCH DOCUMENTS

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InfoMap
Technologies Incorporated

Environmental FirstSearch™ Report

Target Property:

AREA 3 NIAGARA FALLS CBP STATION

NIAGARA FALLS NY 14304

Job Number: 100-FFX-T28295

PREPARED FOR:

Tetra Tech, Inc.

10306 Eaton Place, Suite 340

Fairfax, VA 22030

04-20-12



Tel: (610) 430-7530

Fax: (610) 430-7535

Environmental FirstSearch Search Summary Report

Target Site: AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	02-01-12	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	02-01-12	0.25	0	0	0	-	-	0	0
CERCLIS	Y	02-27-12	0.50	0	0	0	0	-	0	0
NFRAP	Y	02-27-12	0.25	0	0	0	-	-	0	0
RCRA COR ACT	Y	03-13-12	1.00	0	0	0	0	0	0	0
RCRA TSD	Y	03-13-12	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	03-13-12	0.25	0	0	0	-	-	0	0
Federal Brownfield	Y	02-01-12	0.50	0	0	0	0	-	0	0
ERNS	Y	04-13-12	0.25	0	0	0	-	-	0	0
Tribal Lands	Y	12-15-08	0.25	0	0	0	-	-	0	0
State/Tribal Sites	Y	04-05-12	1.00	0	0	0	0	1	0	1
State Spills 90	Y	01-10-12	0.25	0	0	0	-	-	1	1
State/Tribal SWL	Y	01-11-12	0.50	0	0	0	0	-	0	0
State/Tribal LUST	Y	01-10-12	0.50	0	0	0	1	-	0	1
State/Tribal UST/AST	Y	04-05-12	0.25	0	0	0	-	-	0	0
State/Tribal EC	Y	04-05-12	0.50	0	0	0	0	-	0	0
State/Tribal IC	Y	04-05-12	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	04-05-12	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	04-05-12	0.50	0	0	0	0	-	0	0
Federal IC/EC	Y	03-13-12	0.50	0	0	0	0	-	0	0
- TOTALS -				0	0	0	1	1	1	3

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to InfoMap Technologies, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in InfoMap Technologies's databases. All EPA sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent NPL and state landfill the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although InfoMap Technologies uses its best efforts to research the actual location of each site, InfoMap Technologies does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of InfoMap Technologies's services proceeding are signifying an understanding of InfoMap Technologies's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

***Environmental FirstSearch
Site Information Report***

Request Date: 04-20-12
Requestor Name: Tetra Tech
Standard: ASTM-05

Search Type: COORD
Job Number: 100-FFX-T28295
Filtered Report

Target Site: AREA 3 NIAGARA FALLS CBP STATION
 NIAGARA FALLS NY 14304

Demographics

Sites: 3	Non-Geocoded: 1	Population: NA
Radon: OF THE 109 HOMES TESTED, THE AVG. PCI/L LEVEL WAS 1.3		

Site Location

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>	<u>UTMs</u>
Longitude:	-78.954926	-78:57:18	Easting: 666379.283
Latitude:	43.11766	43:7:4	Northing: 4775695.71
Elevation:	604		Zone: 17

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 0 Mile(s)	Services:																																		
<table border="1"> <thead> <tr> <th>ZIP Code</th> <th>City Name</th> <th>ST</th> <th>Dist/Dir</th> <th>Sel</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	ZIP Code	City Name	ST	Dist/Dir	Sel						<table border="1"> <thead> <tr> <th></th> <th>Requested?</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Fire Insurance Maps</td> <td>No</td> <td></td> </tr> <tr> <td>Aerial Photographs</td> <td>No</td> <td></td> </tr> <tr> <td>Historical Topos</td> <td>No</td> <td></td> </tr> <tr> <td>City Directories</td> <td>No</td> <td></td> </tr> <tr> <td>Title Search/Env Liens</td> <td>No</td> <td></td> </tr> <tr> <td>Municipal Reports</td> <td>No</td> <td></td> </tr> <tr> <td>Online Topos</td> <td>No</td> <td></td> </tr> </tbody> </table>		Requested?	Date	Fire Insurance Maps	No		Aerial Photographs	No		Historical Topos	No		City Directories	No		Title Search/Env Liens	No		Municipal Reports	No		Online Topos	No	
ZIP Code	City Name	ST	Dist/Dir	Sel																															
	Requested?	Date																																	
Fire Insurance Maps	No																																		
Aerial Photographs	No																																		
Historical Topos	No																																		
City Directories	No																																		
Title Search/Env Liens	No																																		
Municipal Reports	No																																		
Online Topos	No																																		

***Environmental FirstSearch
Selected Sites Summary Report***

Target Property: AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

TOTAL: 3 **GEOCODED:** 2 **NON GEOCODED:** 1 **SELECTED:** 3

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
1	LUST	TANK 920D AT 914 TAG 9806241/CLOSED	10031 KIRSCH DR NIAGARA FALLS NY 14304	0.41 SE	- 14	2
2	STATE	ROSS STEEL COMPANY, INC. 932058/HISTORIC	8555 PACKARD RD NIAGARA FALLS NY 14304	0.57 NW	+ 4	4

Environmental FirstSearch
Selected Sites Summary Report

Target Property: AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

TOTAL: 3 **GEOCODED:** 2 **NON GEOCODED:** 1 **SELECTED:** 3

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
	SPILLS	BLG 850 1005680/CLOSED	NIAGARA FALLS RESERVE STA NIAGARA FALLS NY	NON GC	N/A	6

**Environmental FirstSearch
Site Detail Report**

Target Property: AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

LUST

SEARCH ID: 2 **DIST/DIR:** 0.41 SE **ELEVATION:** 590 **MAP ID:** 1

NAME: TANK 920D AT 914 TAG	REV: 1/10/12
ADDRESS: 10031 KIRSCH DR	ID1: 9806241
NIAGARA FALLS NY	ID2: 327392
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NY DEC	

SITE INFORMATION

SPILL DATE:	8/1/1998
DATE REPORTED:	8/18/1998
CLOSED DATE:	9/1/1999
INSP DATE: 8/18/1998	
MATERIAL SPILLED: 2 FUEL OIL	AMOUNT SPILLED: 0 G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 0 G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: NO	DRINKING WATER: NO
SEWER: NO	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL:	TANK FAILURE
WATERBODY AFFECTED:	
SOURCE OF SPILL:	INSTITUTIONAL, EDUCATIONAL, GOV., OTHER
REPORTED BY:	RESPONSIBLE PARTY
REGION:	
UST TRUST?	NO

SPILL INVESTIGATOR:	SACALAND
SPILL CONTACT:	
TELEPHONE:	

SPILLER:	914 AIRLIFT WING AFRES
	JAMES NAGELOUT
ADDRESS:	2405 FRANKLIN DRIVE
	NIAGARA FALLS, NY 14304-
TELEPHONE:	

REPORTED BY:	RESPONSIBLE PARTY
---------------------	-------------------

LAST DEC UPDATE:	9/17/1999
CLEAN UP MEET STANDARDS?	NO
PENALTY RECOMMENDED?	NO

CALLER REMARKS:	CONTAMINATION FOUND DURING TANK REMOVAL
------------------------	---

DEC REMARKS:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAC 08/18/98: SAC SITE INSPECTION, MET BILL NIVER AND ELLEN MARIEN OF AFRES, EXCAVATION OPEN, NO ODORS OR VISIBLE PRODUCT OBSERVED IN THE EXCAVATION, RECEIVED RESULTS FROM EXCAVATION, STARS GUIDANCE VALUES EXCEEDED ON A LOW LEVEL, REMOVED SOIL STAGED ON PLASTIC, SAMPLING INDICATED THAT STARS GUIDANCE VALUES WERE EXCEEDED. 05/19/99: SAC TELECON ELLEN MARIEN, SAC REQUESTED STATUS OF THE SOIL THAT WAS STAGED ON SITE, MS. MARIEN WILL DISCUSS WITH 107TH AIR NATIONAL GUARD. 05/20/99: SAC RECEIVED DISPOSAL RECEIPTS FOR THE CONTAMINATED SOIL. 09/01/99: SAC DRAFTED INACTIVE LETTER.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

Target Property: AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

LUST

SEARCH ID: 2	DIST/DIR: 0.41 SE	ELEVATION: 590	MAP ID: 1
---------------------	--------------------------	-----------------------	------------------

NAME: TANK 920D AT 914 TAG
ADDRESS: 10031 KIRSCH DR
NIAGARA FALLS NY
NIAGARA

REV: 1/10/12
ID1: 9806241
ID2: 327392
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NY DEC

Environmental FirstSearch Site Detail Report

Target Property: AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

STATE

SEARCH ID: 1 **DIST/DIR:** 0.57 NW **ELEVATION:** 608 **MAP ID:** 2

<p>NAME: ROSS STEEL COMPANY, INC. ADDRESS: 8555 PACKARD RD NIAGARA FALLS NY 14304 NIAGARA</p> <p>CONTACT: SOURCE:</p>	<p>REV: 05/20/99 ID1: 932058 ID2: NYD012964359 STATUS: HISTORIC PHONE:</p>
---	---

CLASS CODE: D1 **REGION:** 9 **ESTIMATED SIZE:** 0.5 ACRES

SITE TYPE:
OPEN DUMP: X **STRUCTURE:**
LAGOON: **LANDFILL:**
POND:

SITE OWNER/OPERATOR INFORMATION:

CURRENT OWNER(S) NAME: Niagara Mohawk Power Corp.
CURRENT OWNER(S) ADDRESS: 500 Erie Blvd. West
Syracuse NY 14305

SITE OWNER/OPERATOR INFORMATION:

CURRENT OWNER(S) NAME: NYSDOT
CURRENT OWNER(S) ADDRESS: State Office Building Campus
Albany NY

OPERATOR(S) DURING DISPOSAL: Ross Steel Company
OPERATOR(S) ADDRESS: 4237 Pine Avenue
Niagara Falls NY

HAZARDOUS WASTE DISPOSAL PERIOD: Prio.1960 **TO:** Unknown

SITE DESCRIPTION:

There were two apparent landfill sites on Pine Avenue used by Ross Steel. This site is the site through which the Power Authority Conduits pass. Large excavations were made in order to place these. Thus, the entire site is now either excavated or covered and seeded. A Phase I investigation for this site was completed in 1989 and concluded that no hazardous waste is present on the site.

CONFIRMED HAZARDOUS WASTE DISPOSAL: **QUANTITY:**

ANALYTICAL DATA AVAILABLE FOR:

<p>GROUNDWATER: AIR: SOIL:</p>	<p>SURFACE WATER: SEDIMENT:</p>
---	---

APPLICABLE STANDARDS EXCEEDED FOR:

<p>GROUNDWATER: AIR:</p>	<p>SURFACE WATER: DRINKING WATER:</p>
--	---

GEOTECHNICAL INFORMATION:

SOIL/ROCK TYPE: Unknown

- Continued on next page -

Environmental FirstSearch Site Detail Report

Target Property: AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 3 **DIST/DIR:** NON GC **ELEVATION:** **MAP ID:**

NAME: BLG 850	REV: 4/5/12
ADDRESS: NIAGARA FALLS RESERVE STA	ID1: 1005680
NIAGARA FALLS NY	ID2: 439005
NIAGARA	STATUS: CLOSED
CONTACT:	PHONE:
SOURCE: NYSDEC	

SITE INFORMATION

SPILL DATE:	8/21/2010
DATE REPORTED:	8/21/2010
CLOSED DATE:	9/21/2010
INSP DATE:	
MATERIAL SPILLED: OTHER - AQUEOUS FILM FORMING FOAM 3%	AMOUNT SPILLED: 48000 G
MATERIAL CLASS: PETROLEUM	AMOUNT RECOVERED: 47950 G

RESOURCE AFFECTED

SOIL: YES	AIR: NO
INDOOR AIR: NO	GROUNDWATER: NO
SURFACE WATER: YES	DRINKING WATER: NO
SEWER: YES	IMPERVIOUS SURFACE: NO
SUBWAY: NO	UNDERGROUND UTILITIES: NO

CAUSE OF SPILL:	EQUIPMENT FAILURE
WATERBODY AFFECTED:	CAYUGA CREEK
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	FIRE DEPARTMENT
REGION:	
UST TRUST?	NO

SPILL INVESTIGATOR:	RJJONAK
SPILL CONTACT:	ELLEN MARIEN
TELEPHONE:	(716) 534-0091

SPILLER: AIR RESERVE STA

ADDRESS: , NY

TELEPHONE:

