ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PRELIMINARY SITE ASSESSMENT

VOLUME I MAIN REPORT

Henrietta Town Dump Henrietta Township Site No. 828037 Monroe County

URAFT



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VOLUME 1 - MAIN REPORT

DRAFT

HENRIETTA TOWN DUMP SITE NYSDEC SITE NO. 828037 HENRIETTA TOWNSHIP MONORE COUNTY, NEW YORK

PRELIMINARY SITE ASSESSMENTS WORK ASSIGNMENT NO. D002478-17 NEW YORK STATE SUPERFUND STANDBY CONTRACT

Prepared for

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NOTICE

This Preliminary Site Assessment report about the Henrietta Town Dump Site (NYSDEC Site No. 828037), located in the Town of Henrietta, Monroe County, New York, was prepared for the New York State Department of Environmental Conservation (NYSDEC) under a Superfund Standby Contract (No. D002478, Work Assignment No. 17). The purpose of this report is to provide information necessary for NYSDEC to reclassify the site according to the Classes 2, 3, and D described in Section 2 of this report.

To achieve the study objectives stated in this report, Engineering-Science, Inc. (ES) was required to base conclusions on the best information available during this investigation and within the limits prescribed by NYSDEC in the contract agreement.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, ES cannot guarantee that the investigation completely defined the degree or extent of any contamination by hazardous or otherwise harmful substances described in the report or, if no such contamination was found, its absolute absence. Professional judgment was exercised in gathering and analyzing the information obtained, and ES is committed to the usual care, thoroughness, and competence of the engineering profession.

Conclusions in this report are based on record reviews, interviews, and limited sampling performed by ES personnel. The health-based regulatory standards discussed in this report may change in the future. Levels of environmental contamination that are "acceptable" by current standards may not be so in the future.

Consistent with the objectives of the PSA investigation, this report includes an assessment of the presence of hazardous waste as defined by Title 6, Part 371 of the New York Codes, Rules, and Regulations (6NYCRR, Part 371) and "significant threat" to public health and environment as defined by 6NYCRR, Part 375. As such, the report does not include an evaluation of the presence of hazardous wastes regulated under federal law, except when federal and New York State regulations are identical. In particular, the presence of hazardous waste having the characteristic of toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP) under 40CFR, Part 261.24 is not formally evaluated in this report. The characteristic of toxicity is currently determined by the Extraction Procedure Toxicity (EP Tox) test under 6NYCRR, Part 371.

Information contained in this report may not be suitable for any other use without adaptation for the specific purpose intended. Any such reuse of or reliance on the information, assessments, or conclusions in this report without adaptation will be at the sole risk and liability of the party undertaking the reuse.

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SECTION 1

EXECUTIVE SUMMARY

1.1 BACKGROUND SUMMARY

The Henrietta Town Dump Site (NYSDEC No. 828037) is located south of Lehigh Station Road, north of the New York State (NYS) Thruway, and along the east side of Conrail railroad tracks in Henrietta Township, Monroe County, New York (Figure 1.1). The site is currently owned by the 1233 Lehigh Station Back Acreage Corporation. The site is approximately 35-acre and is bordered by a recently developed residential area to the east and generally undeveloped areas to the north, west, and south (Figure 1.2). A drainage ditch borders the northeast side of the site. The drainage ditch turns and flows westward across the center part of the site and discharges to the wetland west of the site.

The Henrietta Town Dump Site is an inactive landfill listed as a Class 2a site on the state Registry of Inactive Hazardous Waste Sites. The site is under investigation because of reported on-site disposal of industrial and commercial waste, as well as the siting of drums on-site. The site was owned by the Town of Henrietta from the early 1950's to 1966 and was used as a municipal landfill from the early 1960's to 1965. Although limited background information is available for the site, historic aerial photographs indicate landfill operations were limited to approximately 20acres, occupying approximately two-thirds of the southern-most portion of the site. No documentation has been identified to date indicating specific wastes disposed on-site, or whether hazardous waste in general had been disposed on-site. Previous site inspections have noted an oily sheen on surface drainage water, and drums and metal debris protruding from on-site surface soils in the vicinity of the east-west drainage ditch. A site investigation conducted by URS Consultants, Inc., for the NYSDEC in 1991, concluded that insufficient information was identified for reclassification of the site. A site visit conducted by Engineering-Science, Inc. in October 1993 noted an area completely void of vegetation in the south portion of the marsh area.

1.2 SITE INVESTIGATION SUMMARY

Engineering-Science, Inc. (ES) was directed by the New York State Department of Environmental Conservation (NYSDEC) to conduct field studies and complete the Preliminary Site Assessment (PSA) investigation for reclassification of the site. The site investigation was conducted in accordance with the Technical Work Plans provided by the NYSDEC and field modifications as directed by the NYSDEC. Field work was conducted between April 7 and May 6, 1993. The environmental sampling effort consisted of the installation of five monitoring wells and the collection of:

- three leachate samples,
- six sediment samples,

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- five surface water samples,
- five surface soil samples,
- one composite subsurface soil sample collected from each of the five monitoring wells installed during the 1993 PSA, and
- one groundwater sample from each of the five monitoring wells installed during the 1993 PSA and one from a previously installed monitoring well (BW-1).

With the exception of one sediment sample analyzed by the Extraction Procedure Toxicity testing method (EP Tox), all of the samples were analyzed for Target Compound List (TCL) organics, Target Analyte List (TAL) metals, and cyanide. One of the surface soil samples was also analyzed by the EP Tox testing method for metals. Environmental sample analyses were conducted by Recra Environmental, Inc. (Recra) of Amherst, New York in accordance with NYSDEC Analytical Service Protocols (ASP) (December 1991) and the Quality Assurance Project Plan (QAPP).

1.3 PRESENCE OF HAZARDOUS WASTES

Title 6 of the New York Codes, Rules, and Regulations (6NYCRR), Part 371 establishes two categories of hazardous wastes: (1) listed hazardous wastes, and (2) characteristic hazardous wastes. Listed hazardous wastes are generated by certain industrial processes, or are judged to have an acute hazard or toxicity associated with exposure to them. Listed hazardous wastes are assigned United States Environmental Protection Agency (USEPA) hazardous waste numbers with "F", "K", "P", "U", or "B" prefixes.

Characteristic hazardous wastes are identified using analytical methods specified in 6NYCRR, Part 371, and are assigned "D" prefixes. The hazardous waste characteristics include toxicity, reactivity, corrosivity, and ignitability. The EP Tox method is used to identify hazardous wastes having the characteristics of toxicity.

Several of the analytes detected in the field samples collected during the PSA investigation are potential listed hazardous wastes (Sections 4.6.1 to 4.6.3). However, the presence of these listed compounds on-site can not be used to establish the presence of hazardous waste at the site because: (1) they cannot be directly attributed to documented specific or non-specific sources as required by 6NYCRR, Part 371.4(b) and (c); (2) they cannot be directly attributed to the disposal of a "commercial chemical product, manufacturing chemical intermediates, or off-specification commercial chemical products" as required by 6NYCRR, Part 371.4(d), based on limited information obtained to date; or (3) EP Tox results were below the regulatory levels for classification as hazardous wastes.

Documentation of specific wastes disposed on-site has not been identified to date. Site information indicates that drums observed on-site may have been empty and staining was not observed in the vicinity of existing drums. Drums were reportedly not found during maintenance dredging of the drainage ditch by Town of Henrietta Highway Department. Although some exceedances of water quality standards, USEPA human health-based levels, and naturally-occurring ranges were encountered, analytical results do not show that hazardous waste has been disposed on-site.

1.4 PRESENCE OF SIGNIFICANT THREAT

The presence of a "significant threat" to public health or the environment, as defined by 6NYCRR, Part 375, may be established by analytical data showing that hazardous substances: (1) have been released to environmental media from hazardous waste disposed at the site, and (2) are present in concentrations exceeding accepted health or environmental standards or guidance values. The criteria used to establish releases is discussed in the introduction to Section 4.6.

As discussed in Subsection 4.6.6, the presence of hazardous waste at the site was not established. Therefore, only the potential for a significant threat to public health or the environment could be determined based on the exceedances of regulatory standards and guidelines.

Benzon(a)anthracene exceeded the USEPA human health-based level in one sediment sample. Benzo(a)pyrene exceeded the USEPA human health-based level in surface soil and subsurface soil samples. Lead and cyanide exceeded naturallyoccuring ranges for soils in sediment and surface soil samples. Cyanide exceeded naturally-occuring ranges in subsurface soil samples.

Heptachlor exceed Class C surface water quality standards in surface water samples. Bis(2-ethylhexyl)phthalate exceeded the NYS Class C surface water quality standard in the leachate samples. Copper, iron, lead, and zinc exceeded NYS Class C water quality standards in the leachate and surface water samples. Aluminum exceeded the NYS Class C surface water quality standard in surface water. Iron, lead, magnesium, sodium, and zinc exceeded NYS Class GA water quality standards in the groundwater samples.

1.5 RECOMMENDATIONS

Information collected during this investigation indicates that hazardous waste as defined by 6NYCRR Part 371 is not present on-site. However, delisting of the site cannot be recommended without addressing the southern portion of the seasonal marsh completely void of vegetation, as observed during a recent post-sampling effort site visit.

ES recommends that a limited soil sampling effort be conducted on the south portion of the marsh area to address the area completely void of vegetative cover. At least two surface soil samples should be collected and analyzed for TCL organics and TAL metals and cyanides.

FIGURE 1.1





SECTION 2

INTRODUCTION

2.1 PURPOSE

This report presents the results for the field investigation portion of the PSA of the Henrietta Town Dump Site (NYSDEC Site No. 828037), located in Henrietta Township, Monroe County, New York. The field investigations and report preparation (i.e., Tasks 3 through 6 of the PSA) were conducted by ES under Work Assignment No. D002478-17 of a Superfund Standby Contract between the NYSDEC and ES. The Henrietta Town Dump Site is an inactive landfill listed as a Class 2a site on the state Registry of Inactive Hazardous Waste Sites. The site is under investigation because of reported disposal of commercial and industrial waste, partially buried drums which have been observed on-site, and the close proximity of residences. Results from the Task 1 investigation, conducted by URS in 1991, concluded that insufficient information was available for site reclassification. ES was directed by NYSDEC to conduct field studies and complete the PSA investigation for reclassification of the site.

The primary purpose of the PSA investigation was to assign one of the following three site classifications provided by Article 27, Title 13 of the Environmental Conservation Law to the site:

- Class 2 Significant threat to public health or environment action required;
- Class 3 Does not present a significant threat to public health or environment action may be deferred; or
- Class D Site delisted from Registry of Inactive Hazardous Waste Sites.

Classification is based on a determination of:

- 1. The documented presence of hazardous waste, as defined under Title 6, Part 371 of the New York Code of Rules and Regulations (NYCRR); and
- 2. The threat posed by hazardous waste on-site to the public health and environment.

In the event that insufficient data are developed for the determination of the presence or threat posed by hazardous waste at the sites, recommendations for further work are made to obtain sufficient data.

2.2 REPORT ORGANIZATION

This report consists of six sections and four appendices:

- Section 1 provides an executive summary of the results of the investigation, including recommendations for further work at the site if warranted.
- Section 2 presents an introduction to the PSA investigation and the PSA program at NYSDEC.

- Section 3 presents a description of the scope of work for the PSA investigation.
- Section 4 presents an assessment of the data gathered during the investigation.
- Section 5 presents recommendations for reclassification of the site or further work at the site.
- Section 6 presents a list of cited references.
- Appendix A contains U.S. Environmental Protection Agency (USEPA) Form 2070-13, completed with the data gathered during this investigation.
- Appendix B contains boring logs and well construction data.
- · Appendix C contains laboratory analytical data in database format.
- Appendix D contains copies of selected references (including copies of correspondence).

2.3 PRELIMINARY SITE ASSESSMENT INVESTIGATION

PSA investigations are generally comprised of six tasks as follows:

- Task 1 Records Search, Site Inspection, and Assessment;
- Task 2 Site Work Plan Development;
- Task 3 Surface Field Investigation;
- Task 4 Subsurface Field Investigation;
- Task 5 Draft PSA Report; and
- Task 6 Revised PSA Report.

PSA investigations are intended to be completed with the minimum number of tasks required to generate sufficient information for classification under the Environmental Conservation Law. Figure 2.1 provides a decision tree used for classification of sites.



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SECTION 3

SCOPE OF WORK

3.1 INTRODUCTION

The scope of work for the PSA investigation (Tasks 2 through 6) at the Henrietta Town Dump Site consisted of developing a Project Management Plan for the entire work assignment (Task 2); initial environmental sampling, including surface water, sediment, leachate, and shallow soil samples (Task 3); subsurface environmental sampling, including installation of monitoring wells, and subsurface soil and groundwater sampling (Task 4); site assessment and preparing a draft report (Task 5), and completing a final report (Task 6). The records search and initial site inspection (Task 1) were conducted by others. Task 2 was presented in the Project Management Plan dated January 1993. Tasks 3 and 4 were conducted in accordance with the Technical Work Plans provided by the NYSDEC (dated December 8, 1992) and later modifications as directed by the NYSDEC. The site specific tasks are described below and summarized in Table 3.1. Table 3.2 provides a sample summary.

Environmental sampling was conducted in accordance with the Technical Work Plans and the QAPP dated November 1992. Environmental sample analyses were conducted by Recra Environmental, Inc. (Recra) of Amherst, New York in accordance with NYSDEC Analytical Service Protocols (ASP) (December 1991) and the QAPP. Recra is one of four laboratory Standby Subcontractors for ES. As directed by the NYSDEC, data validation was not conducted on analytical results for the Henrietta Site. However, ES did conduct sample tracking and contract compliance screening on all samples. Grain-size analyses was performed by Huntingdon Empire Soils Investigation, Inc., Groton, New York, using ASTM method D422-63 (1990).

Air monitoring was conducted using a Photoionization Detector (PID) and Draeger Tubes as warranted and as called for in the Health and Safety Plan. In general, air in the breathing zone was monitored during drilling and sampling activities. Soil samples were also screened, as was the headspace over each monitoring well, as a means of determining the presence of volatile organic compounds.

3.2 INITIAL ENVIRONMENTAL SAMPLING

3.2.1 Sediment Samples

Six sediment samples were collected, including SD001 southwest of the site (upstream of NYSDEC wetland HR-20) and adjacent to the East Branch of Red Creek; SD002 in the wetland area (downstream); SD003 from the pond at the southern end of the site; SD004 from the east-west oriented drainage ditch which bisects the site; SD005 from the western side of this east-west drainage ditch on the western side of a culvert; and SD006 in the north-south drainage ditch at the eastern side of the site, adjacent to the housing subdivision (Figure 3.1). Sediment samples from the drainage ditch and in the vicinity of leachate outbreaks were noted to be rust stained.

The sediment samples were collected by ES on April 30 and May 4 and 5, 1993 using a stainless steel spoon. Five of the six samples were analyzed for Target Compound List (TCL) organic compounds, Target Analyte List (TAL) metals, and cyanide. The TCL organic compounds include volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, and polychlorinated biphenyls (PCBs). Sample SD004 was analyzed by EP Tox only. No matrix spike/matrix spike duplicates (MS/MSD) or field duplicate samples were collected.

3.2.2 Surface Water Samples

Five surface water samples were collected from sediment locations with corresponding numerical portions of the sample identifications. Surface water samples were collected before collection of sediment samples. Surface water samples were noted to be clear to light brown.

Samples were collected by ES on April 30 and May 4, 1993 directly into the sample bottles and were analyzed for TCL organics, TAL metals, and cyanide. MS/MSD samples were collected from sample location SW005. A field duplicate sample was also collected from sample location SW005.

3.2.3 Leachate Samples

Three leachate samples were collected. Sample LC001 was collected from the eastern side of the drainage ditch which transects the site. Samples LC002 and LC003 were collected from leachate seeps at the western boundary of the site along the east-west drainage ditch (where buried drums were observed in the past). Leachate was noted to be rusty brown.

The leachate samples were collected by ES on May 4 and 5, 1993. Leachate samples were collected directly into the sample bottles and analyzed for TCL organics, TAL metals, and cyanide, as shown on Table 3.2. No MS/MSD or field duplicate samples were collected.

3.2.4 Surface Soil Samples

Five surface soil samples were collected from the vicinity of crushed drums observed during the site investigation and in the vicinity of where drums had previously been observed. Soil sample SS001 was collected from the northeastern portion of the site near existing monitoring well BW-1. Samples SS002 through SS005 were collected from the western boundary of the site along the east-west drainage ditch (where buried drums were observed in the past).

The soil samples were collected by ES on April 30 and May 4 and 5, 1993 at depths of 0 to 6 inches, using decontaminated stainless steel trowels and/or hand augers. All surface water samples were analyzed for TCL organics, TAL metals and cyanide for all samples. EP Tox was also performed on sample SS003 and its duplicate SS007. Selection of the sample for EP Tox analysis was based on field observations. MS/MSD samples and a field duplicate sample were collected from location SS003, as shown on Table 3.2.

3.3 SUBSURFACE ENVIRONMENTAL SAMPLING

3.3.1 Monitoring Wells

Five monitoring wells were installed around the landfill in accordance with the Technical Work Plans and as directed by the NYSDEC between April 7 and 14, 1993 and (Figure 3.1). Monitoring well MW-5 was moved further north than originally scheduled, as directed by the NYSDEC. Monitoring well installation was conducted by SJB Services, Inc. of Buffalo, New York with field oversight by ES and the NYSDEC. Table 3.3 summarizes the well locations and construction details.

The overburden monitoring wells were drilled and constructed in accordance with the Technical Work Plans and the QAPP. The monitoring wells were constructed with 2-inch inside diameter threaded PVC flush-joint casing with 0.010inch slot screen. The annulus around the outside of the screen was backfilled with clean silica sand with the sand pack extended to at least two feet above the top of the well screen. Bentonite slurry was placed above the sand pack to form a minimum 2-foot thick seal. Vented caps and 4-inch diameter, steel casing with hinged locking caps were installed over the monitoring wells. The protective casings extend approximately two feet above the ground surface and were cemented in place. Boring logs, schematics, and geotechnical analyses results are included in Appendix B.

No information is available regarding the installation and construction of the three pre-existing wells (BW-1, BW-2, and BW-3). Well BW-1 is constructed with 2-inch diameter PVC and is approximately 18 feet deep. No soundings were taken of monitoring wells BW-2 or BW-3. Background information indicates that the wells may have been installed as part of a property transfer audit.

Well development was conducted on all six wells on April 27, 1993 using a Waterra Inertial Pump system. Wells were developed by the removal of at least three well volumes and until a turbidity reading of less than 50 NTU was achieved; until consistent temperature, pH, and conductivity were achieved; or for up to a maximum of 4 hours, in that order.

3.3.2 Subsurface Soil Samples and Grain-Size Analysis

Split spoon samples were collected continuously throughout the depth of each well. One sample from each of the five wells was selected for TCL organics, TAL metals, and cyanide analysis based on visual observations and PID readings. In addition, one sample from within the ten foot screened interval of each well was selected for grain-size characterization. Table 3.4 summarizes the sampled intervals.

