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FINAL REPORT OF NORTHSIDE DRUM SAMPLING AND WASTE CHARACTERIZATION
MILLINGTON SUPPACT TN
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MEMPHIS ENVIRONMENTAL CENTER, INC.

**FINAL REPORT OF NORTHSIDE DRUM
SAMPLING AND WASTE
CHARACTERIZATION
NAVAL AIR STATION MEMPHIS
Contract: N62467-92-D-4507
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**REPORT OF
DRUM SAMPLING AND WASTE CHARACTERIZATION
NAVAL AIR STATION MEMPHIS
NORTHSIDE
MILLINGTON, TENNESSEE**

MARCH 1993

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1.0 INTRODUCTION

1.1 Introduction

The Naval Air Station Memphis (NASMEM) is located in Millington, Shelby County, Tennessee (Facility), (see *Figure 1 - Location Diagram of Attachment A*). As a result of previous operations at the Facility, various spent materials were collected in drums at various locations on the northside of the base. During an inspection of these northside locations, NASMEM personnel identified 99 drums of unknown or undocumented content. As a first step to determine the proper disposition of these drums and their contents, NASMEM personnel preliminarily identified the contents of most of the drums based on previous use and/or visual observation.

In order to provide the additional data necessary to determine the appropriate disposal of these materials, NASMEM Public Works Environmental Division issued delivery order # 0002 to ETI Corporation (ETI) under contract #N62467-92-D4507. This order required ETI, in conjunction with its sub-consultant Memphis Environmental Center, Inc. (MEC), to implement a sampling and analysis program in order to characterize the contents of each drum for disposal or subsequent management. This report, entitled *Report of Drum Sampling and Waste Characterization, Naval Air Station Memphis, Northside, Millington, Tennessee, March, 1993*, (Report) provides a summary of the sample collection, evaluation and analysis procedures, presents the analytical results from the samples, provides recommended

methods of management for the contents of each drum, and provides NASMEM Hazardous Waste Profile Sheets for the material meeting those criteria.

1.2 Scope of Work

The scope of work implemented to sample and characterize the previously described materials at the Facility is as provided below:

1. Develop a work plan;
2. Conduct a start-up meeting;
3. Collect samples from each of the drums;
4. Conduct compatibility analysis on each sample;
5. Composite the samples based on results of the compatibility analysis;
6. Submit the composite samples for characterization analysis as required;
7. Identify the appropriate method of management for the contents of each drum;
8. Complete NASMEM Hazardous Waste Profile Sheets for waste determined to be hazardous; and
9. Provide a summary report to document this work.

2.0 DRUM SAMPLING

On October 23, 1992, ETI submitted a draft work plan to NASMEM Public Works Environmental Division which stipulated the procedures which would be implemented for the sampling, analysis and characterization of the contents of the drums identified at nine locations on the northside of the base. NASMEM reviewed the work plan and ETI/MEC made the appropriate revisions. On October 27, 1992, the final work plan, entitled *Work Plan, Northside Drum Sampling, Naval Air Station Memphis, Millington, Tennessee, October 1992*, (Work Plan) was submitted to NASMEM Environmental Division. A copy of this Work Plan is included in *Attachment B*.

2.1 Sampling Methodology

On November 2, 1992, MEC personnel mobilized to the Facility to begin sample collection. Prior to beginning sampling activities, MEC provided NASMEM personnel with a schedule of work. In addition, personnel at each of the nine drum sites were notified prior to beginning work in their area. Samples were collected from 61 of the 99 drums originally identified at the northside of the Facility. Thirty-eight drums were identified as not requiring sampling based on the rationale provided in *Table 1* of *Attachment C*. Photographs of each drum location are included in *Attachment D*.

Disposable PVC pipes were used to retrieve representative samples from the drums. Each drum had a dedicated PVC pipe that was used only for collecting samples from that specific drum. Some of the drums contain multi-phased material, in which case samples of each phase were collected. If material could not be collected via a PVC pipe, other sampling methods (i.e. trowels, spoons, etc.) were employed. Samples were placed into one-liter, wide-mouthed jars. Before collection of each sample, a clean pair of latex gloves was donned. Field quality assurance/quality control measures were implemented as outlined in Section 3.1 of the Work Plan.

2.2 Compatibility Testing

Compatibility testing was performed to evaluate the requirements for sample compositing in order to minimize the number of samples submitted for hazardous waste characterization analysis. Appropriate evaluation of each sample necessitated that each phase of a multi-phased material be tested individually. If a sample contained multi-phases, for example an aqueous phase with a lightweight semi-solid phase on top, an aliquot from each phase (aqueous and semi-solid) was collected and evaluated for compatibility. For example, drum numbers 14 and 502 (See **Table 2** of **Attachment C**) were comprised of an aqueous phase with a lightweight semi-solid phase on top. Aliquots of the aqueous phase from each drum were collected and tested for compatibility. Similarly, a sample of each semi-solid phase was collected

and tested. This resulted in two composite samples from these two drums, a water sample and a semi-solid sample.