REPORTED BY: FIRE DEPARTMENT

LAST DEC UPDATE:	9/21/2010
CLEAN UP MEET STANDARDS?	YES
PENALTY RECOMMENDED?	NO

CALLER REMARKS: 48000 GALLONS IS IN THE TRIBUTARY TO THE CREEK; STORM DRAIN; CAYUGA CREEK; AND SANITARY SEWER SYSTEM; CLEAN UP IS IN PROGRESS

DEC REMARKS:

8/21/2010: RJJ AT SITE AT 2300...MEET WITH ELLEN MARIEN and LT. COMMANDER MCCOY FROM THE NIAGARA FALLS RESERVE AIR FORCE BASE STATION...IN BUILDING 850(A LARGE AIRPLANE HANGAR),THE FIRE SUPPRESSION SYSTEM ACCIDENTLY WENT OFF ALLOWING 48,000 GALS. OF A TRIPLE F FIRE SUPPRESSION FOAM TO DISCHARGE...THIS RESULTED IN 2-3 DEPTH OF FOAM IN THE BUILDING...A SMALL AMOUNT OF THIS FOAM MIGRATED OUTSIDE,INTO A TRIBUTARY CREEK,WHICH THEN RUNS INTO CAYUGA CREEK...WE INSPECTED THE CREEKS AND FOUND NO EVIDENCE OF ANY FISH KILL...IT APPEARS THAT THE HEAVY RAINS HAVE FLUSHED/DILUTED THIS FOAM DOWNSTREAM..THE AIR FORCE BASE HAS HIRED GREEN ENVIRONMENTAL,WITH ASSISTANCE FROM THEIR OWN FIRE DEPT.,TO WATER DOWN THIS FOAM,THEN VAC UP THE PRODUCT INTO THEIR VAC-TRUCKS...THIS IS EXCEPTED TO TAKE 3-4 HOURS...I WILL RETURN EARLY NEXT MORNING TO INSPECT BOTH,THE CREEKS AND THE CLEAN UP...ALSO,THEY ARE INVESTIGATING WHY THIS DISCHARGED(IT MIGHT HAVE BEEN A POWER SURGE FROM A NEARBY DOWNED

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

SPILLS

SEARCH ID: 3

DIST/DIR: NON GC

ELEVATION:

MAP ID:

NAME: BLG 850
ADDRESS: NIAGARA FALLS RESERVE STA
NIAGARA FALLS NY
NIAGARA

REV: 4/5/12
ID1: 1005680
ID2: 439005
STATUS: CLOSED
PHONE:

CONTACT:
SOURCE: NYSDEC

LINE) AND WHY SOME OF THE FOAM MIGRATED INTO THEIR STORM WATER SYSTEM,NOT INTO THEIR SANITARY SYSTEM,AS IT SHOULD HAVE...I ALSO NOTIFIED GREG SUTTON AND NCDOH...AND I INFORMED DLE LT. SCOTT,WHO WILL SEND CENTRAL OFFICE A SIGNIFICANT INCIDENT REPORT . 8/22/2010: RJJ AT SITE AT 1000...GREEN ENVIRONMENTAL/FIRE DEPT. HAVE COMPLETED THEIR CLEAN UP IN THE BUILDING...THEY HAVE COLLECTED THE FOAM/WATER INTO VAC TRUCKS,WHICH THEY WILL DISCHARGE INTO THE NIAGARA CO. SEWER SYSTEM,WITH THEIR APPROVAL...ALSO,THERE IS NO EVIDENCE OF ANY FOAM IN THE CREEKS,IT HAS ALL BEEN FLUSHED THROUGH...AND THERE IS NO FISH KILL OF ANY KIND...ELLEN MARIEN WILL SEND ME THEIR REPORT. 8/23/2010: RJJ INFORMED DOW OF THIS EVENT AND FAXED ELLEN MARIEN A COPY OF THIS SPILL REPORT,PER HER REQUEST...SHE ALSO SAID THAT THEIR INVESTIGATION IS STILL ON GOING. 9/20/2010: RECEIVED THE SPILL INCIDENT REPORT FROM THE DEPT. OF THE AIR FORCE,WHICH INCLUDES THE DISPOSAL RECEIPTS FOR THE 4000 GAL OF AFFF,WASH WATER and DEFOAMER,DISPOSED AT THE NIAGARA CO. SEWER DISTRICT 1,WHICH WAS USED IN THE CLEAN UP...THE REPORT ALSO EXPLAINS ALL THEIR ACTIVITIES AND THE RESULTS OF THEIR INVESTIGATION OF THIS INCIDENT...WHEN THE AFFF SYSTEM ACTIVATED ON 8/21/2010,IT IS SUSPECTED THAT THE DOWNSTREAM VALVE ON THE STORM SEWER DID NOT FUNCTION PROPERLY,ALLOWING FOAM TO ESCAPE TO THE CREEK...THE PROBLEMATIC VALVES WILL BE REPAIRED TO PREVENT FUTURE DISCHARGES TO THE CREEK...THE SPILL HAS BEEN CLEANED UP and PROPERLY DISPOSED OF...NO FURTHER ACTION NEEDED...SPILL CLOSED OUT.

THERE MAYBE MORE DEC REMARKS AVAILABLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION

Environmental FirstSearch Descriptions

NPL: EPA NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.

A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

FINAL - Currently on the Final NPL

PROPOSED - Proposed for NPL

NPL DELISTED: EPA NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. 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 - Deleted from the Final NPL

CERCLIS: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

PART OF NPL- Site is part of NPL site

DELETED - Deleted from the Final NPL

FINAL - Currently on the Final NPL

NOT PROPOSED - Not on the NPL

NOT VALID - Not Valid Site or Incident

PROPOSED - Proposed for NPL

REMOVED - Removed from Proposed NPL

SCAN PLAN - Pre-proposal Site

WITHDRAWN - Withdrawn

NFRAP: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). 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.

NFRAP – No Further Remedial Action Plan

P - Site is part of NPL site

D - Deleted from the Final NPL

F - Currently on the Final NPL

N - Not on the NPL

O - Not Valid Site or Incident

P - Proposed for NPL

R - Removed from Proposed NPL

S - Pre-proposal Site

W – Withdrawn

RCRA COR ACT: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: EPA/MA DEP/CT DEP RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that generate or transport hazardous waste or meet other RCRA requirements.

LGN - Large Quantity Generators

SGN - Small Quantity Generators

VGN – Conditionally Exempt Generator.

Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

CONNECTICUT HAZARDOUS WASTE MANIFEST – Database of all shipments of hazardous waste within, into or from Connecticut. The data includes date of shipment, transporter and TSD info, and material shipped and quantity. This data is appended to the details of existing generator records.

MASSACHUSETTES HAZARDOUS WASTE GENERATOR – database of generators that are regulated under the MA DEP.

VQN-MA = generates less than 220 pounds or 27 gallons per month of hazardous waste or waste oil.

SQN-MA = generates 220 to 2,200 pounds or 27 to 270 gallons per month of waste oil.

LQG-MA = generates greater than 2,200 lbs of hazardous waste or waste oil per month.

ERNS: EPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: DOI/BIA INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.

BUREAU OF INDIAN AFFIARS CONTACT - Regional contact information for the Bureau of Indian Affairs offices.

State/Tribal Sites: NYSDEC ENVIRONMENTAL SITE REMEDIATION DATABASE - database of sites being remediated under a DER remedial program/s (i.e. State Superfund, Brownfield Cleanup, etc.). This database also includes the Registry of Institutional and Engineering Controls in New York State.

REGISTRY OF INACTIVE HAZARDOUSE WASTE DISPOSAL SITES –

HAZARDOUS SUBSTANCE SITE STUDY - (STATIC) This study was done in 1998 and was prepared by the NY DEC, Hazardous Substances Waste Disposal Task Force In consultation with N.Y. Department of Health

State Spills 90: NYSDEC SPILL INCIDENTS DATABASE - database of chemical and petroleum spill incidents that occurred since 1990.

State/Tribal SWL: *NYSDEC* ACTIVE FACILITIES REGISTRY - database of solid waste landfill facilities. The data includes location, waste type, owner and permit number.

State/Tribal LUST: *NYSDEC* SPILL INCIDENTS DATABASE SUBSET - database of chemical and petroleum spill incidents where the cause was a tank test failure or tank failure

State/Tribal UST/AST: *NYSDEC* DATABASE OF PETROLEUM BULK STORAGE, MAJOR OIL STORAGE (MOSF), AND CHEMICAL BULK STORAGE (CBS) FACILITIES - database of petroleum or chemical storage facilities. The data includes status, tank type, capacity and contents. The data also includes Nassau County Department of Health's PBS Tanks
Nassau County Fire Marshall's PBS Tanks
Suffolk County Department of Health Services PBS Tanks
Cortland County Health Department PBS Tanks
Rockland County Department of Health PBS Tanks
Westchester County Department of Health PBS Tanks.

State/Tribal EC: *NYSDEC* REGISTRY OF INSTITUTIONAL AND ENGINEERING CONTROLS Subset - database of sites from the Registry that have Engineering Controls.

State/Tribal IC: *NYSDEC* REGISTRY OF INSTITUTIONAL AND ENGINEERING CONTROLS Subset - database of sites from the Registry that have Institutional Controls.

State/Tribal VCP: *NYSDEC* VOLUNTARY CLEANUP PROGRAM - static database of voluntary clean up sites. The Brownfield Cleanup program has replaced the Voluntary Cleanup Program.

State/Tribal Brownfields: *NYSDEC* BROWNFIELD - database of old brownfield programs, brownfield cleanup programs, environmental restoration projects.

RADON: *NTIS* NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

Environmental FirstSearch Database Sources

NPL: *EPA* Environmental Protection Agency

Updated quarterly

NPL DELISTED: *EPA* Environmental Protection Agency

Updated quarterly

CERCLIS: *EPA* Environmental Protection Agency

Updated quarterly

NFRAP: *EPA* Environmental Protection Agency.

Updated quarterly

RCRA COR ACT: *EPA* Environmental Protection Agency.

Updated quarterly

RCRA TSD: *EPA* Environmental Protection Agency.

Updated quarterly

RCRA GEN: *EPA/MA DEP/CT DEP* Environmental Protection Agency, Massachusetts Department of Environmental Protection, Connecticut Department of Environmental Protection

Updated quarterly

ERNS: *EPA/NRC* Environmental Protection Agency

Updated annually

Tribal Lands: *DOI/BIA* United States Department of the Interior

Updated annually

State/Tribal Sites: *NYSDEC* New York Department of Environmental Remediation
New York State Department of Environmental Conservation

Updated quarterly

State Spills 90: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal SWL: *NYSDEC* New York State Department of Environmental Conservation

Updated annually

State/Tribal LUST: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal UST/AST: *NYSDEC* New York State Department of Environmental Conservation
Nassau County Department of Health
Nassau County Fire Marshal
Cortland County Health Department
Rockland County Department of Health

Updated quarterly

State/Tribal EC: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal IC: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal VCP: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

State/Tribal Brownfields: *NYSDEC* New York State Department of Environmental Conservation

Updated quarterly

RADON: *NTIS* Environmental Protection Agency, National Technical Information Services

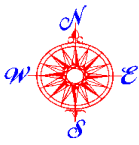
Updated periodically

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

Target Property: AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY 14304

JOB: 100-FFX-T28295

Street Name	Dist/Dir	Street Name	Dist/Dir
Lockport Rd	0.24 NW		
Tuscarora Rd	0.12 NE		

