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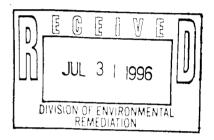
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# Pre-Design Investigation Summary Report



Westinghouse Site Participating Parties Cheektowaga, New York

July 1996



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Westinghouse Site Participating Parties Cheektowaga, New York

July 1996



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### 1. Introduction

### 1.1 General

This report has been prepared on behalf of the Westinghouse Site Participating Parties¹ (WSPP) to summarize the Pre-Design Investigation recently completed at the former Westinghouse Electric Corporation Site, 4454 Genesee Street, Cheektowaga, New York (the "site") (Figure 1). The Pre-Design Investigation was performed in accordance with the *Pre-Design Investigation Work Plan* (the Work Plan), submitted to the New York State Department of Environmental Conservation (NYSDEC) in March 1996. Following NYSDEC review and approval of the Work Plan, field activities were performed between April and June 1996. The results of these field activities are presented in this document.

The purpose of the pre-design investigation was to obtain supplemental information needed for remedial design/remedial action (RD/RA) at the site. RD/RA will address the presence of several constituents detected in soils and sediments at the following areas associated with the site (Figure 2):

- Area I Oil Storage Building;
- Area J Solvent Tank Storage Area;
- Area K- Hazardous Waste Storage Area;
- Area M Underground Mixing Room;
- Area P Flying Tigers;
- Area Q Abandoned Railroad Area (South); and
- Area E U-Crest Ditch.

Specific remediation requirements for each area were presented in a Record of Decision (ROD) issued by the NYSDEC for Operable Unit 1 (OU-1) in March 1995. Based on the requirements presented in the ROD, as well as the type and extent of data available for estimating remediation limits, the WSPP identified the need for additional information prior to further considering RD/RA efforts. Subsequently, the WSPP identified several objectives of the Pre-Design Investigation, which were presented in the Work Plan and are summarized below.

### 1.2 Objectives of Pre-Design Investigation

The site has been subject to several investigations dating back to 1986, the most extensive of which was a Remedial Investigation (RI) conducted by the NYSDEC between May 1993 and September 1994. The RI provided the majority of information used by the NYSDEC in the completion of a Feasibility Study (FS) and in selection of onsite thermal desorption as the source control remedy.

Based on the contents of the RI and ROD, the WSPP identified two specific objectives for the pre-design investigation:

- Identify and delineate areas of contamination where off-site disposal, in lieu of treatment, may be pursued based on levels of contaminants; and
- Confirm and refine the remediation limits presented in the ROD based on laboratory analytical data.

<sup>&</sup>lt;sup>1</sup>The "Westinghouse Site Participating Parties" include the Westinghouse Electric Corporation, the Buffalo Airport Center Associates, the Niagara Frontier Transportation Authority, and Curtiss-Wright Corporation.

Based on these objectives, data needs were identified and presented in the Work Plan. Then, as discussed in Section 2 below, certain additional or remaining data needs were identified once pre-design investigations were initiated.

### 1.3 Format of Report

Section 2 of this report provides details regarding the pre-design activities performed at the site between April 1 and April 5, 1996, and between June 3 and June 5, 1996. Included in this section is a review of the general investigation protocols that were used, as well as an area-by-area summary of pre-design investigations and results.

Section 3 then applies this and prior information to develop remediation limits and quantities. This section, also presented on an area-by-area basis, provides the information that satisfies the objectives presented in Section 1.2 above. Finally, Section 4 presents a summary of the completed efforts.

### 2. Description of Investigations

### 2.1 General

This section describes the Pre-Design Investigation performed at the site between April and June 1996. The primary component of the investigations was the collection of soil and sediment samples from seven areas of the site subject to remediation. The specific scope of activities for each area varied depending on the particular constituent(s) of interest, the extent of the available laboratory data, the remedial objectives identified in the ROD, and the nature of identified data needs.

Approved by the NYSDEC in a letter dated March 13, 1996, the Work Plan described the initial investigations proposed for each remediation area. Subsequently, between April 1 and April 5, 1996, field activities were initiated in accordance with the Work Plan. During this time, 66 samples were collected from 30 locations and analyzed (depending on specific location) for volatile organic compounds (VOCs), semi-VOCs, select inorganics, and/or polychlorinated biphenyls (PCBs). In addition, certain waste characterization samples were collected and analyzed using the Toxicity Characteristic Leachate Procedure (TCLP).

The results of initial investigations were received and reviewed by the WSPP. Based on this review, several additional or remaining data needs were identified for further investigation. Both the results of the initial predesign investigations described above and the proposed supplemental investigations were provided to the NYSDEC in a letter dated May 21, 1996. With NYSDEC concurrence, the supplemental field activities were performed between June 3 and 5, 1996. During this second phase of investigation, 25 samples were collected from 20 locations and analyzed for several of the same parameters listed above.

The remainder of this section briefly describes the investigation protocols for the pre-design investigations (Section 2.2), and provides an area-by-area summary of the completed activities and results (Section 2.3).

### 2.2 Investigation Procedures

The Work Plan summarized the various procedures and protocols to be implemented during the Pre-Design Investigation, such as sampling procedures, health and safety, analytical methodologies, quality assurance/quality control, handling of investigation-derived wastes, and surveying. The procedures used to select samples from a given sample location are described below.

At each soil boring location, samples were collected in continuous 2-foot intervals and screened in the field using a photoionization detector (PID) for the presence of organic vapors. The PID results, coupled with information available from the prior investigations, were then used in the selection of specific sample increments for laboratory analysis. Initial investigations generally included the analysis of two samples from each boring, while the supplemental effort was more focused and involved the collection of one to three samples per soil boring.

The Pre-Design Investigation was performed and/or coordinated on behalf of WSPP by Blasland, Bouck & Lee, Inc. (BBL). Soil borings were advanced by SJB Services, Inc., while analytical services were provided by Columbia Analytical Services, Inc. Representatives from the NYSDEC and Leader Environmental, Inc. were also present on site at various times during field investigations.

### 2.3 Area-Specific Investigations

This section describes the investigations completed for each remediation area. The text presented in this section is supplemented with figures identifying the sample locations and summary of the analytical results. Several tables have also been prepared and are referenced as appropriate.

### 2.3.1 Area I - Oil Storage Building

Area I, the former Oil Storage Building, was subject to several previous investigations, including the laboratory analysis of soil samples from 13 locations. As described in the Work Plan, several VOCs were detected above ROD-specified cleanup objectives, including trichloroethylene (TCE); 1,1,1-trichloroethane (1,1,1-TCA); and toluene. Based on the available data and remedial objectives presented in the ROD, additional investigations concerning the presence of VOCs were proposed in the Work Plan, and performed in April 1996. The results of this initial investigation did not completely address the identified data needs, resulting in the performance of additional investigations in June 1996.

In total, pre-design investigations for Area I involved the laboratory analysis of 16 soil samples from 10 locations. Sample locations are identified on Figure 3, headspace readings of all sample intervals are presented in Table 1, and analytical results are presented in Table 2. The results of pre-design investigations for this area, as they pertain to the remedial and pre-design objectives, are discussed in Section 3.4.1.

### 2.3.2 Area J - Solvent Tank Storage Area

Area J, the former Solvent Tank Storage Area, had been previously characterized through the laboratory analysis of soil samples from seven soil borings and six test pits. VOC constituents detected above the ROD-specified cleanup objectives included 1,1,1-TCA; ethylbenzene; toluene; and xylene. Seven soil borings were advanced during the initial pre-design investigations, and subsequent sampling was performed at two locations.

In total, pre-design investigations for Area J involved the analysis of 16 soil samples from nine locations. Sample locations are identified on Figure 4, headspace readings of all sample intervals are presented in Table 1, and analytical results are presented in Table 2. The results of pre-design investigations for this area, as they pertain to the remedial and pre-design objectives, are discussed in Section 3.4.2.

### 2.3.3 Area K - Hazardous Waste Storage Area

Area K (the former Hazardous Waste Storage Area) was previously investigated through the laboratory analysis of soil samples from 12 locations. VOC constituents detected at levels exceeding the ROD-specified cleanup goals included 1,1,1-TCA; ethylbenzene; toluene; and xylene.

Sampling performed during both phases of pre-design investigations resulted in the analysis of 12 samples from six locations. Sample locations are identified on Figure 5, headspace readings of all sample intervals are presented in Table 1, and analytical results are presented in Table 2. The results of pre-design investigations for this area, as they pertain to the remedial and pre-design objectives, are discussed in Section 3.4.3.

### 2.3.4 Area M - Underground Mixing Room

Previous characterizations of Area M, the former Underground Mixing Room, included the laboratory analysis of soil samples from nine locations. The results of these efforts identified only one location where constituents were detected above the ROD-specified cleanup objectives (lead and 4-methylphenol).

Pre-design investigations for Area M were only performed during the initial field investigation (April 1996) and involved the collection of five samples from three locations. Each of these samples were below the ROD cleanup objectives, and no further investigations were necessary. Sample locations are identified on Figure 6, headspace readings of all sample intervals are presented in Table 1, and analytical results are presented in Tables 3 and 4. In addition, to further characterize the soils subject to remediation in Area M, the excess cuttings from the three soil borings advanced during the pre-design investigations were composited and subject to waste characterization analysis via the TCLP. Results are presented in Table 5. The results of pre-design investigations for this area, as they pertain to the remedial and pre-design objectives, are discussed in Section 3.4.4.

### 2.3.5 Area P - Flying Tigers

Area P, the site of the current Flying Tigers restaurant, was subject to several previous investigations, including the laboratory analysis of soil samples from 18 locations. As presented in the Work Plan, several VOCs were detected above the ROD-specified cleanup objectives, including TCE, toluene, and xylene. Based on the available data and remedial objectives presented in the ROD, additional investigations concerning the presence of VOCs were proposed in the Work Plan, and performed in April 1996. The results of this initial investigation did not completely address the identified data needs, resulting in the performance of additional investigations in June 1996.

In total, pre-design investigations for Area P involved the analysis of 19 soil samples from nine locations. Sample locations are identified on Figure 7, headspace readings of all sample intervals are presented in Table 1, and analytical results are presented in Table 2. In addition, to further characterize the soils subject to remediation in Area P, the excess cuttings from four soil borings advanced during the supplemental pre-design investigations were composited and subject to waste characterization analysis via the TCLP. Results are presented in Table 5. The results of pre-design investigations for this area, as they pertain to the remedial and pre-design objectives, are discussed in Section 3.4.5.

### 2.3.6 Area Q - Abandoned Railroad Area (South)

Area Q, the former Abandoned Railroad Area (South), was previously characterized through the analysis of samples from 10 locations. The results of these efforts identified one constituent (TCE) at one location where the ROD-specified cleanup goals were exceeded.

Pre-design investigations involved the analysis of nine soil samples from six locations with analysis for VOCs. Sample locations are identified on Figure 8, headspace readings of all sample intervals are presented in Table 1, and analytical results are presented in Table 2. In addition, to further characterize the soils subject to remediation in Area Q, the excess cuttings from three soil borings advanced during the supplemental pre-design investigations were composited and subject to waste characterization analysis via the TCLP. Results are presented in Table 5. The results of pre-design investigations for this area, as they pertain to the remedial and pre-design objectives, are discussed in Section 3.4.6.

### 2.3.7 Area E - U-Crest Ditch

During previous site investigations, Area E, the U-Crest Ditch, was characterized through the laboratory analysis of sediment samples from 10 locations. Based on the detection of PCBs, arsenic, and chromium at levels exceeding the ROD-specified cleanup goals, additional pre-design investigations were performed and involved the collection and analysis of 13 sediment and soil samples from seven locations.

Sample locations are identified on Figure 9, while analytical results are presented in Tables 3 and 4. In addition, to further characterize the sediments subject to remediation in Area E, sediment samples were collected from four locations during the supplemental pre-design investigation composited, and subject to waste characterization analysis via the TCLP. Results are presented in Table 5. The results of pre-design investigations for this area, as they pertain to the remedial and pre-design objectives, are discussed in Section 3.4.7.

### 3. Remediation Limits/Quantities

#### 3.1 General

To address the objectives of the Pre-Design Investigation, remediation limits/quantities were developed in two phases. The first phase involved the estimation of the overall remediation limits (i.e., the limits of soil requiring removal), while the second phase addressed the potential treatment and/or disposition methods for the excavated soils. Both of these phases are described below.