3.3.3 Groundwater Samples

Groundwater samples were collected from each of the five wells installed during Task 4, as well as from a previously installed well, BW-1, on May 5 and 6, 1993. The lock on BW-1 was cut and replaced. Previously installed wells BW-2 and BW-3 were not sampled because of damage to the casings. The groundwater samples were collected using dedicated, disposable polyethylene bailers and prolypropylene lines. Groundwater samples were collected in accordance with the QAPP and were analyzed for TCL organics, TAL metals, and cyanide. No MS/MSD or field duplicate samples were collected.

3.3.4 Survey

Surveying and mapping was conducted in accordance with the Technical Work Plans. The control survey was performed by a New York State-licensed surveyor, Modi Associates. Aerial photography and AutoCAD mapping was conducted by TVGA of Lansing, Pennsylvania, under subcontract to Modi Associates.

3.3.5 Data Validation

As requested by NYSDEC, data validation was conducted only on analytical results from the first sample delivery group (SDG) for the six sites under this work assignment. Data validation was conducted by ES on subsurface soil samples from the Warsaw Village Landfill Site (SDG MW1), the first set of samples submitted to the laboratory from this set of site investigations. Full data packages were collected for all SDGs for the Henrietta Town Dump Site; however, "validation" of analytical results was limited to sample tracking and contract compliance screening.

Use of non-validated data is assumed to be adequate, based on satisfactory results from validation of the Warsaw Village Landfill SDG MW1 because all analyses were conducted by the same laboratory (Recra) within a limited time-frame (approximately 73-days). It is also assumed that within this period all quality assurance/quality control protocols were followed in a similar manner and with similar results for SDG MW1.

3.3.6 Slug Tests

Rising and falling head in-situ hydraulic conductivity tests were budgeted as optional tasks, but, as directed by the NYSDEC, were not conducted at the Henrietta site.

3.4 REPORT PREPARATION

3.4.1 Site Assessment

The site assessment subtask included data evaluation and the collection of data supplementary to data collected during the Task 1 record searches (performed by others) as necessary to complete report documentation.

3.4.2 Report Preparation

This report was prepared to present a summary of background information, results of the field investigation, and recommendations for site reclassification.

TABLE 3.1

SUMMARY OF PSA TASKS HENRIETTA TOWN DUMP SITE MONROE COUNTY, NEW YORK

Task	Description of Task
Initial Environmental Sampling Sediment Samples	Six sediment samples were collected. Five of the six samples were analyzed for TCL organic compounds, TAL metals, and cyanide. The sixth sample was analyzed by the EP Tox method.
Surface Water Samples	Five surface water samples were collected and analyzed for TCL organic compounds, TAL metals, and cyanide.
Leachate Samples	Three leachate samples were collected and analyzed for TCL organic compounds, TAL metals, and cyanide.
Surface Soil Samples	Five surface soil samples were collected and analyzed for TCL organic compounds, TAL metals, and cyanide. One of the shallow soil samples (and duplicate) were also analyzed by the EP Tox method.
Subsurface Environmental Sampling Monitoring Well Installation	Five monitoring wells were installed at a depth of 15 to 18 feet bgs. Wells were constructed of 2-inch ID casing PVC with 10 feet of 0.010-inch slotted well screen.

TABLE 3.1 (CONT.)

SUMMARY OF PSA TASKS HENRIETTA TOWN DUMP SITE MONROE COUNTY, NEW YORK

Task	Description of Task
Subsurface Soil Samples	Soil samples were collected continuously from the ground surface to the bottom of the monitoring well borings. Five subsurface soil samples, one from each monitoring well location, were collected based on field observations. The samples were analyzed for TCL organic compounds, TAL metals, and cyanide. One sample was also collected from the screened portions of the wells for grain-size analysis.
Well Development	Well development was conducted using a Waterra Inertial Pump system.
Groundwater Samples	Six groundwater samples were collected and analyzed for TCL organic compounds, TAL metals, and cyanide (including one sample from a previously installed well).
Surveying	Monitoring well elevations and locations, and sample locations were surveyed relative to a fixed datum. The surveying task included aerial photography and AutoCAD mapping.
Data Validation	Data validation was conducted only on analytical results from the Warsaw Village Landfill Site, the first site submitted to the laboratory. Review of analytical results were limited to sample tracking and contract compliance screening.

TABLE 3.1 (CONT.)

SUMMARY OF PSA TASKS HENRIETTA TOWN DUMP SITE MONROE COUNTY, NEW YORK

Task	Description of Task				
Report Preparation Site Assessment	A preliminary site contamination assessment was conducted prior to report preparation.				
Report Preparation	A report was prepared containing a summary of background information, field data, and a site assessment.				



FIGURE 3.1

TABLE 3.2

SAMPLE SUMMARY Henrietta Town Dump Henrietta, New York

SAMPLE CATEGORY	SAMPLE ID	SAMPLE DEPTH (FT)	SAMPLE DATE	ANALYSES	FIELD CREW	MS/MSD (Y/)	DESCRIPTION OF LOCATION/SAMPLE
SURFACE WATER	SW001		5/4/93	1 - 6	KAP/DRD		Upstream of wetland area, west of rail road tracks.
SURFACE WATER	SW002		5/5/93	1 - 6	KAP/DRD		Wetland north of power R.O.W. (downstream).
SURFACE WATER	SW003		5/4/93	1 - 6	KAP/DRD		On-site pond, south and of site.
SURFACE WATER	SW005		5/4/93	1 6	KAP/DRD	Y	West of tracks where drahage ditch enters wetland.
SURFACE WATER	SWOOG		4/30/93	1 - 6	KAP/DRD		North end of N-S drainage ditch, 10' downstream of storm water discharge from adjacent subdivision.
SURFACE WATER	SW007		5/4/93	1 - 6	KAP/DRD		Duplicate of SW005
SEDIMENT	SD001	0-0.5	5/4/93	1 - 6	KAP/DRD		Upstream of wetland area, paired with SW001.
SEDIMENT	SD002	0-0.5	5/5/93	1 - 6	KAP/DRD	Wetland north of power R.O.W., paired with SW002.	
SEDIMENT	SD003	0-0.5	5/4/93	1 - 6	KAP/DRD	On-site pond., paired with SW003.	
SEDIMENT	SD004	0-0.5	5/5/93	7	KAP/DRD		Leachate seep north of E-W drainage ditch (west end), near tracks.
SEDIMENT	SD005	0-0.5	5/4/93	1-6	KAP/DRD		West of tracks where drainage ditch enters wetland, paired with SW005.
SEDIMENT	SD006	0-0.5	4/30/93	1 - 6	KAP/DRD	North end of N-S drainage ditch, paired with SW006.	
LEACHATE	LC001		5/4/93	1 - 6	KAP/DRD	Seep into east end of E-W drainage ditch, west end of ditch.	
LEACHATE	LC002		5/4/93	1 - 6	KAP/DRD	Seep into west end of E-W drainage ditch, west end of ditch.	
LEACHATE	LC003		5/5/93	1 - 6	KAP/DRD	Leachate seep north of E-W drainage ditch (west end), near tracks.	
	* ANALYSES:	1. TCL VOCa	3. TCL PCBs		5. TAL METAL	s	7. EP TOX

2. TCL SVOCS 4. TCL PESTICIDES

6. CYANIDE

TABLE 3.2 (continued)

SAMPLE SUMMARY Henrietta Town Dump Henrietta, New York

SAMPLE CATEGORY	SAMPLE ID	SAMPLE DEPTH (FT)	SAMPLE DATE	ANALYSES	FIELD CREW	MS/MSD (Y/)	DESCRIPTION OF LOCATION/SAMPLE
SURFACE SOIL	SS001	0-0.5	4/30/93	1 - 6	KAP/DRD		North of BW-1.
SURFACE SOIL	SS002	0-0.5	4/30/93	1 - 6	KAP/DRD		Former drum area, north of E-W drainage ditch.
SURFACE SOIL	SS003	0-0.5	4/30/93	1 – 7	KAP/DRD	Y	Former drum area, north of E-W drainage ditch.
SURFACE SOIL	SS004	0-0.5	4/30/93	1 - 6	KAP/DRD		Former drum area, north of E-W drainage ditch.
SURFACE SOIL	SS005	0-0.5	4/30/93	1 - 6	KAP/DRD		Former drum area, south of EW drainage ditch.
SURFACE SOIL	SS007	0-0.5	4/30/93	1-4,7	KAP/DRD		Duplicate for SS003
SUB-SURFACE	SSMW1 SSMW1	6-6 0-16	4/12/93 4/12/93	1 2 - 6	NAS/AMZ NAS/AMZ	Y Y	East side of landfill adjacent to E-W drainage ditch.
SUB-SURFACE	SSMW2 SSMW2	5-7 0-18	4/14/93 4/14/93	1 2-6	NAS/AMZ NAS/AMZ		Southeast corner of landfill.
SUB-SURFACE	SSMW3 SSMW3	2-4 0-16	4/14/93 4/14/93	1 2 - 6	NAS/AMZ NAS/AMZ		West side of landfill in south portion.
SUB-SURFACE	SSMW3DUP SSMW3DUP	2-4 0-16	4/14/93 4/14/93	1 2 - 6	NAS/AMZ NAS/AMZ		Duplicate of SSMW3 Duplicate of SSMW3
SUB-SURFACE	SSMW4 SSMW4	6-7 0-16	4/12/93 4/12/93	1 2 - 6	NAS/AMZ NAS/AMZ		Wetland area directly west of E-W discharge point.
SUB-SURFACE	SSMW5 SSMW5	5-7 0-14	4/7/93 4/7/93	1 2 - 6	NAS/AMZ NAS/AMZ		Northwest of landfill.
DRILL	DW		4/13/93	1 - 6	NAS/AMZ		
	* ANALYSES:	1. TCL VOCs 2. TCL SVOCs	3. TCL PCBs 4. TCL PESTIC	IDES	5. TAL METAL 8. CYANIDE	S	7. EP TOX

SAMPLE SUMMARY Henrietta Town Dump Henrietta, New York

SAMPLE CATEGORY	SAMPLE ID	SAMPLE DEPTH (FT)	SAMPLE DATE	ANALYSES	FIELD CREW	MS/MSD (Y/)	DESCRIPTION OF LOCATION/SAMPLE
GROUNDWATER	GW001 (MW1)		5/6/93	1 - 6	KAP/DRD		East side of landfill adjacent to E-W drainage ditch.
GROUNDWATER	GW002 (MW-2)		5/5/93	1 - 6	KAP/DRD		Southeast corner of landfill.
GROUNDWATER	GW003 (MW-3		5/5/93	1 - 6	KAP/DRD		West side of landfill in south portion.
GROUNDWATER	GW004 (MW-4)		5/5/93	1 - 6	KAP/DRD		Wetland area directly west of E-W discharge point.
GROUNDWATER	GW005 (MW-5)		5/6/93	1 - 6	KAP/DRD		Northwest of landfill.
GROUNDWATER	GWBW1 (BW-1)		5/6/93	1 - 6	KAP/DRD		Existing well on northeast edge of landfill.
GROUNDWATER	TRIP BLANK		4/30/93	1	KAP/DRD		
GROUNDWATER	TRIP BLANK		5/6/93	1	KAP/DRD		

* ANALYSES:

1. TCL VOCs 3. TCL PCBs 2. TCL SVOCs 4. TCL PESTICIDES 5. TAL METALS 6. CYANIDE 7. EP TOX

TABLE 3.3

MONITORING WELL LOCATIONS AND SPECIFICATIONS HENRIETTA TOWN DUMP HENRIETTA, NEW YORK

WELL/	WELL/ ORING UMBER	LOCATION	TOP OF SCREEN		BOTTOM OF SCREEN		SCREEN / CASING	SCREEN /	SAND	SEAL	GROUT
NUMBER			DEPTH (FEET) *	ELEV (FEET) **	DEPTH (FEET) *	ELEV (FEET) **	DIAM (INCHES)	MATERIAL	(FEET BGS)	(FEET BGS)	(FEET BGS)
BW - 1	OVERBURDEN ***	NORTHEAST EDGE OF LANDFILL	UNKNOWN	UNKNOWN	18' ***	519.1 ***	2***	PVC ***	UNKNOWN	UNKNOWN	UNKNOWN
MW - 1	OVERBURDEN	EAST CENTRAL AREA	5.5	534.4	15.5	524.4	2	PVC	5.0 - 17.0	2.8 - 5.0	GS - 2.8
MW - 2	OVERBURDEN	SOUTHEAST AREA	8.0	543.7	18.0	533.7	2	PVC	7.0 - 18.5	4.5 - 7.0	GS - 4.5
MW - 3	OVERBURDEN	SOUTHWEST AREA	5.1	530.0	15.5	520.0	2	PVC	4.0 - 16.0	2.0 - 4.0	GS - 2.0
MW - 4	OVERBURDEN	WEST CENTRAL AREA	5.0	523.9	15.0	513.9	2	PVC	4.0 - 16.0	2.0 - 4.1	GS - 2.0
MW - 5	OVERBURDEN	NORTHWEST CENTRAL AREA	5.5	534.8	15.5	524.8	2	PVC	4.0 - 16.0	2.0 - 4.0	GS - 2.0

* DEPTHS IN FEET BELOW GROUND SURFACE

** ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL

*** WELL PREVIOUSLY INSTALLED, WELL CONSTRUCTION DATA FROM FIELD MEASUREMENTS DURING 1993 PSA.

TABLE 3.4

SPLIT SPOON SAMPLE LOCATIONS HENRIETTA TOWN DUMP HENRIETTA, NEW YORK

SAMPLE ID NUMBER	WELL/ BORING NUMBER	MATRIX	SAMPLE DEPTH (FEET)	SAMPLE TYPE	LOCATION
SSMW1	MW – 1	SOIL	6 - 8 0 - 16 12 - 16	1 2 3	EAST CENTRAL AREA
SSMW2	MW – 2	SOIL	5 - 7 0 - 18 16 - 18	1 2 3	SOUTHEAST AREA
SSMW3/SSMW3DUP	MW – 3	SOIL	2 - 4 0 - 16 10 - 14	1 2 3	SOUTHWEST AREA
SSMW4	MW – 4	SOIL	6 - 7 0 - 16 8 - 12, 12 - 14	1 2 3	WEST CENTRAL AREA
SSMW5	MW – 5	SOIL	5 - 7 0 - 14 10 - 14	1 2 3	NORTHWEST CENTRAL AREA

SAMPLE TYPES

1 Volatile Organic Compounds.

2 Semi-Volatile Organic Compounds, PCBs, Pesticides, Metals, and Cyanide.

3 Grain-Size Analysis.

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SECTION 4

SITE ASSESSMENT

4.1 SITE DESCRIPTION

The Henrietta Town Dump Site is an inactive landfill listed as a Class 2a site (NYSDEC Site No. 828037) on the State Registry of Inactive Hazardous Waste Sites and is under investigation because of reported disposal of industrial and commercial waste, including disposal of drums with unknown contents (URS, 1991).

The Henrietta Town Dump is located south of Lehigh Station Road, and north of the NYS Thruway, in Henrietta Township, Monroe County, New York (Figure 4.1). The site is bordered by Gypsum Services and Bestway Environmental to the north; a drainage ditch and a housing subdivision to the east; undeveloped land to the south; and inactive Conrail tracks, the East Branch of Red Creek, and NYSDEC Regulated Wetland HR-20 to the west (Figure 4.2). Bestway Environmental is a garbage carting service and Gypsum Services is a wallboard distributor.

Background information indicates the site includes portions of two land parcels (#175.20-01-83.1 and 175.16-01-7), and encompasses approximately 35 acres. However, historic aerial photographs indicate landfill activities were limited to approximately 20-acres in the middle and south portions of the site (MCEMC, 1961; MCEMC, 1967; MCEMC, 1970). Although the overall slope of the site is less than five percent to the west, the site topography consists of a number of depressions and mounds as a result of past excavation activities.

A south flowing drainage ditch borders the northeastern two thirds of the site and turns west, bisecting the site in an east to west direction, and discharges to a tributary to the East Branch of Red Creek and NYSDEC regulated wetland H-20. A storm water line that appears to originate from the subdivision discharges to the drainage ditch in the northeast portion of the site (ES, 1993a). Leachate seeps were observed at several locations along the east-west drainage ditch.

Surface water and leachate were noted to be rust colored with a slight sheen. A small pond is located in the south portion of the site, and a swampy area is located in the east-central portion of the site. A seasonal marsh area is located north and west of BW-1. Although the marsh area was covered with water during the spring 1993 sampling effort, no standing water was observed during a site visit conducted on October 22, 1993. A small section of the seasonal marsh area protruding southwest was noted to be completely dry and void of vegetation, while other areas of the marsh were heavily vegetated.

Trails, apparently used as bike trails, were observed throughout the site. Several foot bridges from the adjacent subdivision cross the north-south drainage ditch. Yard waste piles were observed in the vicinity of the foot bridges. Pedestrians and bikers were observed on-site several times during the 1993 PSA field activities. A transmission line right-of-way (the Niagara Adirondack Tie Line) bisects the site in a east to west direction just south of drainage ditch. Several crushed drums (laying on the surface), one intact drum, and scrap metal were observed adjacent to the seasonal marsh area north and southwest of BW-1 (ES, 1993a). No soil staining was observed in the vicinity of the drums. The intact drum was closed but appeared to be empty. No drums were observed along the west end of the east-west drainage ditch, as reported in a previous Task 1 report. However, several crushed drums (laying on the surface) were observed further north of the drainage ditch. No soil staining was observed in the vicinity of the drums. The east-west drainage ditch was reportedly dredged in 1992. Garbage (scrap metal and household garbage) exposed from the dredging was observed along both the south and west banks in this area.

Three previously installed monitoring wells were observed in the north portion of the landfill. Two of the wells had not been identified in previous site inspection reports. The well casings had a number of bullet holes, and spent shell casings were observed throughout the site.

4.2 SITE HISTORY

The Henrietta Site was owned by the Town of Henrietta from the early 1950s until 1966 (URS, 1991). The site was operated as a landfill from the early 1960's until 1965 by Richard Corsetti and the Henrietta Landfill Corporation. Landfill operations were reportedly ceased in 1965.

The Town of Henrietta sold the site to Wembly Construction Company in 1966. Cliff Bar, Inc. purchased the site from Wembly Construction in 1974 and sold the site to Genesee Valley Waste Systems (formerly Bestway Disposal) in 1981. 1233 Lehigh Station Back Acreage Corporation purchased the site from Genesee Valley Waste Systems in 1989 and is reportedly the current owner of the site.

Approximately 6,000 tons of household waste, 1,350 tons of commercial waste, and 150 tons of industrial waste were reportedly disposed on-site in 1962. Specific waste types or disposal information for the remaining years of site operation were not identified. The landfill is reportedly not lined. Closure of the landfill in 1965 was in response to poor management citations from the Monroe County Health Department; including open burning, failure to deposit refuse in trenches, and failure to cover refuse. No documentation was located indicating landfill closure procedures or whether closure was approved by the appropriate regulatory agency for that time period.

Rust staining and an oily sheen were noted in the drainage ditch during a 1983 site inspection conducted by NUS Corporation and a 1991 site inspection conducted by URS Consultants, Inc. Partially buried drums were observed on the southwest bank of the east-west drainage ditch during the 1991 site inspection; however, the drums were reportedly empty.