The samples were evaluated for compatibility using the parameters outlined in Section 2.3 of the Work Plan. Procedures for preliminary compatibility evaluation conducted prior to mixing included observation of the physical nature of the material, pH (if aqueous based sample), emission of organic vapors, presence of chlorinated solvents, water solubility and presence/absence of phased materials. The results of the compatibility evaluations are presented in *Table 2* of *Attachment C*. Based on these results, samples were grouped by similar characteristics and preliminary composite lots were identified. Subsequently, for each lot of liquid samples, a small aliquot was taken from two of the samples and mixed. The mixture was observed for miscibility, heat emission or physical changes. If the mixture proved compatible, an aliquot from a third sample was added and the same observations recorded. This procedure was repeated until all samples in each lot were mixed. If the samples in the lot were multi-phased, each phase was subjected to this evaluation. No heat emissions or physical changes were observed for any of the mixtures. However, some of the samples were deleted from their original lot due to immiscibility and were composited with other samples.

Based on the results of the compatibility testing, 16 final composite samples were developed. **Table 3** of **Attachment C** provides information on each of the final composite samples submitted for characterization analysis.

2.3 Composite Sample Analysis

Sixteen composite samples were submitted to the laboratory for hazardous waste characterization analysis including toxicity characteristic leachate procedures (TCLP) and ignitability, reactivity and corrosivity (IRC) analysis in accordance with Section 3.2 of the Work Plan. Composite sample numbers 112492-DH-006 and 112592-DH-015 were each analyzed as two separate samples due to a TCLP requirement for samples to be filtered by the laboratory prior to analysis. If a minimum of 0.5% by weight of the sample is retained on the filter, the sample must be analyzed as two distinct samples, i.e, a solid and a liquid. Sample -006 is 85.9% solid and sample -015 is > 0.5% solid. The percent solids is necessary for determining the concentration of constituents in the entire sample.

In addition to the TCLP and IRC analysis, composite sample numbers 112492-DH-003, -004, -006, -009, and -010, which are all oil-based and potentially recoverable as substitute fuels, were analyzed for density, total solids, heating value, ash content, flash point, total halides, and polychlorinated biphenyls (PCBs). Also, composite sample numbers 112092-DH-001 and 112492-DH-002 are primarily

aqueous-based fractions and were analyzed for total petroleum hydrocarbons (TPH) content to determine if disposal to the City of Millington Waste Water Treatment Plant via one of the Facility's oil/water separators is acceptable. Liquid samples which were determined to be hazardous due to ignitability were also submitted for total organic carbon (TOC) analysis as required to complete the NASMEM Hazardous Waste Profile Sheets.

Results of the TCLP and IRC analysis are provided in *Table 4* of *Attachment C*. Results of the other analyses conducted on oil-based samples are provided in *Table 5* of *Attachment C*. Complete laboratory reports for all analyses are provided in *Attachment E*.

Due to the physical and/or chemical characteristics of some of the samples, matrix interference and sample dilutions prevented the achievement of the targeted detection limits in some cases. As a result, the detection limits for some constituents of some composite samples exceeded the regulatory limits for determining characteristic hazardous wastes. The regulatory characterization limit and the detection limit for each constituent of each sample are provided in *Table 4* of *Attachment C*. These inherent interferences and subsequent detection limits resulted in some of the samples being characterized as a hazardous waste even though their TCLP constituent concentrations are reported as non-detected (ND).

2.4 Analytical Results

Composite sample numbers 112092-DH-001 and 112092-DH-007 represent the aqueous and lightweight semi-solid fractions, respectively, from the 12 drums indicated in *Table 3* of *Attachment C*. Sample -001 did not exhibit levels of any TCLP constituent in excess of the regulatory limits for characterization as a hazardous waste. Also, neither of these samples exhibited the characteristics of ignitability, corrosivity or reactivity. Results of the analysis of sample -001 allows the aqueous fractions of the 12 drums to be classified as non-hazardous waste. The detection limits for some of the constituents in sample -007, the lightweight semi-solid phase sample, exceed the regulatory limits. Therefore, the composite semi-solid phase in these drums is classified as a hazardous waste. The recommended method of management for these 12 drums is presented in Section 3.1.

Composite sample numbers 112492-DH-002 and 112492-DH-008 represent the aqueous and lightweight semi-solid fractions, respectively, from the 11 drums indicated in *Table 3* of *Attachment C*. The detection limits for some of the constituents in both composite samples exceeded the regulatory limits. The contents of these 11 drums are hazardous based on the assumption that the constituent concentration is equal to the detection limit and subsequently above the regulatory level. Also, number -002 exhibited a flash point of 127°F, which is below the allowable minimum regulatory limit of 140°F. In addition, sample -008 exhibited a

concentration of 204 parts per million (ppm) for cresols which exceeds the regulatory limit of 200.0 ppm. Therefore, both the aqueous phase and the semi-solid phase are classified as a characteristic hazardous waste. The recommended method of management for these 11 drums is presented in Section 3.2.