### 3.2 Overall Remediation Limits

The evaluation of remediation limits and associated remediation quantities was performed based on the following:

- Available site information;
- · Cleanup goals presented in the ROD; and
- Regulatory considerations.

The horizontal limits of remediation included, at a minimum, sample locations where any constituent exceeded the cleanup goals specified in the ROD. The limits of remediation were then conservatively extended outward until a clean sample was encountered, or a clean area was presumed (based on adjacent data). The vertical limits of remediation were also dictated by the available data from the location of interest, as well as adjacent data.

Based on this approach, the limits of remediation for each area have been estimated and are illustrated on Figures 3 through 9. The information shown on these figures represent the limits of excavation necessary to remove the specific soils/sediments exceeding ROD cleanup goals. For certain areas and depths within these overall limits, however, there are no exceedances of the ROD cleanup goals. Soils from these clean areas will be segregated from those requiring remediation and returned to the excavation area as clean backfill material. As a result, although the limits of removal shown on Figures 3 through 9 correspond to a volume of approximately 11,300 cubic yards, it is estimated that only approximately 9,200 cubic yards of material will require remediation.

During the excavation of soils from the targeted areas and depths, it will be necessary to implement measures to ensure the safety of the remediation equipment and operators, and other remediation personnel. With respect to excavation safety, structural stability of the excavation sidewalls can be provided through a variety of measures, including steel sheetpiling, excavation bracing/shoring, and/or sidewall sloping. For the purposes of this evaluation, excavation sidewall sloping has been assumed. Based on an assumed sidewall slope of 1:1 (horizontal:vertical), an additional 2,700 cubic yards of soil (approximate) will be removed from the remediation areas. Because these soils will be removed from areas outside of the remediation limits shown on Figures 3 through 9, these soils will be segregated and returned to the excavation area as clean backfill.

### 3.3 Potential Treatment/Disposition Methods

Once the overall limits of remediation were established in the manner described above, an evaluation of potential treatment and disposition alternatives was performed. A significant component of this evaluation involved the various regulatory definitions of the remediation soils as potentially listed or characteristic hazardous waste as defined in 40 CFR 261 and 6 NYCRR Part 371. Differentiation between potential listed and characteristic waste was based on information concerning the proximity of the remediation areas to former plant operations and the

nature of the former operations. The approach used to evaluate potential treatment/disposition methods for remediation areas containing potential listed and characteristic waste is further described below.

### 3.3.1 Areas Potentially Subject to Listed Waste Criteria

The soils within several areas subject to remediation have apparently been impacted by historic site operations. The detection of organic constituents in areas previously or currently occupied by underground storage tanks (USTs) and/or chemical loading/unloading facilities suggests that the soils may have been impacted by the use of the USTs and related equipment. Although the source of the organic constituents cannot be conclusively determined, it has been assumed that the soils have been affected by listed hazardous waste (e.g., F-listed spent solvents, U-listed spilled commercial chemical products). Areas subject to this classification include:

- Area I Oil Storage Building;
- Area J Solvent Tank Storage Area; and
- Area K Hazardous Waste Storage Area.

The constituents detected within the above areas were initially compared to applicable Land Disposal Restrictions (LDRs), as provided in 40 CFR 268 and 6 NYCRR Part 376. In general, if LDRs are exceeded, the soils are prohibited from land disposal without prior treatment. If, however, all of the detected constituents are present at levels below LDRs, two potential disposition alternatives can be further considered for this project:

- Disposal of the soils as hazardous waste at a facility permitted to accept such materials with no treatment of the soils prior to disposal; and
- Disposal of the soil as non-hazardous industrial solid waste.

This second alternative can be further evaluated based on comparisons to the action levels provided in the NYSDEC "Contained-In" Policy for managing environmental media affected by listed hazardous waste [Technical Administrative Guidance Memorandum (TAGM) 3028, November 30, 1992]. If the detected levels are below the NYSDEC TAGM action levels (corresponding to total constituent concentrations and leachate extract concentrations), the soils can be disposed as non-hazardous industrial solid waste. If one or both of the NYSDEC "Contained-In" TAGM action level are exceeded, however, the soils are considered hazardous waste requiring treatment before land disposal.

For the purpose of estimating remediation quantities, if constituents were detected at concentrations below LDRs, the first of the two disposition alternatives described above was adopted (i.e., disposal without treatment at a permitted hazardous waste disposal facility). Disposition of soils pursuant to the NYSDEC "Contained-In" TAGM will be further evaluated as part of future RD/RA activities. Such evaluations would involve further review of the TAGM in the manner described above (i.e., to assess the possible disposition of the soil as a non-hazardous industrial solid waste), as well as the application of the TAGM for the disposition of those soils that have been treated.

### 3.3.2 Areas Potentially Subject to Characteristic Waste Criteria

For the remaining remediation areas, the available information is not sufficient to conclude that the constituents subject to remediation originated from a listed hazardous waste. The proximity of these remediation areas to the former plant operation areas, and/or the nature of the detected constituents, differ from those areas discussed in

Section 3.3.1. As a result, the soils and sediments in these areas are not considered as affected by listed hazardous wastes. These areas include:

- Area M Underground Mixing Room
- Area P Flying Tigers
- Area Q Abandoned Railroad Area (South)
- Area E U-Crest Ditch

Even though the materials removed from the above areas are not considered to be listed hazardous waste, there is a potential for the materials to be classified as characteristic hazardous waste for treatment/disposal purposes. To evaluate this potential, representative materials were collected and analyzed via the TCLP to determine if the materials are hazardous waste by characteristic. The results of this effort are summarized below within the discussion of each individual remediation area.

### 3.4 Area-Specific Remediation Summaries

### 3.4.1 Area I - Oil Storage Building

Based on laboratory data collected during the Pre-Design Investigation, the RI, and earlier, preliminary limits of remediation have been identified and are presented on Figure 3. The horizontal limits where one or more of the ROD cleanup goals are exceeded occupies an area of approximately 7,200 square feet, while the estimated vertical extent of ROD exceedances ranges from 6 to 24 feet. Within these overall removal limits, it is estimated that approximately 2,700 cubic yards of soil exceed the ROD cleanup goals and therefore require remediation. Of this volume, approximately 2,500 cubic yards will require treatment prior to land disposal, based on the classification of the removed soils as listed hazardous waste and a comparison of the analytical data against applicable LDRs. The remaining soils will be disposed directly at a permitted hazardous waste disposal facility. To facilitate removal of the remediation soils, approximately 3,600 cubic yards will be temporarily excavated. Because these ancillary soils do not exceed the ROD cleanup goals, they will be returned to the excavation area as backfill material. Table 6 provides additional information concerning the various volume estimates.

### 3.4.2 Area J - Solvent Tank Storage Area

The data available for the Solvent Tank Storage Area (Area J) indicate that the soils subject to remediation are located in two discrete areas (Figure 4). These data have also been used to estimate the horizontal limits of remediation, the area occupied by these limits (approximately 5,400 square feet), and the estimated vertical extent of excavation to remove those soils exceeding the ROD cleanup goals (4 to 6 feet). Within these overall removal limits, it is estimated that approximately 900 cubic yards of soil exceed the ROD cleanup goals and therefore require remediation. Based on the classification of these soils as listed hazardous waste, and the presence of certain soils exceeding applicable LDRs, approximately 600 cubic yards will require treatment prior to land disposal, while the remaining soils can be disposed directly at a permitted hazardous waste disposal facility. To facilitate removal of the remediation soils, approximately 200 cubic yards of ancillary soil excavation will be necessary. Because these soils do not exceed the ROD cleanup goals, they will be returned to the excavation area as backfill material. Table 6 provides additional information concerning the various volume estimates.

### 3.4.3 Area K- Hazardous Waste Storage Area

For the Hazardous Waste Storage Area (Area K), the presence of constituents exceeding the cleanup goals presented in the ROD occupies an area of approximately 4,000 square feet. Figure 5 identifies the estimated limits

of remediation. Based on the available information, the vertical presence of constituents in excess of the ROD cleanup goals extends to depths of approximately 8 to 16 feet. Within these overall removal limits, it is estimated that approximately 1,100 cubic yards of soil exceed the ROD cleanup goals and therefore require remediation. This estimate does not include the four abandoned USTs that are reportedly present in this area, or their contents (concrete was reportedly used to fill the tanks). Because the majority of the ROD exceedances also exceed the applicable LDR criteria for a listed hazardous waste, it is assumed that all of the remediation soils excavated from this area will require treatment prior to disposal. To facilitate removal of the remediation soils, approximately 400 cubic yards of soil will be temporarily excavated. Because these ancillary soils do not exceed the ROD cleanup goals, they will be returned to the excavation area as backfill material. Table 6 provides additional information concerning the various volume estimates.

### 3.4.4 Area M - Underground Mixing Room

Based on laboratory data collected during the Pre-Design Investigation, the RI, and earlier, it appears that the ROD cleanup goals are exceeded at only one location, as shown on Figure 6. As a result, remediation limits have targeted the removal of this area. Removal will involve an area of approximately 850 square feet to a depth of approximately 18 feet. Within these overall removal limits, it is estimated that approximately 500 cubic yards of soil exceed the ROD cleanup goals and therefore require remediation. To facilitate removal of the remediation soils, approximately 100 cubic yards will be temporarily excavated. Because these soils do not exceed the ROD cleanup goals, they will be returned to the excavation area as backfill material. Table 6 provides additional information concerning the volume estimates for Area M.

With respect to the treatment/disposition of the remediation soils, the presence of lead and 4-methylphenol is not reasonably attributed to a listed hazardous waste. Therefore, the treatment/disposal considerations for the soils removed from this area would be based on evaluation of the material as a hazardous waste by characteristic. Analysis of representative soils using the TCLP do not indicate the presence of any regulated constituents at levels exceeding the allowable extract concentrations (Table 5). As a result, the soils removed from this area will be handled and disposed of as non-hazardous waste.

### 3.4.5 Area P - Flying Tigers

The preliminary limits of remediation have been estimated for Area P and are illustrated on Figure 7. The constituents that exceed the cleanup goals specified in the ROD are present within an area of approximately 5,600 square feet and to depths of approximately 25 feet. Based on the available data, it is estimated that excavation of a 25-foot by 25-foot area centered at Sample P-A, to a depth of 25 feet, and with side slopes of 1 (horizontal) to 1 (vertical) from the base of the excavation, would remove those soils exceeding the ROD cleanup goals. Based on this approach, approximately 2,900 cubic yards of soil will be removed.

The treatment/disposal considerations for the soils removed from this area are based on evaluation of the material as a hazardous waste by characteristic. Analysis of representative soils using the TCLP did not indicate the presence of any regulated constituents at levels exceeding the allowable extract concentrations (Table 5). As a result, the soils removed from this area will be handled and disposed of as non-hazardous waste.

### 3.4.6 Area Q - Abandoned Railroad Area (South)

For the Abandoned Railroad Area (South) (Area Q), the results of the Pre-Design Investigation, coupled with laboratory data available from prior efforts, were used to estimate the anticipated limits of remediation (Figure 8). An area of approximately 1,300 square feet to a depth of approximately 6 feet targets those soils with constituents

in excess of the ROD cleanup goals. Within these overall removal limits, it is estimated that approximately 200 cubic yards of soil exceed the ROD cleanup goals and therefore require remediation. To facilitate removal of the remediation soils, approximately 200 additional cubic yards will be temporarily excavated. Since these ancillary soils do not exceed the ROD cleanup goals, they will be returned to the excavation area as backfill material. Table 6 provides additional information concerning the various volume estimates.

The treatment/disposal considerations for the soils removed from this area are based on evaluation of the material as a hazardous waste by characteristic. Analysis of representative soils using the TCLP did not indicate the presence of any regulated constituents at levels exceeding the allowable extract concentrations (Table 5). As a result, the soils removed from this area will be handled and disposed of as non-hazardous waste.