Historic aerial photographs indicate the northern-most portion of the site was farmland, as was the subdivision east of the site prior to its construction in the late 1960s. Although no documentation has been located identifying use of the site after 1965, a 1988 aerial photograph indicates that the access road portion was used for storage of dumpsters; presumably by Bestway (MCEMC, 1988). A 1976 aerial photograph showed what appeared to be excavation activity in the vicinity of the marsh area, southwest of BW-1 (MCEMC, 1976).

The Town of Henrietta Highway Department reportedly dredged the east-west drainage ditch in February 1992 to correct overflow to the housing development during storm events (ES, 1993b). Dredge material was left uncovered along the banks of the drainage ditch. No drums were reportedly observed or removed during the excavation activities.

4.3 SITE VICINITY

The Henrietta Town Dump Site is located in the south-central portion of Monroe County. Monroe County encompasses approximately 673 square miles (USDA, 1973). Dairying is the predominant farm enterprise followed by cash grain crops, fruits, and vegetables. The predominant industries in the county include manufacturers of camera and photographic equipment, clothing, glass, and electronic equipment.

Ground surface elevations within the county range from 246 at the shore of Lake Ontario to more than 1,050 feet in the extreme southeast corner of the site (Leggette et. al., 1935). The topography is marked by a series of flat plains rising progressively above one another toward the south. The regional topography is gently rolling with drumlins throughout and sloping downward to the north and west. The northern portion of the county is a nearly level to gently sloping lake plain (USDA, 1973). The southern portion of the county, where the site is located, is comprised primarily of end moraines, till plains, and drumlins. Intermingled in these areas are small lakebeds and alluvial flood plains.

With the exception of populated areas east and northeast of the site, the vicinity of the Henrietta Site is relatively undeveloped. The site is bordered on the east by Conrail railroad tracks and a wetland area; on the north by several commercial establishments and Lehigh Station Road; on the east by a housing subdivision; and on the south by undeveloped land and the NYS Thruway. Interstate 390 is located approximately 0.5 miles west of the site. A portion of the wetlands west of the site includes the east branch of Red Creek and a NYSDEC regulated wetland (HR-20).

4.4 REGIONAL ENVIRONMENTAL SETTING

4.4.1 Regional Geology and Soils

Monroe County is located in the Erie-Ontairio Lowlands physiographic province (Rodgers et. al., 1990). The Allegheny Plateau borders the southern edge of the county.

The surficial geology of the county has been shaped and modified by continental glaciation during the Pleistocene. The most recent ice sheet retreated from the county approximately 13,000 years ago during the Wisconsin Stage (USDA, 1973, Young, 1983). During retreat of the ice, temporary periods of stagnation and readvances resulted in the formation of at least three major proglacial lakes; Lake Warren, Lake Dawson, and Lake Iroquois (Fairchild, 1909, 1928; Chadwick, 1917;

Young, 1983; Yager et. al., 1985; USGS, 1989). Depositional features such as beach ridges, moraines, deltas, lake plains, channels and terraces characterize the northern portion of the county (USGS, 1989). The southern portion of the county is characterized by end moraines, drumlins, till plains, small lake beds and alluvial flood plains. The unconsolidated overburden in the vicinity of the site is estimated to be approximately 30 to 50 feet thick.

The unconsolidated sediments in the county are underlain by Upper Ordovician to Lower Devonian bedrock (Rodgers et. al., 1990; Richard and Fisher, 1970). Bedrock is estimated to be at an approximate elevation of 500 feet above mean sea level in the vicinity of the site with the structural orientation dipping gently to the south-southwest at approximately 55 feet per mile (MCEMC, 1980; USGS, 1989). The regional slope of the bedrock surface is approximately 50 feet per mile to the north (GFLRPB, 1975). Bedrock underlying the site vicinity consists of the Upper Silurian Vernon shale, Syracuse and Camillus formations of the Salina Group (Richard and Fisher, 1970). The Vernon shale consists of a red and green silty shale with dolostone, and evaporates (Rogers, et. al., 1991). The Syracuse formation consists of green or gray shale rich in anhydrite, dolostone, and numerous salt layers. The Camillus formation consists of shale rich in anhydrite and dolostone rich in clay.

4.4.2 Regional Groundwater Hydrology

Groundwater in Monroe County occurs in bedrock and in unconsolidated glacial deposits. In bedrock, water is produced primarily from the Lockport Group (GFLRPB, 1975; Kammererr and Hobba, 1986). Groundwater occurs in joints, bedding plane fractures, and solution cavities and is generally hard and mineralized. Salinity increases in the lower portions of the Lockport Group. Yields are variable and range from five to 500 gallons per minute (GFLRPB, 1975).

The most productive source of groundwater in Monroe County is the glacial deposits overlying the bedrock (Leggette et. al., 1935; GFLRPB, 1975; Kammererr and Hobba, 1986). Buried preglacial valleys, filled with thick deposits of sand, silt, and gravel, yield the greatest quantities of water. The buried Irondogenesee valley, located east of the site, supplied over four million gallons per day to municipal water-supply systems in 1980 (Waller et. al., 1982). Outwash deposits, such as those located near Henrietta and Brighton, yield lesser quantities of water (Leggette et. al., 1935; Kammererr and Hobba, 1986). Yields from the glacial deposits in the vicinity of the site are usually less than 1 gallon per minute (Kammererr and Hobba, 1986). Water is supplied to homes in the vicinity of the site by the Monroe County Water Authority (MCWA, 1990).

4.4.3 Regional Surface Water Hydrology

Monroe County is located in the Erie-Ontairio Lowlands physiographic province (Rodgers et. al., 1990). Maximum 24-hour rainfall in the region is approximately 3.85 inches, annual precipitation is 32 inches, and net precipitation is approximately 6 inches per year (URS, 1991). The Henrietta Town Dump Site is located on the eastern edge of the Genesee River Drainage Basin (USGS, 1973; NYSDOH, 1961). The Genesee River drains the majority of Monroe County and empties into Lake Ontario. Major tributaries to the Genesee River are Black Creek, Oatka Creek, Honeoye Creek, and Canaseraga Creek, which all flow into the river south of the city of Rochester (NYSDOH, 1961; USDA, 1973). Other important tributaries include Red Creek, Little Black Creek, Consesus Outlet, Silver Lake Outlet, Wolf Creek, Wiscoy Creek, Caneadea Creek, Angelica Creek, Van Campen Creek, and Dyke Creek. Irondequoit Creek, which flows into Irondequoit Bay, drains the southeastern part of Monroe County.

4.5 SITE ENVIRONMENTAL SETTING

4.5.1 Site Geology

Five monitoring wells were installed as part of the PSA field investigation. The wells ranged in depth from 15 to 18 feet. Wood chunks identified during drilling of MW-1 indicate that fill material may have been encountered at this location. Boring logs indicate none of the other borings encountered fill material. Drilling logs from monitoring well borings indicate that the subsurface material consists of brown, fine-to-coarse grained sand interbedded with silt, gravel, and red to gray, varved, lacustrine clay (Figures 4.3 and 4.4). Layers of gravel, silt, and clay do not appear to be continuous across the site. Bedrock was not encountered in the monitoring well borings on-site.

Grain size analysis was performed on composite samples from the screened intervals in each well. Soils in borings MW-1, MW-2, MW-4, and MW-5 are characterized as a silty sand with some gravel (Table 4.1). Soils from boring MW-3 are characterized as silt and clay. Permeabilities are estimated to range from 1 x 10^{-5} to 1 x 10^{-3} centimeters per second (cm/sec) for silty sands and from 1 x 10^{-7} to 1 x 10^{-5} cm/sec for silt and clay (Freeze and Cherry, 1979).

On-site soils are described primarily as "made land" soils, with Hilton loam and Ontario loam along the east and south portions of the site (USGS, 1973). Made land consists of areas that have been filled with waste and may have been covered with a thin mantle of soil. Permeability for the Hilton loam and Ontario loam ranges from 10^{-4} cm/sec to 10^{-3} cm/sec. Vertical permeability values tend to decrease with depth resulting in rapid saturation of the soils following rain.

The Hilton series is made up of deep, moderately will drained, mediumtextured and moderately coarse textured soils that formed in calcareous glacial till. The till was derived mainly from local sandstone and limestone. Hilton loam commonly occupies foot slopes in drumlin areas and the side slopes of low ridges on till plains. The subsoil of the Hilton series stays wet for brief by significant periods of time after prolonged rain. A seasonal high water table rises to within 18 to 24 inches of the surface and is perched above the moderately slowly to slowly permeable underlying till.

The Ontario series is made up of deep, well-drained, medium-textured and moderately coarse textured soils. These soils formed in loamy, strongly calcareous glacial till dominated by red sandstone and limestone with minor quantities of shale. Ontario loam soils occur on the till plains and on the sides of drumlins. Permeability is moderate to a depth of about 25 inches and moderate to slow below that depth.

Soils in the low lying area adjacent to the west side the site are comprised of Niagara silt loam and Hasley gravelly loam. Permeability for these soils ranges from 10^{-3} cm/sec to less than 10^{-4} cm/sec. The Niagara series consists of deep, somewhat poorly drained soils that have a medium textured surface layer and a medium-textured to moderately fine textured subsoil. These soils developed in thin deposits of lacustrine material dominated by silt and very fine sand with some clay. Niagara silt loam occupies an intermediate landscape between high knobs and low depression in old glacial lakebeds. A seasonal high water table is within 6 to 12 inches of the surface and persists late into spring. The Hasley series consists of deep, level to nearly level, medium-textured soil that are very poorly drained, These soils formed in glaciofluvial deposits of high-lime sand and gravel and occur in depressions associated with out-wash terraces and some of the major drainageways in the county.

4.5.2 Site Groundwater Hydrology

Water level measurements from the five monitoring wells on-site indicate that a shallow water table aquifer is present in the unconsolidated sediments (Table 4.2). No continuous confining layers across the site were identified in the borings. However, the varved clay encountered in two of the borings, may locally act as a confining layer. This is evidenced in monitoring well MW-4 where artesian conditions were encountered beneath the clay unit.

A groundwater level contour map, based on water levels measured on May 5 and 6, 1993, indicates a westerly groundwater flow direction towards the wetland (Figure 4.5). The wetland and the east branch of Red Creek located west of the site appears to be a groundwater discharge area for shallow groundwater. The small pond in the southern portion of the site and the drainage ditch bisecting the site appear to be local groundwater discharge areas.

4.5.3 Site Surface Water Hydrology

The topography of the site slopes gently to the west toward the wetland located adjacent to the site. The highest point, approximately 560 feet above sea level, is located in the southeast corner of the site. The wetland is at an elevation of approximately 525 feet above sea level.

Surface water drainage is assumed to follow the general topography of the site westwards towards the wetland. The site is bisected by an east-west trending drainage ditch which was reportedly installed by the previous property owner. The drainage ditch flows along the transmission line right of way, forks north and south along the west property line and discharges to the wetland area west of the railroad tracks. A small pond is located in the southern portion of the site.

A NYSDEC regulated wetland (HR-20) is located adjacent to the western edge of the site. The east branch of Red Creek is located approximately 900 feet west of the site. The creek joins Red Creek approximately 2.5 miles north of the site. Red Creek flows into the Genesee River near the canal in Rochester. The east branch of Red Creek is a Class C water body. Class C waters are suitable for fishing, fish propagation, and primary and secondary contact (NYSDEC, 1985). The site is located outside of the 500-year floodplain (FEMA, 1992).

4.6 SITE CONTAMINATION ASSESSMENT

The following subsections summarize the results of Tasks 3 (Initial Environmental Sampling) and 4 (Subsurface Environmental Sampling). Whenever possible, samples were collected upgradient of the site to establish ambient or background conditions. These levels were compared to those found on-site, downstream, or downgradient of the site. Concentrations downstream or downgradient of the site in excess of three times the upgradient or upstream concentrations may indicate a release from an on-site contaminant source. This criterion is generally recognized by the USEPA and the NYSDEC as constituting a "significantly higher" concentration for purposes of scoring an HRS observed release for a particular pathway.

Downgradient or downstream results may also be use to determine the threat posed by hazardous waste on-site to the public health and environment. Extraction Procedure Toxicity (EP Tox) testing was also conducted where deemed appropriate to address visible, or otherwise suspected, on-site contamination, for confirmation of on-site hazardous waste. Where appropriate aqueous analytical results have been compared to applicable NYSDEC ambient water quality standards and guidance values. Soil and sediment sample inorganic results have been compared to published naturally-occurring ranges for the conterminous United States (Shackelette and Boerngen, 1984). VOC, SVOC, pesticide and PCB results for soil and sediment samples have been compared to USEPA human health-based levels for carcinogens and systemic toxicants (NYSDEC, 1992). Downgradient or downstream results were used to determine the threat posed by hazardous waste onsite to the public health and environment.

As stated in Section 3, "validation" of analytical results was limited to sample tracking and contract compliance screening. Assessment of analytical results included reviewing sample holding times and evaluating laboratory blank samples. In most cases concentrations in field samples less than five times blank sample concentrations were considered to be attributable to laboratory contamination and were identified as such. For common laboratory contaminants (methylene chloride, acetone, toluene, 2-butanone, and common phthalate esters), the criterion used was ten times the blank sample concentrations.

Certain concentrations were flagged with a "J", indicating an estimated value. The concentrations were estimated because they were lower than the contractrequired detection limit (CRDL) but higher than the instrument detection limit (IDL).

4.6.1 Sediment Samples

Six sediment samples were collected, including SD001 southwest of the site, (upstream of NYSDEC wetland HR-20) adjacent to the East Branch of Red Creek;

SD002 downstream in the wetland area; SD003 from the pond at the southern end of the site; SD004 from the east-west oriented drainage ditch which transects the site; SD005 from the western side of this east-west drainage ditch on the western side of a culvert; and SD006 in the north-south drainage ditch at the eastern side of the site, adjacent to residences along Nevins Road. Analytes detected in sediment samples are presented in Table 4.3.

VOCs

Methylene chloride, acetone, and 2-butanone were detected in sediment samples. The methylene chloride and 2-butanone concentrations were less than ten times the concentration in the corresponding method blanks, and are therefore assumed to be from laboratory contamination. The detection of acetone in SD006 was also attributable to laboratory contamination for the same reason. The concentration of acetone was greatest in the designated upstream sample for the wetland (SD001), indicating the detection is not attributable to the site. The acetone concentrations were significantly below the USEPA human health-based level.

The two other samples collected in the western portion of the east-west drainage ditch (SD005) and the southern pond (SD003) had significantly lower concentrations of acetone. These concentrations were similar to the concentration in the east drainage ditch upgradient sample (SD006) which was attributable to laboratory contamination, indicating the concentrations detected are not attributable to the site.

SVOCs

Fifteen SVOCs were detected in the sediment samples, including two phthalates, two amines, and eleven polycylic aromatic hydrocarbons (PAHs). Maximum SVOCs concentrations were detected in downstream sediment samples SD002 and SD005. Only benzo(a)anthracene exceeded the USEPA human healthbased levels. With the exception of five PAH concentrations in SD002 and one in SD005, all concentrations were estimated values. The presence of PAHs may be attributable to reported on-site burning while the landfill was in operation.

One of the phthalates, diethyl phthalate, had concentrations less than ten times the concentrations detected in the corresponding methods blanks, and therefore the detection is assumed to be from laboratory contamination. Bis(2ethylhexyl)phthalate is a common plasticizer and may be attributable to household and commercial wastes disposed on-site.

Two amines, n-nitrosodiphenylamine and carbazole, were detected in an on-site sample (SD003) and downstream samples (SD002 and SD005), respectively. Both compounds were used for manufacturing rubber, indicating their presence may be attributable to on-site disposal of tires or other rubber products (ATSDR, 1991; Hawley, 1981).

No documented on-site use or disposal of SVOCs has been found to date.
Pesticides

Seven pesticides were detected in sediment samples at low, estimated concentrations. None of the pesticides exceeded the USEPA human health-based levels. No documented on-site use or disposal of pesticides has been found to date.

PCBs

Two PCB Aroclors 1242 and 1260 were detected in downstream sediment samples SD002 and SD005 at low, estimated concentrations. The PCB concentrations were significantly below the USEPA human health-based levels. No documented on-site use or disposal of PCBs has been found to date.

Inorganics

Nineteen metals and cyanide were detected in the sediment samples. Lead exceeded naturally-occurring background ranges for eastern United States soils in SD003. Cyanide was detected in sediment samples SD001, SD002, SD003, and SD005 at concentrations ranging from 5.4 milligrams/kilogram (mg/kg) to 22.1 mg/kg. The presence of inorganic analytes may be attributable to on-site disposal of wastes; however, no documented disposal has been found to date. EP Tox concentrations for SD004 did not exceed regulatory limits for determination as a hazardous waste.

4.6.2 Surface Water Samples

Five surface water samples were collected, including SW001 southwest of the site in the NYSDEC wetland HR-20 adjacent to the East Branch of Red Creek; SW002 downstream of the wetland area; SW003 from the pond south of the site; SW005 from the western side of the east-west drainage ditch which transects the site; and SW006 in the north-south drainage ditch at the eastern side of the site, adjacent to residences along Nevins Road.

VOCs

Six VOCs were detected in the surface water samples at low, estimated concentrations. However, the detection of methylene chloride is assumed to be from laboratory contamination because concentrations were less than ten times the concentrations in the corresponding method blanks. The concentration of 2-butanone in SW005 is also assumed to be attributable to laboratory contamination for the same reason. The remaining VOCs (chloroethane, acetone, carbon disulfide, and 1,1-dichloroethane) were detected at low, estimated concentrations. No NYS Class C water quality standards/guidance values exist for comparison. No documented use or on-site disposal has been found to date.

SVOCs

Bis(2-ethylhexyl)phthalate was the only SVOC detected in the surface water samples. This compound was detected in SW005 at a low, estimated concentrations; however, the concentration did exceed the NYS Class C water quality standard. Bis(2-ethylhexyl)phthalate was also detected in the sediment samples. The presence of this compound may be attributable to on-site disposal of plastic wastes. However, no documented use of disposal has been identified to date. No documented use or on-site disposal has been found to date for this compound.

Pesticides

One pesticide, heptachlor, was detected at estimated concentrations in SW002 and SW003. Both concentrations exceeded the NYS water quality standard of 0.001 ug/l; however, no documented on-site use or disposal of pesticides has been identified to date. Heptachlor was not detected in the associated sediment samples.

PCBs

No PCBs were detected in the surface water samples.

Inorganics

Twelve inorganic compounds and cyanide were detected in surface water samples. Aluminum, copper, iron, and zinc exceeded the NYS Class C water quality standards. The exceedances may be attributable to scrap metal wastes disposed onsite.

4.6.3 Leachate Samples

Three leachate samples were collected at the locations shown on Figure 4.1. LC001 was collected from the eastern side of the drainage ditch which transects the site. LC002 and LC003 were collected from leachate seeps at the western boundary of the site along the east-west drainage ditch (where buried drums were observed in the past).