Composite sample number 112492-DH-003 represents a waste from the four drums as indicated in *Table 3* of *Attachment C*. The sample exhibited a concentration of 122 ppm benzene, which exceeds the regulatory limit of 0.5 ppm for characterization as a hazardous waste. Also, the detection limits for some of the other constituents in sample -003 exceeded the regulatory limits. The material in these four drums is classified as a characteristic hazardous waste. The recommended method of management is presented in Section 3.3.

Composite sample number 112492-DH-004 represents a light oily liquid from ten drums as indicated in *Table 3* of *Attachment C*. The sample did not exhibit detectable levels of any TCLP constituent in excess of the regulatory limits for characterization as a hazardous waste. However, the detection limit for vinyl chloride in sample -004 exceeded the regulatory limit. The material is therefore classified as a characteristic hazardous waste. In addition, the sample exhibited a non-detect concentration of PCBs at a detection limit of 500 ppm; therefore, the material should be managed as a PCB as required by 40 CFR (Code of Federal

Regulations) 761.60 for substances that contain 50 ppm, or greater, of PCBs. The recommended method of management for these drums is presented in Section 3.4.

Sample number 112492-DH-005 represents an orange aqueous solution from eight drums as indicated in *Table 3* of *Attachment C*. The sample did not exhibit detectable levels of any TCLP constituent in excess of the regulatory limits for characterization as a hazardous waste. However, the detection limits for some of the constituents in sample -005 exceeded the regulatory limit. The recommended method of management for this material is presented in Section 3.5.

Sample number 112492-DH-006 represents the heavy oily liquid contained in three drums as indicated in *Table 3* of *Attachment C*. The sample exhibited a concentration of 0.749 ppm for benzene and 11.0 ppm for lead. These concentrations exceed the regulatory limits of 0.5 ppm and 5.0 ppm for benzene and lead, respectively. The sample was also ignitable at 94° F. In addition, the detection limits for some of the other constituents in sample -006 exceeded the regulatory limits. Also, the sample exhibited a non-detect concentration of PCBs at a detection limit of 200 ppm; therefore, the material should be managed as a PCB as required by 40 CFR 761.60 for substances that contain 50 ppm, or greater, of PCBs. The recommended method of management for this material is presented in Section 3.6.

Sample numbers 112492-DH-009, 112492-DH-011, 112492-DH-012, and 1124-DH-013 represent a total of 15 drums. The drums comprising each composite sample are listed in *Table 3* of *Attachment C*. The analytical results of each of these samples do not exceed the regulatory levels for characterization as a hazardous waste. The drums are classified as non-hazardous waste. However, sample -009 exhibited a non-detect concentration of PCBs at a detection limit of 500 ppm; therefore, the material represented by sample -009 should be managed as a PCB as required by 40 CFR 761.60 for substances that contain 50 ppm, or greater, of PCBs. The recommended method of management for these drums is presented in Section 3.9.

Sample number 112492-DH-010 represents a wet oily sludge contained in drum number 618. The sample did not exhibit detectable levels of any TCLP constituent in excess of the regulatory limits for the characterization as a hazardous waste. However, the detection limit for vinyl chloride in sample -010 exceeded the regulatory limit. In addition, the sample exhibited a flash point of 118° F and is therefore classified as an ignitable hazardous waste. Also, sample -010 exhibited a non-detect concentration of PCBs at a detection limit of 1,000 ppm; therefore, the material should be managed as a PCB as required by 40 CFR 761.60 for substances that contain 50 ppm, or greater, of PCBs. The recommended method of management for drum number 618 is presented in Section 3.7.

Composite sample numbers 112492-DH-014, 112492-DH-015, and 112492-DH-016 represent the water, liquid, and sludge phases, respectively, of drum numbers 610 and 611. Sample -014 exhibited a concentration of 206 ppm for methylethyl ketone, which exceeds the regulatory limit of 200.0 ppm. Sample -015 exhibited elevated concentrations of chromium at 314 ppm, cresols at 5,000 ppm and lead at 862 ppm. The regulatory limits of chromium, cresols and lead are 5.0 ppm, 200.0 ppm, and 5.0 ppm, respectively. In addition, sample -015 was ignitable at 69° F. Sample -016 exhibited a flash point of 73° F. This material is therefore classified as an ignitable hazardous waste. Also, the detection limits for some of the constituents in each sample exceeded the regulatory limits. The recommended method of management for drum numbers 610 and 611 is presented in Section 3.8.