### 3.4.7 Area E - U-Crest Ditch

For the U-Crest Ditch (Area E), investigations generally confirmed the estimated limits and volume of remediation presented in the ROD. Based on the removal of a one-foot sediment depth from a area 15-feet wide along 2,300 feet of the ditch, the approximate volume of removal is 1,300 cubic yards. Figure 9 presents the sample locations supporting these assumed remediation limits.

The constituents subject to remediation within the U-Crest Ditch cannot be reasonably attributed to listed hazardous waste, and the treatment/disposal considerations for the soils removed from this area are based on evaluation of the material as a hazardous waste by characteristic, as well as the presence of PCBs. An analysis of representative soils using the TCLP did not indicate the presence of any regulated constituents at levels exceeding the allowable extract concentrations (Table 5). In addition, the detected PCB levels are well below the concentrations requiring disposal at a facility permitted in accordance with the Toxic Substances Control Act (TSCA; 40 CFR 760). As a result, the soils removed from this area will be handled and disposed of as non-hazardous waste.

### 4. Summary

### 4.1 General

This Pre-Design Investigation Summary Report presents the results of field activities and subsequent evaluations concerning the remediation of soils and sediments at the former Westinghouse Electric Corporation facility in Cheektowaga, New York. Between April and June 1996, the WSPP conducted sampling and analysis activities for seven areas associated with the site. The results of these investigations were used to address several remediation-related objectives.

As described in this report, the Pre-Design Investigation supplemented and updated previous efforts conducted by the NYSDEC concerning the estimated limits of remediation. Based on the most recent results, it is estimated that approximately 9,200 cubic yards of soil and sediment contain VOCs, semi-VOCs, inorganics, and/or PCBs that exceed the cleanup goals established in the March 1995 ROD for the site. In addition, the results of the pre-design investigations and evaluations conducted thus far indicate that certain soils subject to remediation (4,200 cubic yards) contain constituent levels that require treatment prior to land disposal. However, the recent results also indicate that treatment is not required for soils present in some areas. Future RD/RA activities will use the results of the Pre-Design Investigation as the basis for the detailed planning and design of site remediation.

Tables

BLASLAND, BOUCK & LEE, INC. engineers & scientists

TABLE 1
FORMER WESTINGHOUSE ELECTRIC SITE
CHEEKTOWAGA, NEW YORK
PRE-DESIGN INVESTIGATION SUMMARY

### SOIL SAMPLE HEADSPACE READINGS (ppm)

3.4		-00 8 JF		2 303 8 3 1 3 6 8 9 9			Depth Int	eval (feet)		8	3 8 88			
Boring ID	0-2	2-4	4-8	6-8	8-10	10-12	12-14	1418	16-18	18~20	20-22	22-24	24-26	26-28
I-A	94	47.2	125	73.4	93	5.1	5.4	18.0	6.0	4 1				
1-B	87	150	61	167	738	320	140	2,200	3,200	3,600				
I-C	520	152	818	203	21.6	. 8.9	3.0	2.5	2.6	3.0				
I-D	6.3	16.4	10 5	3 4	12.0	9.5	13.3	9,338	4.0	0.9	1.4	1.4	10.0	1.2
I~E	22	9.1	48	26	8.1	3.5	2.4	28	6.1	2.7	19.8	23.6	5.6	25.2
I~F	291	63.2	311	357	108	13:8	83	63	2.6	5.1				
I-G									3,875	4,537				
I–H							14	1.1	1.4					
1-1			- +				42	3.6	13					
I-J							0.3	0.2	0.2					
J-A	128	203	556	NR	369	142								
J-8	212	105	344	17.1	5.7	10.9				<u> </u>				
J~C	280	160	193	60.2	713	45.2						~ ~		
JD	17.4	45	23.5	5.0	28.5	NR								
J-E	7.5	348	3.2	6.0	30	35		'						
J-F	3.7	32.9	31.2	12	2.3	23	1,7	1.4	22					
J-G	15.0	31.5	40.7	81.2	419	129	8.3	43.3	101					
J−H		19.8	53											
J-I	179	168												
K-A	7.2	20.2	4.3	3.0	2.5	17	NR	1.9	1.0					
K-B	768	1,234	5,280	4,700	652	1,339	NR	1,588	134					
K-Ç	0.9	1.5	1.1	25	05	10	0.6	1.0	0.5					
K-D			10.7	4	28	1							~-	
K-E			181	116	30.6	43								
K-F			19	3_	29,1	9.7	== '							
M-A	5.8	4.7	11.7	4.9	15.1	88,8	96	1.2	0.9		==			
M-B	41.5	22.5	9.1	3.5	18	5.4	15.3	4.2	2.0					
M-C	9,7	271	1,553				==							
P-A	33,1	5,738	7,614	9,739	>10,000	> 10,000	> 10,000	2,270	2,633	2,537				
P-8	10	9.2	4.0	1.2	3.2	2.9	6.3	3.7*						
P-C	1,294	389	47.9	133	127	10.3	5.6	2.1				[		
P-D	1.9	NR NR	25.8	103	147									~~
P-E	3.0	5.5	59	136	NR									
P-F	0	7,900			2,200	2 700			51.7	13.5				
P-G	2,540	4,390			980	78.5			18.8	4.4				
P-H		<u> </u>		l <u></u>	1	2.6	==		1	0.5				
Q-A	36.6	773	659	2,380						<del></del> -			==	
Q-B	4.0	11.3	28	13.7										
Ö-C	1.2	1.0	4.5	0.3										
Q-E	25.9	11.4							~~					
Q-F	1.4	0.9												

### SOIL SAMPLE HEADSPACE READINGS (ppm)

NR = Sample was not recovered	<ul> <li>Depth interval of 15 to 17 feet</li> </ul>
"" = Not Sampled	13.7 = DEC Split Sample
13.7 = Sample depth interval submitted for labor	oratory analysis

- 1. Samples were collected between April 1 through April 5, 1996, and June 3, 1996 through June 5, 1996.
- 2. Samples were sent to Columbia Analytical Services, Inc. of Rochester, New York for analyses.
- 3. Headspace analysis was performed with a Photolonization Detector (PID).
- 4. PID screening was not conducted for the borings in the U-Crest Ditch (Area E Samples T-1, T-2, and T-3) because all samples were submitted for analysis.

TABLE 2
FORMER WESTINGHOUSE ELECTRIC SITE
CHEEKTOWAGA, NEW YORK
PRE-DESIGN INVESTIGATION SUMMARY

### ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS (mg/kg)

SAMPLE ID:		-A	1	-В	1	-c	I-E	)	I-Z*		I-E	
SAMPLE DEPTH (FEET):	4-6	14-16						4-4	(Dup. of I – D)		<u>:                                    </u>	Cleanup Objective
SAMPLE DEPTH (FEET):			8-10	18-20	4-6	10-12	2-4	14-16	14-16	0-2	26-28	Screening
A. ROD CONSTITUENTS	4/2/96	4/2/96	4/1/96	4/1/96	4/2/96	4/2/96	4/4/96	4/4/96	4/4/96	4/2/96	4/2/96	Criteria
	1 00000			T	1			1	····	· · · · · · · · · · · · · · · · · · ·		
1,1,1 Trichloroethane	0.0065	0.0056 U	0.74 U	4.6	0.70 U	0.0057 U	0.0055 U	0.0056	0.0055 U	0.048	0.69 U	1.14
Trichloroethene	0.10	0.0056 U	6.5	120	10	0.0057 U	0.0055 U	5.2 J	0.0055 UJ	0.038	0.69 U	1.05
Toluene	0.020	0.0056 U	0.74 U	5.6	0.70 U	0.0057 U	0.019	0.79 J	0.026 J	0.0056 U	0.69 U	2.25
Ethylbenzene	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 UJ	0.011 J	0.0056 U	0.69 U	8.25
Total Xylene	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0073	0.0056 UJ	0.077 J	0.0056 U	0.69 U	1.8
OTHER CONSTITUENTS					r			- <sub>r</sub> ~			ç	<b></b>
Acetone	0.012	0.049	6.0	9,6	1.4 U	0.012	0.014	1.6 J	0.032 J	0.023	1.4 U	0.20
Benzene -	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 ป	0.0056 U	0.69 U	na
Bromodichloromethane	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.005\$ U	0.0056 ป	0.69 U	na
Bromoform	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	na,
Bromomethane	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	na
2 Butanone (MEK)	0.011 U	0.011 U	1.5 U	1,4 U	1.4 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	1.4 U	0.45
Carbon Disulfide	0.011 U	0.011 U	1.5 U	1.4 U	1.4 U	0.011 U	0.011 ป	0.011 U	0.011 U	0.011 U	1.4 U	na
Carbon Tetrachloride	0,0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0,0056 U	0.0055 U	0.0056 U	0.69 U	na na
Chlorobenzene	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	na
Chloroethane	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	na.
Chloroform	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 ∪	0.0055 U	0.0056 U	0.69 U	na
Chloromethane	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 ∪	0.0055 U	0.0056 U	0.69 U	na.
Dibromochloromethane	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	na
1,1 - Dichloroethane	0.050	0.0056 U	0.74 U	1.8	0.70 Ų	0.0057 U	0.0055 U	0.85 J	0.0055 UJ	0.0056 U	7.8	na.
1,2-Dichloroethane	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	na
1,1 - Dichloroethene	0.0059	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.012	0.69 U	na
Cis-1,2-Dichloroethene	0.43	0.0056 U	0.74 U	0.72 U	2.5	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	0.45 (Total)
Trans-1,2-Dichloroethene	0.0096	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	0.45 (Total)
1,2-Dichloropropene	0.0057 ∪	0.0056 Ų	0.74 U	0.72 U	0.70 ↓	0.0057 U	0.0055 ↓	0.0056 U	0.0055 U	0.0056 U	0.69 U	na
Cis - 1,3 - Dichloropropene	0.0057 U	0.0056 Ų	0.74 U	0.72 U	0,70 Ų	0.0057 ↓	0.0055 U	0.0056 ↓	0.0055 €	0.0056 U	0,69 U	na
Trans-1,3-Dichloropropene	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	na
2-Hexanone	0.011 U	0.011 U	1.5 U	1.4 U	1.4 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	1.4 U	na
Methylene Chloride	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	na
4-Methyl-2-Pentanone	0.011 U	0.011 U	1.5 U	1.4 U	1.4 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	1.4 U	na
Styrene	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	na.
1,1,2,2Tetrachloroethane	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	na
Tetrachloroethene	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0089	0.0055 U	0.0056 U	0.69 U	2.1
1,1,2-Trichloroethane	0.0057 U	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	na
Vinyl Chloride	0.0057 ป	0.0056 U	0.74 U	0.72 U	0.70 U	0.0057 U	0.0055 U	0.0056 U	0.0055 U	0.0056 U	0.69 U	0.20
	,,,,,,,,,	2.0000		0.12.0	0.700	<u> </u>	0.0035.0	1 0.0000 0 [	0.00000	Compa o L	0.09.0	U.20

### ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS (mg/kg)

SAMPLE ID:		- F	I-G	]-н	1-1		IJ.,		J-A.		J-8	Cleanup Objective/
SAMPLE DEPTH (FEET):	6 <b>-6</b>	10-12	18-20	16~18	12-14	12-14	40-42	4~6	10-12	4-6	8-10	Screening
CAMPLE DATE		414.77	A44:	1		l	(Dup.* of 12-14)					
SAMPLE DATE	4/1/96	4/1/96	6/4/96	6/3/96	6/3/96	6/4/96	6/4/96	4/4/96	4/4/96	4/3/96	4/3/96	Criteria
A. ROD CONSTITUENTS		T		T	I	T	· · · · · · · · · · · · · · · · · · ·			r		
1,1,1 Trichloroethane	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0,0056 U	0.0057 U	0.028 U	0.0056 U	0.40	0.0055 U	1.14
Trichloroethene	1.5	0.0056 U	50	0.0056 U	0.0056 U	0.0066 J	0.015 J	1.2	0.0061	0.011 U	0.0055 U	1.05
Toluene	0.70 U	0.0056 U	4.3	0.0056 U	0.0056 U	0.033	0.055	0.031	0.036	0.047	0.0057	2.25
Ethylbenzene	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	8.25
Total Xylene	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.11	0.0055 U	1.8
B. OTHER CONSTITUENTS		,		·	<u>,</u>			·····				
Acetone	1.4 U	0.059	3.6	0.025	0.014	0.023	0.016	0.13	0.060	0.096	0.039	0.20
Benzene	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	na
Bromodichloromethane	0.70 ป	0.0056 U	1.4 Ų	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	Q.0055 U	na
Bromoform	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 บ	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	na
Bromomethane	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	na
2-Butanone (MEK)	1,4 U	0.011 U	2.8 U	0.011 U	0.011 U	0.011 U	0.011 U	0.057 U	0.011 U	0.022 U	0.011 U	0.45
Carbon Disulfide	1.4 U	0.011 U	2.8 U	0.011 U	0.011 U	0.011 U	0.011 U	0.057 U	0.011 U	0.022 U	0.011 U	na
Carbon Tetrachloride	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	na
Chlorobenzene	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	na.
Chloroethane	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0,028 U	0.0056 U	0.0110	0,0055 U	na
Chloroform	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	na
Chloromethane	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	na
Dibromochloromethane	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	na
1,1 - Dichloroethane	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011	0.023	na
1,2-Dichloroethane	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	na
1,1-Dichloroethene	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.029	0.0055 U	na
Cis-1,2-Dichloroethene	1.8	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.033	0.021	0.011 U	0.0055 U	0.45 (Total)
Trans - 1,2 - Dichloroethene	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	0.45 (Total)
1,2~Dichloropropane	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	na na
Cis - 1,3 - Dichloropropene	0.70 U	0.0056 ↓	1.4 U	0.0056 ∪	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	na.
Trans-1,3-Dichloropropene	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	na na
2 - Hexanone	1.4 U	0.011 U	2.8 U	0.011 U	0.011 U	0.011 U	0.011 U	0.057 U	0.011 U	0.022 U	0.0033 U	na
Methylene Chloride	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.037 U	0.0056 U	0.022 U	0.0055 U	i e
4 - Methyl - 2 - Pentanone	1.4 U	0.011 U	2.8 U	0.011 U	0.0000 U	0.0036 U	0.0037 U	0.028 U	0.0036 U	0.022 U		na
Styrene	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.037 U 0.028 U	0.0056 U		0.011 U	na 
1,1,2,2Tetrachloroethane	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U			0.011 U	0.0055 U	na
Tetrachloroethene	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U		1	0.028 U	0.0056 U	0.011 U	0.0055 U	na 0.4
						0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	2.1
1,1,2⇔Trichloroethane	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0,015	0.0055 U	na
Vinyl Chloride	0.70 U	0.0056 U	1.4 U	0.0056 U	0.0056 U	0.0056 U	0.0057 U	0.028 U	0.0056 U	0.011 U	0.0055 U	0.20

### ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS (mg/kg)

SAMPLE ID:		-C ,	. لر	-D		π <b>.Ε</b>	J-F		. J.	G.	, J-H	Cleanup Objective/
SAMPLE DEPTH (FEET):	0-2	10-12	2-4	8-10	2~4	6-8	2-4	10-12	8-10	16-18	4-6	Screening
SAMPLE DATE	4/4/96	4/4/96	4/3/96	4/3/96	4/2/96	4/2/96	4/3/96	4/3/96	4/4/96	4/4/96	6/4/96	Criteria
A. ROD CONSTITUENTS												
1,1,1 Trichloroethane	84	0.076	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	1.14
Trichloroethene	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0076	0.0060 U	0.038	0.0055 U	0.0056 U	0.68	1.05
Toluene	0.86 U	0.036	0.0059 U	0.025	0.0061 U	0.0065	0.010	0.0058 U	0.039	0.0099	0.029 U	2.25
Ethylbenzene	0.86 U	0.0056 U	0.0059 U	0.0072	0.0061 U	0.0055 U	<b>0.006</b> 0 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	8.25
Total Xylene	0.86 U	0.0065	0.012	0.091	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.24	1.8
B. OTHER CONSTITUENTS										·	•	
Acetone	1.7 U	0.051	0.039	0.10	0.012 U	0.089	0.091	0.049	0.060	0.033	0.058 U	0.20
Benzene	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
Bromodichloromethane	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
<b>Bromot</b> orm	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na,
Bromomethane	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0. <b>029</b> U	na
2 Butanone (MEK)	1.7 U	0.011 U	0.012 U	0,011 U	0.012 U	0.011 U	0.012 U	0.012 U	0.011 U	0.011 U	0.058 U	0.45
Carbon Disulfide	1.7 U	0.011 U	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U	0.012 U	0.011 U	0.011 U	0.058 U	na
Carbon Tetrachloride	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
Chlorobenzene	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
Chloroethane	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0,0055 U	0.0060 ป	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
Chloroform	0.86 U	0.0056 U	0.0059 U	0,0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
Chloromethane	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
Dibromochloromethane	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
1,1→Dichloroethane	0.86 U	0.0087	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 ป	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
1,2-Dichloroethane	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
1,1 - Dichloroethene	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
Cis-1,2-Dichloroethene	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.12	0.0074	0.029 U	0.45 (Total)
Trans-1,2-Dichloroethene	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.45 (Total)
1,2~Dichloropropene	0.86 Ų	0.0056 ₩	0.0059 U	0.0055 U	0.0061 U	0.0055 ₩	0.0060 U	0.0058 ∪	0.0055 U	0.0056 U	0.029 U	na
Cis + 1,3 - Dichloropropene	0.86 Ų	0.0056 U	0.0059 ∪	0.0055 U	0.0061 U	0.0055 U	0.0060 ₩	0.0058 Ų	0.0055 <b>U</b>	0.0056 U	0.029 U	na
Trans - 1,3 - Dichloropropene	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na na
2-Hexanone	1.7 U	0.011 U	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U	0.012 U	0.011 U	0.011 U	0.058 U	na
Methylene Chloride	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
4 - Methyl - 2 - Pentanone	1.7 U	0.011 U	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U	0.012 U	0.011 U	0.011 U	0.058 U	na
Styrene	0.86 U	0.0058 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
1,1,2,2Tetrachloroethane	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
Tetrachloroethene	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	2.1
1,1,2 - Trichloroethane	0.86 U	0.0056 U	0.0059 U	0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.0055 U	0.0056 U	0.029 U	na
Vinyl Chloride	0.86 U	0.0056 U		0.0055 U	0.0061 U	0.0055 U	0.0060 U	0.0058 U	0.015	0.0056 U	0.029 U	0,20

### ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS (mg/kg)

			-A		-В,		K-C.		(-D.	<u>:</u>	K-E	Cleanup Objective
SAMPLE DEPTH (FEET):	0-2	2-4	10-12	6-8	<b>16</b> ~18	<b>6-</b> 8	14 – 16	4-6	B-10	4-6	10-12	Screening
SAMPLE DATE	6/4/96	4/3/96	4/3/96	4/4/96	4/4/96	4/3/96	4/3/96	6/4/96	6/4/96	6/4/96	6/4/96	Criteria
A. ROD CONSTITUENTS										<del></del>		
1,1,1 Trichloroethane	34	0.0058 U	0.039	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	1.14
Trichloroethene	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0077	0.0055 U	0.030 U	0.029 U	1.05
Toluene	4.4	0.0076	0.012	38 U	0.011	0.059	0.0079	0.060	0.016	0.052	0.036	2.25
Ethylbenzene	0.89	0.0058 U	0.0055 U	480	0.0072	0.013	Q.Q056 U	0.0057 U	0.0055 U	0.19	0.17	8.25
Total Xylene	19	0.0058 U	0.0055 U	2,900	0.050	0.0055 U	0.0056 U	0.0057 U	0.0056 U	1.000	0.66	1.8
. OTHER CONSTITUENTS										<b>4</b>		_ <b>-</b>
Acetone	1.7 U	0.032	0.023	78 U	0.023	0.011 U	0.045	0.011 U	0.030	0.059 U	0.059 U	0.20
Benzene	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na
Bromodichloromethane	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na
Bromoform	0. <b>86</b> U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na.
Bromomethane	0,86 U	0.0058 U	0.0055 U	38 U	0. <b>0056 U</b>	0. <b>0055</b> U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na
2 Butanone (MEK)	1.7 U	0.012 U	0.011 U	76 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.059 U	0.059 U	0.45
Carbon Disulfide	1.7 U	0.012 U	0.011 U	76 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.059 U	0.059 U	na
Carbon Tetrachloride	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na
Chlorobenzene	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0,0057 U	0.0055 U	0.030 U	0.029 U	na
Chloroethane	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 ∪	0.0057 U	0.0055 U	0.030 U	0,029 U	na
Chloroform	0.86 U	0.0058 U	0.0055 U	38 ₩	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na
Chloromethane	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na
Dibromochloromethane	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na
1,1-Dichloroethane	2.6	0.0058 U	0.016	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na
1,2-Dichloroethane	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na
1,1-Dichloroethene	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na
Cis-1,2-Dichloroethene	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	0.45 (Total)
Trans - 1,2 - Dichloroethene	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	0.45 (Total)
1,2-Dichloropropene	0,86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na
Cis - 1,3 - Dichloropropene	0.86 U	0.005B U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na.
Trans-1,3-Dichloropropene	0.86 U	0.0058 U	0.0055 Ü	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na.
2-Hexanone	1.7 U	0.012 U	0.011 U	76 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.059 U	0.059 U	na.
Methylene Chloride	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na
4~Methyl-2-Pentanone	1.7 U	0.012 U	0.011 U	76 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.059 U	0.059 U	na.
Styrene	0.86 U	0.0058 U	0.0055 U	38 U	0.0058 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na.
1,1,2,2~Tetrachloroethane	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0058 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na na
Tetrachloroethene	0. <b>8</b> 6 U	0.0058 U	0. <b>0055</b> U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	2.1
1,1,2-Trichloroethane	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	na.
Vinyl Chloride	0.86 U	0.0058 U	0.0055 U	38 U	0.0056 U	0.0055 U	0.0056 U	0.0057 U	0.0055 U	0.030 U	0.029 U	0,20

### ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS (mg/kg)

SAMPLE ID:	K	-F ;	P	-A	P	-B	P-(	<b>9</b>	₽÷	D	P- <b>Z*</b> (Dup. of P-D)	Cleanup Objective/
SAMPLE DEPTH (FEET):	4-6	8-10	8-10	18-20	2-4	8-10	2-4	10~12	4-6	6-8	6-8	Screening
SAMPLE DATE	6/4/96	6/4/96	4/5/96	4/5/96	4/5/96	4/5/96	4/5/96	4/5/96	4/5/96	4/5/96	4/5/96	Criteria
A. ROD CONSTITUENTS			-		•	<u> </u>				. ,	1,10,00	0.110112
1,1,1 Trichloroethane	0.0056 U	0.029	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	1.14
Trichloroethene	0.0056 U	0.013	6.0	7.6	0.0056 U	0.0055 ป	0.71 U	0.0091	0.0061 U	0.69 U	0.69 U	1.05
Toluene	0.0078	0.0070	0.86	0.70 U	0.0067	0.036	0.71 U	0.026	0.0061 U	0.69 U	0.69 U	2.25
Ethylbenzene	0.0056 U	0.023	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	8.25
Total Xylene	0.0056 U	0.039	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	1.8
B. OTHER CONSTITUENTS		•					· · · · · · · · · · · · · · · · · · ·	.1		1	1	
Acetone	0.011 U	0.011 U	1.4 U	1.4 U	0.011 U	0.015	1.4 U	0.015	0.012 U	1.4 U	1.4 U	0.20
Benzene	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	na
Bromodichloromethane	0.0056 U	0.0056 U	0.68 ป	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0,69 U	na
Bromoform	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	na,
Bromomethane	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 ป	0.0061 U	0.69 U	0.69 U	na
2 Butanone (MEK)	0.011 U	0.011 U	2.0	1.7	0,011 U	0.011 U	1.5	0.011 U	0.012 U	1.4 U	1.4 U	0.45
Carbon Disulfide	0.011 U	0.011 U	1.4 U	1.4 U	0.011 U	0.011 U	1.4 U	0.011 U	0.012 U	1.4 U	1.4 U	na
Carbon Tetrachloride	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	na
Chlorobenzana	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	na
Chloroethane	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	na
Chloroform	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	na
Chloromethane	0.0056 U	0. <b>0056</b> U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 ป	0.0061 U	0.69 U	0.69 U	na
Dibromochloromethane	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	na
1,1-Dichloroethane	0.0056 U	0.011	0.68 U	0,70 U	0.0056 U	0.0055 U	0.71 <b>U</b>	0.0055 U	0.0061 U	0.69 U	0,69 U	กล
1,2-Dichloroethane	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	na
1,1 - Dichloroethene	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	na
Cis - 1,2 - Dichloroethene	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.041	0.0061 U	0.69 U	0.69 U	0.45 (Total)
Trans - 1,2 - Dichloroethene	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	0.45 (Total)
1,2 - Dichloropropane	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0,69 U	0,69 ₩	na
Cis - 1,3 - Dichloropropene	0.0056 U	0.0056 U	0,68 U	0,70 U	0.0056 U	0.0055 U	0,71 <b>U</b>	0.0055 U	0.0061 U	0,69 U	0,69 U	na
Trans-1,3-Dichloropropene	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 Ü	0.0055 U	0.0061 U	0.69 U	0.69 U	na.
2-Hexanone	0.011 U	0.011 U	1.4 U	1.4 U	0.011 U	0.011 U	1.4 U	0.011 U	0.012 U	1.4 U	1.4 U	na
Methylene Chloride	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	na
4 - Methyl - 2 - Pentanone	0.011 U	0.011 U	1.4 U	1.4 U	0.011 U	0.011 U	1.4 U	0.011 U	0.012 U	1.4 U	1.4 U	na
Styrene	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	na
1,1,2,2Tetrachloroethane	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	na.
Tetrachloroethene	0.0056 U	0.032	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	2.1
1,1,2-Trichloroethane	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	na
Vinyl Chloride	0.0056 U	0.0056 U	0.68 U	0.70 U	0.0056 U	0.0055 U	0.71 U	0.0055 U	0.0061 U	0.69 U	0.69 U	0.20

### ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS (mg/kg)

SAMPLE ID:	P	-E	[	P-F			P-G		Ρ.	-н	Cleanup Objective/
SAMPLE DEPTH (FEET): A SECOND	2-4	6-8	2-4	10-12	16-18	2-4	8-10	16-18	10-12	18-20	Screening
SAMPLE DATE	4/5/96	4/5/96	6/5/96	6/5/96	6/5/96	6/5/96	6/5/96	6/5/96	6/5/96	6/5/96	Criteria
A. ROD CONSTITUENTS							<del></del>		<u> </u>	<u> </u>	<u> </u>
1,1,1 Trichloroethane	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	1.14
Trichloroethene	0.0058 U	0.70 U	0.70 U	15	0.030	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	1.05
Toluene	0.017	0.70 U	21	0.88	0.10	29	7.7	0.013	0.12	0.011	2.25
Ethylbenzene	0.0058 U	0.70 U	1.2	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	8.25
Total Xylene	0.0058 U	0.70 U	8.7	0.68 U	0.0056 U	4.8	0.75	0.0055 U	0.0054 U	0.0055 U	1.8
B. OTHER CONSTITUENTS			-	<b>.</b> <del></del>					<b>4</b>	1 <u></u>	
Acetone	0.019	1.4 U	1.4 U	1.4 U	0.035	7.2 U	1.4 U	0.023	0.011 U	0.025	0.20
Benzene	0.0058 <b>U</b>	0.70 U	0.70 U	U 83.0	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
Bromodichloromethane	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 ป	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
Bromoform	0.0058 U	0.70 U	0.70 U	0.68 Ų	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
Bromomethane	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
2 - Butanone (MEK)	0.012 U	1.4 U	1.4 U	1.4 U	0.011 U	7.2 U	1.4 U	0.011 U	0.011 U	0.011 U	0.45
Carbon Disulfide	0.012 U	1.4 U	1.4 U	1.4 U	0.011 U	7.2 U	1.4 U	0.011 U	0.011 U	0.011 U	na
Carbon Tetrachloride	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
Chlorobenzene	0.0058 U	0.70 U	0.70 U	0.88 U	0.0058 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
Chloroethane	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
Chloroform	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
Chloromethane	0.0058 U	0.70 U	0. <b>7</b> 0 U	0.68 U	0.0056 U	3.6 U	0.70 บ	0.0055 U	0.0054 U	0.0055 U	ла
Dibromochloromethane	0.0058 U	0.70 ป	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
1,1 - Dichloroethane	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 ป	0.0055 U	0.0054 U	0.0055 U	na
1,2 - Dichloroethane	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
1,1+Dichloroethene	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
Cis+1,2-Dichloroethene	0.0058 U	0.70 U	0.70 U	7.4	0.074	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	0.45 (Total)
Trans~1,2Dichloroethene	0.0058 U	0.70 U	0.70 U	U 86.0	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	0.45 (Total)
1,2~Dichloropropane	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 ป	0.0054 U	0.0055 U	na
Cis~1,3~Dichforopropene	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
Trans-1,3-Dichtoropropene	0.0058 U	0.70 U	0.70 U	0.68 U	0.005 <del>6</del> U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
2 Hexanone	0.012 U	1.4 U	1.4 U	1.4 U	0.011 U	7.2 U	1.4 U	0.011 U	0.011 U	0.011 U	na
Methylene Chloride	0.0068	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
4 - Methyl - 2 - Pentanone	0.012 U	1.4 U	1.4 U	1.4 U	0.011 U	7.2 U	1.4 U	0.011 U	0.011 U	0.011 U	na
Styrene	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
1,1,2,2~Tetrachloroethane	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
Tetrachloroethene	0.0058 U	0.70 U	0.70 U	0.68 U	0.005 <del>6</del> U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	2.1
1,1,2-Trichloroethane	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U	0.0054 U	0.0055 U	na
Vinyl Chloride	0.0058 U	0.70 U	0.70 U	0.68 U	0.0056 U	3.6 U	0.70 U	0.0055 U		0.0055 U	0.20

### ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS (mg/kg)

SAMPLE ID:	्	-A ⊹	Q	-8	_ 0	-C.	Q	- D	Q-E	Q-F	Cleanup Objective
SAMPLE DEPTH (FEET):	2-4	6-8	2-4	6-B	2-4	6-8	2-4	4-6	0~2	2-4	Screening
SAMPLE DATE	4/4/96	4/4/96	4/4/96	4/4/96	4/4/96	4/4/96	4/4/96	4/4/96	6/4/96	6/4/96	Criteria
A. ROD CONSTITUENTS		. 7/20/20									
1,1.1 Trichloroethane	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 Ú	0.0056 U	0.0056 U	0.0056 U	0.0061 U	1.14
Trichloroethene	1.1 E	0.45	0.021	0.55	0.0056 U	0.0079	0.13	0.057	0.058	0.0061 U	1.05
Toluene	0.027	0.060	0.019	0.031 U	0.0073	0.037	0.014	0.0076	0.014	0.013	2.25
Ethylbenzene	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0058 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	8.25
Total Xylene	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0063	<b>0</b> .0056 U	0.0056 U	0.0056 U	0.0061 U	1.8
B. OTHER CONSTITUENTS											
Acetone	0.014	0.071	0.020	0.064	0.012	0.013	0.011 U	0.012	0.011 U	0.012 U	0.20
Benzene	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
Bromodichloromethane	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
Bromoform	0.0056 U	0.027 U	0.0060 ∪	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
Bromomethane	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0058 U	0. <b>0056</b> U	0.0061 U	na
2-Butanone (MEK)	0.011 U	0.055 ∪	0.012 U	0.063 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.012 U	0.45
Carbon Disulfide	0.011 U	0.055 U	0.012 U	0.063 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.012 U	na
Carbon Tetrachloride	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	nā
Chlorobenzene	0.0056 U	0.027 U	0.0060 U	0. <b>031</b> U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
Chloroethane	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 ป	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
Chloroform	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
Chloromethane	0.0056 U	0.027 U	U 0800.0	0.031 U	0.0056 U	0.0057 ป	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
Dibromochloromethane	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
1,1~Dichloroethane	0.0056 U	0.027 U	U 0000.0	0.031 U	0.0056 U	0. <b>005</b> 7 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
1,2 - Dichloroethane	0.0056 U	0.027 U	0.00 <del>6</del> 0 U	0.031 U	0.0056 U	0.0057 U	0.005 <del>6</del> U	0.005 <del>6</del> U	0.0056 U	0.0061 U	na
1,1-Dichloroethene	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.005 <del>6</del> U	0.0061 U	na
Cis+1,2+Dichloroethene	0.0056 U	0.027 U	0.043	0.063	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.00 <del>6</del> 1 U	0.45 (Total)
Trans-1,2-Dichloroethene	0.0056 U	0.027 U	U 0000.0	0.035	0.0056 U	0.0057 U	0.005 <del>6</del> U	0.0056 U	0.0056 U	0.0061 U	0.45 (Total)
1,2 - Dichloropropane	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 ∪	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
Cis-1,3-Dichloropropene	0.0056 U	0.027 U	U 0800.0	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
Trans-1,3-Dichloropropene	0.005 <del>6</del> U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
2-Hexanone	0.011 U	0.055 U	0.012 U	0.063 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.012 U	na
Methylene Chloride	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
4 ~ Methyl ~ 2 – Pentanone	0.011 U	0.055 U	0.012 ป	0.063 U	0.011 U	0.011 ป	0.011 U	0.011 U	0.011 U	0.012 U	na
Styrene	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
1,1,2,2-Tetrachloroethane	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 U	0.0056 U			0.0061 U	na
Tetrachtoroethene	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	2.1
1,1,2-Trichtoroethane	0.0056 U	0.027 U	U 0300.0	0.031 U	0.0056 U	0.0057 U	0.0056 U	0.0056 U	0.0056 U	0.0061 U	na
Vinyl Chloride	0.0056 U	0.027 U	0.0060 U	0.031 U	0.0056 U	0.0057 U	1		0.0056 U		0.20

### ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS (mg/kg)

#### Notes:

- \* = Blind duplicate sample collected and analyzed for QA/QC purposes
  - = Analytical result which exceeds the ROD-specified Cleanup Objective
- "U" = The compound was not detected and the associated numerical value is the detection limit.
- "E" = The associated concentration is outside the calibration range.
- 1. All sample results are reported in parts per million (ppm) or per kilogram (mg/kg) dry weight.
- 2. All samples were analyzed by Columbia Analytical Services, Inc. of Rochester, NY.
- 3. Cleanup Objectives for ROD Constituents established in the March 1995 Record of Decision (ROD) for Operable Unit No. 1.
- 4. Screening Criteria for compounds not specifically identified in the March 1995 ROD are Recommended Soil Cleanup Objectives (RSCOs) presented in September 1994 RI/FS Report (DUNN Engineering) "na" = Screening criteria not available.
- "J" = Data estimated due to Field Duplicate relative percent difference (RPD) value outside of acceptable limits.