VOCs

Acetone, methylene chloride, and 2-butanone were detected in the leachate samples at low concentrations. With the exception of acetone in LC003, all three compounds were detected at estimated concentrations. The concentrations of methylene chloride and 2-butanone were less than ten times the concentrations detected in the corresponding method blanks, indicating their presence is due to laboratory contamination. A NYS Class C water quality standard is not listed for acetone. Acetone was also detected in the sediment samples and one surface water sample. The presence of acetone may be attributable to disposal of household or commercial/industrial wastes; however, documented on-site use or disposal has not been found to date. Although not indicated by the laboratory method blanks, the presence of acetone may also be attributable laboratory contamination based on the number of low concentrations detected for this sites and the five other sites under this work assignment.

SVOCs

1,4-Dichlorobenzene, diethyl phthalate, and bis(2-ethylhexyl)phthalate were the only SVOCs detected in the leachate samples. All three compounds were detected in LC001 at low, estimated concentrations. Bis(2-ethylhexyl)phthalate was the only detected compound to exceed the NYS Class C water quality standard. The presence of these compounds may be attributable to on-site disposal of household wastes. No documented on-site use or disposal has been identified to date.

Pesticides

No pesticides were detected in the leachate samples.

PCBs

No PCBs were detected in the leachate samples.

Inorganics

Thirteen metals and cyanide were detected in the leachate samples. In general highest metal concentrations were from samples LC002 and LC003. Copper, iron, lead and zinc exceeded the NYS Class C surface water quality standards. The elevated metal concentrations may be attributable to on-site disposal of scrap metal wastes.

4.6.4 Soil Samples

Five surface soil samples were collected, including SS001 from the northeastern portion of the site near existing monitoring well BW-1 (adjacent to crush drums) and five samples (SS002 through SS005) from stained or otherwise suspect soils at the west boundary of the site along the east-west drainage ditch (where buried drums were observed in the past).

Split spoon samples were collected continuously throughout the depth of each well. One sample from each of the five wells was selected for TCL organics, TAL metals, and cyanide analysis based on visual observations and PID readings. One sample from within the ten foot screened interval of each well was selected from for grain-size characterization. Table 3.4 summarizes the sampled intervals.

VOCs

Acetone, methylene chloride, and 2-butanone were detected in the surface soil and subsurface soil samples. 1,1,1-Trichloroethane was also detected in the surface soil samples. The concentrations of methylene chloride and acetone were less than ten times the concentrations in the corresponding method blanks, and therefore attributed to laboratory contamination. The concentration of 2-butanone in the surface soil sample was also attributed to laboratory contamination for the same reason. With the exception of 2-butanone in subsurface soil samples SSMW2 and SSMW5, these three compounds are assumed to be from laboratory contamination. The presence of 1,1,1-trichloroethane in the surface soil samples and 2-butanone in the subsurface soil samples may be attributable to solvent wastes from household or commercial wastes disposed on-site; however no documented on-site use or disposal has be identified to date. 1,1,1-Trichloroethane and 2-butanone are common ingredients in household cleaners and industrial solvents. All VOC concentrations were below the USEPA human health-based levels.

SVOCs

Thirteen PAHs, three phthalates, and dibenzofuran were detected in surface soil samples at estimated concentrations. Seven PAHs and three phthalates were detected in the subsurface soil samples. Compounds detected in the subsurface soil samples were also detected in the surface soil samples, with concentrations of similar magnitude.

One of the phthalates detected in the surface soils, bis(2-ethylhexyl)phthalate, was detected at concentrations less than ten times the concentrations detected in the corresponding methods blank, indicating its presence is from laboratory contamination. The presence of other phthalates is most likely attributable to onsite disposal of plastic wastes.

Benzo(a)pyrene was the only PAH that exceeded the USEPA human healthbased level; exceeding the level in three surface soil samples and one subsurface soil sample. The presence of PAHs is likely attributable to reported on-site fires. Dibenzofuran is derived from coal tar and is used in insecticide; however, the actual source has not been identified. Documented on-site use or disposal of SVOCs has not been identified to date.

Pesticides

Six pesticides were detected in the surface soil samples, as well as in the subsurface soil samples. None of the concentrations exceeded the USEPA human health-based levels, and all of the pesticides detected in the subsurface soil samples were at estimated concentrations. No on-site use or disposal of pesticides on-site has been identified to date; however, the presence of pesticides may be attributable to past agricultural use on former farm land adjacent to the site.

PCBs

Three PCB Aroclors were detected in surface soil samples at concentrations less than the USEPA human health-based levels. No PCBs were detected in the subsurface soil samples. No on-site use or disposal of PCBs has been identified to date.

Inorganics

Nineteen metals and cyanide were detected in subsurface soil samples, and sixteen metals and cyanide were detected in subsurface soil samples. Lead was the only metal exceeding naturally-occurring background ranges. However, the EP Tox lead concentration from SS003 was significantly less than the regulatory limit. Concentrations of cyanide ranged from 1.6 ug/kg to 10.9 ug/kg in both the surface and subsurface soil samples. Cyanide was also detected in the sediment, surface water, and leachate samples. No documented on-site use or disposal has been identified to date.

4.6.5 Groundwater Samples

Six groundwater samples were collected; one from each of the five monitoring wells installed during the PSA, and one from an existing monitoring well. The groundwater samples were analyzed for TCL organics, TAL metals, and cyanide.

VOCs

Five VOCs were detected in the groundwater; however the presence of methylene chloride was attributed to laboratory contamination because the groundwater concentrations were less than ten times the concentrations detected in the corresponding method blanks. The concentration of toluene detected in GW001 is assumed to be attributable to laboratory contamination for the same reason. Other VOCs detected in groundwater include toluene in GW004, carbon disulfide in GW001, and 2-butanone in GW003, all at estimated concentrations. Acetone was detected in GW001 and GWBW1 at 10 ug/l and 22 ug/l, respectively. The VOC concentrations did not exceed NYS Class GA water quality standards/guidance values. The presence of carbon disulfide may be attributable to degradation of general refuse in the landfill. Acetone and 2-butanone were also detected in the sediment, surface water, leachate, and soil samples. The presence of acetone, toluene, and 2-butanone may be attributable to wastes disposed on-site. However, documented on-site use or disposal has not be identified to date.

SVOCs

Bis(2-ethylhexyl)phthalate was detected at an estimated concentration in sample GW001, below the NYS Class GA water quality standard. No other SVOCs were detected on-site. The presence of bis(2-ethylhexyl)phthalate may be attributable to on-site disposal of plastics.

Pesticides

Heptachlor was detected at an estimated concentration in GW001, below the NYS Class GA water quality standard. No pesticides were detected in groundwater. Heptachlor was also detected at very low concentrations in two surface water samples. The presence of hepatchlor may be attributable to past use on adjacent farm land, particularly given that heptachlor was not detected in the leachate samples.

PCBs

No PCBs were detected in the groundwater.

Inorganics

Sixteen metals and cyanide were detected in groundwater. Iron and magnesium exceeded NYS Class GA water quality standards in all six wells. Lead slightly exceeded the Class GA standard in sample GW004, downgradient of the east-west drainage ditch. Sodium and zinc exceeded the Class GA standard in three and two of the wells, respectively.

4.6.6 Presence of Hazardous Wastes

Title 6 of the New York Codes, Rules, and Regulations (6NYCRR), Part 371 establishes two categories of hazardous wastes: (1) listed hazardous wastes, and (2) characteristic hazardous wastes. Listed hazardous wastes are generated by certain industrial processes, or are judged to have an acute hazard or toxicity associated with exposure to them. Listed hazardous wastes are assigned USEPA hazardous waste numbers with "F", "K", "P", "U", or "B" prefixes.

Characteristic hazardous wastes are identified using analytical methods specified in 6NYCRR, Part 371, and are assigned "D" prefixes. The hazardous waste characteristics include toxicity, reactivity, corrosivity, and ignitability. The EP Tox method is used to identify hazardous wastes having the characteristics of toxicity.

Several of the analytes detected in the field samples collected during the PSA investigation are potential listed hazardous wastes (Sections 4.6.1 to 4.6.3). However, the presence of these listed compounds on-site can not be used to establish the presence of hazardous waste at the site because: (1) they cannot be directly attributed to documented specific or non-specific sources as required by 6NYCRR, Part 371.4(b) and (c); (2) they cannot be directly attributed to the disposal of a "commercial chemical product, manufacturing chemical intermediates, or off-specification commercial chemical products" as required by 6NYCRR, Part 371.4(d), based on limited information obtained to date; or (3) EP Tox results were below the regulatory levels for classification as hazardous wastes.

Documentation of specific wastes disposed on-site has not been identified to date. Site information indicates that drums observed on-site may have been empty and soil staining was not observed in the vicinity of existing drums. Drums were reportedly not found during maintenance dredging of the drainage ditch by Town of Henrietta Highway Department. Although some exceedances of water quality standards, USEPA human health-based levels, and naturally-occurring ranges were encountered, analytical results do not show that hazardous waste has been disposed on-site.

4.6.7 Presence of Significant Threat

The presence of a "significant threat" to public health or the environment, as defined by 6NYCRR, Part 375, may be established by analytical data showing that hazardous substances: (1) have been released to environmental media from hazardous waste disposed at the site, and (2) are present in concentrations exceeding accepted health or environmental standards or guidance values. The criteria used to establish releases is discussed in the introduction to Section 4.6.

As discussed in Subsection 4.6.6, the presence of hazardous waste at the site was not established. Therefore, only the potential for a significant threat to public health or the environment could be determined based on the exceedances of regulatory standards and guidelines.

Benzon(a)anthracene exceeded the USEPA human health-based level in one sediment sample. Benzo(a)pyrene exceeded the USEPA human health-based level in surface soil and subsurface soil samples. Lead and cyanide exceeded naturallyoccuring ranges for soils in sediment and surface soil samples. Cyanide exceeded naturally-occuring ranges in subsurface soil samples.

Heptachlor exceeded Class C surface water quality standards in surface water samples. Bis(2-ethylhexyl)phthalate exceeded the NYS Class C surface water quality standard in the leachate samples, and may be attributable to disposal of plastic wastes on-site. Copper, iron, lead, and zinc exceeded NYS Class C water quality standards in the leachate and surface water samples. Aluminum exceeded the NYS Class C surface water quality standard in surface water. Iron, lead, magnesium, sodium, and zinc exceeded NYS Class GA water quality standards in the groundwater samples.









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TABLE 4.1GRAIN SIZE CHARACTERISTICSHENRIETTA TOWN DUMPHENRIETTA, NEW YORK

WELL BORING NUMBER	SAMPLE DEPTH (FEET)	GRAVEL (%)	SAND (%)	SILT & CLAY (%)	UNIFIED SOIL CLASS	MATERIAL DESCRIPTION
MW – 1	12 – 16	24.8	49.6	25.6	SM	SILTY SAND WITH GRAVEL
MW - 2	16 - 18	18.1	38.8	43.1	SM	SILTY SAND (LITTLE GRAVEL)
MW – 3	10 - 14	1	2.7	96.3	ML or CL	SILT AND CLAY
MW – 4	8 - 10 & 12 - 14	27.2	32.8	40.0	SM	SILTY SAND WITH GRAVEL
MW – 5	10 - 14	13.4	54.0	32.6	SM	SILTY SAND (LITTLE GRAVEL)

TABLE 4.2

GROUNDWATER ELEVATION SUMMARY HENRIETTA TOWN DUMP HENRIETTA, NEW YORK

			WELL SCREEN ACE INTERVAL TION ELEVATION	DA	TE: 4/27-28/9	3	DATE: 5/5-6/93		
WELL I.D.	TOP OF PVC CASING ELEVATION (feet)	GROUND SURFACE ELEVATION (feet)		DEPTH TO WATER (ft. below TOC)	DEPTH TO WATER (fr. BGS)	WATER LEVEL ELEVATION (feet)	DEPTH TO WATER (ft. below TOC)	DEPTH TO WATER (ft. BGS)	WATER LEVEL ELEVATION (feet)
BW-1	539.06	537.1	UNKNOWN	1.5	-0.46	537.56	2.4	0.44	536.66
MW-1	541.33	539.9	534.4 - 524.4	5.65	4.22	535.68	5.85	4.42	535.48
MW-2	553.61	551.7	543.7 - 533.7	3.4	1.49	550.21	4.35	2.44	549.26
MW-3	537.21	535.1	530.0 - 520.0	3.5	1.39	533.71	3.6	1.49	533.61
MW-4	530.86	528.9	523.9 - 513.9	0.5	-1.46	530.36	0.5	-1.46	530.36
MW-5	542.4	540.3	536.3 - 526.3	5.3	3.2	537.10	5.8	3.7	536.60

NYSDEC – PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data SEDIMENT DATA SUMMARY

NYSDEC		USEPA (1)						
Hazardous Waste		HEALTH BASED	FIELD ID: SAMPLED:	SD001 05/04/93	SD002 05/05/93	SD003 05/04/93	SD005 05/04/93	SD006 04/30/93
Codes	ORGANIC COMPOUNDS:	LEVELS	UNITS					
	VOLATILES							
F002	Methylene chloride	93.000	ug/kg	330 B	42 B	23 B	64 B	10 BJ
F003	Acetone	8,000,000	ug/kg	680	210	23	38	27 B
F005	2-Butanone	4,000,000	ug/kg	190 B	56 B	14 U	10 BJ	9 BJ
	SEMIVOLATILES							
U088	Diethyl phthalate	60,000	ug/kg	270 BJ	340 BJ	140 BJ	150 BJ	52 J
	Fluorene	3,000,000	ug/kg	1400 U	60 J	470 U	32 J	470 U
P082	N-nitrosodiphenylamine	NS	ug/kg	1400 U	920 U	47 J	420 U	470 U
	Phenanthrene	NS	ug/kg	84 J	820 J	470 U	280 J	39 J
	Carbazole	NS	ug/kg	1400 U	110 J	470 U	35 J	470 U
U120	Fluoranthene	3,000,000	ug/kg	280 J	1700	470 U	370 J	88 J
	Pyrene	2,000,000	ug/kg	360 J	2400	470 U	430	85 J
U018	Benzo (a) anthracene	224	ug/kg	110 J	590 J	470 U	120 J	29 J
U050	Chrysene	NS	ug/kg	160 J	1100	470 U	170 J	54 J
U028	Bis(2-ethylhexyl) phthalate	50,000	ug/kg	1400 U	500 J	470 U	100 J	470 U
	Benzo (b) fluoranthene	NS	ug/kg	150 J	1300	470 U	170 J	30 J
	Benzo (k)fluoranthene	NS	ug/kg	170 J	1100	470 U	160 J	50 J
U022	Benzo (a) pyrene	NS	ug/kg	88 J	670 J	470 U	120 J	30 J
U137	Indeno(1,2,3-cd)pyrene	NS	ug/kg	1400 U	750 J	470 U	89 J	24 J
	Benzo (ghi) perylene PESTICIDES	NS	ug/kg	1400 U	800 J	470 U	93 J	27 J
	delta-BHC	NS	ug/kg	7.1U	0.71 JP	2.4U	2.2U	2.4 U
P037	Dieldrin	44	ug/kg	14 U	1.5 JP	4.7 U	4.2U	0.95 JP
	4.4'-DDE	2,100	ug/kg	1.4 JP	3.1 J	4.7U	1.3 JP	4.7 U
U060	4.4'-DDD	2.900	ua/ka	14 U	5.5 J	4.7U	3.6 JP	4.7 U
U247	Methoxychlor	400.000	ug/kg	71 U	47 U	24 U	13 JP	24 U
	alpha-Chlordane	540	ug/kg	7.1U	2.1 J	0.35 JP	2.2 U	2.4 U
	gamma-Chlordane PCBs	540	ug/kg	7.1U	3.5 JP	0.28 JP	2.2U	2.4 U
B007	Aroclor 1242	1,000	ug/kg	140 U	62 JP	47 U	56	47 U
B007	Arocior 1260	1,000	ug/kg	140 U	62 JP	47 U	76 P	47 U

(1) NYSDEC - Memorandum (11/16/92) - Determination of soil cleanup objectives and cleanup levels

Organic Data Qualifiers

- U Indicates a compound was analyzed for but not detected.
- J Indicates an estimated value.
- B Indicates the analyte is found in the associated blank as well as in the sample.
- P Indicates a greater than 25% difference for detected concentrations between two GC columns for pesticide/Aroclor analytes.

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TABLE 4.3 (CONT.)

NYSDEC - PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data SEDIMENT DATA SUMMARY

NYSDEC								
Hazardous Waste		RANGE	FIELD ID: SAMPLED:	SD001 05/04/93	SD002 05/05/93	SD003 05/04/93	SD005 05/04/93	SD006 04/30/93
Codes	INORGANIC COMPOUNDS:	IN SOILS	UNITS					
	Aluminum — Total	700-100,000	mg/kg	17200 E	11700 E	6200 E	5030 E	15500 E
D004	Arsenic - Total	0.1-73	mg/kg	6.7 BWN	9.9 SN*	2.3 BN*	2.2 N*	3.9 + N
D005	Barium - Total	10-1,500	mg/kg	145 B	127 B	53.3 B	38.5 B	178
D006	Cadmium - Total	0.01-7 (2)	mg/kg	0.96 BN	1.9 BWN	0.55 BN	0.49 BN	0.090 BN
	Calcium - Total	100-280,000	mg/kg	37200 E*	23600 E*	51900 E*	48900 E*	83900 E*
D007	Chromium – Total	1-1,000	mg/kg	25.2	20.0	11.0	9.2	21.5
	Cobalt Total	<3-70	mg/kg	19.1 U	13.2U	8.0U	5.5 B	16.1
	Copper - Total	<1-700	mg/kg	20.6 BN*	60.6 N*	17.4 N*	32.3 N*	3.0 UN
	Iron - Total	100->100,000	mg/kg	30800 *	33300 *	14800 *	27900 *	27000 *
D008	Lead - Total	<10-300	mg/kg	66.2 S*	137 *	899 *	142 N*	10.3 S*
	Magnesium - Total	50-50,000	mg/kg	7960 E*	5630 E*	22800 E*	26100 E*	13500 E*
	Manganese - Total	<2-7,000	mg/kg	679 *	768 *	602*	357 *	670 *
D009	Mercury - Total	0.01-3.4	mg/kg	0.48 UN*	0.51 N*	0.18 UN*	0.12 UN*	0.31 N*
	Nickel - Total	<5-700	mg/kg	28.6 U	19.7 U	12.9 B	7.0 U	30.7
	Potassium - Total	50-37,000	mg/kg	1840 B	1680 B	996 B	824 B	1770
D011	Silver - Total	0.01-5 (3)	mg/kg	0.19 U	0.12 UW	0.080 U	0.040 U	0.060 BW
	Sodium - Total	<500-500,000	mg/kg	1510 B	708 B	406 B	565 B	361 B
	Vanadium - Total	<7-300	mg/kg	32.7 B	23.4 B	15.7B	8.7 B	30.9
	Zinc - Total	<5-2,900	mg/kg	185 N*	362 N*	156 N*	165 N*	71.6 N*
F007-F012	Cyanide - Total	ND	mg/kg	22.1	15.0	10.8	5.4	1.8 U

(1) Schacklette and Boerngen, 1984.

(2) Booz, Allen, and Hamilton, 1983.

(3) USEPA, 1983.

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Inorganic Data Qualifiers

B - Indicates a value greater than or equal to the instruments detection limit but less than the contract required detection limit. U - Indicates element was analyzed for but not detected.

E - Indicates a value estimated or not reported due to the presence of interference.