3.0 MANAGEMENT METHODS

Two methods are available for determining if a spent material should be classified as a characteristic hazardous waste. The first method allows the generator to classify the waste based on user knowledge of the material. If the generator can accurately state that the waste does not contain the constituents in excess of the regulatory allowable limits, the material can be classified as non-hazardous. The second method is to subject the material to hazardous waste characterization analysis. If, based on this analysis, no constituents exceed the regulatory allowable limits, the waste can be classified as non-hazardous. If the analytical detection limits exceed the regulatory allowable limits, as was the case with some

of the analyses for this project, the generator has two options: 1) classify the material as non-hazardous, based on user knowledge, or 2) assume the detection limits are the constituent concentrations in the waste. Due to the nature of Facility operations and the frequency of NASMEM personnel rotations, the contents of the subject spent materials could not be definitely identified based on user knowledge. Therefore, the more conservative approach was necessary and the concentration of constituents is assumed to be equal to the detection limits. Accordingly, for those samples with constituents that are non-detectable at a detection limit that exceeds the regulatory allowable limit, the material has been classified as a characteristic hazardous waste.

Listed below are ten recommended methods of management for the subject drummed materials. A summary of information for each drum including the recommended management method, location of drum, physical characteristics, and volume contained in each drum can be found in *Table 6 of Attachment C*. *Table 7 of Attachment C* groups the drum numbers by the appropriate management method. The management methods were chosen based on the following:

1. laboratory analytical results for hazardous waste characterization,
2. applicable Federal, state and local regulations,
3. discussions with Tennessee Department of Environment and Conservation (TDEC), Fisher Phillips Arnold Engineers, Inc. (City of Millington engineers' office) and NASMEM personnel; and
4. standard practices for hazardous waste characterization and management.

The recommended methods of management are in compliance with the applicable requirements of the Resource Conservation and Recovery Act (RCRA) and the Tennessee Department of Health and Environment Solid Waste Rule 1200-1-11, Hazardous Waste Management.

3.1 Management Method #1

Management Method #1 applies to drum numbers 14, 502, 701, 740, 741, 742, 743, 744, 756, 757, and 768. The approximate total volume is 130 gallons. Composite samples 112092-DH-001 (aqueous phase) and 112092-DH-007 (lightweight semi-solid phase) are representative of the waste material contained in these drums and were analyzed to determine the proper methods for management. The lightweight semi-solid phase classifies as a characteristic hazardous waste while the aqueous phase classifies as non-hazardous.

There are two options which are available for management of the materials in these drums. One option is to discharge the contents of these drums through an oil/water separator at the Facility, allowing the aqueous phase to separate and to discharge to the City of Millington waste water treatment system. The oil phase could then be collected for management as a hazardous waste. This type of management is permissible under 40 CFR 261.4. The second option is to manage the entire contents of these drums as hazardous waste. Based on NASMEM Public

Works - Environmental Division's comparison of these options, including associated costs and other pertinent considerations, it was determined that the more prudent and cost effective method for management of these materials is to manage the entire waste stream as a hazardous waste. Hazardous Waste Profile Sheet #1, *Attachment F*, provides the corresponding physical and chemical characteristics for the materials recommended for management via Method #1.

The applicable waste codes for the wastes listed under Management Method #1 are as follows: benzene, *D018*; carbon tetrachloride, *D019*; 1,2-dichloroethane, *D028*; 1,1-dichloroethylene, *D029*; tetrachloroethylene, *D039*; trichloroethylene, *D040*; vinyl chloride, *D043*; 2,4-dinitrotoluene *D030*; hexachlorobenzene, *D032*; hexachlorobutadiene, *D033*; hexachloroethane, *D034*; nitrobenzene, *D036*; and, 2,4,6-trichlorophenol, *D042*.

3.2 Management Method #2

Management Method #2 applies to drum numbers 602, 612, 614, 755, 760, 766, 767, 781, and 791.01. The approximate total volume is 300 gallons. Composite samples 112492-DH-002 (aqueous phase) and 112492-DH-008 (lightweight semi-solid phase) are representative of the waste material contained in these drums and were analyzed to determine the proper method of management.

The contents of these drums should be managed as hazardous waste due to the ignitability of the water phase, the detection of cresols in the semi-solid phase at a concentration exceeding the regulatory limit, and the assumption that in both phases the concentration of non-detectable constituents is equal to the detection limit and subsequently above the regulatory allowable limit for those constituents. Hazardous Waste Profile Sheet #2, *Attachment F*, provides the corresponding physical and chemical characteristics for the materials recommended for management via Method #2.

The applicable waste codes for the wastes listed under Management Method #2 are as follows: benzene, *D018*; carbon tetrachloride, *D019*; 1,2-dichloroethane, *D028*; 1,1-dichloroethylene, *D029*; tetrachloroethylene, *D039*; trichloroethylene, *D040*; vinyl chloride, *D043*; cresols, *D026*; 2,4-dinitrotoluene *D030*; hexachlorobenzene, *D032*; hexachlorobutadiene, *D033*; hexachloroethane, *D034*; nitrobenzene, *D036*; pentachlorophenol *D037*; pyridine *D038*; 2,4,5-trichlorophenol, *D041*; 2,4,6-trichlorophenol, *D042*; 2,4 D, *D016*; silvex, (2,4,5 - silvex), *D017*; and ignitability, *D001*.