### ANALYTICAL RESULTS - SEMI-VOLATILE ORGANIC COMPOUNDS (mg/kg)

SAMPLEID:	Jan. 1997	ostos est.	$\pm 1$ $\sim$ $\sim$	ES 20 1688		2 3335 <b>T</b> s	-2	× × × ×		s kala <b>T</b>	-3:	8 8 880	T-4A*	33 5 78 <b>M</b>	-A	М	-B	M-C	Cleanup Objective/
SAMPLE DEPTH/LOCATION: """	A	В	C	Ď	Α	В	С	D	A	B	C	2 2 22 1144 124	DUP OF T-3B		10-12	2-4	12-14	4~6	Screening Criteria
A. ROD CONSTITUENTS																_ ,	14 14	7 0	Screening Griefa
4-Methylphenol	0.94 U	<b>0.80</b> U	0 82 U	0.79 <b>U</b>	0.68 U	1.1 U	0.88	0.78 U	0.86 U	0. <b>90 U</b>	0.80 U	<b>0.7</b> 8 U	0.87 U	0.67 U	0. <b>75</b> U	0.75 U	0.75 U	880	1.35
B. OTHER CONSTITUENTS				•			1		-	L					00	0.700	1. 9.12.9		1.00
2-Chlorophenol	0.94 U	0 80 U	0 82 U	0 79 U	0.88 U	1.1 U	0.83 U	0.78 U	0.86 U	090U	0.80 U	0.79 U	0.87 U	0.67 U	0.75 U	0.75 U	0 75 U	8.3 U	na
2,4-Dichlorophenol	0.94 U	0.80 U	0 82 U	0.79 U	0.88 U	1.1 U	0.83 U	0.78 U	0.86 U	090U	0.80 U	0.79 U	0.87 U	0.67 U	0.75 U	0.75 U	0.75 U	8.3 U	na
2,4-Dimethylphenol	0.94 U	0.80 U	0 82 U	0.79 U	0.88 U	1.1 U	0.83 U	0.78 U	0.86 U	090U	0.80 U	0.79 U	0.87 U	0.67 U	0.82	0.75 U	0 75 U	260	na.
2,4-Dinitrophenal	1.8 U	1.5 U	1.6 U	1.5 U	1.7 U	2.1 U	1.8 U	1.5 U	1.7 U	1.7 U	1.6 U	1.5 U	1.7 U	1.3 U	1.5 U	1.4 U	1.4 U	16 U	na
4,6-Dinitro-2-Methylphenol	1.8 U	1.5 U	1.6 U	1.5 U	1.7 U	2.1 U	1.8 U	1.5 U	1.7 U	1,7 Ų	1.6 U	1.5 U	1.7 U	1.3 U	1.5 U	1.4 U	1.4 U	16 U	na
4-Chloro-3-methylphenol	0.94 U	0.80 U	0 82 U	0 79 U	0.88 U	1.1 U	0.83 U	0.78 U	0.86 U	0.90 U	0.80 U	0.79 U	0.87 U	0.67 U	0.75 U	0.75 U	0.75 U	8.3 U	na
2 - Methylphenol	0.94 U	0.80 U	0 82 U	0 79 U	0.88 U	1.1 U	0.83 U	0.78 U	0.86 U	บองบ	0.80 U	0.79 U	0.87 U	0.67 U	0.75 U	0.75 U	0 75 U	100	na
2-Nitrophenol	0.94 U	0.80 U	0 82 U	0.79 U	0.88 U	1.1 U	0.83 U	0.78 U	0.86 U	0.90 U	0.80 U	0.79 U	0.87 ∪	0.67 U	0.75 U	0.75 U	0 75 U	8.3 U	na
4-Nitrophenol	1.8 U	1.5 U	1.6 U	1.5 U	1.7 U	2.1 U	1.6 U	1.5 U	1.7 U	1.7 U	1.6 U	1.5 U	1.7 U	1.3 U	1.5 U	1.4 U	1.4 U	16 U	na
Pentachlorophenol	1.8 U	1.5 ป	1.6 U	1.5 U	1.7 U	2.1 U	1.6 U	1.5 U	1.7 U	1.7 U	1.6 U	1.5 U	1.7 U	1.3 U	1.5 U	1.4 U	1.4 U	16 U	na
Phenol	0.94 U	0.80 U	0830	0.79 U	0.88 U	1.1 U	0.83 U	0.78 U	0 86 U	09 <b>0</b> U	0.80 U	0.79 U	0.87 U	0.67 U	0.75 U	0.75 U	0.75 U	72	na
2,4,6-Trichlorophenol	0.94 U	0.80 U	0.82 U	0.79 U	0.88 U	1.1 U	0.83 U	0.78 U	0.86 U	090U	0.80 U	0.79 U	0.87 U	0.67 U	0.75 U	0.75 U	0.75 U	8.3 U	na
2,4,5-Trichlorophenol	0.84 U	0.80 U	0.820	0.79 U	0.88 U	1.10	0,83 U	0.78 U	0.86 U	080 U	0.80 U	0.79 U	0.87 U	0.67 U	0.75 U	0.75 U	0.75 U	8.3 U	ne.

#### Notes:

LOCATION "A" = Soil sample collected from the south bank of the U-Grest Ditch

LOCATION "B" = Soil sample collected from the north bank of the U - Crest Ditch

"U" = The compound was not detected and the associated numerical value is the method detection limit

- \* = Blind duplicate sample collected and analyzed for QA/QC purposes
- 1. All sample results are reported in parts per million (ppm) or milligrams per kilogram (mg/kg) dry weight.
- 2. All samples were analyzed by Columbia Analytical Services, Inc. of Rochester, NY.
- 3. Cleanup Objectives for ROD Constituents established in the March 1895 Record of Decision (ROD) for Operable Unit No. 1.
- 4. Screening Criteria for compounds not specifically identified in the March 1995 ROD are Recommended Soll Cleanup Objectives (RSCOs) presented in September 1994 RI/FS Report (DUNN Engineering) - "na" = Screening criteria not available.

LOCATION "C" = Sediment sample collected from the U = Grest Ditch

LOCATION "D" = Sample collected from beneath the sediment of the U+Crest Ditch

= Analytical result which exceeds the ROD-specified Cleanup Objective

#### TABLE 4

### FORMER WESTINGHOUSE ELECTRIC SITE

CHEEKTOWAGA, NEW YORK
PRE-DESIGN INVESTIGATION SUMMARY

### ANALYTICAL RESULTS -- PCBs AND INORGANIC COMPOUNDS (mg/kg)

SAMPLE ID:		T	-1			T-	-2			T	-3		T-4A*	М	~A	M~Z*	м	-B I	M~C	Cleanup Objective/
SAMPLE DEPTH/LOCATION:	Α	В	С	D	Α	B	C	.0.	Α		C	<b>D</b>	(DUP OF T-38)	4-6:	.10-12	4-6	2-4	12-14	4-6	Screening Criteria
A. ROD CONSTITUENTS							<u>-</u>									ا حتیات				
Aroclor 1254	0.024 U	0.020 U	0.021 U	0 020 U	0.022 U	0 027 U	0 37	0.020 U	0.022 U	0.023 U	0.38	0.057	0.022 U							10 (1.0 - Sediment)
Aroclor 1260	0.25	0.074	0.40	0.038	0 022 U	0.66	0 35	011	0.37	0.36 J	0.36	0.058	2.5 J						~ -	10 (1.0 - Sediment)
Arsenic	84.4	8.32	12.4	8.57	19.7	43.5	13.2	8.77	20.1	12.1	17.5	8.62	10.3							10
Chromium	22.8	16.1	296	19.7	19.7	101	829	115	23.4	40.2	198	24.5	40.7							50
Lead	_==											~~		15.2	12.3	9.55	28.6	14.2	16.8	500
B. OTHER CONSTITUENTS												<b></b>								
Aroclor 1016	0 024 U	0.020 U	0.021 U	0 020 U	0.022 U	0 027 U	0.021 U	0 020 U	0.022 U	0.023 U	0.020 U	0.020 U	0.022 U							l na
Aroclor 1221	0 024 U	0.020 U	0.021 U	0 020 U	0.022 U	0.027 U	0.021 U	0.020 U	0.022 U	0.023 U	0.020 U	0.020 U	0.022 U							na na
Aroclor 1232	0 024 U	0.020 U	0.021 U	0.020 U	0.022 U	0 027 U	0.021 U	0.020 U	0.022 U	0.023 U	0.020 U	0.020 U	0.022 U							na
Aroclor 1242	0 024 U	0.020 U	0.021 U	0 020 U	0.022 U	0.027 U	0.021 U	0.020 U	0.022 U	0.023 U	0 020 U	0.020 ป	0.022 U					1		na
Aroclor 1248	0 024 U	0.020 U	0.021 U	0 020 U	0.022 U	0.027 U	0.021 U	0.020 U	0.022 U	0.023 U	0 020 U	0.020 U	0.022 U							na

#### Notes:

LOCATION "A" = Soil sample collected from the south bank of the U-Crest Ditch

LOCATION "B" = Soil sample collected from the north bank of the U-Crest Ditch

LOCATION "C" = Sediment sample collected from the U-Crest Ditch

LOCATION "D" = Sample collected from beneath the sediment of the U-Crest Ditch

"U" = The compound was not detected and the associated numerical value is the method detection limit

 $^{\star}=Blind$  duplicate sample collected and analyzed for QA/QC purposes

= Analytical result which exceeds the ROD-specified Cleanup Objective

"--" = Compound was not analyzed for in sample

- 1. All sample results are reported in parts per million (ppm) or milligrams per kilogram (mg/kg) dry weight
- 2. All samples were analyzed by Columbia Analytical Services, Inc. of Rochester, NY.
- 3. Cleanup Objectives for ROD Constituents established in the March 1995 Record of Decision (ROD) for Operable Unit No. 1.
- 4. Screening Criteria for compounds not specifically identified in the March 1995 ROD are Recommended Soil Cleanup Objectives (RSCOs) presented in September 1994 RI/FS Report (DUNN Engineering) "na" = Screening criteria not available.
- "J" = The sample result is estimated due to a relative percent difference (RPD) value of 150% between sample result and field duplicate result.

### ANALYTICAL RESULTS - SELECT TCLP ANALYSES

SAMPLE LOCATION:					TCLP	
	U-Crest Ditch	Area P	Area Q	- Area M	Regulatory Limits	
A. TCLP METALS						
Arsenic	<b>0.0</b> 500 ∪				5.0	
Barium	1.00 U		<b>-</b> -		100.0	
Cadmium	0.251				1.0	
Chromiu <b>m</b>	0.100 U				5.0	
Lead	0.100 U				5.0	
Mercury	0.00300 U				0.2	
Selenium	0.500 ∪				1.0	
Silver	0.100 U				5.0	
B. TCLP <b>VO</b> LATILE ORGANIC COM	POUNDS					
Benzene		0.050 U	0.050 ∪		0.5	
2-Butan <b>on</b> e ( <b>MEK</b> )		0.10 U	0.10 U		200.0	
Carbon Tetrachloride	}	0.050 U	0.050 U		0.5	
Chlorobe <b>nz</b> ene	l I	0.050 U	0.050 U		1 <b>00</b> .0	
Chlorofrom		0.050 U	0.050 U			
	[ ]		<del>-</del>		6.0	
1,2-Dich <b>io</b> roethane		0.050 U	0.050 U		0.5	
1,1 - Dich <b>io</b> roethene		0.050 U	0.050 ∪		0.7	
Tetrachlo <b>ro</b> ethe <b>ne</b>	i	0.050 U	0.050 ₩	,	0.7	
Trichloro <b>eth</b> ene		0.12	0.050 ∪		0.5	
Vinyl Chl <b>ori</b> de		0.050 U	<b>0</b> .050 나		0.2	
C. TCLP <b>SE</b> MI <b>VOL</b> ATILE ORGANIC	COMPOUNDS					
1,4-Dichlorobenzene				<b>0</b> .050 U	7.5	
2,4-Dini <b>tro</b> toluene	l I			0.050 ∪	0.13	
Hexachlo <b>ro</b> benzene				0.050 U	0.13	
Hexachlo <b>ro</b> but <b>adi</b> ene				0.050 U	0.5	
Hexachlo <b>ro</b> etha <b>ne</b>	l I			<b>0</b> .050 U	3.0	
2-Methy <b>lp</b> henol				<b>0</b> .10 U	200.0	
3-Methy <b>lph</b> enol/4-Methylphenol				0.36	200.0	
Nitrobenzene				<b>0</b> .050 U	2.0	
Pentachioropheno!				0.20 U	100.0	
Pyridine	i l			0.10 U	5.0	
2,4,6-Tri <b>ch</b> lorophenol 2,4,5-Tri <b>ch</b> loro <b>ph</b> enol				<b>0</b> .10 U <b>0</b> .10 U	2.0	
D. TCLP <b>PE</b> STI <b>CID</b> ES				0.10.0	400.0	
Gamma-BHC (Lindane)	1			0.0050 11	0.4	
Chlordane				0.0050 U 0.020 U	0.4 0.03	
Endrin				0.020 U	0.03	
Heptachl <b>or</b>				0.0050 U	0.02	
Heptachlor Epoxide		<del></del>		0.0050 U	0.008	
Methoxychior				0.020 U	10.0	
Toxaphe <b>ne</b>				0.10 U	0.5	
E. TCLP HERBICIDES	·					
2,4-D				0.050 U	10.0	
2,4,5-TP <b>(S</b> ilvex)				0.050 U	1,0	

#### Notes:

<sup>&</sup>quot;U" = The compound was not detected and the associated numerical value is the method detection limit.