S - Indicates a value determined by Method of Standard Addition.

N - indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

W - Post digestion spike for Furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.

TABLE 4.3 (CONT.)

NYSDEC – PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data SEDIMENT DATA SUMMARY

NYSDEC Hazardous Waste		REGULATORY	FIELD ID: SAMPLED:	SD004 05/05/93
Codes	INORGANIC COMPOUNDS		UNITS	
D005	Barium - Dissolved	100,000	ug/L	355
D006	Cadmium - Dissolved	1,000	ug/L	0.40 BN
	Calcium - Dissolved	NS	ug/L	141000 *
	Iron Dissolved	NS	ug/L	6060 *
	Magnesium - Dissolved	NS	ug/L	23900
	Manganese - Dissolved	NS	ug/L	3140 *
	Nickel - Dissolved	NS	ug/L	56.6
	Potassium - Dissolved	NS	ug/L	5810
	Sodium - Dissolved	NS	ug/L	1770 B
	Zinc - Dissolved	NS	ug/L	721 *

(1) 6 NYCRR - Identification and Listing of Hazardous Wastes. Limits for Extraction Procedure Toxicity testing.

Inorganic Data Qualifiers

B - Indicates a value greater than or equal to the instruments detection limit but less than the contract required detection limit.

N - indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

NYSDEC – PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data SURFACE WATER DATA SUMMARY

NYSDEC Hazardous Waste		NYSDEC (1) Class C Surface Water	FIELD ID: SAMPLED:	SW001 05/04/93	SW002 05/05/93	SW003 05/04/93	SW005 05/04/93	SW006 04/30/93
Codes	ORGANIC COMPOUNDS:	Standards	UNITS					
	VOLATILES							
	Chloroethane	NS	ug/L	10 U	10 U	10 U	5 J	10 U
F002	Methylene chloride	NS	ug/L	8 BJ	13B	6 BJ	13 B	10 U
F003	Acetone	NS	ug/L	10 U	8 J	10U	10 U	10 U
P022	Carbon Disulfide	NS	ug/L	10 U	6 J	10 U	10 U	10 U
	1,1-Dichloroethane	NS	ug/L	10 U	10U	10 U	4 J	10 U
F005	2-Butanone SEMIVOLATILES	NS	ug/L	8 J	10U	10 U	8 B	5 BJ
U028	Bis(2-ethylhexyl) phthalate PESTICIDES/AROCLORS	0.6	ug/L	10 U	10 U	10 U	1 J	10 U
P059	Heptachlor	0.001 (S)	ug/L	0.050 U	0.015 JP	0.0072 JP	0.050 U	0.050 U

(1) NYSDEC - Ambient Water Quality Standards and Guidance Values (11/01/91)

- (S) Standard
- (G) Guidance
- * Standard is Hardness Dependant (assume hardness of 150 ppm)

Organic Data Qualifiers

- U Indicates a compound was analyzed for but not detected.
- J Indicates an estimated value.
- B -- Indicates the analyte is found in the associated blank as well as in the sample.
- E Indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument.
- D Indicates an analysis at a secondary dilution factor.
- P Indicates a greater than 25% difference for detected concentrations between two GC columns for pesticide/Aroclor analytes.
- R Indicates unuseable results.

TABLE 4.4 (CONT.)

NYSDEC – PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data SURFACE WATER DATA SUMMARY

NYSDEC Hazardous		NYSDEC (1) Class C	FIELD ID:	SW001	SW002	SW003	SW005	SW006
Codes	INORGANIC COMPOUNDS:	Standards	UNITS	03/04/33	03/03/33	03/04/30	00/04/00	04/00/00
	Aluminum - Total	100	ug/L	554	186 B	173 B	100 U	371
	Antimony - Total	NS	ug/L	5.0 UW	5.0 UW	5.0 UW	70 B	5.0 U
D005	Barium - Total	NS	ug/L	46.8 B	86.2 B	72.0B	112B	70.4 B
D006	Cadmium - Total	1.6 (S)*	ug/L	0.20 UN	0.20 UN	0.40 BWN	0.20 UN	0.20 UWN
	Calcium - Total	NS	ug/L	110000 BN	112000 BN	93900 N	110000 BN	80500 N
	Copper - Total	16.7 (S)*	ug/L	19.7 B	10 U	10 U	10 U	10 U
	Iron - Total	300 (S)	ug/L	1200	2040	922	3510	467
D008	Lead - Total	5.4 (S)*	ug/L	3.0 U	3.0 U	3.0 U	4 W	3.0 U
	Magnesium - Total	NS	ug/L	30700	32600	31300	30000	31700
	Manganese - Total	NS	ug/L	730	1020	110	408	93.9
	Potassium - Total	NS	ug/L	1940 B	4050 B	1950 B	5360	1490 B
	Sodium - Total	NS	ug/L	99700	95200	76300	82000	103000
	Zinc - Total	30 (S)*	ug/L	26.9	13.6B	42.3	11 B	32.0

(1) NYSDEC - Ambient Water Quality Standards and Guidance Values (11/01/91)

(S) - Standard

(G) - Guidance

* - Standard is Hardness Dependant (assume hardness of 150 ppm)

Inorganic Data Qualifiers

- B Indicates a value greater than or equal to the instruments detection limit but less than the contract required detection limit.
- U Indicates element was analyzed for but not detected.
- E Indicates a value estimated or not reported due to the presence of interference.
- S Indicates a value determined by Method of Standard Addition.
- N indicates spike sample recovery is not within control limits.
- * Indicates duplicate analysis is not within control limits.
- + Indicates the correlation coefficient for method of standard addition is less than 0.995.
- M Indicates duplicate injection results exceeded control limits.
- W -- Post digestion spike for Furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- G The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
- L The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.

R - Indicates unuseable results.

TABLE 4.5

NYSDEC – PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data LEACHATE DATA SUMMARY

NYSDEC Hazardous Waste Codes	ORGANIC COMPOUNDS:	NYSDEC ⁽¹⁾ Class C Surface Water Standards	FIELD ID: SAMPLED: UNITS	LC001 05/04/93	LC002 05/04/93	LC003 05/05/93
	VOLATILES					
F002	Methylene chloride	NS	ug/L	5 BJ	31 B	5 BJ
F003	Acetone	NS	ug/L	5 J	9 J	10
F005	2-Butanone SEMIVOLATILES	NS	ug/L	10 U	7 BJ	10 U
U072	1.4-Dichlorobenzene	5 (S)	ug/L	2 J	10 U	10U
U088	Diethyl phthalate	NS	ug/L	1 J	10 U	10 U
U028	Bis(2-ethylhexyl) phthalate	0.6	ug/L	3 J	10 U	10 U

(1) NYSDEC - Ambient Water Quality Standards and Guidance Values (11/01/91)

(S) - Standard

(G) - Guidance

* - Standard is Hardness Dependant (assume hardness of 150 ppm)

Organic Data Qualifiers

- U Indicates a compound was analyzed for but not detected.
- J Indicates an estimated value.
- B Indicates the analyte is found in the associated blank as well as in the sample.
- E Indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument.
- D Indicates an analysis at a secondary dilution factor.
- P Indicates a greater than 25% difference for detected concentrations between two GC columns for pesticide/Aroclor analytes.
- R Indicates unuseable results.

TABLE 4.5 (CONT.)

NYSDEC – PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data LEACHATE DATA SUMMARY

NYSDEC Hazardous Waste		NYSDEC ⁽¹⁾ Class C Surface Water	FIELD ID: SAMPLED:	LC001	LC002	LC003
Codes	INORGANIC COMPOUNDS:	Standards	UNITS			
	Aluminum - Total	100	ug/L	263	100 U	1160
	Antimony - Total	NS	ug/L	6.0 BW	5.0 U	5.0 UW
D005	Barium - Total	NS	ug/L	336	89.4 B	319
D006	Cadmium - Total	1.6 (S)*	ug/L	0.20 UN	0.20 UN	0.40 BN
	Calcium - Total	NS	ug/L	70800 N	135000 BN	140000 BN
	Copper - Total	16.7 (S)*	ug/L	10 U	10U	19.4B
	Iron - Total	300 (S)	ug/L	26200	3190	165000
D008	Lead - Total	5.4 (S)*	ug/L	3.0 W	3.0 UW	6.0
	Magnesium - Total	NS	ug/L	30400	35200	34800
	Manganese - Total	NS	ug/L	250	1100	1050
	Potassium - Total	NS	ug/L	1720 B	7420	7900
D011	Silver - Total	8.S (S)*	ug/L	0.20 UN	0.20 UN	0.20 BN
	Sodium - Total	NS	ug/L	98600	16200	14600
	Zinc - Total	30 (S)*	ug/L	18.6 B	10.8B	145

(1) NYSDEC - Ambient Water Quality Standards and Guidance Values (11/01/91)

- (S) Standard
- (G) Guidance
- * Standard is Hardness Dependant (assume hardness of 150 ppm)

Inorganic Data Qualifiers

- B Indicates a value greater than or equal to the instruments detection limit but less than the contract required detection limit.
- U Indicates element was analyzed for but not detected.
- E Indicates a value estimated or not reported due to the presence of interference.
- S Indicates a value determined by Method of Standard Addition.
- N indicates spike sample recovery is not within control limits.
- * Indicates duplicate analysis is not within control limits.
- + Indicates the correlation coefficient for method of standard addition is less than 0.995.
- M Indicates duplicate injection results exceeded control limits.
- W Post digestion spike for Furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- G The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
- L The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.
- R Indicates unuseable results.

NYSDEC – PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data SURFACE SOIL DATA SUMMARY

NYSDEC		USEPA ()							
Hazardous		HEALTH	FIELD ID:	SS001	SS002	SS003	SS003-DUP	SS004	SS005
Waste		BASED	SAMPLED:	04/30/93	04/30/93	04/30/93	04/30/93	04/30/93	04/30/93
Codes	ORGANIC COMPOUNDS:	LIMITS	UNITS						
	VOLATILES								
F002	Methylene chloride	93,000	ug/kg	15 B	18 B	21B	22 B	50 B	31 B
F003	Acetone	8,000,000	ug/kg	14 U	5 BJ	5 BJ	37 B	36 B	17B
F005	2-Butanone	4,000,000	ug/kg	12 BJ	7 BJ	6 BJ	14 U	7 BJ	15U
F001	1,1,1-Trichloroethane	7,000,000	ug/kg	14 U	47	91	39	18	28
11165	Nephthelene	200.000		45011	64.1	45011	AFOUL	44011	00.1
0165	Naphinaiene	300,000	ug/kg	450 0	61 J	450 0	450 0	440 0	36 J
11000	2-Methylnaphthalene	NS CO COO	ug/kg	450 0	93 J	450 0	450 0	440 0	4900
0088	Dietnyi primalate	60,000,000	ug/kg	450 0	39 J	450 U	53 J	59 J	44 J
	Phenanthrene	NS	ug/kg	27 J	210 J	76 J	63 J	110 J	180 J
	Anthracene	20,000,000	ug/kg	450 U	450 0	450 U	450 U	110 J	26 J
11100	Di-n-butyl phthalate	8,000,000	ug/kg	450 0	450 U	450 U	450 U	25 J	57 J
0120	Fluoranthene	3,000,000	ug/kg	55 J	350 J	79 J	110 J	200 J	390 J
	Pyrene	2,000,000	ug/kg	70 J	320 J	110 J	90 J	330 J	390 J
U018	Benzo(a)anthracene	224	ug/kg	33 J	180 J	44 J	42 J	130 J	190 J
U050	Chrysene	NS	ug/kg	35 J	260 J	63 J	67 J	1740 J	250 J
U028	Bis(2-ethylhexyl) phthalate	50,000	ug/kg	450 U	100 BJ	450 U	92 BJ	100 BJ	1100 B
	Benzo(b)fluoranthene	NS	ug/kg	36 J	240 J	65 J	60 J	190 J	210 J
	Benzo(k)fluoranthene	NS	ug/kg	36 J	230 J	67 J	54 J	130 J	210 J
U022	Benzo(a)pyrene	61	ug/kg	29 J	190 J	39 J	41 J	120 J	200 J
U137	Indeno(1,2,3-cd)pyrene	NS	ug/kg	450 U	190 J	450 U	40 J	96 J	180 J
U063	Dibenzofuran	NS	ug/kg	450 U	38 J	450 U	450 U	440 U	490 U
	Benzo(ghi) perylene PESTICIDES	NS	ug/kg	450 U	220 J	450 U	43 J	110 J	230 J
	alpha-BHC	111	ua/ka	2.3 U	0.43 JP	2.3U	2.3U	2.3 U	2.5 U
U129	gamma-BHC (Lindane)	5,400	ua/ka	2.3 U	0.49 JP	2.3U	2.3U	1.4 JP	2.5U
P037	Dieldrin	44	ua/ka	4.5 U	4.4 U	4.5U	4.5U	4.4 U	1.9 JP
	4.4'-DDE	2.100	ua/ka	4.5 U	1.2 JP	20	22	2.0 J	1.5 JP
U060	4.4'-DDD	2,900	ua/ka	4.5 U	3.3 J	14	14	0.63 JP	5.3
U061	4.4'-DDT	2,100	ua/ka	4.5U	3.3.JP	3.8 JP	7.8	0.78 JP	4911
	PCBs								
B007	Aroclor 1248	1.000	ua/ka	45 U	55 P	73	77	51 P	94
B007	Aroclor 1254	1.000	ua/ka	45 U	83 P	50 P	57 P	47 P	120 P
B007	Aroclor 1260	1.000	ua/ka	45 U	70	53	54	49 P	61P

(1) NYSDEC - Memorandum (11/16/92) - Determination of soil cleanup objectives and cleanup levels

Organic Data Qualifiers

- U Indicates a compound was analyzed for but not detected.
- J Indicates an estimated value.
- B Indicates the analyte is found in the associated blank as well as in the sample.
- P Indicates a greater than 25% difference for detected concentrations between two GC columns for pesticide/Aroclor analytes.

TABLE 4.6 (CONT.)

NYSDEC – PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data SURFACE SOL DATA SUMMARY

NYSDEC								
Hazardous Waste		RANGE	FIELD ID: SAMPLED:	SS001 04/30/93	SS002 04/30/93	SS003 04/30/93	SS004 04/30/93	SS005 04/30/93
Codes	INORGANIC COMPOUNDS:	IN SOIL	UNITS					
	Aluminum - Total	700-100,000	ug/kg	5500 E	6500 E	14100 E	8000 E	5980 E
D004	Arsenic - Total	0.1-73	ug/kg	2.9 +N*	8.9 + N*	6.7 SN*	8.7 +N*	7.0 N*
D005	Barium - Total	10-1,500	ug/kg	33.5 B	84.6	145	195	113
D006	Cadmium Total	0.01-7 (2)	ug/kg	0.15 BN	2.5 BN	1.3 BN	4.4 BN	2.2 BN
	Calcium - Total	100-280,000	ug/kg	35000 E*	13200 E*	8980 E*	7970 E*	11400 E*
D007	Chromium - Total	1-1,000	ug/kg	8.1	13.5	19.4	49.5	14.3
	Cobalt - Total	<3-70	ug/kg	4.5 U	5.4 U	7.5B	5.1 U	5.6 U
	Copper - Total	<1-700	ug/kg	6.0 N*	163 N*	46.1 N*	223 N*	81.4 N*
	Iron - Total	100->100,000	ug/kg	11300 *	26800 *	26900 *	26500 *	40900 *
D008	Lead - Total	<10-300	ug/kg	22.5 S*	697 +*	115S*	381 N*	446 N*
	Magnesium - Total	50-50,000	ug/kg	16700 E*	5740 E*	6100 E*	4250 E*	6100 E*
	Manganese - Total	<2-7,000	ug/kg	378 *	392*	366*	474 *	336 *
D009	Mercury - Total	0.01-3.4	ug/kg	0.31 N*	1.1 N*	0.60 N*	1.5 N*	0.49 N*
	Nickel - Total	<5-700	ug/kg	8.5 B	15.2	16.0	24.9	8.5 B
	Potassium - Total	50-37,000	ug/kg	805 B	613B	1820	1040 B	646 B
D011	Silver - Total	0.01-5 (3)	ug/kg	0.040 UW	2.6 B	0.050 U	0.050 U	0.060 U
	Sodium - Total	<500-500,000	ug/kg	180 U	216 U	226 B	227 B	226 U
	Vanadium - Total	<7-300	ug/kg	11.0 B	12.2B	24.9	15.6	14.4
	Zinc - Total	<5-2,900	ug/kg	49.4 N*	575 N*	363 N*	778 N*	552 N*
F007-F012	Cvanide - Total	ND	ug/kg	1.4U	1.5	1.6U	2.1	2.0

(1) Schacklette and Boerngen, 1984.

(2) Booz, Allen, and Hamilton, 1983.

(3) USEPA, 1983.

Inorganic Data Qualifiers

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U - Indicates element was analyzed for but not detected.

E - Indicates a value estimated or not reported due to the presence of interference.

S - Indicates a value determined by Method of Standard Addition.

N - indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

+ - Indicates the correlation coefficient for method of standard addition is less than 0.995.

M - Indicates duplicate injection results exceeded control limits.

W - Post digestion spike for Furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.

G - The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.

L - The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.

R - Indicates unuseable results.

TABLE 4.6 (CONT.)

NYSDEC – PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data SURFACE SOL DATA SUMMARY

	REGULATORY	FIELD ID:	SS003 04/30/93	SS003-DUP 04/30/93
INORGANIC COMPOUNDS:	LIMIT (1)	UNITS		
Aluminum - Dissolved	NS	ug/L.	222	271
Arsenic - Dissolved	5,000	ug/L	4 UW	8B
Barium - Dissolved	100,000	ug/L	182 B	148B
Cadmium - Dissolved	1,000	ug/L	0.90 BN	0.60 BN
Calcium - Dissolved	NS	ug/L	51100 *	68300 *
Iron - Dissolved	NS	ug/L	153*	5200 *
Lead - Dissolved	NS	ug/L	3.0 W	3
Magnesium - Dissolved	NS	ug/L	14800	16200
Manganese - Dissolved	NS	ug/L	561 *	899 *
Nickel - Dissolved	NS	ug/L	30 U	33.3 B
Potassium - Dissolved	NS	ug/L	13800	10800
Sodium - Dissolved	NS	ug/L	3630 B	3820 B
Zinc - Dissolved	NS	ug/L	150*	225*
	INORGANIC COMPOUNDS: Aluminum – Dissolved Arsenic – Dissolved Barium – Dissolved Cadmium – Dissolved Calcium – Dissolved Iron – Dissolved Lead – Dissolved Magnesium – Dissolved Manganese – Dissolved Nickel – Dissolved Potassium – Dissolved Sodium – Dissolved Zinc – Dissolved	REGULATORY INORGANIC COMPOUNDS: LIMIT (1) Aluminum – Dissolved NS Arsenic – Dissolved 5,000 Barium – Dissolved 100,000 Cadmium – Dissolved 1,000 Calcium – Dissolved NS Iron – Dissolved NS Lead – Dissolved NS Magnesium – Dissolved NS Magnesium – Dissolved NS Nickel – Dissolved NS Potassium – Dissolved NS Sodium – Dissolved NS Zinc – Dissolved NS	INORGANIC COMPOUNDS: REGULATORY LIMIT ⁽¹⁾ FIELD ID: SAMPLED: UNITS Aluminum – Dissolved NS ug/L Arsenic – Dissolved 5,000 ug/L Barium – Dissolved 100,000 ug/L Cadmium – Dissolved 1,000 ug/L Cadmium – Dissolved NS ug/L Iron – Dissolved NS ug/L Lead – Dissolved NS ug/L Magnesium – Dissolved NS ug/L Magnesium – Dissolved NS ug/L Nickel – Dissolved NS ug/L Nickel – Dissolved NS ug/L Sodium – Dissolved NS ug/L Zinc – Dissolved NS ug/L	INORGANIC COMPOUNDS:FIELD ID: REGULATORY LIMIT (1)SS003 O4/30/93Aluminum - DissolvedNS 100,000ug/L222 4 UWArsenic - Dissolved5,000ug/L4 UWBarium - Dissolved100,000ug/L182 B 0.90 BNCadmium - Dissolved1,000ug/L0.90 BNCalcium - DissolvedNSug/L153 * 1100 *Lead - DissolvedNSug/L153 * 100 *Lead - DissolvedNSug/L3.0 WMagnesium - DissolvedNSug/L30 UMagnesium - DissolvedNSug/L30 UPotassium - DissolvedNSug/L30 UPotassium - DissolvedNSug/L3600Sodium - DissolvedNSug/L13800Sodium - DissolvedNSug/L13600 BZinc - DissolvedNSug/L13630 B

(1) 6 NYCRR - Identification and Listing of Hazardous Wastes. Limits for Extraction Procedure Toxicity testing.