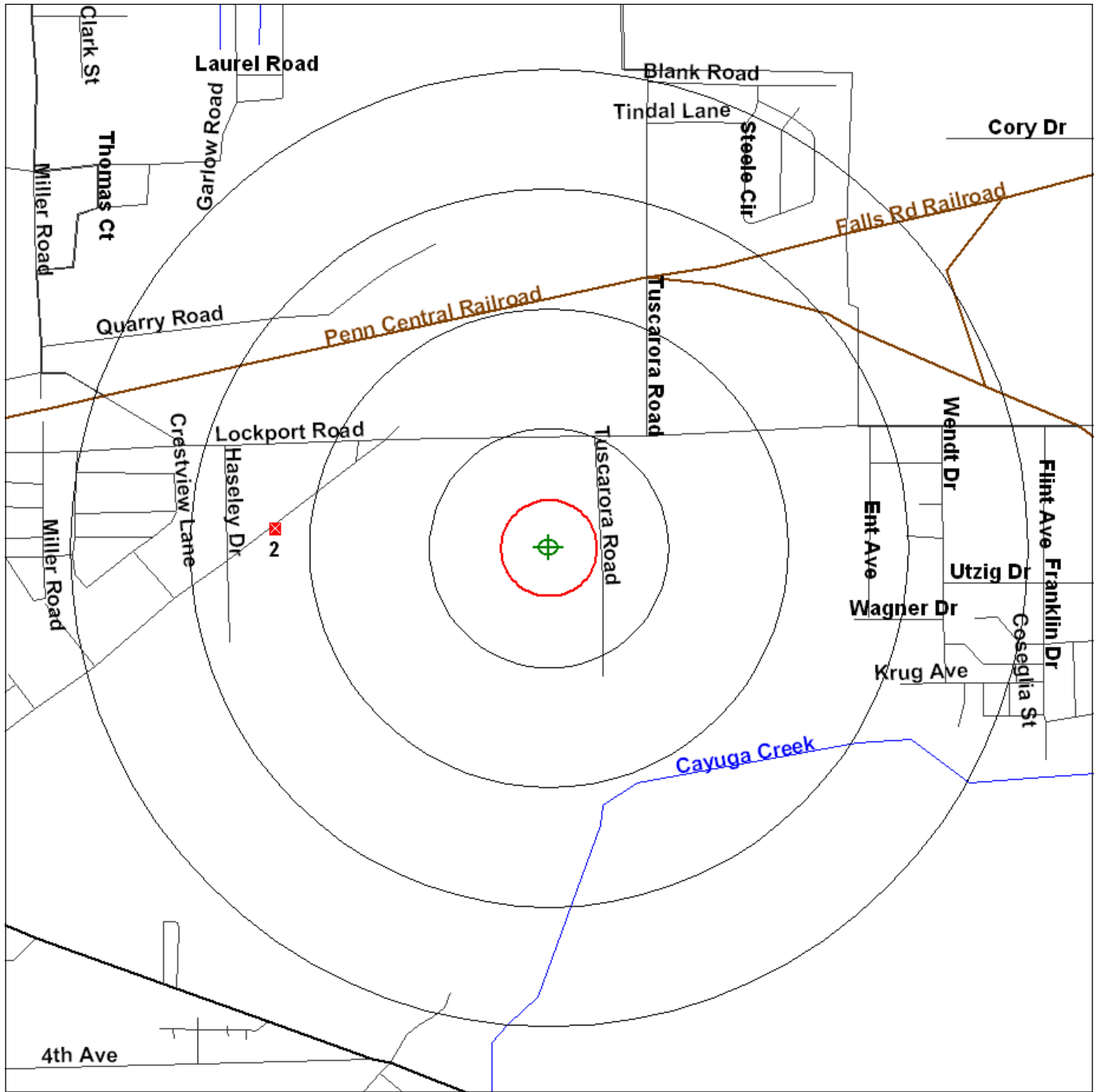


Environmental FirstSearch

1 Mile Radius
ASTM Map: NPL, RCRCOR, STATE Sites



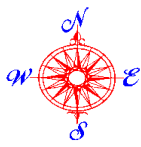
AREA 3 NIAGARA FALLS CBP STATION , NIAGARA FALLS NY 143



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 43.11766 Longitude: -78.954926)
- Identified Site, Multiple Sites, Receptor
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
- Triballand.....
- Railroads
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

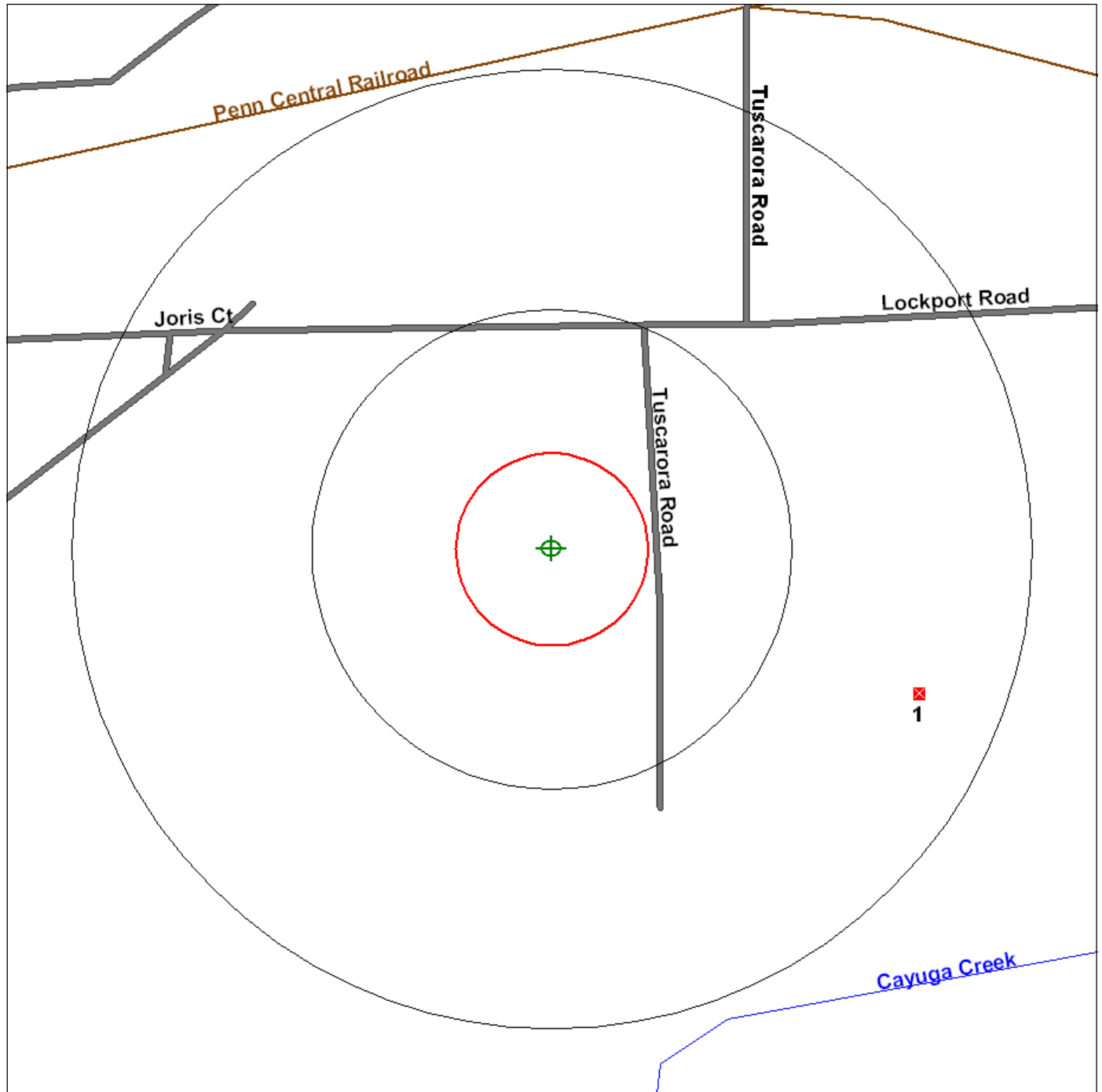




Environmental FirstSearch
 .5 Mile Radius
 ASTM Map: CERCLIS, RCRATSD, LUST, SWL

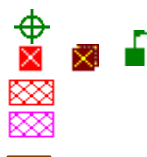


AREA 3 NIAGARA FALLS CBP STATION , NIAGARA FALLS NY 143



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 43.11766 Longitude: -78.954926)
- Identified Site, Multiple Sites, Receptor
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
- Triballand.....
- Railroads
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius





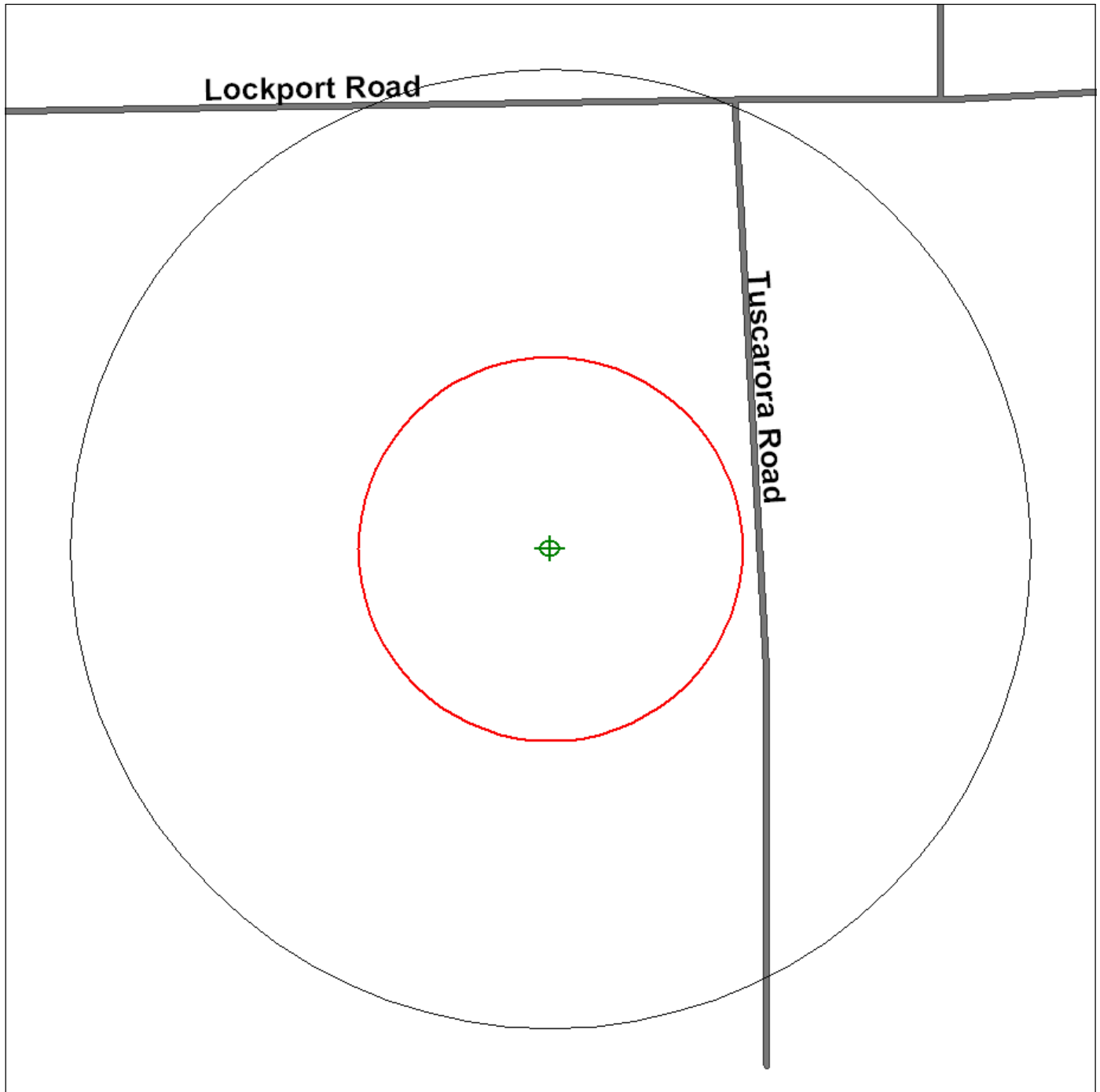
Environmental FirstSearch

.25 Mile Radius

ASTM Map: RC RAGEN, ERNS, UST, FED IC/EC, METH LABS



AREA 3 NIAGARA FALLS CBP STATION , NIAGARA FALLS NY 143



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 43.11766 Longitude: -78.954926)
- Identified Site, Multiple Sites, Receptor
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
- Triballand.....
- Railroads



Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

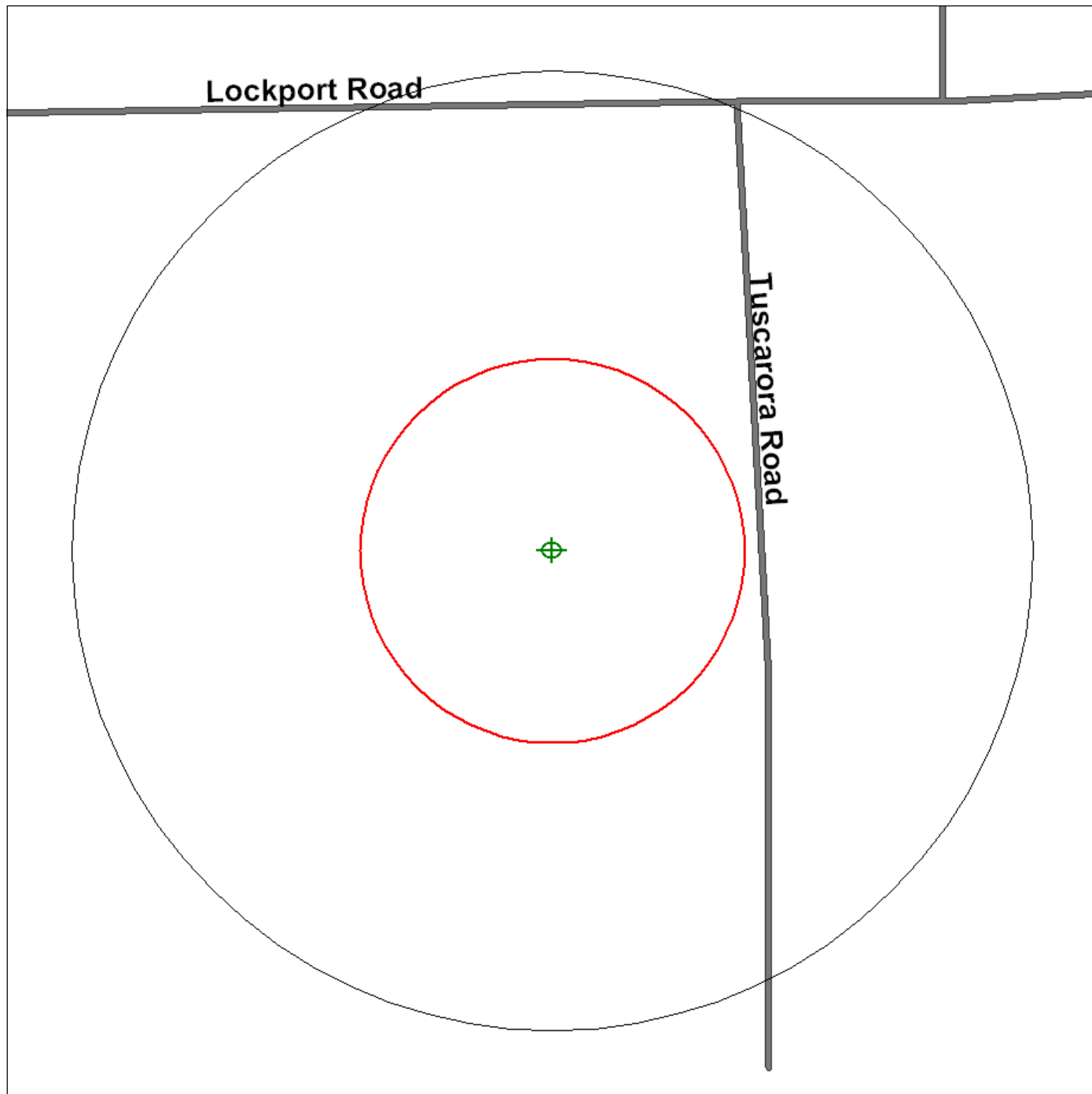


Environmental FirstSearch

.25 Mile Radius
Non-ASTM Map: No Sites Found



AREA 3 NIAGARA FALLS CBP STATION , NIAGARA FALLS NY 143



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 43.11766 Longitude: -78.954926)
 - Identified Site, Multiple Sites, Receptor
 - NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
Triballand.....
 - National Historic Sites and Landmark Sites
 - Railroads
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius





Historical Aerial Photo
2009
AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304