3.3 Management Method #3

Management Method #3 applies to drum numbers 547, 601, 700, and 7753. The approximate total volume is 175 gallons. Composite sample 112492-DH-003 is

representative of the waste contained in these drums and was analyzed to determine the proper method of management.

The contents of these drums should be managed as hazardous waste due to the detection of benzene at a concentration exceeding the regulatory limit and the assumption that the concentration of non-detectable constituents is equal to the detection limit and subsequently above the regulatory allowable limit for those constituents. Hazardous Waste Profile Sheet #3, *Attachment F*, provides the corresponding physical and chemical characteristics for the materials recommended for management via Method #3.

The applicable waste codes for the wastes listed under Management Method #3 are as follows: benzene, *D018*; carbon tetrachloride, *D019*; chloroform, *D022*; 1,4-dichlorobenzene, *D027*; 1,2-dichloroethane, *D028*; 1,1-dichloroethylene, *D029*; methylethyl ketone, *D035*; tetrachloroethylene, *D039*; trichloroethylene, *D040*; vinyl chloride, *D043*; cresols, *D026*; 2,4-dinitrotoluene *D030*; hexachlorobenzene, *D032*; hexachlorobutadiene, *D033*; hexachloroethane, *D034*; nitrobenzene, *D036*; pentachlorophenol *D037*; pyridine *D038*; 2,4,5-trichlorophenol, *D041*; 2,4,6-trichlorophenol, *D042*; BHC, gamma (lindane) *D013*; chlordane, *D020*; endrin, *D012*; heptachlor, *D031*; heptachlor epoxide, *D031*; and toxaphene, *D015*.

3.4 Management Method #4

Management Method #4 applies to drum numbers 754, 758, 759, and 763. The approximate total volume is 35 gallons. Composite sample 112492-DH-004 is representative of the light oily liquid contained in these drums and was analyzed to determine the proper methods of management.

The material in these drums should be managed as a hazardous waste. It is assumed that the concentration of non-detectable constituents is equal to the detection limit. Based on this assumption, the regulatory level for vinyl chloride is exceeded. In addition, the non-detect concentration of PCBs at a detection limit of 500 ppm classifies the material as a PCB which should be managed as required by 40 CFR 761.60 for substances that contain 50 ppm, or greater, of PCBs. Hazardous Waste Profile Sheet #4, *Attachment F*, provides the corresponding physical and chemical characteristics for the materials recommended for management via Method #4.

The applicable waste code for the wastes listed under Management Method #4 is *D043* for vinyl chloride.

3.5 Management Method #5

Management Method #5 applies to drum numbers 7701, 7702, 7703, 7704, 7705, 7706, 7707, and 7708. The approximate total volume is 370 gallons. Composite sample 112492-DH-005 is representative of the orange aqueous liquid contained in these drums and was analyzed to determine the proper method of management.

These drums should be managed as hazardous waste due to the assumption that the concentration of non-detectable constituents is equal to the detection limit and subsequently above the regulatory allowable limit for those constituents. Hazardous Waste Profile Sheet #5, *Attachment F*, provides the corresponding physical and chemical characteristics for the materials recommended for management via Method #5.

The applicable waste codes for the wastes listed under Management Method #5 are as follows: cresols, *D026*; 2,4-dinitrotoluene *D030*; hexachlorobenzene, *D032*; hexachlorobutadiene, *D033*; hexachloroethane, *D034*; nitrobenzene, *D036*; pentachlorophenol *D037*; pyridine *D038*; 2,4,5-trichlorophenol, *D041*; 2,4,6-trichlorophenol, *D042*; BHC, gamma (lindane) *D013*; chlordane, *D020*; endrin, *D012*; heptachlor, *D031*; heptachlor epoxide, *D031*; methoxychlor *D014*; and toxaphene, *D015*.

3.6 Management Method #6

Management Method #6 applies to drum numbers 613, 615, and 7709. The approximate total volume is 135 gallons. Composite sample 112492-DH-006 is representative of the waste material contained in this drum and was analyzed to determine the proper method of management.

This material should be managed as hazardous waste due to ignitability, the detection of benzene and lead at concentrations exceeding the regulatory limit, and the assumption that the concentration of non-detectable constituents is equal to the detection limit and is subsequently above the regulatory allowable limit for those constituents. In addition, the non-detect concentration of PCBs at a detection limit of 200 ppm classifies the material as a PCB which should be managed as required by 40 CFR 761.60 for substances that contain 50 ppm, or greater, of PCBs. Hazardous Waste Profile Sheet #6, *Attachment F*, provides the corresponding physical and chemical characteristics for the materials recommended for management via Method #6.