Inorganic Data Qualifiers

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- W Post digestion spike for Furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.

NYSDEC – PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data SUB-SURFACE DATA SUMMARY

NYSDEC Hazardous Waste		USEPA ⁽¹⁾ HEALTH BASED	FIELD ID: DEPTH: SAMPLED:	SSMW1 0-16 04/12/93	SSMW2 0-18 04/14/93	SSMW3 0-16 04/14/93	SSMW4 0-16 04/12/93	SSMW5 0-14 04/07/93
Codes	ORGANIC COMPOUNDS:	LEVELS	UNITS					
	VOLATILES							
F002	Methylene chloride	93 000	ua/ka	23 B	59 B	120 B	14 BJ	11B.
F003	Acetone	8 000 000	ug/kg	25 B	81 B	79 B	14 U	111
F005	2-Butenone	4 000 000	ug/kg	1111	3.1	141	14 []	7.1
1000	SEMIVOLATILES	4,000,000	- and	110		110		10
U088	Diethyl phthalate	60.000.000	ua/ka	370 U	370 U	44 J	460 U	370 U
	Anthracene	20,000,000	ua/ka	21 J	370 U	440 U	460 U	370 U
	Di-n-butyl ohthalate	8,000,000	ua/ka	370 U	370 U	440 U	27 J	370 U
U120	Fluoranthene	3,000,000	ua/ka	180 J	370 U	440 U	460 U	370 U
LI018	Benzo (a) anthracene	224	ua/ka	91.1	370 U	440 LI	460 U	370 U
1028	Bis(2-ethylbexyl) phthalate	50,000	ug/kg	57 J	370 U	440 U	40 J	370 U
GOLO	Benzo (b) fluoranthene	NS	ua/ka	78 J	370 U	440 U	460 U	370 U
11022	Benzo (a) nyrene	61	ug/kg	78.1	370 U	440 U	460 U	370 U
11137	Indeno(1,2,3-cd)pyrene	NS	ua/ka	45 J	370 U	440 U	460 U	370 U
0101	Benzo (abi) perviene	NS	ug/kg	47 J	370 U	440 U	460 U	370 U
	PESTICIDES/ABOOLORS							
	delta-BHC	NS	ua/ka	1.90	1.9U	2.3 U	0.67 JP	1.9U
	4.4'-DDE	2.100	ua/ka	0.54 JP	3.7 U	4.5U	4.6 U	3.7 U
P050	Endosulfan II	NS	ua/ka	0.89 J	3.7U	4.5 U	4.6 U	3.7 U
1060	44'-DDD	2,900	ug/kg	1.2 JP	3.7 U	4.5 U	4.6 U	3.7 U
U061	4.4'-DDT	2,100	ua/ka	0.45 J	3.7U	4.5 U	4.6 U	3.7 U
	Endrin ketone	NS	ua/ka	0.59 JP	3.7U	4.5 U	4.6 U	3.7 U

(1) NYSDEC - Memorandum (11/16/92) - Determination of soil cleanup objectives and cleanup levels

Organic Data Qualifiers

- U Indicates a compound was analyzed for but not detected.
- J Indicates an estimated value.

B - Indicates the analyte is found in the associated blank as well as in the sample.

E - Indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument.

D - Indicates an analysis at a secondary dilution factor.

P - Indicates a greater than 25% difference for detected concentrations between two GC columns for pesticide/Aroclor analytes.

R - Indicates unuseable results.

Engineering-Science, Inc.

NYSDEC – PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data SUB-SURFACE DATA SUMMARY

NYSDEC			FIELD ID:	SSMW1	SSMW2	SSMW3	SSMW4	SSMW5
Waste		RANGE	SAMPLED:	04/12/93	04/14/93	04/14/93	04/12/93	04/07/93
Codes	INORGANIC COMPOUNDS:	IN SOIL	UNITS					
	Aluminum - Total	700-100,000	ug/kg	8660	7520	21600	15300	7100
D005	Barium - Total	10-1,500	ug/kg	51.2 N	118N	141 N	191 N	28.1 BN
D006	Cadmium - Total	0.01-7 (2)	ug/kg	0.16 BN	0.090 BN	0.050 BN	0.11 BN	0.24 B+N
	Calcium - Total	100-280,000	ug/kg	25500 *	28100 *	48800 *	29000 *	37500 *
D007	Chromium - Total	1-1,000	ug/kg	19.4 N	9.9 N	30 N	19.8 N	8.4 N
	Cobalt - Total	<3-70	ug/kg	7.1 BN	6.7 BN	13.3 BN	7.8 BN	5.4 BN
	Copper - Total	<1-700	ug/kg	2.3 UN	2.2 UN	2.6 UN	7.3 N	2.5 BN
	Iron - Total	100->100.000	ug/kg	15100	14400	31600	18000	11900
D008	Lead - Total	<10-300	ug/kg	29.3 S	9.8	11.0	18.0 S	13.1
	Magnesium - Total	50-50,000	ug/kg	13100 *	14600 *	15600 *	15000 *	18000 *
	Manganese - Total	<2-7.000	ug/kg	447	2650	552	346	430
	Nickel - Total	<5-700	ua/ka	16.7 N	31.1 N	31.2 N	18.2 N	13.9 N
	Potassium - Total	50-37.000	ua/ka	1450	1210	5950	2640	1500
	Sodium - Total	<500-500.000	ua/ka	298 B	185 B	474 B	300 B	249 B
	Vanadium - Total	<7-300	ua/ka	20.3 N	16.2 N	42.3 N	22.2 N	13.8 N
	Zinc - Total	<5-2.900	ua/ka	85.4 N	78.6 N	70.2 N	86.6 N	58.1 N
-007-F012	Cyanide - Total	ND	ug/kg	2.5*	1.8*	1.6 U*	10.9*	1.3*

(1) Schacklette and Boerngen, 1984.

(2) Booz, Allen, and Hamilton, 1983.

Inorganic Data Qualifiers

B - Indicates a value greater than or equal to the instruments detection limit but less than the contract required detection limit.

- U Indicates element was analyzed for but not detected.
- E Indicates a value estimated or not reported due to the presence of interference.
- S Indicates a value determined by Method of Standard Addition.
- N indicates spike sample recovery is not within control limits.
- * Indicates duplicate analysis is not within control limits.
- + Indicates the correlation coefficient for method of standard addition is less than 0.995.
- M Indicates duplicate injection results exceeded control limits.
- W Post digestion spike for Furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- G The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
- L The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.
- R Indicates unuseable results.

NYSDEC – PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data GROUNDWATER DATA SUMMARY

NYSDEC Hazardous Waste Codes	ORGANIC COMPOUNDS:	NYSDEC ⁽¹⁾ Class GA Water Quality Standards	FIELD ID: SAMPLED: UNITS	GW001 05/06/93	GW002 05/05/93	GW003 05/05/93	GW004 05/05/93	GW005 05/06/93	GWBW1 05/06/93
	VOLATILES								
F002	Methylene chloride	5 (S)	ug/L	6 BJ	27 B	3 BJ	29 B	19 B	14B
F003	Acetone	NS	ug/L	10 U	10 U	10 U	10	10 U	22
P022	Carbon Disulfide	NS	ug/L	1 J	10 U	10 U	10 U	10 U	10U
F005	2-Butanone	NS	ug/L	10 U	10U	8 J	10 U	10 U	10U
F005	Toluene	5 (S)	ug/L	1 BJ	10U	10 U	1 J	10 U	10 U
	SEMIVOLATILES								
U028	Bis(2-ethylhexyl) phthalate PESTICIDES/ABOCLORS	50 (S)	ug/L	1 J	10 U				
P059	Heptachlor	NS	ug/L	0.050 U	0.0056 J	0.022 J	0.050 U	0.0087 JP	0.050 U

(1) NYSDEC - Ambient Water Quality Standards and Guidance Values (11/01/91)

- (S) Standard
- (G) Guidance

Organic Data Qualifiers

- U Indicates a compound was analyzed for but not detected.
- J Indicates an estimated value.
- B Indicates the analyte is found in the associated blank as well as in the sample.
- E Indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument.
- D Indicates an analysis at a secondary dilution factor.
- P Indicates a greater than 25% difference for detected concentrations between two GC columns for pesticide/Aroclor analytes.
- R Indicates unuseable results.

NYSDEC – PSA WORK ASSIGNMENTS HENRIETTA TOWN DUMP SITE Recra Environmental, Inc., Analytical Data GROUNDWATER DATA SUMMARY

NYSDEC Hazardous Waste Codes	INORGANIC COMPOUNDS:	NYSDEC ⁽¹⁾ Class GA Water Quality Standard	FIELD ID: SAMPLED: UNITS	GW001 05/06/93	GW002 05/05/93	GW003 05/05/93	GW004 05/05/93	GW005 05/06/93	GWBW1 05/06/93
	Aluminum - Total	NS	ug/L	7170	2280	7510	27100	10700	16600
D005	Barium - Total	1,000 (S)	ug/L	113 B	76.3 B	133 B	237	100 B	162 B
D006	Cadmium - Total	10 (S)	ug/L	0.50 BWN	0.90 BN	1.2 BN	1.3 BN	0.41 BSN	0.30 BWN
	Calcium - Total	NS	ug/L	118000 BN	94500 N	158000 BN	338000 BN	189000 BN	155000 BN
D007	Chromium – Total	50 (S)	ug/L	13.7	10 U	10 U	38.9	23.9	19.7
	Copper Total	200 (S)	ug/L	10 U	10 U	11.6 B	12.1 B	26.1	10 U
	Iron - Total	300 (S)	ug/L	10800	2680	10400	40200	19700	22800
D008	Lead - Total	25 (S)	ug/L	7.0	3.0 UW	8.0	32.0	20.0	11.0
	Magnesium - Total	300 (S)	ug/L	58800	44200	50400	126000	109000	62500
	Manganese - Total	35,000 (G)	ug/L	444	121	775	1240	685	578
	Nickel - Total	NS	ug/L	30.0 U	30.0 U	30.0 U	35.8 B	30.0 U	30.0 U
	Potassium - Total	NS	ug/L	5240	3110 B	12400	22300	5590	8070
D011	Silver - Total	50 (S)	ug/L	0.20 UN	0.20 UN	0.20 UN	0.30 BWN	0.20 UN	0.20 UN
	Sodium - Total	20,000 (S)	ug/L	10800	6370	110000	43300	3250 B	62800
	Vanadium - Total	NS	ug/L	20.0 U	20.0 U	20.0 U	51.1	22.9 B	28.2 B
	Zinc - Total	300 (S)	ug/L	87.6	76.2	81.6	325	374	275
F007-F012	Cyanide - Total	100 (S)	ug/L	10 U	10 U	10 U	10 U	10.5	10.1

(1) NYSDEC - Ambient Water Quality Standards and Guidance Values (11/01/91)

- (S) Standard
- (G) Guidance

Inorganic Data Qualifiers

- B Indicates a value greater than or equal to the instruments detection limit but less than the contract required detection limit.
- U Indicates element was analyzed for but not detected.
- E Indicates a value estimated or not reported due to the presence of interference.
- S Indicates a value determined by Method of Standard Addition.
- N indicates spike sample recovery is not within control limits.
- * Indicates duplicate analysis is not within control limits.
- + Indicates the correlation coefficient for method of standard addition is less than 0.995.
- M Indicates duplicate injection results exceeded control limits.
- W Post digestion spike for Furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- G The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
- L The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.
- R Indicates unuseable results.

SECTION 5

RECOMMENDATIONS

5.1 RECOMMENDED SITE CLASSIFICATION

Information collected during this investigation indicates that hazardous waste as defined by 6NYCRR Part 371 is not present on-site. However, delisting of the site cannot be recommended without addressing the southern portion of the seasonal marsh completely void of vegetation, as observed during a recent post-sampling effort site visit.

5.2 FUTURE WORK

ES recommends that a limited soil sampling effort be conducted on the south portion of the marsh area to address the area completely void of vegetative cover. At least two surface soil samples should be collected and analyzed for TCL organics and TAL metals and cyanides.

SECTION 6

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APPENDIX A

SITE INSPECTION REPORT

USEPA FORM 2070-13

THA/SY327.04/DREPORT1 October 29, 1993

EPA	Poten S Part 1 - Site L	tial Hazardous Wa Site Inspection Rep ocation and Inspec	aste Site ort tion Informat	ion	I. Identification 01 State 02 Site Number NY 828037		
II. Site Name and L	ocation						
01 Site Name (Legal,	common, or descriptiv	e name of site)	02 Street, R	loute No. of	r Specific Loc	ation Identifier	
Henrietta Town Dump	0		Lehigh Statio	on Road			
03 City	04 St	ate 05 Zip	Code 06 (County	07 County Code	08 CONG Dist	
Henrietta	NY		Mon	roe			
09 Coordinates Latitude D. County <u>43^o 03' 07"</u>	Longitude	10 Type of Ow <u>x</u> A. Private E. Municipa	nership (Check	k one) B. Federal F. Other		C. State G. Unknown	
III. Inspection Info	mation						
01 Date of Inspection 10/29/92 Month/Day/Yea	n 02 Si r <u>x</u> I	ite Status ctive nactive	03 Years of early 1960s/ Beginnin	Operation /1965 ng Year / E	onding Year	Unknown	
04 Agency Performing A. EPA B. 1 Contractor	ng Inspection (Cbec EPA Contractor (Name	k all that apply) C.	Municipal			D. Municipal (Name of Firm)	
E. State <u></u> F. S	State Contractor <u>E</u>	ngineering-Science (Name o	Inc. G. (f Firm) (Spec	Other			
05 Chief Inspector		06 Title		07 Or	ganization	08 Telephone No.	
Mark J. Schumacher		Hydrogeologist		Engine	ering-Science,	Inc. (315) 451-9560	
09 Other Inspectors	1	10 Title		11 Or	ganization	12 Telephone No.	
Nicholas A. Smith		Geologist		Engine	ering-Science	, Inc. (315) 451-9560	
13 Site Representat	ives Interviewed	14 Title	15 Address			16 Telephone No.	
Mike Roth			Bestway Env	rironmental		(716) 344-4410	
17 Access Gained B (Check One) Permission Warrant	y 18 Time of L 0845 a.m.	nspection	19 Weather 50°, Light r	r Condition ain	s		
IV. Information Av	ailable From						
01 Contact		02 OF (Agency/	Organization)			03 Telephone No.	
Carl Hoffman, P.E.		NYSDEC				(518) 457-9538	
04 Person Responsible F Thomas H. Abrams	or Site Inspection Form	n 05 Agency	06 Organiz Engineering	-Science (3	Telephone 1 (15) 451-9560	No. 08 Date 10/25/93	

EPA	Pot	ential Hazardous Waste S Site Inspection Report art 2 - Waste Information	ite 1	I. Identification 01 State 02 Si NY 828	te Number 8037
II. Waste Stat	tes, Quantities, and Ch	aracteristics			
01 Physical St (Check all that ap	ates ply)	02 Waste Quantity At Si (Measures of waste quantities must be independent)	ite 03 Waste Char (Check all that a	acteristics pply)	
A. Solid	E. Slurry	Tons	A. Toxic	E. Soluble	I. Highly Volatile
B. Powder C. Sludge D. Other (Specify)	, Fines F. Liquid G. Gas	Cubic Yards No. of Drums	B. Corrosiv C. Radioact D. Persisten	e F. Infectious tive G. Flammal at H. Ignitable	J. Explosive bleK. Reactive L. Incompatible M. Not Applicable Unknown
III. Waste Ty	pe				
Category	Substance Name	01 Gross Amount	02 Unit of Measure	03 Comments	
SLU	Sludge				
OLW	Oily Waste				
SOL	Solvents				
PSD	Pesticides				
OCC	Other Organic C	hemicals			
IOC	Inorganic Chemi	cals			
ACD	Acids				
BAS	Bases				
MES	Heavy Metals				
IV. Hazardou	s Substances (See App	endix For Most Frequent	y Cited CAS Number	ers)	
01 Category	02 Substance Name	03 CAS Number	04 Storage/ Disposal Method	05 Concentration	06 Measure of Concentration
See attached					
V. Feedstocks	Si (See Appendix For Ca	AS Numbers)			
Category	01 Feedstock Name	02 CAS Number	Category	01 Feedstock Name	02 CAS Number

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently used CAS numbers).