Target Site: 43.11766 -78.954926; Job Number: 100-FFX-T28295



1 inch equals 750 feet



Historical Aerial Photo
1995

**AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.11766 -78.954926; Job Number: 100-FFX-T28295



1 inch equals 750 feet



Historical Aerial Photo
1985

**AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.11766 -78.954926; Job Number: 100-FFX-T28295



1 inch equals 750 feet



Historical Aerial Photo
1972

**AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.11766 -78.954926; Job Number: 100-FFX-T28295



1 inch equals 750 feet



Historical Aerial Photo
1963

**AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.11766 -78.954926; Job Number: 100-FFX-T28295



1 inch equals 750 feet



Historical Aerial Photo
1938

**AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS, NY 14304**

Target Site: 43.11766 -78.954926; Job Number: 100-FFX-T28295



1 inch equals 750 feet



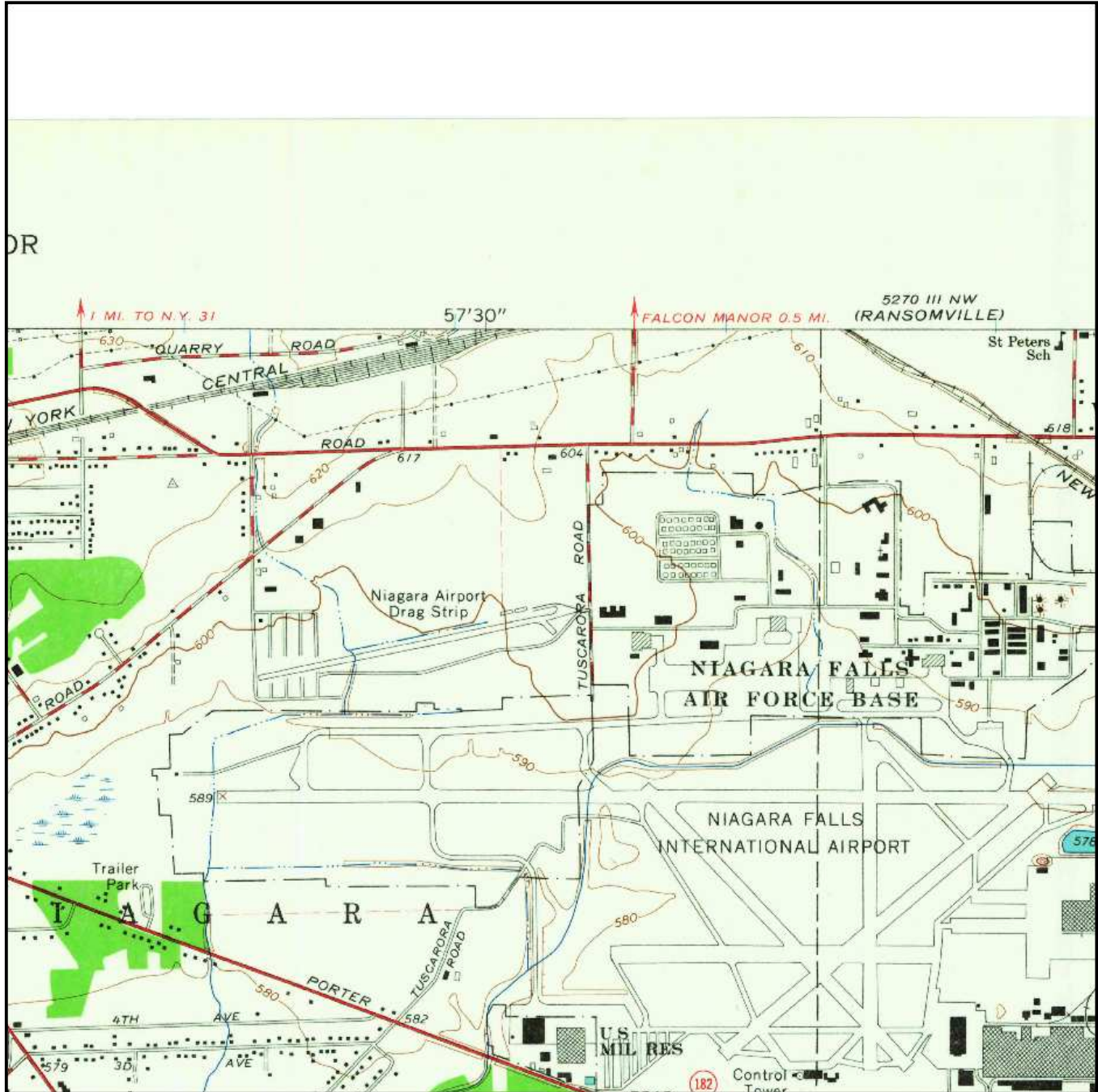
Environmental FirstSearch

Historical Topographic Map

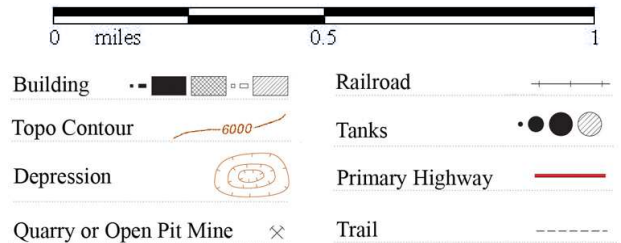


Quad Name: Tonawanda West, NY
Year: 1965 Original Map Scale: 1: 24000

AREA 3 NIAGARA FALLS CBP STATION, NIAGARA FALLS, NY



Job Number: 100-FFX-T28295
Target Site: -78.954926, 43.117660





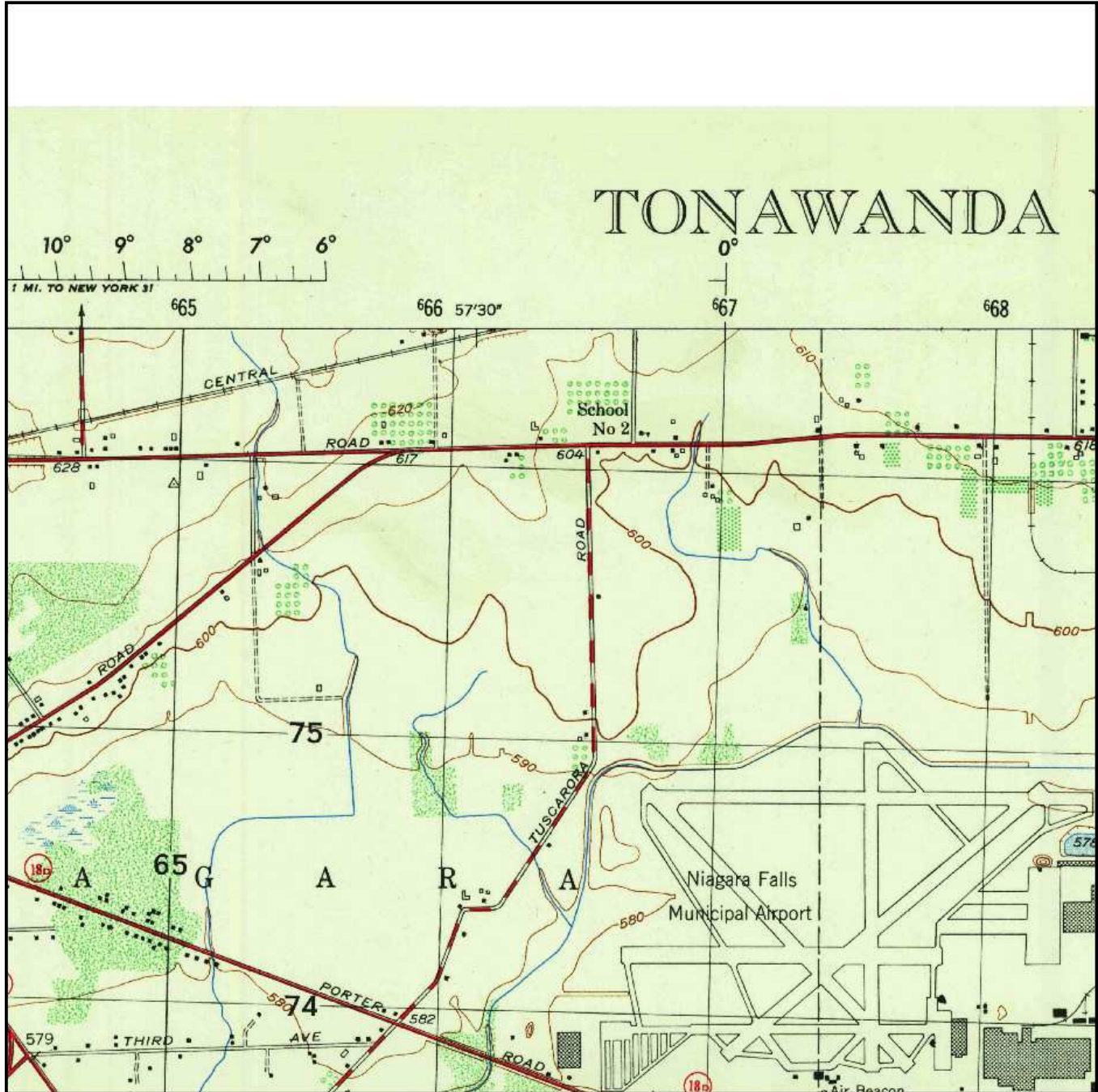
Environmental FirstSearch

Historical Topographic Map

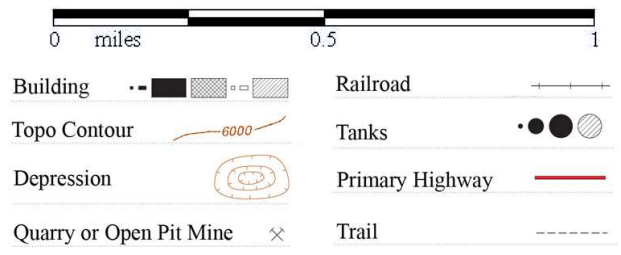


Quad Name: Tonawanda West, NY
Year: 1951 Original Map Scale: 1: 25000

AREA 3 NIAGARA FALLS CBP STATION, NIAGARA FALLS, NY



Job Number: 100-FFX-T28295
Target Site: -78.954926, 43.117660





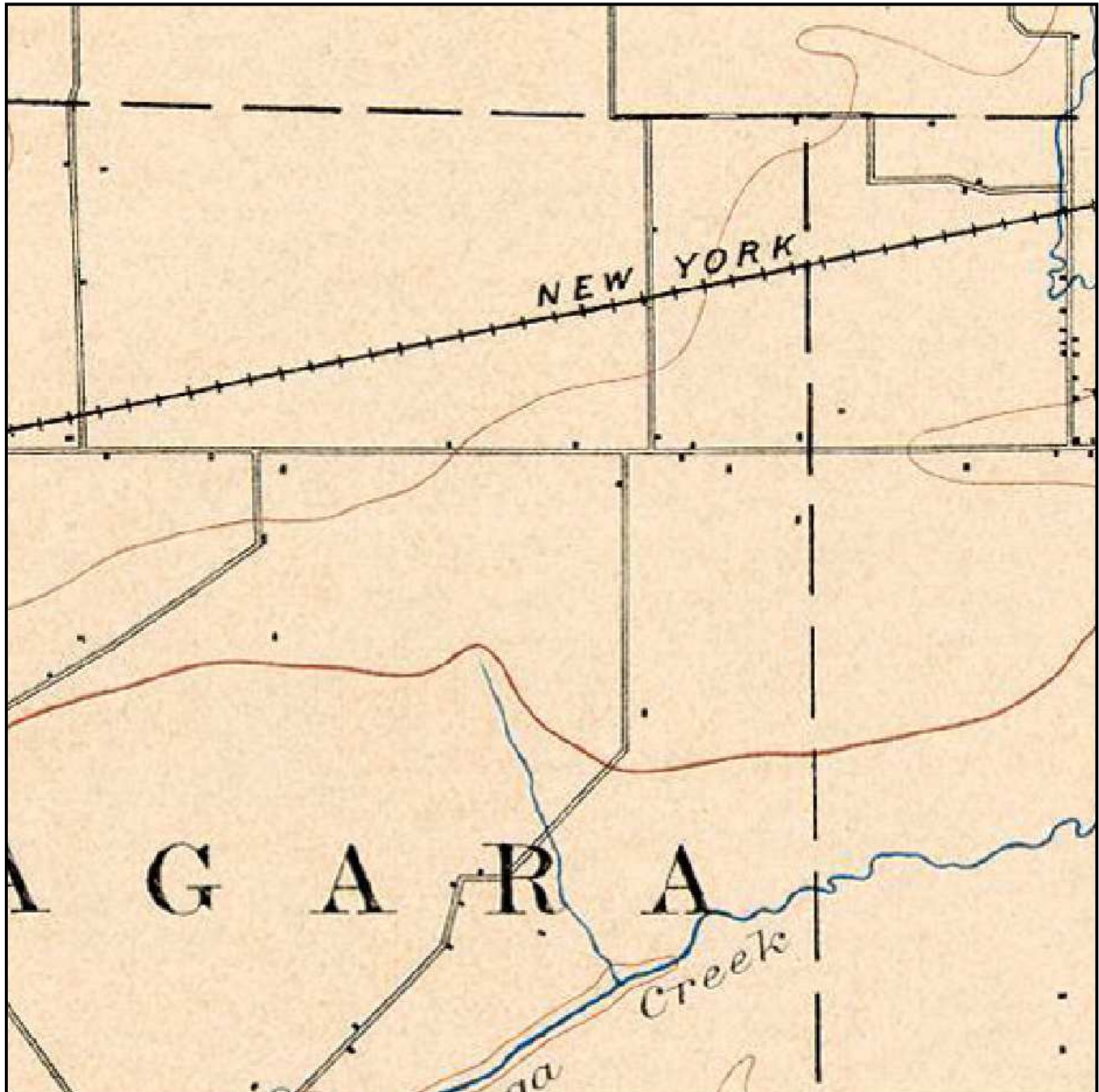
Environmental FirstSearch

Historical Topographic Map

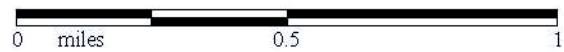


Quad Name: Tonawanda, NY
Year: 1900 Original Map Scale: 1: 62500

AREA 3 NIAGARA FALLS CBP STATION, NIAGARA FALLS, NY



Job Number: 100-FFX-T28295
Target Site: -78.954926, 43.117660



Building	--■□	Railroad	—+—
Topo Contour	—6000—	Tanks	●●○
Depression	⊖	Primary Highway	—
Quarry or Open Pit Mine	×	Trail	- - - -



HISTORICAL FIRE INSURANCE MAPS
NO MAPS AVAILABLE

09-28-2011
100-FFX-T28295
AREA 3 NIAGARA FALLS CBP STATION
NIAGARA FALLS NY, 14304

A search of the Library of Congress database of historical fire insurance map availability confirmed that there are NO MAPS AVAILABLE for the Subject Location as shown above.

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FirstSearch Technology Corporation

Environmental Chain of Title Report

TARGET PROPERTY:

Area 3 Niagara Falls CBP Station

Niagara Falls, NY 14304

Job Number: 100-FFX-T28295

FirstSearch #: 280794

Date 10/26/11



Tel: (781) 551-0470

Fax: (781) 551-0471

SOURCES & LIMITATIONS

FirstSearch Technology Corporation

This report has been produced from a limited search of the public land records and/or real property deed records of the county and state as defined in the legal description below for a 50-year period up through the indicated date as shown on this report. This limited search includes only the recorded deeds and most easements and surface leases affecting the ownership history of the subject property. This report is being provided for use only as a limited part of an overall Phase I Environmental Site Assessment as performed by a qualified Environmental Engineer/Consultant as specified in the ASTM Standard E 1527-05, AAI, and as specified in the Comprehensive Environmental Response, Compensation and Liabilities Act of 1980, as amended, and may not be relied upon for any other purpose.

This report is not to be considered an Abstract, a Title Commitment, Title Opinion, Title Guaranty, or a representation of the legal status of the property. The information presented is simply a report of instruments filed of record pertaining to the above property and was obtained from the county public records. No guaranty as to the integrity or correctness of said records is implied. In the process of compiling the information presented in this report, the public records were accessed primarily by the name(s) shown in the vesting instrument only and although reasonable care was taken to provide accuracy, this report and provider does not claim responsibility for instruments filed under any variation of name(s) and/or legal description.

Although great care has been taken by FirstSearch in compiling and verifying the information contained in this report to insure that it is accurate, FirstSearch disclaims any and all liability for any errors, omissions, or inaccuracies in such information and data.

FirstSearch Technology Corporation

Environmental Chain of Title Report

LEGAL DESCRIPTION: All that certain plot, piece and parcel of land, situate, lying and being in the city of Niagara Falls, County of Niagara, and State of NY, described in the County of Niagara land records as parcel 146.06-1-2

SUBJECT PARCEL: All that certain plot, piece and parcel of land, situate, lying and being in the city of Niagara Falls, County of Niagara, and State of NY, described in the County of Niagara land records as parcel 146.06-1-2

FirstSearch Technology Corporation

Environmental Chain of Title Report

TABLE SUMMARY

DATE	DOCUMENT TYPE	GRANTOR (Seller/Lessor)	GRANTEE (Buyer/Lessee)	PARCEL or LOT #	DOCUMENT NUMBER
4/1/2011	Deed	Harold J. Smith, as executor of the last will and testament of Felicia S. Smith	Gordon F. Smith and Harold J. Smith, Trustees of the Article "3" Trust of Felicia S. Smith f/b/o Gordon E. Smith	146.06-1-2	Document #: 2011-05835
8/24/2007	Deed	Gordon F. Smith	Felicia S. Smith	146.06-1-2	Document #: 3411/28
1/21/2000	Deed	Anita S. Grossman, Mark D. Grossman, Eric B. Grossman, Sheryl A. Grossman, Lisa B. Soicher and Claudia L. Chaffe	Carolyn J. Grossman	146.06-1-2	Document #: 2992/208
12/10/1998	Deed	Carolyn J. Grossman, executrix of the estate of Stanley Grossman	Anita S. Grossman, Mark D. Grossman, Eric B. Grossman, Sheryl A. Grossman, Lisa B. Soicher and Claudia L. Chaffe	146.06-1-2	Document #: 2885/46
8/2/1979	Deed	Norris Hilts, Ardon Bradt and Wray Hilts	Donald H. Smith, Gordon F. Smith, Stanley Grossman and Morree Levine	146.06-1-2	Document #: 1667/160
9/26/1957	Deed	Phillip Fahrwald, Emma Fahrwald, Harvey Haseley, Minnie Korening, Sigmund Pfuhl, John Pfuhl, Martha Haseley, Louis Pfuhl Verone Haseley, Max Pfuhl, Lizzie Pfuhl and Eleanor Pfuhl Goeseke	Norris Hilts, Ardon Bradt and Wray Hilts	146.06-1-2	Document #: 1272/586
No Environmental Liens were found during the course of this search					
No AUL's were found during the course of this search					
Easement recorded at DBV 3257, PG 935.					
Easement recorded at DBV 3166, PG 35.					
Easement recorded at DBV 2990, PG 193.					

FirstSearch Technology Corporation

Environmental Chain of Title Report

TITLE RESEARCH NOTES:

ASTM Notes: ASTM E 1527-05, Section 8.3 on Historical Use Information requires a review of “*Reasonably Ascertainable standard historical sources.*”

“Reasonably Ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.”

This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful.

AAI Notes: The Environmental Protection Agency published a final rule setting federal standards for the conduct of all appropriate inquiries (AAI). The final rule establishes specific regulatory requirements for conducting all appropriate inquiries into *the previous ownership*, uses, and environmental conditions of a property for the purposes of qualifying for certain landowner liability protections under CERCLA.

After November 1, 2006, parties must comply with the requirements of All Appropriate Inquiries Final Rule, to satisfy the statutory requirements for conducting all appropriate inquiries. All appropriate inquiries must be conducted to obtain protection from potential liability under CERCLA as an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser.

Inquiries conducted by or for the prospective landowner or grantee:

- *environmental liens*
- *easements*
- *restrictions*
- *activity and use limitations*

FirstSearch Technology Corporation

ENVIRONMENTAL CHAIN OF TITLE SEARCH GLOSSARY

There are certain terms used in Chain of Title searches, which may require clarification. This glossary is designed to provide definitions for some of the most common terms.

1. ENVIRONMENTAL LIEN:	The Environmental Lien is a record of a document/instrument filed by the City, County, State or Federal Government that prevents the conveyance of a property because of severe environmental problems existing on the premises.
2. BREAK IN CHAIN:	<p>There may appear to be a break in the chain of title as indicated when the sequential tracing of ownership fails. An example of a break would be: <i>Samson to James. . .James to Watson. . .Black to White</i>. The missing link is from Watson to Black. There are several possible reasons for this occurrence.</p> <ul style="list-style-type: none">• Due to the size or other physical characteristics of the property, there could be multiple owners at any time when tracing the history of the ownership of the property.• There could be an “easement title” over some portion of the property, allowing for use of that portion for a specific purpose.• There could be a “multi-percentage interest” in the property, with concurrent multiple owners making up 100% of the fee title. Then, a percentage owner deeds out his particular interest or a percentage of this interest to one or more parties. This causes a perceived break in the chain.
3. EASEMENT:	An easement is the right to enter and use another person’s property: a non-possessor right to use another person’s real property. Traditionally easements are granted to utility companies and other service organizations or as a right of access to another property.
4. MULTIPLE OWNERS:	<p>When “others” or “et al” appears on the report in the owner category, it indicates multiple ownership of a single parcel, with too many names to record in summary. It is frequently used to denote more than a single owner. If the owners are a married couple, both names may appear on the report or may be denoted by “et ux”.</p> <p>The term “owners’ is usually used to indicate owners of multiple parcels, all recorded under a document that covers the multiple parcels.</p>
5. MULTIPLE PARCELS:	Some properties are created by combining several adjoining parcels into one large parcel. When this occurs; there might be several different owners until the time of unification of the property. Sometimes the ownership appears to be cloudy until each owner conveys his/her interest to the single owner of the new larger parcel.
6. INSTITUTIONAL CONTROLS:	Institutional controls are a form of “deed restriction” placed on a property by a governing authority to reduce exposure to contaminants. A common deed restriction might be to prohibit residential or school use on a property.