The applicable waste codes for wastes listed under Management Method #6 are as follows: benzene, *D018*; cresols, *D026*; 2,4-dinitrotoluene *D030*; hexachlorobenzene, *D032*; hexachlorobutadiene, *D033*; hexachloroethane, *D034*; nitrobenzene, *D036*; pentachlorophenol *D037*; pyridine *D038*; 2,4,5-trichlorophenol,

D041; 2,4,6-trichlorophenol, *D042*; lead, *D008*; BHC, gamma (lindane) *D013*; chlordane, *D020*; endrin, *D012*; heptachlor, *D031*; heptachlor epoxide, *D031*; methoxychlor *D014*; toxaphene, *D015*; and ignitability, *D001*.

3.7 Management Method #7

Management Method #7 applies to drum number 618. The approximate total volume is 5 gallons. Composite sample 112492-DH-010 is representative of the wet oily sludge contained in this drum and was analyzed to determine the proper method of management.

The contents of drum number 618 are classified as an ignitable hazardous waste. It is assumed that the concentration of non-detectable constituents is equal to the detection limit. Based on this assumption, the regulatory level for vinyl chloride is exceeded. In addition, the non-detect concentration of PCBs at a detection limit of 1,000 ppm classifies the material as a PCB which should be managed as required by 40 CFR 761.60 for substances that contain 50 ppm, or greater, of PCBs. Hazardous Waste Profile Sheet #7, **Attachment F**, provides the corresponding physical and chemical characteristics for the contents of drum number 618.

The applicable waste codes for the contents of drum number 618 are *D043* (vinyl chloride) and *D001* (ignitability).

3.8 Management Method #8

Management Method #8 applies to drum numbers 610 and 611. Drum number 610 contains approximately twenty-seven 1-gallon buckets of paint and drum number 611 contains approximately five 1-gallon buckets of paint. Composite numbers 112592-DH-014, 112592-DH-015, and 112592-DH-016 are representative of the water, non-aqueous liquid, and sludge, respectively, contained in the buckets in these two drums. The composite samples were analyzed to determine the proper method of management for these two drums.

The contents of drum numbers 610 and 611 are classified as a characteristic hazardous waste. This classification is due to ignitability of the sludge and non-aqueous phases, the detection of methylethyl ketone, cresols, chromium, and lead at concentrations exceeding the regulatory limits, and the assumption that the concentration of non-detectable constituents in each phase is equal to the detection limit and subsequently above the regulatory allowable limit for those constituents. Hazardous Waste Profile Sheet #8, *Attachment F*, provides the corresponding physical and chemical characteristics for the contents of drum numbers 610 and 611.

The applicable waste codes for the contents of drum numbers 610 and 611 listed under Management Method #8 are as follows: benzene, *D018*; carbon tetrachloride, *D019*; 1,2-dichloroethane, *D028*; 1,1-dichloroethylene, *D029*; methylethyl ketone, *D035*; tetrachloroethylene, *D039*; trichloroethylene, *D040*; vinyl chloride, *D043*; cresols, *D026*; 2,4-dinitrotoluene *D030*; hexachlorobenzene, *D032*; hexachlorobutadiene, *D033*; hexachloroethane, *D034*; nitrobenzene, *D036*; pentachlorophenol *D037*; pyridine *D038*; 2,4,5-trichlorophenol, *D041*; 2,4,6-trichlorophenol, *D042*; chromium, *D007*; lead, *D008*; chlordane, *D020*; endrin, *D012*; heptachlor, *D031*; heptachlor epoxide, *D031*; methoxychlor, *D014*; toxaphene, *D015*; and ignitability, *D001*.

3.9 Management Method #9

Management Method #9 refers to drum numbers 603, 751, 764, 765, 769, 770, 771, 772, 773, 774, 775, 782, and 7712. The total approximate volume of material contained in these drums is 580 gallons. Composite sample numbers 112492-DH-009, 112492-DH-011, 112492-DH-012, and 112492-DH-013 are representative of the contents of these drums as specified in *Table 3 of Attachment C*.

The analyses conducted on composite sample numbers -011, -012, and -013 characterize the contents of corresponding drums as non-hazardous. Application can be made to TDEC and Browning-Ferris Industries (BFI) for disposal of the material

as a special waste. The requirements for management and disposal of these drums are as follows:

1. Submit a special waste permit and filing fee (\$250) for each waste stream to the TDEC Division of Solid Waste and obtain approval for disposal;
2. Submit a copy of the approved permit, a profile sheet, and a sample of the waste to landfill and obtain approval for disposal;
3. Verify that drums are suitable for transport; and
4. Schedule disposal with landfill.

Completed special waste permit applications for these materials are included in *Attachment G*.

The analyses conducted on composite sample number -009 characterize the contents of drum number 603 as non-hazardous. However, the sample exhibited a non-detect concentration of PCBs at a detection limit of 500 ppm which classifies the material as a PCB. Drum number 603 should be managed as required by 40 CFR 761.60 for substances that contain 50 ppm, or greater, of PCBs.