01	CATEGORY	02 SUBSTANCE NAME	03 CAS #	04 STORAGE/DISPOSAL METHOD	CONCENTRATION	CONCENTRATION
	GROUNDWATER	Heptachior	76-44-6	Unknown	0.022 J	UG/L
	GROUNDWATER	Toluane	108-88-3	Unknown	1 1	UGA
	IFACHATE	1 4 - Dichlorobenzene	108-48-7	Linknown	2.1	UGI
	SEDIMENTS	Venedium - Total	7440-82-2	Linknown	32700 B	UGIKG
	SEDIMENTS	Cyanida - Total	57-12-5	Listoown	22100	UG/KG
	SEDIMENTS	Aluminum - Total	3/-12-3	Unknown	17202000 E	UCKC
	SEDIMENTO	Adminum - Total	7429-80-5	Unknown	17200000 E	UG/KG
	SEDIMENTS	Potassium - Total	7440-09-7	Unknown	1840000 B	UGAG
	SEDIMENTS	Sodium - Total	7440-23-5	Unknown	1510000 B	UG/KG
	SEDIMENIS	Acetone	67-64-1	Unknown	680	UG/KG
	SEDIMENTS	2-Butanone	78-93-3	Unknown	190 B	UG/KG
	SEDIMENTS	Methylene chloride	75-09-2	Unknown	330 B	UG/KG
	SEDIMENTS	Phenanthrene	85-01-8	Unknown	820 J	UG/KG
	SEDIMENTS	Benzo(a)pyrene	50-32-8	Unknown	670 J	UG/KG
	SEDIMENTS	Benzo(b)fluoranthene	205-99-2	Unknown	1300	UG/KG
	SEDIMENTS	Manganese - Total	7439-96-5	Unknown	768000 *	UG/KG
	SEDIMENTS	gamma-Chlordane	5103-74-2	Unknown	3.5 JP	UG/KG
	SEDIMENTS	Arsenic - Total	7440-38-2	Unknown	9900 SN*	UG/KG
	SEDIMENTS	Pyrene	129-00-0	Unknown	2400	UG/KG
	SEDIMENTS	Chrysene	218-01-9	Unknown	1100	UG/KG
	SEDIMENTS	Arocior 1242	53489-21-9	Linknown	82 IP	UGAKG
	SEDIMENTS	Cerhamie	88-74-8	Lisksows	110.1	UGAG
	SEDIMENTS	sinha-Chlordana	5102 71 0	Uskaowa	211	UGKG
	SEDIMENTO	datta BUC	5103-71-9	Unknown	2.15	UGRAG
	SEDIMENTS		319-80-8	Unknown	0.71 50	UG/RG
	SEDIMENTS	Benzo(gni) perviene	191-24-2	Unknown	800 3	UG/KG
	SEDIMENTS	Diethyl phthalate	84-66-2	Unknown	340 BJ	UG/KG
	SEDIMENTS	Benzo(k)fluoranthene	207-08-9	Unknown	1100	UG/KG
	SEDIMENTS	Benzo(a)pyrane	50-32-8	Unknown	670 J	UG/KG
	SEDIMENTS	Benzo(a)anthracene	58-55-3	Unknown	590 J	UG/KG
	SEDIMENTS	Benzo(ghi) perylene	191-24-2	Unknown	800 J	UG/KG
	SEDIMENTS	Fluoranthene	208-44-0	Unknown	1700	UG/KG
	SEDIMENTS	Fluorene	88-73-7	Unknown	60 J	UG/KG
	SEDIMENTS	Indeno(1.2.3-cd)ovrene	193-39-5	Unknown	750 J	UG/KG
	SEDIMENTS	N - nitrosodiobenvlamine	88-30-8	Unknown	47.1	UG/KG
	SEDIMENTS	lead - Total	7430-02-1	Linknown	899000 *	UGAKG
	SEDIMENTS	Redum - Oisechand	740-20 2	Uskaowa	255	UGA
	SEDIMENTS	Magazaium - Dissolved	7440-39-3	Unknown	335	UGA
	SEDIMENTS	Magnesium - Dissolved	7438-85-4	Unknown	23600	UGAL
	SEDIMENTS	Calcium - Dissolved	7440-70-2	Unknown	141000 -	UGIL
	SEDIMENTS	Nickel - Dissolved	7440-02-0	Unknown	58.6	UG/L
	SEDIMENTS	Manganese - Dissolved	7439-96-5	Unknown	3140 -	UG/L
	SEDIMENTS	Zinc - Dissolved	7440-68-6	Unknown	721 -	UG/L
	SEDIMENTS	iron - Dissoived	7439-89-8	Unknown	6060 *	UG/L
	SEDIMENTS	Aroclor 1260	11098-82-5	Unknown	78 P	UG/KG
	SEDIMENTS	Magnesium - Total	7439-95-4	Unknown	28100000 E*	UG/KG
	SEDIMENTS	Methoxychlor	72-43-5	Unknown	13 JP	UG/KG
	SEDIMENTS	Calcium - Total	7440-70-2	Unknown	83900000 E*	UG/KG
	SEDIMENTS	Cobelt - Total	7440-48-4	Unknown	16100	UG/KG
	SEDIMENTS	Nickel - Total	7440-02-0	Unknown	30700	UG/KG
	SURFACE SOILS	2-Methyinaphthalene	91-57-8	Unknown	93 J	UG/KG
	SURFACE SOILS	alpha-BHC	319-84-8	Unknown	0.43 JP	UG/KG
	SURFACE SOILS	Nachthalene	91-20-3	Unknown	81 1	UG/KG
	SURFACE SOILS	Silver - Total	7440-22-4	Linknown	2600 B	UG/KG
	SUBFACE SOILS	Dibearofuren	132-84-0	Linknown	38.1	UGAG
	SUPEACE SOUS	Bothesium - Dissolund	7440-00-7	Unknown	13800	LIGA
	SUPEACE SOILS	1 1 1 Triphorethere	7440-09-7	Unknown	15000	UCKA
	SUPFACE SUILS	1,1,1-Irichioroethane	/1-55-8	Unknown	97	UGAG
	SUHFACE SUILS	Cadmium - Dissolved	7440-43-9	Unknown	0.9 BN	UGIL
	SUHFACE SOILS	4,4'-000	72-54-8	Unknown	14	UG/KG
	SURFACE SOILS	4,4'-DDT	50-29-3	Unknown	7.8	UG/KG
	SUHFACE SOILS	Sodium - Dissolved	7440-23-5	Unknown	3820 B	UGIL
	SURFACE SOILS	Aluminum - Dissolved	7429-90-5	Unknown	271	UGAL
	SURFACE SOILS	4,4'-DDE	72-55-9	Unknown	22	UG/KG
	SURFACE SOILS	Lead - Dissolved	7439-92-1	Unknown	3	UGAL
	SURFACE SOILS	4,4'-000	72-54-8	Unknown	14	UG/KG
	SURFACE SOILS	Arsenic - Dissolved	7440-38-2	Unknown	8 B	UGAL
	SURFACE SOILS	Zinc - Total	7440-66-6	Unknown	778000 N*	UG/KG
	SURFACE SOILS	Anthracene	120-12-7	Unknown	110 J	UG/KG
	SURFACE SOILS	gamma-BHC (Lindane)	58-89-9	Unknown	1.4 JP	UG/KG
	SURFACE SOILS	Barium - Total	7440-39-3	Unknown	195000	UG/KG
	SURFACE SOILS	Chromlum - Total	7440-47-3	Unknown	49500	UG/KG
	SURFACE SOILS	Copper - Total	7440-50-8	Unknown	223000 N*	UG/KG
	SURFACE SOILS	Cadmium - Total	7440-43-9	Unknown	4400 BN	UG/KG
	SURFACE SOILS	Mercury - Total	7439-97-8	Unknown	1500 N*	UG/KG
	SURFACE SOILS	Dieldrin	60-57-1	Unknown	19.P	UG/KG
	SUBFACE SOILS	Di-n-buty abthelete	84-74-2	linknows	57.1	UGAKG
	SURFACE SOILS	Riel2-athulharul) abthalate	117-01-7	Linkown	1100 8	UGAG
	SUPFACE SOILS	inon - Total	7420. 00 0	linkrown	40000000	UGAKG
	SUPERCE COULS		1438-88-8	Unknown	4050000 -	HOME
	SUPFACE SULS	Arocior 1248	12072-29-6	Unknown	94	LIGNO
	SUHFACE SOILS	Arocior 1254	11097-89-1	Unknown	120 P	UG/KG
	SUB-SURFACE SOILS	Endosultan II	33213-85-9	Unknown	0.89 J	UG/KG
	SUB-SURFACE SOILS	Endrin ketone	53494-70-5	Unknown	0.59 JP	UG/KG
	SURFACE WATER	Carbon Disulfide	75-15-0	Unknown	8 J	UG/L
	SURFACE WATER	Chloroethane	75-00-3	Unknown	5 J	UGAL
	SURFACE WATER	Antimony - Total	7440-36-0	Unknown	70 B	UGAL
	SURFACE WATER	1,1-Dichloroethane	75-34-3	Unknown	4 J	UGAL

EPA	Potential I Site I Part 3 - Description of H	Lazardous Waste Site Inspection Report Lazardous Conditions and Incidents	I. Identification 01 State 02 S NY	n Site Number 828037
II. Hazard	ous Conditions and Incidents			
01 <u>x</u> A. 03 Popula Affecte	Groundwater Contamination ation Potentially d: <u>Unknown</u>	02 <u>x</u> Observed (Date: <u>5/93</u>) 04 Narrative Description Iron, lead, magnesium, sodium, and zin quality standards.	Potential	Alleged
01 <u>x</u> B. 03 Popula Affecte	Surface Water Contamination ation Potentially ed: <u>Unknown</u>	02 <u>x</u> Observed (Date: <u>5/93</u>) 04 Narrative Description Heptachlor and iron exceeded NYS Class	<u>x</u> Potential s D surface water st	Alleged
01 <u>x</u> C. 03 Popula Affecte	Contamination of Air ation Potentially cd:	02 Observed (Date:) 04 Narrative Description None reported.	Potential	Alleged
01 <u>x</u> D. 03 Popula Affecte	Fire/Explosive Conditions ation Potentially cd:	02 Observed (Date:) 04 Narrative Description None reported.	Potential	Alleged
01 <u>x</u> E. 03 Popula Affecte	Direct Contact ation Potentially cd:	02 <u>x</u> Observed (Date: <u>5/93</u>) 04 Narrative Description Vehicular and pedestrian access not rest	Potential	Alleged
01 <u>x</u> F. 03 Popula Affected	Contamination of Soil ation Potentially d:	02 <u>x</u> Observed (Date: <u>5/93</u>) 04 Narrative Description Low levels of soil contamination detecte trichloroethane, 2-butanone, PAHs, pht metals, and cyanide.	Potential ed, including 1,1,1- chlates, pesticide, Po	Alleged
01 G. 03 Popula Affecte	Drinking Water Contamination ation Potentially ed:	02 Observed (Date:) 04 Narrative Description	Potential	Alleged
01 H. 03 Popula Affecta	Worker Exposure/Injury ation Potentially ed:	02 Observed (Date:) 04 Narrative Description	Potential	Alleged
01 <u>I.</u> I. H 03 Popula Affecte	Population Exposure/Injury ation Potentially ed:	02 Observed (Date:) 04 Narrative Description	Potential	Alleged
01 <u>x</u> J. J. 03 Popula Affecta	Damage to Flora ation Potentially	02 <u>x</u> Observed (Date: <u>5/16/90</u>) 04 Narrative Description	<u>x</u> Potential	Alleged

NYSDEC regulated wetland, HR-20, is located adjacent to the site on the west side.
EPA	Potential H Site In Part 3 - Description of H	azardous Waste Site spection Report azardous Conditions and Incidents	I. Identification 01 State 02 S NY	n Site Number 828037
II. Hazardo	us Conditions and Incidents (Co	ntinued)		
01 K. Da 03 Populatio Affected:	amage to Fauna on Potentially	02 Observed (Date:) 04 Narrative Description	<u>x</u> Potential	Alleged
01L. Co 04 Narrative	e Description	02 Observed (Date:)	<u>x</u> Potential	Alleged
01 <u>x</u> M. U (Spills/Rund 03 Populatio	instable Containment of Wastes off/Standing Liquids/Leading drums) on Potentially	02 <u>x</u> Observed (Date: <u>10/29/92</u>) 04 Narrative Description	<u>x</u> Potential	Alleged
Affected:	Unknown	Water in on-site drainage ditches has oil Landfill is reportedly not lined or capped	ly sheens and rust c d.	olored stains.
01 <u>x</u> N. Da 04 Narrative Runoff from t	amage to Offsite Property re Description the site may impact the NYSDEC 1	02 Observed (Date:) regulated wetland, HR-20.	<u>x</u> Potential	Alleged
01 O. Co Storm D 04 Narrativ None reported	ontamination of Sewers, Prains, WWTPs re Description ed.	02 Observed (Date:)	Potential	Alleged
01 <u>x</u> P. II 04 Narrativ Yard waste fr	legal/Unauthorized Dumping re Description from adjacent residences observed	02 <u>x</u> Observed (Date: <u>5/93</u>) on-site.	Potential	Alleged
05 Descripti None known.	ion of Any Other Known, Poten	tial or Alleged Hazards		
III. Total P	opulation Potentially Affected:	Unknown		
IV. Comme Background	ents information does nsot indicate has	zadous substances have been disposed on-s	site.	

V. Sources of Information (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, Henrietta Town Dump (dated August 1991). IRS consultants, Inc., Buffalo, NY Preliminary Site Assessment Report, Henrietta Town Dump (dated October 1993). Engineering-Science, Inc., Liverpool, NY 13088.

E P A Pa	Potential Hazardous Waste Site Site Inspection Report Part 4 - Permit And Descriptive Information			I. Identific 01 State NY	eation 02 Site Number 828037
II. Permit Information					
01 Type of Permit Issued (Check all that apply) A. NPDES B. UIC C. Air D. RCRA E. RCRA Interim Status F. SPCC Plan G. State (Specify) H. Local (Specify) I. Other (Specify) J. None	02 Permit Number	03 Date Issued	04 Expiration Date	05 Comments	
III. Site Description					
01 Storage/Disposal (Check all that apply) A. Surface Impoundmen B. Piles C. Drums, above ground D. Tank, above ground E. Tank, below ground F. Landfill G. Landfarm H. Open Dump I. Other (Specify) 07 Comments	02 Amount	03 Unit of Measure	04 Treatment (Check all that appl A. Incinera B. Undergromerous C. Chemica D. Biologica E. Waste O F. Solvent J G. Other R H. Other(S	y) tion ound Injection I/Physical al il Processing Recovery ecycling/Recove	05 Other A. Buildings on Site 06 Area of Site ry 35 (Acres)
IV. Containment 01 Containment of Wastes (0 A. Adequate, Secure	Check One) B. Moder	ate C. Inadec	quate, Poor	D. Insecu	re, Unsound, Dangerous
02 Description of Drums, D. Landfill is reportedly not lined	iking, Liners, Barn I. Several leachate	riers, Etc. outbreaks drain t	o drainage ditch wh	ich discharges t	o adjacent wetland.
V. Accessibility 01 Waste Easily Accessible: 02 Comments	Yes	No			
Household garbage exposed fi	om recent dredging	of drainage ditc	2		

VI. Sources of Information (Cite specific references, e.g., state files, sample analysis, reports) Preliminary Site Assessment Report, Henrietta Town Dump (dated August 1991). IRS consultants, Inc., Buffalo, NY Preliminary Site Assessment Report, Henrietta Town Dump (dated October 1993). Engineering-Science, Inc., Liverpool, NY 13088.

EPA	Part 5 -	Potential Hazz Site Inspe Water, Demograp	ardous Waste Site ection Report phic, and Enviror	e umental I	Data	I. Identif 01 State NY	ication 02 Site Number 828037
II. Drinking Wa	ater Supply						
01 Type of Drinl (Check as applic Community Non-Community	king Water Su suble) Surface A. <u>x</u> 7 C	Well B D	02 Status Endangered A A B D E	ffected	Monitor C. <u>x</u> F	03 D ed A2 B	istance To Site <u>3 (Mi.)</u> (Ft.)
III. Groundwat	er						· · · · · · · · · · · · · · · · · · ·
01 Groundwater A. Only Sou	Use In Vicini rce For Drink	ty (Check One) ingB. Dr (Other Sour Comm Irrigat (No othe availabl	inking rces Available) nercial, Industrial tion r water sources e)	C. Irriga (Limite availabi	Commerc tion d other sourc le)	cial, Industria	l D. Not Used, Unusable
02 Population Se 04 Depth to Gro	erved by Grou undwater (ndwater <u>0</u> 5 Direction of G	03 Dis roundwater Flow	stance to 06 Dep	nearest dr pth to Aqu	inking water ifer 07 P	well <u>Unknown</u> (ft) otential Yield 08 Sole Sou
of Concern 0-4 (ft)		of Aquifer west		04	_ (ft)	A1	quifer <u>440</u> (gpd) Yes No
09 Description o Population in vic	f Wells (Inclu inity of site sug	ding usage, depth oplied by municipa	, and location re al surface water su	lative to apply.	population	and building	(2)
10 Recharge Are <u>x</u> Yes Comm No Ma	ea ments ursh area in no	rth portion.	11 Di Y N	scharge A les Cou lo Sit	area mments e discharge	es into wetland	t HR-20 adjacent to the site.
IV. Surface Wat	ter	101 - 11			1100		
01 Surface Wate A. Reservoir Drinking Wa	er Use (Check r, Recreation ater Source	One) <u>x</u> B. Irrigat Importan	ion, Economicall t Resources	ly C	. Commer	cial, Industria	al D. Not Currently Used
02 Affected/Pote	entially Affect	ed Bodies of Wat	er		Aff	ected	Distance To Site
Name: East Bra Name: NYSDEC	nch of Red Cro wetland HR-2	eek - Class "C" ste 20 adjacent to site	eam			= :	<u>Adj.</u> (mi) (mi)
V. Demographic	and Property	Information					
01 Total Popula One (1) Mile of A. <u>3232</u> No. of Persons	tion Within Site Two B No. ((2) Miles of Site 12.930 of Persons	Four (4) Miles C. <u>29,092</u> No. of Person	s of Site	02 Dista	nce To Nearc	st Population (mi.)
03 Number of B 	uildings With	in Two (2) Miles	of Site	04 Dis	stance to N 0.04	learest Off-Si 4 (mi)	te Building

05 Population Within Vicinity of Site (Provide narrative description of nature of population within vicinity of site, e.g., rural, village densely populated urban area) Housing subdivision located directly east of site.

EPA	Potential Hazardou Site Inspection Part 5 - Water, Demographic, a	s Waste Site Report and Environmental	I. 01 Data	Identification State 02 Site NY 828037	Number
VI. Environment	tal Information				
01 Permeability o	f Unsaturated Zone (Check One)				
A. 10 ⁻⁶ -10 ⁻⁶ cm/sec	c <u>x</u> B. 10 ⁻⁴ -10 ⁻⁴ cm/sec	C. 10 ⁻⁴ -10 ⁻³ c	m/sec	D. Greater th	an 10 ⁻³
02 Permeability o	f Bedrock (Check One)				
A. Impermeat	bleB. Relatively Impermea (10 ⁻⁴ -10 ⁻⁶ cm/sec)	ble <u>C. Relati</u> (10 ⁻² -10 ⁻⁴ cm/se	vely Permeable c)	D. Very I (Greater than 10 ⁻²	Permeable ² cm/sec)
03 Depth to Bedr 40 (ft)	ock 04 Depth of Contaminated Unknown (ft)	Soil Zone	05 Soil pH Unknown	_	
06 Net Precipitati	ion 07 One Year 24-Hour Rainf	fall 08 Slope Site Slope	Direction of Site Slope	Terrain A Slope	verage
<u>6</u> (in)	<u>3.85 (in)</u>	3 %	West	0-3 9	<u>6</u>
09 Flood Potentia	10				
Site is iny floodplain * Portion of a Remainder of	site where E-W drainage discharges to of site is outside 500-year flood plain	rier Island, Coasta o wetlands is within	l High Hazard Ar 100-year flood pla	ea, Riverine Flo un.	odway
11 Distance to W Greater than one	etlands (5 acre minimum) mile	12 Distance t Greater than	to Critical Habitat	t (of endangered	species)
Estuarine	Other	>2	(mi)		
A. <u>NA</u> (mi)	B. <u>0.2</u> (mi)	Endangered	Species:		
13 Land Use In	Vicinity				
Distance To: Commercial/Inde	ustrial Residential Areas: State Parks, Forest or Wildlife Reserve	National is is	Prim	Agricultural e Ag Land Ag I	Lands and
A. <u>adjacent</u> (mi.)	(mi.) B. <u>0.1</u> (mi.)		C	<u>>2</u> (mi.)	D. <u>>1</u>

14 Description of Site In Relation To Surrounding Topography

Topography in vicinity of site is relatively flat. Wetlands to west is approximately ten feet lower than site.