NIAGARA COUNTY - STATE OF NEW YORK
WAYNE F. JAGOW - NIAGARA COUNTY CLERK
P.O. BOX 461, LOCKPORT, NEW YORK 14095-0461

COUNTY CLERK'S RECORDING PAGE

THIS PAGE IS PART OF THE DOCUMENT - DO NOT DETACH



RECEIPT NO. : 201176591

Clerk: TH
Instr #: 2011-05835
Rec Date: 04/01/2011 11:38:26 AM
Doc Grp: DEED
Descrip: DEED
Num Pgs: 10

Party1: SMITH HAROLD J
SMITH FELICIA S
Party2: SMITH GORDON F
SMITH HAROLD J
Town: MULTIPLE TOWNS

Recording:

Cover Page	8.00
Recording Fee	32.00
Cultural Ed	14.25
Records Management - Coun	1.00
Records Management - Stat	4.75
TP584	5.00
RP5217 Residential/Agricu	116.00
RP5217 - County	9.00

Sub Total: 190.00

Transfer Tax
Transfer Tax 0.00

Sub Total: 0.00

Total: 190.00

**** NOTICE: THIS IS NOT A BILL ****

***** Transfer Tax *****

Transfer Tax# : 3279

Consideration: 1.00
Transfer Tax: 0.00

Record and Return To:

DAMON & MOREY LLP
THE AVANT BUILDING
200 DELAWARE AVENUE STE 1200
BUFFALO NY 14202



Made the 12th day of March, 2011

BETWEEN, Harold J. Smith, as Executor of the Last Will and Testament of Felicia S. Smith, late of the Town of Lewiston, County of Niagara, Probate Proceedings in Niagara County Surrogate's Court Case No. 2007-81522, residing at 333 Bayshore Drive, Venice, FL 34285, party of the first part, and

Gordon F. Smith and Harold J. Smith, Trustees of the Article "3" Trust U/W of Felicia S. Smith f/b/o Gordon F. Smith, residing at 5273 Military Road, Lewiston, NY 14092 and 333 Bayshore Drive, Venice, FL 34285, respectively, party of the second part

WITNESSETH, that the party of the first part, by virtue of the power and authority to him given in and by the said Last Will and Testament, and in consideration of the sum of \$1.00 DOLLAR and NO MORE (\$1.00 Dollar and No More), lawful money of the United States, paid by the said party of the second part, does hereby grant and release unto the said party of the second part, its heirs, distributees and assigns, forever,

SEE SCHEDULE "A" ATTACHED HERETO

TOGETHER with the appurtenances AND ALSO all the estate and rights of the said Testator had at the time of her decease in and to the said premises. AND ALSO the estate therein, which the party of the first part had or has power to convey or dispose of, whether individually, or by virtue of said Will or otherwise.

TO HAVE AND TO HOLD the above granted premises unto the said party of the second part, its heirs, distributees and assigns, forever.

AND the party of the first part warrants that he has not done or suffered anything whereby the said premises have been incumbered in any way whatever.

Notwithstanding anything to the contrary with respect to parcels identified as Tax Map Nos. 146.05-1-9 and 146.06-1-1, the party of the first part only quit claims title and interest that said Testator had at the time of her decease in and to these said parcels.

AND the party of the first part, in compliance with Section 13 of the Lien Law, will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the improvement before using any part of the total of the same for any other purpose.

IN WITNESS WHEREOF, the party of the first part has hereunto set his hand and seal the day and year first above written.

ESTATE OF FELICIA S. SMITH

By: [Signature]
Harold J. Smith, Executor

STATE OF FLORIDA)
) ss.:
COUNTY OF SARASOTA)

On this 12th day of March, in the year 2011, before me, the undersigned, a Notary Public in and for said State, personally appeared Harold J. Smith, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual or the person upon behalf of which the individual acted, executed the instrument.

[Signature]
Notary Public

Record and Return To:
Anne C. Evans, Esq.
DAMON MOREY LLP
200 Delaware Avenue, Ste. 1200
Buffalo, NY 14202
#1521685



SCHEDULE "A"

PARCEL A (Sweet Home Road Parcels)

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Niagara, County of Niagara and State of New York, being part of Lot No. 16, Township 13, Range 9 of the Holland Land Company's Survey, bounded and described as follows:

BEGINNING at a point in the southeast line of Sweet Home Road, which said point of beginning is 400 feet distant northeast from the northeast line of Military Road, established by the acquisition of land for easement by the County of Niagara from the Niagara, Lockport and Ontario Power Company recorded April 25, 1933 in Liber 585 of Deeds at page 311; thence northeasterly along the southeast line of Sweet Home Road 1187.19 feet to the south line of Divide Road; thence easterly along the south line of Divide Road 56.20 feet to a point in the extension northerly of the west line of land conveyed to Wawrzyniec Placek by deed recorded in Liber 777 of Deeds at page 125 on May 8, 1945, said point being 627.88 feet distant west measured along the south line of Divide Road from the west line of land acquired by the Power Authority of the State of New York, as shown on Map No. 844 Parcel No. 844 and by deed recorded March 19, 1959 in Liber 1311 of Deeds at page 329; thence southerly parallel with the west line of said land acquired by the Power Authority of the State of New York 395.74 feet; thence easterly parallel with Divide Road, which is also parallel with the north line of Lot No. 16 and the north line of the Town of Niagara, 627.88 feet to the west line of land acquired by the Power Authority of the State of New York, as shown on Map No. 843 Parcel No. 843 recorded July 23, 1958 in Liber 1292 of Deeds at page 304, 991.53 feet to the north line of Elmer R. Grauer Subdivision filed June 30, 1952 in Book 47 of Maps at page 1195 in the Niagara County Clerk's Office, now in Book 33 of Microfilmed Maps at page 3259; thence westerly along the north line of said Elmer R. Grauer Subdivision and extensions thereto, 1558.91 feet to a point 243.82 feet distant east from the northeast line of Military Road, measured along the extension of the north line of Grauer Subdivision, west to Military Road; thence northwesterly parallel with the northeast line of Military Road outlined in the aforementioned deed recorded in Liber 585 of Deeds at page 311 on April 25, 1933, 423 ± feet to a point on a line which is parallel with the southeast line of Sweet Home Road and distant 200 feet southeasterly therefrom; thence northeasterly parallel with Sweet Home Road 200 feet; thence northwesterly parallel with the northeasterly line of Military Road 200 feet to the point of beginning.

PARCEL B (3881 River Road)

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Porter, County of Niagara and State of New York, being part of Lot No. 8 of the Mile Reserve, bounded and described as follows: BEGINNING at a point on the shore of the Niagara River at the southwest corner of land conveyed to W. Frank Hopkins by Deed recorded in Liber 370 of Deeds at page 250 on April 1 1912; THENCE easterly along the south line of said Hopkins' land a distance of 3309.17 feet to the southwest corner of land conveyed to Naomi R. Colbert by Deed recorded in Liber 712 of Deeds at page 339 on March 9 1943; THENCE north 30 seconds west along Colbert's west line a distance of 480.03 feet to the north line of Lot No. 8; THENCE easterly along the north line of Lot No. 8 a distance of 1688.7 feet to the west line of land taken for Niagara Frontier State Park Commission, Niagara Parkway, Section 4, Map 22R-103, Parcel 103, Proposal 113 by Certificate recorded in Liber 1375 of Deeds at page 110 on August 3 1961; THENCE southerly along the west line of said Niagara Parkway as it turns a total distance of 1352.77 feet to the south line of Lot No. 8; THENCE westerly along the south line of Lot No. 8 a distance of 4182.7 feet to the center line of land conveyed to Lawiston & Youngstown Frontier

PARCEL B

(388 1/2 River Road)

Railway Company by Deed recorded in liber 259 of Deeds at page 292 on June 13 1898; THENCE northerly along the center line of said railway's land a distance of 401.52 feet; THENCE westerly parallel with the south line of Lot No. 8 and in part along the north line of land conveyed to Otto W. Krueger by Deed recorded in liber 727 of Deeds at page 98 on October 1 1943 a total distance of 283.4 feet to a corner in said Krueger's land; THENCE northerly along the east line of said Krueger's land a distance of 128.9 feet to the center line of a driveway which extends in a generally easterly and westerly direction being a north line of said Krueger's land; THENCE westerly along the center line of said driveway and said line extended westerly a distance of 252 feet to the center line of Lower River Road; THENCE southerly along the center line of said Lower River Road a distance of 8 feet to a north line of said Krueger's land; THENCE westerly along said Krueger's north line a distance of 206.8 feet to the shore of the Niagara River; THENCE northerly along the shore of the Niagara River 342 feet to the point of beginning.

ALSO, ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Porter, County of Niagara and State of New York, being part of Lot No. 8 of the Mile Reserve, bounded and described as follows: Bounded on the south by the north line of land conveyed to George Baxter and Elizabeth Baxter by Deed recorded August 5 1977 in liber 1603 of Deeds at page 367; bounded on the west by the east line of Lower River Road; bounded on the north by a south line of the above described premises; and bounded on the east by the extension northerly of the east line of said Baxters' land.

EXCEPTING therefrom those portions of the first described premises that were conveyed by Tranquillity Acres, Inc. by the following four Deeds: Deed to Peter A. Knack and Maria T. Knack recorded December 28 1984 in liber 1924 of Deeds at page 355; Deed to Anthony S. Nasca and Kathleen E. Nasca recorded May 9 1986 in liber 1995 of Deeds at page 4; Deed to Kenneth M. Slangenhoupt and Esther R. Slangenhoupt recorded May 16, 1986 in liber 1995 of Deeds at page 9; and Deed to Peter A. Knack and Maria T. Knack recorded August 1 1986 in liber 2007 of Deeds at page 342.

PARCEL C

(Airport Properties)

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Town of Niagara, County of Niagara, State of New York, being part of Lot No. 7, Township 13 Range 9 of the Holland Purchase (so called) as shown on a map entitled "Deed Atlas" of lands of the Holland Land Company made by David E.E. Mix and filed in the Niagara County Clerk's Office on October 16, 1857, being more particularly bounded and described as follows:

COMMENCING at a point in the east line of the premises conveyed to Hector R. Carveth, Jr., by deed dated July 5, 1955, and recorded in the Niagara County Clerk's Office in Liber 1185 of Deeds at page 200, July 12, 1955, and distant 827.07 feet southerly from the northeast corner thereof measured along the east line of the premises so conveyed to Hector R. Carveth, Jr.; running thence easterly forming an angle with the easterly line of land so conveyed to Hector R. Carveth, Jr., of 89 degrees 01 minute 15 seconds measured in the southeast quadrant 528.90 feet to a point; running thence southerly and at right angles with said last mentioned line 400 feet to a point in the west line of premises

PARCEL 2

(Airport Properties)

conveyed by deed from The Marine Trust Company of Western New York, as Executor under the Last Will and Testament of Helen Miosga, to the United States of America, recorded in Niagara County Clerk's Office in Liber 1244 of Deeds at page 119 on December 12, 1955; running thence westerly and at right angles with said last mentioned line 1,122.06 feet to a point; running thence northerly and at right angles with said last described line 400 feet to a point; running thence easterly and at right angles with said last described line 593.16 feet to the place of beginning, containing 10.3 acres of land, more or less;

TOGETHER WITH a right of way or easement in perpetuity for all normal purposes of ingress and egress to and from the premises owned by Donald H. Smith, Gordon F. Smith, Stanley Grossman and Morree M. Levine, being part of Lot 7 aforesaid, to and from Tuscarora Road by foot or by vehicle and for the maintenance of such utilities as may be necessary to provide services to said premises, said right of way or easement being bounded and described as follows:

COMMENCING at a point along the center line of Tuscarora Road which is one foot north of the south line of that portion of Lot 3 aforesaid, conveyed by deed dated September 26, 1957, recorded in Niagara County Clerk's Office on October 23, 1957, in liber 1272 of deeds at page 585, running thence westerly on a line parallel with the aforesaid southerly line of said premises so conveyed to the west line of Lot 3 being also the east line of Lot 7; thence southwesterly at an angle of 186° 10' 40" measured on the north to the previous course, 980.28' to the northeast corner of premises conveyed by deed recorded in Niagara County Clerk's Office on February 17, 1958, in liber 1280 of deeds at page 588; thence westerly along the north line of the premises conveyed by the last described deed to the northwesterly corner of said premises; thence northerly at right angles to said north line of the premises 33' to a point; thence northeasterly at an angle of 91° 42' 54" measured in the southeast quadrant to the previous course, 1,122.56' to a point being 66.6' north at right angles from the northeast corner of the aforescribed premises; thence northeasterly at an angle of 173° 58' 54" measured on the north to the previous course, 974.88' to an angle point 4.45' west of the east line of Lot 7 being also the west line of Lot 3; thence easterly along a line parallel to

PARCEL C
(Airport Properties)

the south line of the premises as conveyed by deed recorded October 23, 1957, in liber 1272 of deeds at page 586 in the Niagara County Clerk's Office, and 67' north thereof to the center line of Tuscarora Road; thence southerly along the center line of Tuscarora Road 56' to the place of beginning, being and intended to be the same premises conveyed by Agreement dated 9/29/61 recorded in the Office of the Niagara County Clerk in Liber 1382 of Deeds page 163.