<sup>&</sup>quot;--" = Compound was not analyzed for in sample

<sup>&</sup>quot;ND" - Not Detectable by tests or analytical determinations.

<sup>1.</sup> All sample results are reported in parts per million (ppm) or milligrams per liter (mg/L)

<sup>2.</sup> All samples were analyzed by Columbia Analytical Services, Inc. of Rochester, NY.

#### TABLE 6

### FORMER WESTINGHOUSE ELECTRIC SITE CHEEKTOWAGA, NEW YORK PRE-DESIGN INVESTIGATION SUMMARY

### SUMMARY OF REMEDIATION QUANTITIES<sup>1</sup> (all values are cubic yards)

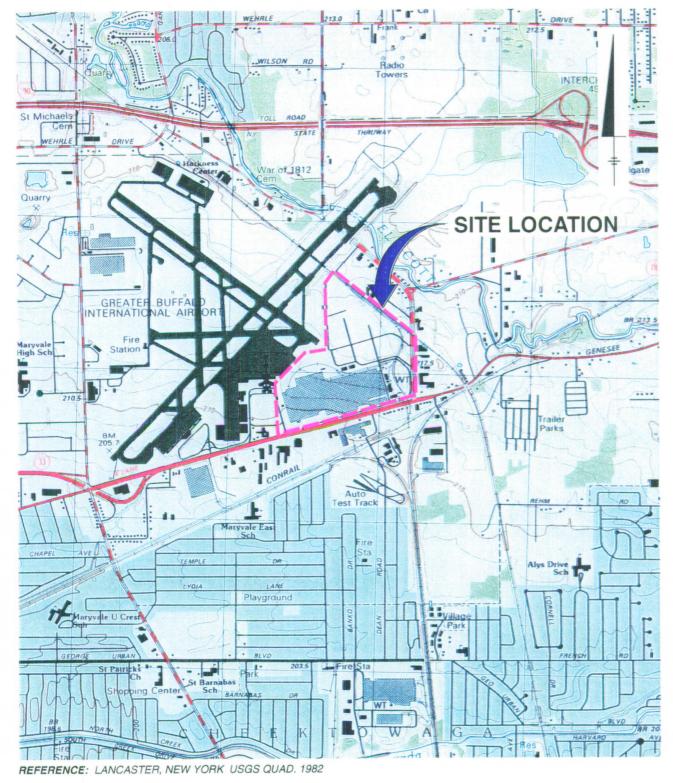
	Material	ls Subject to Remed	iation <sup>2</sup>	Ancillary Soil Volumes <sup>3</sup>					
Remediation Area	Treatment and Dispos <b>al<sup>4</sup></b>	Disposal Only <sup>5</sup>	Total	Clean Materials <sup>6</sup>	Excavation Support <sup>7</sup>	Total			
Area I - Oil Storage Building	2,500	200	2,700	1,600	2,000	3,600			
Area J - Solvent Tank Storage Area	600	300	900	0	200	200			
Area K - Hazardous Waste Storage Area	1,100	0	1,100	300	400	700			
Area M - Underground Mixing Room	0	500	500	100	0	100			
Area P - Flying Tigers	0	2,500	2,500	0	0	0			
Area Q - Abandoned Railroad Area (South)	0	200	200	100	100	200			
Area E - U-Crest Ditch	0	1,300	1,300	0	0	0			
Total	4,200	5,000	9,200	2,100	2,700	4,800			

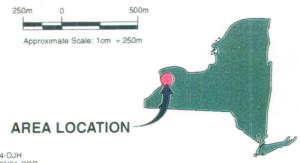
#### Notes:

- Volume estimates based primarily on analytical data, and were supplemented by vapor headspace readings and conservative assumptions. Volumes represent in-situ cubic yards.
- Defined as soils/sediments containing one or more constituents at levels that exceed the cleanup goals presented in the March 1995 Record of Decision (ROD) for Operable Unit No. 1.
- Defined as soils that require removal and handling in order to access those soils subject to remediation. Such ancillary soils do not exceed the ROD cleanup goals and would be returned to the excavation area as backfill.
- <sup>4</sup> Defined as those soils that exceed applicable land disposal restrictions for listed hazardous waste as defined by the Universal Treatment Standards (UTSs) contained in amended federal RCRA regulations (40 CFR 148, 260, 261, 264, 265, 266, 268, and 271). For potentially characteristic hazardous waste, treatment/disposal requirements based on results of Toxicity Characteristic Leachate Procedure (TCLP).
- Defined as those soils that exceed the ROD-based cleanup goals but not require treatment to achieve the applicable land disposal restrictions defined above. Such soils would be subject to off-site disposal (without prior treatment). Disposal options would be based on listed or characteristic nature of material.
- Defined as those soils within the horizontal limits of remediation for a given area that do not exceed the ROD-based cleanup goals. Such soils, upon excavation, would be returned to the excavation area as backfill.
- Defined as those soils that would be excavated to provide suitable excavation side sloping (assumed 1:1 slope). These soils do not exceed the ROD cleanup goals and would be returned to the excavation area as backfill.

**Figures** 

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WESTINGHOUSE SITE PARTICIPATING PARTIES CHEEKTOWAGA, N.Y.

PRE-DESIGN INVESTIGATION SUMMARY

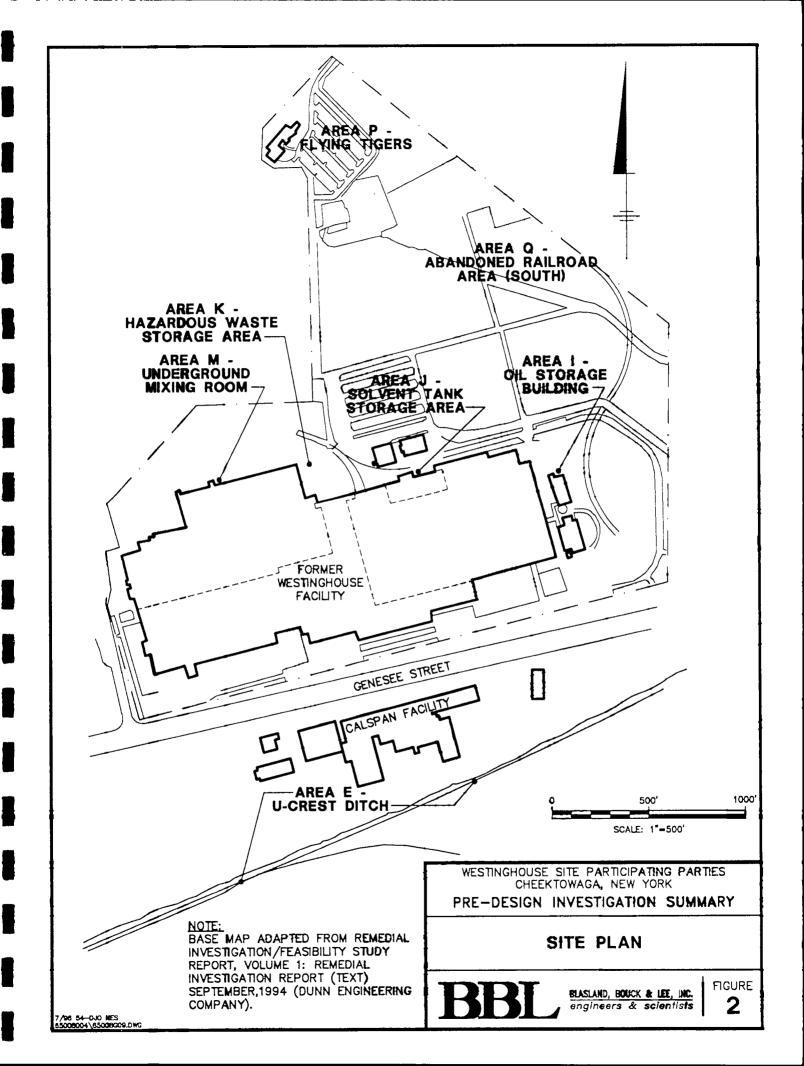
SITE LOCATION MAP

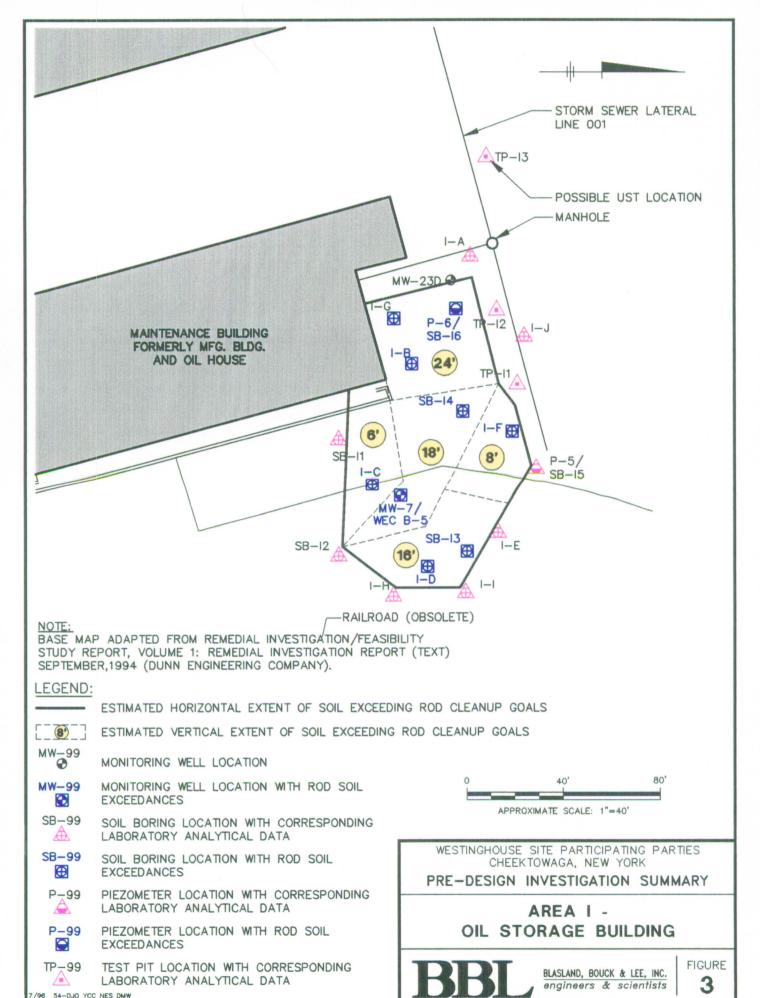
BBL

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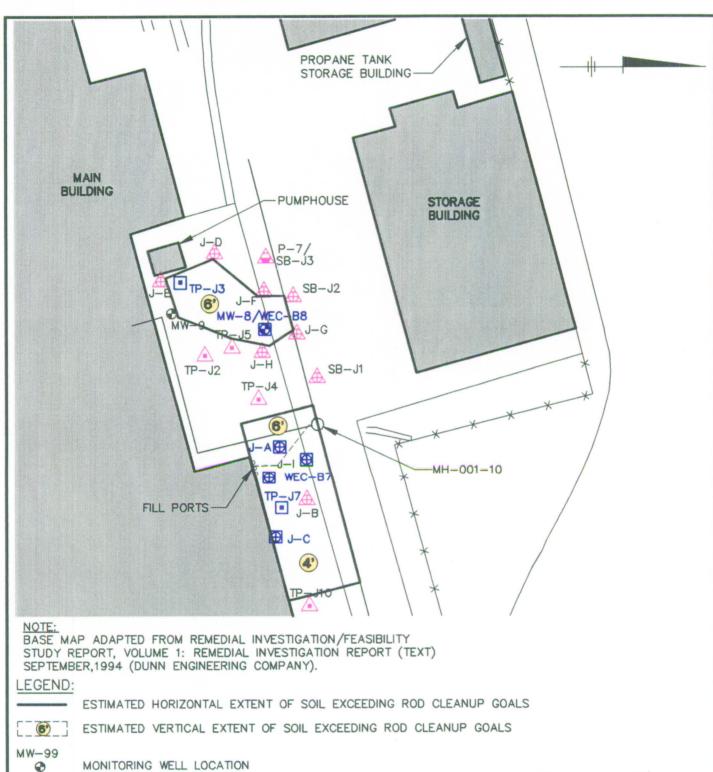
FIGURE