3.10 Management Method #10

Management Method #10 applies to drum numbers 784, 785, 787, 7700.02, 761, 762, 780, 7729, 7730, 5, 15, 16, 77, 84, 227, 230, 231, 504, 752, 793, 794, 795, 796,

797, 798, 799, 7700, 7734, 7735, 7736, 7737, 7738, 7710, 7711, 7754, 616, and 617. These drums are in accordance with the regulations of 40 CFR 261.7 which states that drums are empty if "all wastes have been removed that can be removed using practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and no more than 2.5 centimeters (one inch) of residue remains on the bottom of the container or inner liner." RCRA empty drums should be managed as empty hazardous containers as required by NASMEM standard operating procedures.

4.0 HAZARDOUS WASTE PROFILE SHEETS

NASMEM Hazardous Waste Profile Sheets (DRMS Form 1930) have been completed for each group of drum contents classified by the representative samples as a characteristic hazardous waste. Laboratory results from the hazardous waste characterization analyses have been transferred to NASMEM's Hazardous Waste Profile Sheets. As previously discussed, if the analytical detection limits exceed the regulatory allowable limits, as was the case for some of the analyses, the assumption was made that the detection limits are equal to the constituent concentrations in the waste. Therefore, the detection limit for that constituent is recorded as the constituent concentration on the waste profile sheet.

The concentrations of the analytes from the composite samples that were split into solid and liquid samples in the laboratory due to the TCLP requirement described in Section 2.3 have been calculated based on the percent of solid retained on the filter. The constituent concentration reported on the profile sheet is the weighted average of the solid and liquid constituent concentrations. For example, sample -006 was analyzed by the laboratory as a liquid sample (14.1%) and a solid sample (85.9%). The concentration of hexachlorobenzene in the liquid portion is non-detect (ND) at 500 ppm and the concentration of hexachlorobenzene in the solid portion is ND at 0.5 ppm. The maximum weighted concentration of hexachlorobenzene in the total sample is calculated as follows:

$$\text{Total Hexachlorobenzene} = \frac{(14.1\% \times <500 \text{ ppm})}{\text{Liquid Sample}} + \frac{(85.9\% \times <0.5 \text{ ppm})}{\text{Solid Sample}} = <70.9 \text{ ppm}$$

The maximum total concentration of hexachlorobenzene calculated (<70.9 ppm in this example) exceeds the regulatory level of hexachlorobenzene (0.13 ppm) for characterization as a hazardous waste. Therefore, the hexachlorobenzene concentration reported on the profile sheet is <70.9 ppm. Copies of the NASMEM Hazardous Waste Profile Sheets are included in *Attachment F*.

ATTACHMENT A
SITE LOCATION DIAGRAM



Source: Millington and Brunswick Quadrangles
 Tennessee - Shelby County
 7.5 Minute Series

Scale 1: 24000

MEMPHIS ENVIRONMENTAL CENTER, INC.



DWG. NO. BP\BORDER
 DRAWN: DKD
 DATE: JANUARY 12, 1993

2603 Corporate Avenue, Suite 100
 Memphis, Tennessee 38132

FIGURE 1
 SITE LOCATION DIAGRAM
 NAVAL AIR STATION MEMPHIS
 MILLINGTON, TENNESSEE

ATTACHMENT B

WORK PLAN

WORK PLAN

**NORTHSIDE DRUM SAMPLING
NAVAL AIR STATION MEMPHIS
MILLINGTON, TENNESSEE**

OCTOBER 1992

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1.0 INTRODUCTION

1.1 Introduction

The Naval Air Station - Memphis (NASMEM) is located in Millington, Shelby County, Tennessee (see *Figure 1 - Site Vicinity Map*). Due to previous and ongoing operations at the facility, various waste materials were collected in drums on the northside of the base. An inspection of the northside resulted in the discovery of 99 drums of unknown or undocumented content. In order to insure the proper disposition of these drums, analytical testing must be performed to characterize their contents. NASMEM personnel preliminarily identified the contents of most of the drums based on previous use and/or visual inspection. NASMEM issued delivery order # 0002 to ETI Corporation (ETI) under contract #N62467-92-D4507. As a subconsultant to ETI, Memphis Environmental Center, Inc. (MEC) has prepared this work plan, entitled *Work Plan, Northside Drum Sampling, Naval Air Station Memphis, Millington, Tennessee, October, 1992* ("Work Plan") to provide the procedures to be used to collect samples, conduct compatibility tests, develop composite samples, and analyze the composite samples for hazardous waste characterization in preparation for disposal.

1.2 Site Description

NASMEM personnel located 99 drums at nine different locations on the northside of NASMEM (see *Figure 2 - Drum Location Map*). Navy personnel have tentatively identified the contents of most of the drums based on user knowledge and/or visual observation. The site number and location, number of drums at each location, and suspected contents of each drum and drum identification numbers are listed in *Appendix A, Table 1 - Drum Site Information*.