TOGETHER with all right, title and interest, if any, of the grantor in and to any streets and roads abutting the above described premises to the center lines thereof.

Containing 10 acres of land, more or less.

AND ALSO

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Niagara, County of Niagara and State of New York, being part of Lot 7, Township 13 and Range 9 of the Holland Land Company's Survey bounded and described as follows:

BEGINNING at a point in the center line of Tuscarora Road, distant 543.4 feet south from the center line of Lockport Road, measured along the center line of said Tuscarora Road; thence southerly along the center line of said Tuscarora Road a distance of about 2,060.41 feet to the northeast corner of land conveyed to Richard P. Schwartz and Norma P. Schwartz, his wife, by deed recorded August 1, 1949 in liber 958 of Deeds at page 350; thence westerly along the north line of said Schwartz' land, which is parallel with the north line of said Lot 3 a distance of about 1,106.4 feet to the west line of said Lot 3; thence northerly along the west line of Lot 3 a distance of about 2,060.43 feet to a point which is 544.60 feet southerly from the original center line of Lockport Road, measured along the west line of Lot 3; thence easterly parallel with the south line hereinbefore described a distance of about 1,086 feet to the point of beginning.

Containing 50 acres of land, more or less.

AND ALSO

PARCEL I

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Niagara, County of Niagara and State of New York, being part of Lot No. 7, Township 13, Range 9 of the Holland Land Company's Survey, bounded and described as follows:

PARCEL C
(Airport Properties)

Commencing at a point in the west line of Lot No. 7 at the northwest corner of land conveyed to the United States of America by deed recorded in liber 1062 of Deeds at page 83 on May 6, 1952; thence northerly along the west line of said Lot No. 7 a distance of about 1447.30 feet to a point distant 547.60 feet south from the intersection of the west line of said Lot No. 7 with the center line of Packard Road; measured along the said west line of Lot No. 7; thence easterly at an interior angle of 89° 51' 40" a distance of 1510.47 feet to a point; thence southerly at an interior angle of 89° 41' 35" a distance of about 1447.30 feet to a point on the north line of land conveyed to the United States of America by deed aforesaid, said point being 1499.21 feet east from the point of beginning, measured along the north line of said land so conveyed to the United States of America by said deed; thence westerly along the north line of said land of the United States of America a distance of 1499.21 feet to the point of beginning.

Excepting therefrom that portion conveyed to Garrett Rutkowski and Karen Rutkowski, his wife by deed recorded in liber 1607 of Deeds at page 555 on October 28, 1977.

PARCEL II

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Niagara, County of Niagara and State of New York, being part of Lot No. 7, Township 13, Range 9 of the Holland Land Company's Survey, bounded and described as follows:

COMMENCING at the southeast corner of land conveyed to Hector R. Carveth, Jr. by deed recorded July 12, 1955 in Liber 1185 of Deeds at page 200, said point of beginning being distant 1499.21 feet east from the west line of said Lot No. 7 measured along the north line of land conveyed to the United States of America by deed recorded in liber 1062 of Deeds at page 83 on May 6, 1952; thence easterly along the north line of land of the United States of America by deed aforesaid a distance of 1499.21 feet to the northeast corner of the land so conveyed to the United States of America; thence northerly along the east line of said Lot No. 7 to the northeast corner of said lot; thence westerly along the north line of said Lot No. 7 to a point thereon which is distant 133.82 feet east from the intersection of the southeast line of Packard Road with the north line of said Lot No. 7 measured along the north line of said Lot No. 7; thence southerly at an exterior angle of

PARCEL C

(Airport Properties)

89° 46' 55" to a point in the north line of land conveyed to Hector R. Carveth, Jr., aforesaid; thence easterly along the north line of said Carveth's land to the northeast corner thereof; thence southerly along the east line of said Carveth's land a distance of 1447.30 feet to the place of beginning.

EXCEPTING therefrom that portion thereof heretofore conveyed to the United States of America.

ALSO EXCEPTING therefrom a parcel of land of land 107.3 feet on the north and south line by 405.61 feet on the east line in the northwest corner, said 107.3 feet being measured along the north line of Lot No. 7.

EXCEPTING from Parcels I and II the following parcels:

- (1) Land conveyed to Cornell Aeronautical Laboratory, Inc. by deed recorded in liber 1280 of Deeds at page 588 on February 17, 1958.
- (2) Land acquired by the United States of America by Civil Action No. 7956 in Western District of New York, Lis Pendens filed September 3, 1958 in liber 38 of Lis Pendens at page 7.

Together with an easement in perpetuity over a strip of land 15 feet in width along the westerly line of said Lot No. 7 and extending from Parcel I to Packard Road to be used for ingress and egress between Parcel I and Packard Road.

Containing 119.24 acres of land, more or less.

AND ALSO

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Niagara, County of Niagara and State of New York, being a part of Lot 8, Township 13, Range 9 of the Holland Land Company's Survey, bounded and described as follows:

BEGINNING at a point in the center line of Lockport Road distant 100 feet westerly as measured along said center line from its intersection with the easterly line of Lot 8, said point of beginning being the northwesterly corner of lands conveyed by Erich J. and Irene M. Haseley to Harry H. and Pauline Badorian, by deed recorded in the Niagara County Clerk's office in Liber 1210 of deeds at page 417;

PARCELS
(Airport Properties)

Running thence southerly along the westerly line of lands conveyed to Badorian aforesaid and parallel with the easterly line of Lot 8, a distance of 233 feet to the southwesterly corner of said Badorian's lands;

Running thence easterly along the southerly line of lands conveyed to Badorian aforesaid and parallel with the center line of Lockport road, a distance of 100 feet to a point in the easterly line of Lot 8, said point being the southeasterly corner of said Badorian lands;

Running thence southerly along the easterly line of Lot 8 a distance of 659.75 to the southeasterly corner of said Lot 8;

Running thence westerly along the southerly line of Lot 8 a distance of 1658.07 feet to the southeasterly corner of lands conveyed by Erich J. and Irene M. Haseley to Iroquois Gas Corporation by deed recorded in the Niagara County Clerk's Office in Liber 1524 of Deeds at page 847;

Running thence northerly along the westerly line of lands conveyed to Iroquois Gas Corporation aforesaid and at right angles from the southerly line of Lot 8, a distance of 645 feet to a point on a curve of 1223 foot radius in the southeasterly line of Packard Road, as said line is described in a dedication of Parcel No. 4, County Road No. 82 to the County of Niagara, filed in the Niagara County Clerk's Office in Liber 583 of Deeds at Page 445;

Running thence northeasterly and easterly along said curved southeasterly line of Packard Road, an arc distance of 725.3 feet to the southeasterly corner of Parcel No. 4 dedicated to the County of Niagara aforesaid, said point being 50 feet south of the original center line of Lockport Road as measured on a line at a right angle therefrom;

Running thence northerly on a line at a right angle from the center line of Lockport Road, and along the easterly line of aforesaid Parcel No. 4 and said line extended, a distance of 50 feet to a point in the center line of Lockport Road;

Running thence easterly along the center line of Lockport Road, a distance of 885.1 feet to the point of beginning.

Containing 31.94 acres of land, more or less.

PARCEL D
(Legal Description for 5273 Tract)

ALL THAT TRACT OR PARCEL OF LAND, situate in Part of Lot 23 Mile Reserve, Town of Lewiston, County of Niagara and State of New York and being more particularly bounded and described as follows:

COMMENCING at a point in the northeasterly line of Military Road, 1046.92 feet measured southeasterly along the northeasterly line of Military Road from its intersection with the north line of Lot 23 Mile Reserve; Running thence easterly at 90 degrees, 350.00 feet to the true point of beginning, this course being the north line of a 16 foot wide ingress egress easement as described in deed Liber 1397 at Page 509 and Filed in the Niagara County Clerk's Office July 10, 1862; Running thence northwesterly at 90 degrees, 331.98 feet to a point; Running thence southwesterly at 90 degrees, 110 feet to a point; Running thence southeasterly at 90 degrees, 331.98 feet to a point; Running thence northeasterly at 90 degrees, 110.0 feet to the point or place of beginning.

14.5. REGULATORY RECORDS DOCUMENTATION

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14.6. INTERVIEW DOCUMENTATION

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ENVIRONMENTAL SITE ASSESSMENT TRANSACTION SCREEN QUESTIONNAIRE

This document is an excerpt of Practice E1528-06: Standard Practice for Environmental Site Assessments: Transaction Screen Process, which is under the jurisdiction of ASTM Committee E50 on Environmental Assessment as is the direct responsibility of Subcommittee E50.02 on Commercial Real Estate Transactions. This questionnaire represents only Sections 5 and 6 of Practice E 1528-06 and should not be construed as being the complete standard. It is necessary to refer to the full standard prior to using this questionnaire. COPYRIGHT © 2006 ASTM INTERNATIONAL, West Conshohocken, PA. Prior edition copyrighted 2000. Stock # ADJE152806. For the complete standard, or to order additional copies of this questionnaire, contact ASTM Customer service at (610) 832-9585.

5. Introduction to Transaction Screen Questionnaire

5.1 Process--The *transaction screen process* consists of asking questions contained within the *transaction screen questionnaire of owners and occupants of the property*, observing site conditions at the property with direction provided by the *transaction screen questionnaire*, and, to the extent *reasonably ascertainable*, conducting limited research regarding certain government records and certain standard historical sources. The questions asked of *owners* are the same questions as those asked of *occupants*.

5.2 Guide--The *transaction screen questionnaire* is followed by a guide designed to assist the person completing the *transaction screen questionnaire*. The guide to the *transaction screen questionnaire* is set out in Sections 7-10 of this practice. The guide is divided into three sections: Guide for Owner/Occupant Inquiry, Guide to Site Visit, and Guide to Government Records/Historical Sources Inquiry.

5.2.1 To assist the *user*, its employee or agent, or the preparer in preparing a report, the guide repeats each of the questions set out in the *transaction screen questionnaire* in both the guide for *owner/occupant* inquiry and the guide to *site visit*. The questions regarding government records/historical sources inquiry are also repeated in the guide to that section.

5.2.2 The guide also describes the procedures to be followed to determine if reliance upon the information in a prior *transaction screen* is appropriate under this practice.

5.2.3 A *user*, his employee or agent, or preparer conducting the *transaction screen process* should not use the *transaction screen questionnaire* without reference to or without familiarity with the guide based on prior use of the guide.

5.3 The *user* may either conduct the *transaction screen process*, or delegate it to an employee or agent or may contract with a third party to prepare the questionnaire on behalf of the *user*. No matter who prepares the questionnaire, the *user* remains responsible for the decision to conduct limited environmental *due diligence* and the impact of that decision on risk management.

5.4 The preparer conducting the *transaction screen process* should use good faith efforts in determining answers to the questions set forth in the *transaction screen questionnaire*. The *user* should take time and care to check whatever records are in the *user's* possession and forward relevant information or specialized knowledge to the preparer.

5.5 Knowledge--All answers should be given to the best of the *owner's* or *occupant's* knowledge. The most knowledgeable person available should be chosen to answer the questions.

5.5.1 While the person conducting the *transaction screen* has an obligation to ask the questions in the *transaction screen questionnaire*, others may have no obligation to answer them.