07/96 SYR-D54-DJH 65008004/65008N01.CDR





65008004\65008G10.DWG



MW-99 

MONITORING WELL LOCATION WITH ROD SOIL **EXCEEDANCES** 

SB-99

SOIL BORING LOCATION WITH CORRESPONDING LABORATORY ANALYTICAL DATA

SB-99  $\oplus$ 

SOIL BORING LOCATION WITH ROD SOIL **EXCEEDANCES** 

P-99

PIEZOMETER LOCATION WITH CORRESPONDING LABORATORY ANALYTICAL DATA

TP-99

TEST PIT LOCATION WITH CORRESPONDING LABORATORY ANALYTICAL DATA

TP-99

TEST PIT LOCATION WITH ROD SOIL

EXCEEDANCES

100' 50 APPROXIMATE SCALE: 1"=50"

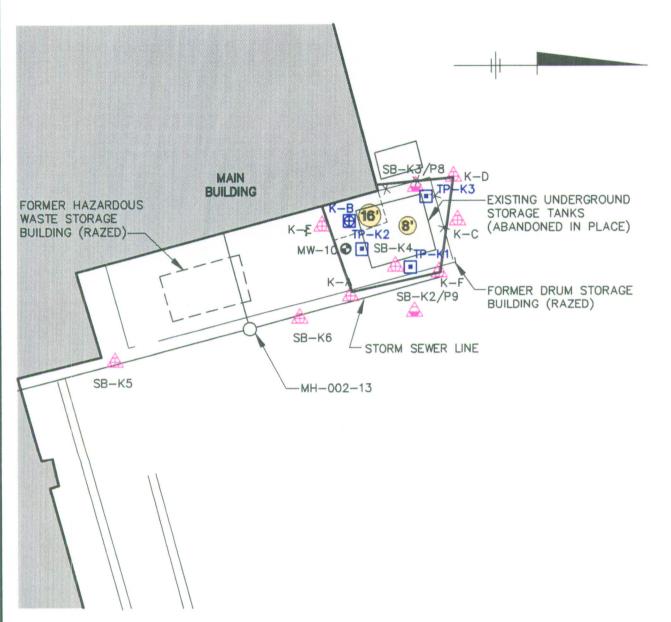
WESTINGHOUSE SITE PARTICIPATING PARTIES CHEEKTOWAGA, NEW YORK

PRE-DESIGN INVESTIGATION SUMMARY

AREA J - SOLVENT TANK STORAGE AREA



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NOTE:
BASE MAP ADAPTED FROM REMEDIAL INVESTIGATION/FEASIBILITY
STUDY REPORT, VOLUME 1: REMEDIAL INVESTIGATION REPORT (TEXT)
SEPTEMBER,1994 (DUNN ENGINEERING COMPANY).

### LEGEND:

ESTIMATED HORIZONTAL EXTENT OF SOIL EXCEEDING ROD CLEANUP GOALS

ESTIMATED VERTICAL EXTENT OF SOIL EXCEEDING ROD CLEANUP GOALS

MW-99

P-99

MONITORING WELL LOCATION

SB-99 SOIL BORING LOCATION WITH CORRESPONDING

LABORATORY ANALYTICAL DATA

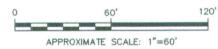
SB-99 SOIL BORING LOCATION WITH ROD SOIL

EXCEEDANCES

PIEZOMETER LOCATION WITH CORRESPONDING LABORATORY ANALYTICAL DATA

TP\_99 TEST PIT LOCATION WITH ROD SOIL

TEST PIT LOCATION WITH ROD SOIL EXCEEDANCES



WESTINGHOUSE SITE PARTICIPATING PARTIES CHEEKTOWAGA, NEW YORK

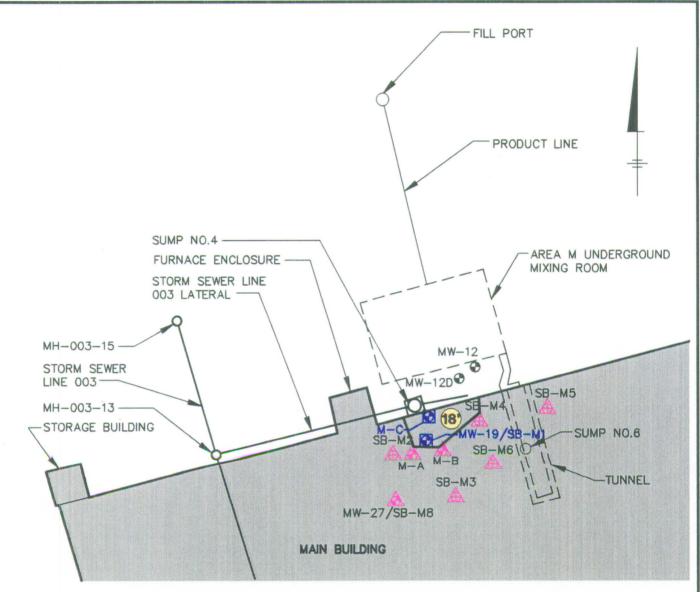
PRE-DESIGN INVESTIGATION SUMMARY

AREA K - HAZARDOUS WASTE STORAGE AREA



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FIGURE **5** 



### NOTES:

- 1. BASE MAP ADAPTED FROM REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT, VOLUME 1: REMEDIAL INVESTIGATION REPORT (TEXT) SEPTEMBER,1994 (DUNN ENGINEERING COMPANY).
- 2. EXCESS SOIL BORING CUTTINGS FROM SAMPLES M-A, M-B, AND M-C WERE COMPOSITED FOR WASTE CHARACTERIZATION TCLP ANALYSIS.

### LEGEND:

[ B] ESTIMATED HORIZONTAL AND VERTICAL EXTENT OF SOIL EXCEEDING ROD CLEANUP GOALS

MW-99

MW-99

MONITORING WELL LOCATION

MONITORING WELL LOCATION WITH CORRESPONDING

LABORATORY ANALYTICAL DATA

MW-99 MONITORING WELL LOCATION WITH ROD SOIL EXCEEDANCES

SB-99 SOIL BORING LOCATION WITH CORRESPONDING LABORATORY ANALYTICAL DATA

O 60' 120'
APPROXIMATE SCALE: 1"=60'

WESTINGHOUSE SITE PARTICIPATING PARTIES CHEEKTOWAGA, NEW YORK

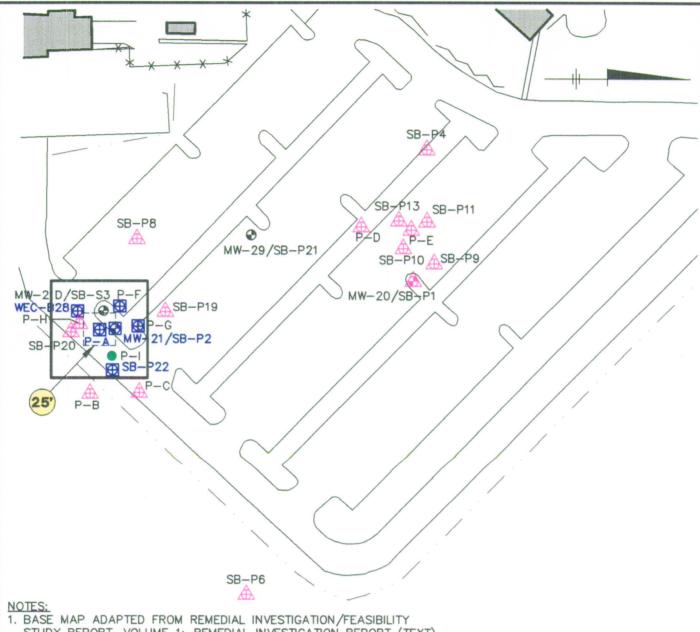
PRE-DESIGN INVESTIGATION SUMMARY

AREA M - UNDERGROUND MIXING ROOM



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FIGURE 6



- STUDY REPORT, VOLUME 1: REMEDIAL INVESTIGATION REPORT (TEXT) SEPTEMBER, 1994 (DUNN ENGINEERING COMPANY).
- 2. EXCESS SOIL BORING CUTTINGS FROM SAMPLES P-F. P-G. P-H. P-I WERE COMPOSITED FOR WASTE CHARACTERIZATION TCLP ANALYSIS.

### LEGEND:

ESTIMATED VERTICAL EXTENT OF SOIL EXCEEDING ROD CLEANUP GOALS

1:1 SLOPED AREA FROM 25 x 25' AREA AT P-A TO SURFACE

MW-99

0 MONITORING WELL LOCATION

MW-99 MONITORING WELL LOCATION WITH CORRESPONDING

LABORATORY ANALYTICAL DATA

MW-99 MONITORING WELL LOCATION WITH ROD SOIL  $\odot$ 

**EXCEEDANCES** SB-99 SOIL BORING LOCATION WITH CORRESPONDING

LABORATORY ANALYTICAL DATA **A** 

SB-99 SOIL BORING LOCATION WITH ROD SOIL  $\oplus$ **EXCEEDANCES** 

> WASTE CHARACTERIZATION SAMPLE LOCATION (SEE NOTE 2)

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75

APPROXIMATE SCALE: 1"=75"

WESTINGHOUSE SITE PARTICIPATING PARTIES

CHEEKTOWAGA, NEW YORK

PRE-DESIGN INVESTIGATION SUMMARY

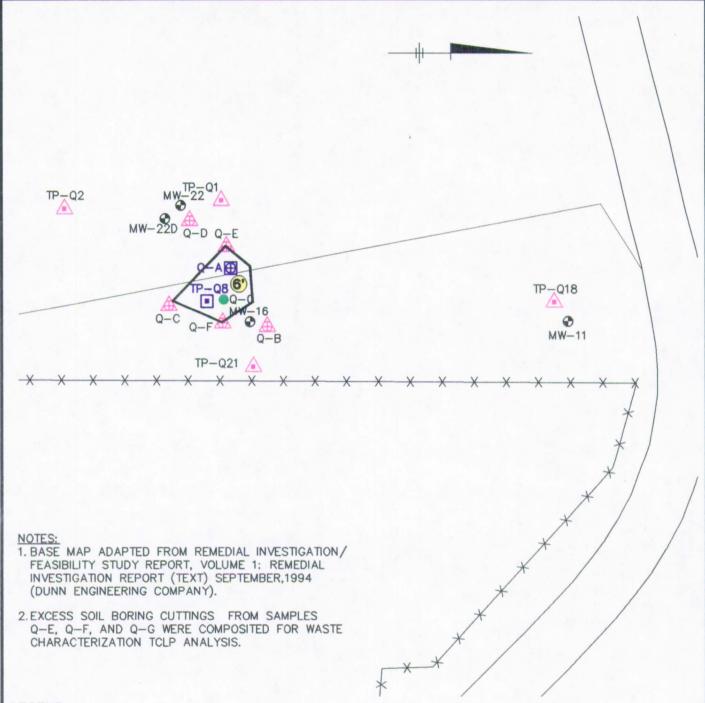
AREA P -

**FLYING TIGERS** 

FIGURE

150

/96 54-DJO, JLG, DMW 5008004\65008G15.DWG



### LEGEND:

ESTIMATED HORIZONTAL AND VERTICAL EXTENT OF SOIL EXCEEDING ROD CLEANUP GOALS

MW-99

MONITORING WELL LOCATION

SB-99 SOIL BORING LOCATION WITH CORRESPONDING LABORATORY ANALYTICAL DATA

SB-99 SOIL BORING LOCATION WITH ROD SOIL EXCEEDANCES

TP-99 TEST PIT LOCATION WITH CORRESPONDING LABORATORY ANALYTICAL DATA

TP-99 TEST PIT LOCATION WITH ROD SOIL EXCEEDANCES

WASTE CHARACTERIZATION SAMPLE LOCATION (SEE NOTE 2)



WESTINGHOUSE SITE PARTICIPATING PARTIES CHEEKTOWAGA, NEW YORK

PRE-DESIGN INVESTIGATION SUMMARY

AREA Q - ABANDONED RAILROAD AREA (SOUTH)



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FIGURE 8

7/96 54-DJO, JLG, DMW 65008004\65008G16.DWG