VII. Sources of Information (Cite specific references, e.g., state files, sample analysis, reports) Preliminary Site Assessment Report, Henrietta Town Dump (dated August 1991). IRS consultants, Inc., Buffalo, NY Preliminary Site Assessment Report, Henrietta Town Dump (dated October 1993). Engineering-Science, Inc., Liverpool, NY 13088.

EPA	Potential Hazardous Waste Site Site Inspection Report Part 6 - Sample And Field Information		I. Identification 01 State 02 Site Number NY 828037
II. Samples Taken			
Sample Type	01 Number of Samples Taken	02 Samples Sent To	03 Estimated Date Results Available
Groundwater	6	Recra Environmental, Inc.	Available, 1993
Liquid (unidentified)			
Surface Water	5	Recra Environmental, Inc.	Available, 1993
Sediment	6	Recra Environmental, Inc.	Available 1993
Leachate	3	Recra Environmental, Inc.	Available, 1993
Soil/SubSurface /Grain Size	5/5 5	Recra Environmental, Inc. Huntingdon Laboratories	Available, 1993 Available, 1993
Waste			
Air			
Runoff			
Spill			
Vegetation			
III. Field Measuremen	nts Taken		
01 Type HNu, PID, Radiation Meter PID	02 Comments No readings above No readings above	background, 10/17/90. background, 10/29/92.	
IV. Photographs And	Maps		
01 Type <u>x</u> Ground	<u>x</u> Aerial	02 In Custody of <u>Engineerin</u> (Name of Organization of	ng- <u>Science, Inc.</u> or Individual)
03 Maps	02 Location of Ma	aps	
x Yes Engineering-S	cience, Inc.		
No			
V. Other Field Data (Collected (Provide Na	arrative Description)	

Preliminary Site Assessment Report, Henrietta Town Dump (dated August 1991). IRS consultants, Inc., Buffalo, NY Preliminary Site Assessment Report, Henrietta Town Dump (dated October 1993). Engineering-Science, Inc., Liverpool, NY 13088.

EPA	Potent Si Part	ial Hazardous Waste te Inspection Report 7 - Owner Informati	Site	I. Identifica 01 State (NY 8	tion)2 Site Number 28037
II. CURRENT	OWNER(s)		PARENT COMPA	NY (If Applicable)
01 Name 1233 Lehigh Sta	ution Back Acreage Corp.	02 D+B Number	08 Name		09 D+B Number
03 Street Addre 1233 Lehigh Sta	ess (P.O. Box, RFD #, etc) ution Road	04 SIC Code	10 Street Address	(P.O. Box, RFD #, etc)	11 SIC Code
05 City Henrietta	06 State NY	07 Zip Code 14467	12 City	13 State	14 Zip Code
01 Name		02 D+B Number	08 Name		09 D+B Number
03 Street Addr	ess (P.O. Box, RFD #, etc)	04 SIC Code	10 Street Address	(P.O. Box, RFD #, etc)	11 SIC Code
05 City	06 State	07 Zip Code	12 City	13 State	14 Zip Code
01 Name		02 D+B Number	08 Name		09 D+B Number
03 Street Addr	ess (P.O. Box, RFD #, etc)	04 SIC Code	10 Street Address	(P.O. Box, RFD #, etc)	11 SIC Code
05 City	06 State	07 Zip Code	12 City	13 State	14 Zip Code
01 Name		02 D+B Number	08 Name		09 D+B Number
03 Street Addr	ess (P.O. Box, RFD #, etc)	04 SIC Code	10 Street Address	(P.O. Box, RFD #, etc)	11 SIC Code
05 City	06 State	07 Zip Code	12 City	13 State	14 Zip Code
III. PREVIOU	JS OWNER(s) (List most re	cent first)	IV. REALTY OV	VNER(s) (if applicable	e list most recent first)
01 Name Genesee Valley	Waste Systems (formerly B	02 D+B Number Bestway Disposal)	08 Name		09 D+B Number
03 Street Addr 1233 Lehigh Sta	ess (P.O. Box, RFD #, etc) ation Road	04 SIC Code	10 Street Address	(P.O. Box, RFD #, etc)	11 SIC Code
05 City		06 State	07 Zip Code	12 City	13 State 14 Zip Code
Henrietta		NY	14467		
01 Name Clifford Bar, In	ıc.	02 D+B Number	08 Name		09 D+B Number
03 Street Addr 22 Bishops Ct.	ress (P.O. Box, RFD #, etc)	04 SIC Code	10 Street Address	(P.O. Box, RFD #, etc)	11 SIC Code
05 City Pittsford		06 State NY	07 Zip Code 14534	12 City	13 State 14 Zip Code
01 Name Wembly Constru	uction	02 D+B Number	08 Name		09 D+B Number
03 Street Addr 1233 Lehigh Sta	ress (P.O. Box, RFD #, etc) ation Road	04 SIC Code	10 Street Address	(P.O. Box, RFD #, etc.	11 SIC Code
05 City		06 State	07 Zip Code	12 City	13 State 14 Zip Code
Henrietta		NY	14467		

V. Sources of Information (Cite specific references, e.g., state files, sample analyses, reports)

Preliminary Site Assessment Report, Henrietta Town Dump (dated August 1991). IRS consultants, Inc., Buffalo, NY Preliminary Site Assessment Report, Henrietta Town Dump (dated October 1993). Engineering-Science, Inc., Liverpool, NY 13088.

EPA	A Potential Hazardous Waste Site Inspection Report Part 8 - Operator Informat			I. Identifica 01 State NY 82	tion 12 Site Number 8037
I. CURRENT Operator (Provide if different from Owner)			OPERATOR'S PARENT COMPANY		
)1 Name		02 D+B Number	10 Name		11 D+B Number
03 Street Address (P.O. Box, RFD #, etc) 04 SIC Code		12 Street Address (P.O. Box, RFD #, etc) 13 SIC Code			
)5 City	06 State	07 Zip Code	14 City	15 State	16 Zip Code
08 Years of Operation 09	Name of Ov	vner			
III. PREVIOUS OPERAT	OR(s)		PREVIOUS OPER (If Applicable)	RATORS' PAREN	T COMPANIES
01 Name Richard Corsetti/Henrietta I	andfill Corpo	02 D+B Number	10 Name		11 D+B Number
)1 Name Richard Corsetti/Henrietta 1)3 Street Address (P.O. Box,	andfill Corpo	02 D+B Number pration 04 SIC Code	10 Name 12 Street Address	(P.O. Box, RFD #, etc)	11 D+B Number 13 SIC Code
01 Name Richard Corsetti/Henrietta 1 03 Street Address (P.O. Box, 05 City	Landfill Corpo , RFD #, etc)	02 D+B Number pration 04 SIC Code 06 State	10 Name 12 Street Address 07 Zip Code	(P.O. Box, RFD #, etc) 14 City	11 D+B Number 13 SIC Code 15 State 16 Zip Code
01 Name Richard Corsetti/Henrietta 1 03 Street Address (P.O. Box, 05 City Henerietta	Landfill Corpo , RFD #, etc)	02 D+B Number pration 04 SIC Code 06 State NY	10 Name 12 Street Address 07 Zip Code	(P.O. Box, RFD #, etc) 14 City	11 D+B Number 13 SIC Code 15 State 16 Zip Code
01 Name Richard Corsetti/Henrietta 1 03 Street Address (P.O. Box, 05 City Henerietta 08 Years of Operation	Landfill Corpo , RFD #, etc) 09 Nar	02 D+B Number pration 04 SIC Code 06 State NY me of Owner During	10 Name 12 Street Address 07 Zip Code This Period	(P.O. Box, RFD #, etc) 14 City	11 D+B Number 13 SIC Code 15 State 16 Zip Code
01 Name Richard Corsetti/Henrietta 1 03 Street Address (P.O. Box, 05 City Henerietta 08 Years of Operation 1950s - 1966	Landfill Corpo , RFD #, etc) 09 Nat	02 D+B Number pration 04 SIC Code 06 State NY me of Owner During Town of Henrietta	10 Name 12 Street Address 07 Zip Code This Period	(P.O. Box, RFD #, etc) 14 City	11 D+B Number 13 SIC Code 15 State 16 Zip Code
01 Name Richard Corsetti/Henrietta 1 03 Street Address (P.O. Box, 05 City Henerietta 08 Years of Operation 1950s - 1966 01 Name	Landfill Corpo , RFD #, etc) 09 Nar	02 D+B Number ration 04 SIC Code 06 State NY me of Owner During Town of Henrietta 02 D+B Number	10 Name 12 Street Address 07 Zip Code This Period 10 Name	(P.O. Box, RFD #, etc) 14 City	11 D+B Number 13 SIC Code 15 State 16 Zip Code 11 D+B Number
11 Name Richard Corsetti/Henrietta 1 33 Street Address (P.O. Box, 55 City Henerietta 08 Years of Operation 1950s - 1966 01 Name 03 Street Address (P.O. Box,	Candfill Corpo , RFD #, etc) 09 Nar	02 D+B Number oration 04 SIC Code 06 State NY me of Owner During Town of Henrietta 02 D+B Number 04 SIC Code	10 Name 12 Street Address 07 Zip Code This Period 10 Name 12 Street Address	(P.O. Box, RFD #, etc) 14 City (P.O. Box, RFD #, etc)	11 D+B Number 13 SIC Code 15 State 16 Zip Code 11 D+B Number 13 SIC Code
11 Name Richard Corsetti/Henrietta 1 33 Street Address (P.O. Box, 95 City Henerietta 98 Years of Operation 1950s - 1966 91 Name 93 Street Address (P.O. Box, 95 City	Candfill Corpo , RFD #, etc) 09 Nat	02 D+B Number oration 04 SIC Code 06 State NY me of Owner During Town of Henrietta 02 D+B Number 04 SIC Code 06 State	10 Name 12 Street Address 07 Zip Code This Period 10 Name 12 Street Address 07 Zip Code	(P.O. Box, RFD #, etc) 14 City (P.O. Box, RFD #, etc) 14 City	11 D+B Number 13 SIC Code 15 State 16 Zip Code 11 D+B Number 13 SIC Code 15 State 16 Zip Code
11 Name Richard Corsetti/Henrietta I 03 Street Address (P.O. Box, 05 City Henerietta 08 Years of Operation 1950s - 1966 01 Name 03 Street Address (P.O. Box, 05 City 98 Years of Operation 1950s - 1966 01 Name 03 Street Address (P.O. Box, 05 City 08 Years of Operation 09 Years of Operation	Candfill Corpo , RFD #, etc) 09 Nan , RFD #, etc) 9 Name of Or	02 D+B Number ration 04 SIC Code 06 State NY me of Owner During Town of Henrietta 02 D+B Number 04 SIC Code 06 State wner During This Per	10 Name 12 Street Address 07 Zip Code This Period 10 Name 12 Street Address 07 Zip Code iod	(P.O. Box, RFD #, etc) 14 City (P.O. Box, RFD #, etc) 14 City	11 D+B Number 13 SIC Code 15 State 16 Zip Code 11 D+B Number 13 SIC Code 15 State 16 Zip Code
11 Name Richard Corsetti/Henrietta I 03 Street Address (P.O. Box, 05 City Henerietta 08 Years of Operation 1950s - 1966 01 Name 03 Street Address (P.O. Box, 05 City 98 Years of Operation 1950s - 1966 91 Name 93 Street Address (P.O. Box, 95 City 98 Years of Operation 99 Years of Operation 90 Years of Operation 91 Name	Candfill Corpo , RFD #, etc) 09 Nan , RFD #, etc) 9 Name of Ov	02 D+B Number ration 04 SIC Code 06 State NY me of Owner During Town of Henrietta 02 D+B Number 04 SIC Code 06 State wher During This Per 02 D+B Number	10 Name 12 Street Address 07 Zip Code This Period 10 Name 12 Street Address 07 Zip Code iod 10 Name	(P.O. Box, RFD #, etc) 14 City (P.O. Box, RFD #, etc) 14 City	11 D+B Number 13 SIC Code 15 State 16 Zip Code 11 D+B Number 13 SIC Code 15 State 16 Zip Code 11 D+B Number
01 Name Richard Corsetti/Henrietta I 03 Street Address (P.O. Box, 05 City Henerietta 08 Years of Operation 1950s - 1966 01 Name 03 Street Address (P.O. Box, 05 City 08 Years of Operation 02 01 Name 03 Street Address (P.O. Box	Candfill Corpo , RFD #, etc) 09 Nan , RFD #, etc) 9 Name of Ov , RFD #, etc)	02 D+B Number ration 04 SIC Code 06 State NY me of Owner During Town of Henrietta 02 D+B Number 04 SIC Code 06 State wner During This Per 02 D+B Number 04 SIC Code	10 Name 12 Street Address 07 Zip Code This Period 10 Name 12 Street Address 07 Zip Code iod 10 Name 12 Street Address	(P.O. Box, RFD #, etc) 14 City (P.O. Box, RFD #, etc 14 City (P.O. Box, RFD #, etc	11 D+B Number 13 SIC Code 15 State 16 Zip Code 11 D+B Number 13 SIC Code 15 State 16 Zip Code 11 D+B Number 13 SIC Code

IV. Sources of Information (Cite specific references, e.g., state files, sample analysis, report(s)) Preliminary Site Assessment Report, Henrietta Town Dump (dated August 1991). IRS consultants, Inc., Buffalo, NY Preliminary Site Assessment Report, Henrietta Town Dump (dated October 1993). Engineering-Science, Inc., Liverpool, NY 13088.

EPA	Potent Si Part 9 - Gene	ial Hazardous Waste ite Inspection Report erator/Transporter In	Site nformation	I. Identifica 01 State NY 82	ation 02 Site Number 8037
II. On-Site Gener	rator				
01 Name		02 D+B Number			
03 Street Address	(P.O. Box, RFD #, etc)	04 SIC Code			
05 City	06 State	07 Zip Code			
III. Off-Site Gen	erator(s)				
01 Name		02 D+B Number	01 Name		02 D+B Number
03 Street Address	(P.O. Box, RFD #, etc)	04 SIC Code	03 Street Address	5 (P.O. Box, RFD #, etc) 04 SIC Code
05 City	06 State	07 Zip Code	05 City	06 State	07 Zip Code
IV. Transporter(s)				
01 Name		02 D+B Number	01 Name		02 D+B Number
03 Street Address	(P.O. Box, RFD #, etc)	04 SIC Code	03 Street Address	s (P.O. Box, RFD #, etc	e) 04 SIC Code
05 City	06 State	07 Zip Code	05 City	06 State	07 Zip Code
01 Name		02 D+B Number	01 Name		02 D+B Number
03 Street Address	(P.O. Box, RFD #, etc)	04 SIC Code	03 Street Address	s (P.O. Box, RFD #, etc	e) 04 SIC Code
05 City	06 State	07 Zip Code	05 City	06 State	07 Zip Code

V. Sources of Information (Cite specific references, e.g., state files, sample analysis, reports) Preliminary Site Assessment Report, Henrietta Town Dump (dated August 1991). IRS consultants, Inc., Buffalo, NY Preliminary Site Assessment Report, Henrietta Town Dump (dated October 1993). Engineering-Science, Inc., Liverpool, NY

13088.

EPA	Potential Hazardo Site Inspectio Part 10 - Past Resp	us Waste Site n Report onse Activities	I. Identification 01 State 02 Site Number NY 828037
II. Past Re	sponse Activities		
01 A. V 04 Descript	Vater Supply Closed	02 Date	03 Agency
01 B. 7 04 Descript	Cemporary Water Supply Provided	02 Date	03 Agency
01 C. H 04 Descript	Permanent Water Supply Provided tion	02 Date	03 Agency
01 D. S 04 Descript	Spilled Material Removed	02 Date	03 Agency
01 E. 0 04 Descript	Contaminated Soil Removed	02 Date	03 Agency
01 F. V 04 Descript	Vaste Repacked	02 Date	03 Agency
01 G. 04 Descript	Waste Disposed Elsewhere tion	02 Date	03 Agency
01 H. (04 Descript	On Site Burial tion	02 Date	03 Agency
01 I. In 04 Descript	a Site Chemical Treatment tion	02 Date	03 Agency
01 J. L 04 Descript	n Situ Biological Treatment tion	02 Date	03 Agency
01 K. J 04 Descript	In Situ Physical Treatment tion	02 Date	03 Agency
01 L. I 04 Descrip	Encapsulation tion	02 Date	03 Agency
01 M.	Emergency Waste Treatment	02 Date	03 Agency

EPA	Potential Hazardous W Site Inspection Re Part 10 - Past Response	I. Identification 01 State 02 Site Number NY 828037	
II. Past Res 01 N. Cu 04 Descriptio	ponse Activities (Continued) utoff Walls on	02 Date	03 Agency
01 <u>0. Er</u> 04 Descriptio	mergency Diking/Surface Water Diversion on	02 Date	03 Agency
01 P. Cu 04 Descriptio	utoff Trenches/Sump on	02 Date	03 Agency
01 Q. Su 04 Descriptio	ubsurface Cutoff Wall on	02 Date	03 Agency
01 R. Ba 04 Descriptio	arrier Walls Constructed on	02 Date	03 Agency
01 S. Ca 04 Description	apping/Covering on	02 Date	03 Agency
01 T. Bu 04 Description	ulk Tankage Repaired on	02 Date	03 Agency
01 U. Gi 04 Descripti	rout Curtain Constructed on	02 Date	03 Agency
01 V. Be 04 Descripti	ottom Sealed on	02 Date	03 Agency
01 W. G 04 Descripti	Gas Control on	02 Date	03 Agency
01 X. Fi 04 Descripti	ire Control on	02 Date	03 Agency
01 Y. L. 04 Descripti	eachate Treatment	02 Date	03 Agency
01 Z. Au 04 Descripti	rea Evacuated	02 Date	03 Agency
01 1. Ac 04 Descripti	ccess To Site Restricted	02 Date	03 Agency
01 2. Po 04 Descripti	opulation Relocated	02 Date	03 Agency
01 3. Or 04 Descripti	ther Remedial Activities ion	02 Date	03 Agency

III. Sources of Information (Cite specific references, e.g., state files, sample analysis, reports) Preliminary Site Assessment Report, Henrietta Town Dump (dated August 1991). IRS consultants, Inc., Buffalo, NY Preliminary Site Assessment Report, Henrietta Town Dump (dated October 1993). Engineering-Science, Inc., Liverpool, NY 13088.

EPA	Potential Hazardous Waste Site Site Inspection Report	I. Identification 01 State 02 Site Number
	Part 11 - Enforcement Information	NY 828037

II. Enforcement Information

01 Past Regulatory/Enforcement Action _____ Yes _____ No

02 Description of Federal, State, Local Regulatory/Enforcement Action

III. Sources of Information (Cite specific references, e.g., state files, sample analysis, reports)