5.5.2 The *transaction screen questionnaire* and the *transaction screen guide* sometimes include the phrase "to the best of your knowledge." This phrase does not impose a constructive knowledge standard. It is intended as an assurance to the person being questioned that he or she is not obligated to search out information he or she does not currently have in order to answer the particular question.

5.6 Conclusions Regarding Affirmative or Unknown Answers--Once a *transaction screen questionnaire* has been completed, it shall be presented to the user. Subject to 5.6 through 5.7, an affirmative, unknown, or no response is presumed to be a *potential environmental concern*. If any of the questions set forth in the *transaction screen questionnaire* are answered in the affirmative, the preparer must document the reason for the affirmative answer. If any of the questions are not answered or the answer is unknown, the *user* should document such nonresponse or answer of unknown and evaluate it in light of the other information obtained in the *transaction screen process*, including, in particular, the site visit and the government records/historical sources inquiry. If the *user* decides no further inquiry is warranted after receiving no response, an answer of unknown, or an affirmative answer, the *user* must document the reasons for any such conclusion.

5.6.1 Upon obtaining an affirmative answer, an answer of unknown or no response, the *user* should first refer to the guide. The guide may provide sufficient explanation to allow a *user* to conclude that no further inquiry is appropriate with respect to the particular question.

5.6.2 If the guide to a particular question does not, in itself, permit a user to conclude that no further inquiry is appropriate, then the user should consider other information obtained from the *transaction screen process* relating to this question. For example, while on the site performing a *site visit*, a person may find a storage tank on the *property* and therefore answer Question 10 of the *transaction screen questionnaire* in the affirmative. However, during or subsequent to the *owner/occupant* inquiry, the *owner* may establish that substances now or historically contained in the tank (for example, water) are not likely to cause contamination.

5.6.3 If either the guide to the question or other information obtained during the *transaction screen process* does not permit a *user* to conclude no further inquiry is appropriate with respect to such question, then the user must determine, in the exercise of the *user's* reasonable business judgment, based upon the totality of unresolved affirmative answers or answers of unknown received during the *transaction screen process*, whether further inquiry may be limited to those specific issues identified as of concern.

5.7 Presumption--A presumption exists that further inquiry is necessary if an affirmative answer is given to a question or because the answer was unknown or no response was given. In rebutting this presumption, the *user* should evaluate information obtained from each component of the *transaction screen process* and consider whether sufficient information has been obtained to conclude that no further inquiry is necessary. The *user* must determine, in the exercise of the *user's* reasonable business judgment, the scope of such further inquiry.

5.8 Further Inquiry--Upon completing the *transaction screen questionnaire*, if the *user* concludes that further inquiry or action is needed (for example, consult with an environmental consultant, contractor, governmental authority, or perform additional governmental and/or historical records review), the *user* should proceed with such inquiry. (Note that if the *user* determines to proceed with a Phase I Environment Site Assessment, the *user* may apply the current Practice E 1527 or alternatively the provisions of EPA's regulation "Standards and Practices for All Appropriate Inquiries," 40 C.F.R. Part 312.)

5.9 Signature--The *user* and the preparer of the *transaction screen questionnaire* must complete and sign the questionnaire as provided at the end of the questionnaire.

6. Transaction Screen Questionnaire

6.1 *Persons to Be Questioned*-The following questions should be asked of (1) the current owner of the property, (2) any major occupant of the property or, if the property does not have any major occupants, at least 10 % of the occupants of the property, and (3) in addition to the current owner and the occupants identified in (2), any occupant likely to be using, treating, generating, storing, or disposing of hazardous substances or petroleum products on or from the property. A major occupant is any occupant using at least 40 % of the leasable area of the property or any anchor tenant when the property is a

shopping center. In a multifamily property containing both residential and commercial uses, the preparer does not need to ask questions of the residential occupants. The preparer should ask each person to answer all questions to the best of the respondent's actual knowledge and in good faith. When completing the site visit column, the preparer should be sure to observe the property and any buildings and other structures on the property. The guide to this transaction screen questionnaire (see Sections 7-10) provides further details on the appropriate use of this questionnaire. (See Note 2.)
NOTE 2-Unk = "unknown" or "no response."

Description of Site Address:

40 + Acre parcel located in Niagara Falls New York. Was a former race track. Drag Strip still exists along with two old buildings.

Majority of the site is planted with wheat. Niagara Falls Air Reserve Station is east of parcel. Niagara Falls International Airport is south of the parcel.

Question	Owner			Occupants (if applicable)			Observed During Site Visit		If yes, provide description
	Yes	No	Unk	Yes	No	Unk	Yes	No	
1a. Is the property used for an industrial use?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
1b. Is any adjoining property used for an industrial use?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Niagara Falls ARS and air strip located east and south of the Parcel
2a. Did you observe evidence or do you have any prior knowledge that the property has been used for an industrial use in the past?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Property was once a race track/drag strip
2b. Did you observe evidence or do you have any prior knowledge that any adjoining property has been used for an industrial use in the past?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Niagara Falls ARS and air strip located east and south of the Parcel
3a. Is the property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
3b. Is any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Niagara Falls ARS and air strip located east and south of the Parcel
4a. Did you observe evidence or do you have any prior knowledge that the property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Property was once a race track/drag strip
4b. Did you observe evidence or do you have any prior knowledge that any adjoining property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Niagara Falls ARS and air strip located east and south of the Parcel
5a. Are there currently any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
5b. Did you observe evidence or do you have any prior knowledge that there have been previously any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
6a. Are there currently any industrial drums (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
6b. Did you observe evidence or do you have any prior knowledge that there have been previously any industrial drums (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
7a. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	

* Unk = "unknown" or "no response"

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This document is an excerpt of E 1528-06, Standard Practice for Environmental Site Assessments: Transaction Screen Process, which is under the jurisdiction of ASTM Committee E50 on Environmental Assessments and is the direct responsibility of Subcommittee E50.02 on Commercial Real Estate Transactions. This questionnaire represents only Sections 5 and 6 of Practice E 1528-06 and should not be construed as being the complete standard. It is necessary to refer to the full standard prior to using this questionnaire. For the complete standard, or to order additional copies of this questionnaire, contact ASTM Customer Service at (610) 832-9585.

Question	Owner			Occupants (if applicable)			Observed During Site Visit		If yes, provide description
7b. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that is of an unknown origin?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
8a. Are there currently any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
8b. Did you observe evidence or do you have any prior knowledge that there have been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
9a. Is there currently any stained soil on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
9b. Did you observe evidence or do you have any prior knowledge that there has been previously, any stained soil on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input checked="" type="radio"/>	No <input type="radio"/>	Possible based on historical use of property
10a. Are there currently any registered or unregistered storage tanks (above or underground) located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
10b. Did you observe evidence or do you have any prior knowledge that there have been previously, any registered or unregistered storage tanks (above or underground) located on the property?	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input checked="" type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
11a. Are there currently any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
11b. Did you observe evidence or do you have any prior knowledge that there have been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
12a. Is there currently evidence of leaks, spills or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
12b. Did you observe evidence or do you have any prior knowledge that there have been previously any leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring drains, walls, ceilings or exposed grounds on the property?	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input checked="" type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
13a. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system?	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input checked="" type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
13b. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that the well has been designated as contaminated by any government environment health agency?	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input checked="" type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
14. Does the owner or occupant of the property have any knowledge of environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			
15a. Has the owner or occupant of the property been informed of the past existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			
15b. Has the owner or occupant of the property been informed of the current existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			
15c. Has the owner or occupant of the property been informed of the past existence of environmental violations with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			
15d. Has the owner or occupant of the property been informed of the current existence of environmental violations with respect to the property or any facility located on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			

Question	Owner			Occupants (If applicable)			Observed During Site Visit		If yes, provide description
16. Does the owner or occupant of the property have any knowledge of any environmental site assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assessment of the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			EIS of property and adjoining property was conducted. No RECs found
17. Does the owner or occupant of the property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>			
18a. Does the property discharge waste-water (not including sanitary waste or storm water) onto or adjacent to the property and/or into a storm water system?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
18b. Does the property discharge waste water (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary sewer system?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
19. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried and/or burned on the property?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input checked="" type="radio"/>	No <input type="radio"/>	Tires and buckets of asphalt tar were observed
20. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Unk <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	

Government Records/Historical Sources Inquiry
(See guide, Section 10)

21. Do any of the following federal, state, or tribal government record systems list the property or any property within the search distance noted below (where available):	Approximate Minimum Search Distance, miles (kilometres)	Yes <input type="radio"/>	No <input type="radio"/>	
Federal NPL site	1.0	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
Federal Delisted NPL site	0.5	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
Federal CERCLIS	0.5	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
Federal CERCLIS NFRAP site	0.5	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
Federal RCRA CORRACTS facilities	1.0	Yes <input checked="" type="radio"/>	No <input type="radio"/>	
Federal RCRA non-CORRACTS TSD	0.5	Yes <input checked="" type="radio"/>	No <input type="radio"/>	
Federal RCRA generators	property and adjoining properties	Yes <input checked="" type="radio"/>	No <input type="radio"/>	
Federal institutional control/engineering control registries	property only			
Federal ERNS	property only	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
State and tribal lists of hazardous waste sites identified for investigation or remediation:				
State-and tribal-equivalent NPL	1.0	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
State-and tribal-equivalent	0.5	Yes <input checked="" type="radio"/>	No <input type="radio"/>	
State-and tribal-landfill and/or solid waste disposal site lists	0.5	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
State-and tribal-leaking storage tank lists	0.5	Yes <input checked="" type="radio"/>	No <input type="radio"/>	
State and tribal registered storage tank lists	property and adjoining properties	Yes <input checked="" type="radio"/>	No <input type="radio"/>	
State and tribal institutional control/engineering control registries	property only	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
State and tribal voluntary cleanup sites	0.5	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
State and tribal Brownfield sites	0.5	Yes <input type="radio"/>	No <input checked="" type="radio"/>	
22. Based upon a review of fire insurance maps (10.2.3) or local street directories (10.2.3), all as specified in the guide, are any buildings or other improvements on the property or on an adjoining property identified as having been used for an industrial use or uses likely to lead to contamination of the property?		Yes <input type="radio"/>	No <input type="radio"/>	Unavailable <input checked="" type="radio"/>

Result

The Owner questionnaire answers were provided was completed by:

Name Harold J Smith
Title Owner representative of Felicia Smith Trust (Owner)
Firm NA
Address 441 Pinewood Lake Dr
Venice Florida 34285
Phone Number 716-713-1482
Date 5/21/2012
Role (s) at the site Representative of Family Trust
Number of years at the site Owned 35 Years
Relationship to use (e.g. principal, employee, agent, consultant) Representative of family trust

The Occupant questionnaire answers were provided by:

Name NA
Title _____
Firm _____
Address _____
Phone Number _____
Date _____
Role (s) at the site _____
Number of years at the site _____
Relationship to use (e.g. principal, employee, agent, consultant) _____

The Site Visit questionnaire was completed by:

Name David Postlewaite
Title Environmental Scientist
Firm Tetra Tech, Inc
Address 10308 Eaton Place Suite 340
Fairfax, VA 22030
Phone Number 703-385-6000
Date 5/14/2012
Role (s) at the site Transaction Screen Preparer
Number of years at the site 0
Relationship to use (e.g. principal, employee, agent, consultant) Contractor

It is the user's responsibility to draw conclusions regarding affirmative or unknown answers.

The Government Records and Historical Sources Inquiry questionnaire was completed by:

Name David Postlewaite with aid and resources from InfoMap
Title Technologies, Inc
Firm Tetra Tech and InfoMap Technologies
Address _____
Phone Number _____
Date April through June 2012
Role (s) at the site Contractor
Number of years at the site 0
Relationship to use (e.g. principal, employee, agent, consultant) Contractor

User's relationship to the site (for example, owner, prospective purchaser, lender, etc.)

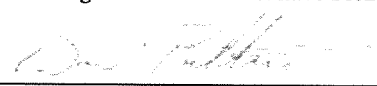
If the preparer (s) is different from the user, complete the following:

Name of User USACE Buffalo District and US CBP
User's Address _____
User's Phone Number _____

Copies of the completed questionnaires have been filed at:

Copies of the completed questionnaires have been mailed or delivered to:

Preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct and to the best of the preparer's actual knowledge no material facts have been suppressed or misstated.

Signature: 
Date: 5/22/2012
Signature: _____
Date: _____
Signature: _____
Date: _____

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Appendix I
Comments on Draft EA and Responses

Any comments received on the EA during the agency and public review period will be included in this appendix in the Final EA, along with CBP responses.

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