2.0 SAMPLING PROCEDURES

2.1 Scope of Work

The scope of work for this project includes the following:

- Develop a work plan that includes sampling procedures, a health and safety plan, and a quality assurance/quality control plan;
- Conduct a start-up meeting between ETI, MEC, and NASMEM personnel;
- Collect samples from 99 drums on the Northside;
- Conduct compatibility testing and composite samples. As samples are composited, test for pH (if water based sample), organic vapor release with photo-ionization detector (PID), presence of chlorinated solvents using flame test, temperature change, and change in physical appearance;

- Submit composite samples (20 samples anticipated) for hazardous waste characterization (TCLP) and reactivity, corrosivity, and ignitability. Aqueous-based composite samples will be analyzed for total petroleum hydrocarbons (TPH) IN LIEU OF REACTIVITY, CORROSIVITY, AND IGNITABILITY. Oil-based composite samples (eight of the 20 samples) will also be analyzed for density, total solids, heating value, ash content, flash point, total organic halogens (TOX), and polychlorinated biphenyls (PCBs);
- Prepare hazardous waste profile sheets based on analytical results;
- Develop a summary report to include profile sheets, analytical data and disposal recommendations; and
- General project management.

2.2 Drum Sampling

2.2.1 Site Security and Preparation

Prior to sampling, each drum sampling location ("Site"), will be prepared to improve the safety and efficiency of drum sampling. Field monitoring will be implemented by employing an explosion meter, photoionization detector or an organic vapor analyzer (OVA).

2.2.2 Sampling Methodology

Disposable PVC pipes will be used to retrieve representative samples from each drum. Each drum will have a dedicated PVC pipe to be used only

for collecting samples from that specific drum. If the sample is found to be stratified, a sample will be taken of each strata. If material cannot be collected via a PVC pipe, other sampling methods (i.e. trowels, spoons, etc.) may be employed. Samples will be placed into two one-liter, wide-mouthed jars and placed in coolers. Based on observation of the material in each drum, an additional sample may be collected. Each sample will be identified with a unique number which will correspond to that particular drum. Both the sample and the drum will be labeled with this code and this will be recorded in a bound logbook. Before collection of each sample, clean latex gloves will be donned. If it is necessary to use a trowel, spoon, etc., they will be decontaminated before each use with a detergent wash followed by a tap water rinse. Decontamination water will be collected and disposed in the NASMEM sanitary sewer system.

NASMEM Public Works Environmental Division personnel will be notified of drums that are leaking, severely corroded or have questionable structural integrity.

2.3 Compatibility Testing

Samples will be tested for compatibility by mixing portions of the samples and checking for changes in physical appearance, pH (if water based sample), heat,

emission of organic vapors, and presence of chlorinated solvents. Once compatibility is determined, composite samples will be forwarded to the MEC laboratory and analyzed in accordance with *Section 3.2* of this *Work Plan*. Some analyses may be conducted by another laboratory under the direction of MEC personnel.

2.4 Sample Composition and Submission for Analysis

Composite samples will be submitted to the laboratory for hazardous waste characterization analysis including TCLP and Ignitability, Reactivity and Corrosivity (I,R,C) as indicated in *Part II.2 of DRMS Form 1930* (see *Appendix A - Hazardous Waste Profile Sheet*). In addition, composite samples that are oil-based and amenable for fuel recovery will be analyzed for density, total solids, heating value, ash content, flash point, total organic halides (TOXs), and polychlorinated biphenyls (PCBs). If samples appear to be primarily aqueous-based with minor contaminants, then total petroleum hydrocarbons (TPH) analysis will be conducted in lieu of I,R,C analysis. This TPH analysis is designed to determine if disposal to the City of Millington Sewage Treatment Plant via an onsite oil/water separator is acceptable.

2.5 Report

At the completion of field sampling, sample composition, and laboratory analysis a report will be prepared. This report will document field activities,

compatibility testing, provide summaries of chemical analyses as well as actual laboratory reports, include complete hazardous waste profile sheets for the wastes determined to meet the definition of a characteristic hazardous waste, and provide recommendations for the disposal of each waste stream.

2.6 Preparation of Profile Sheets

Data developed from the analytical testing of the sample composites will be incorporated into hazardous waste profile sheets supplied by NASMEM Public Works Environmental Division (see *Appendix B*).

3.0 QUALITY ASSURANCE AND QUALITY CONTROL

Verifiable sample custody is an integral part of field and laboratory operations. Several steps will be taken in the field to document that samples collected have been properly acquired, preserved and identified. The following sections describe these steps in detail.

3.1 Field Sampling Documentation

3.1.1 Documentation of Sample Acquisition

A key piece of information that will be documented is the data on the sample acquisition. Information pertinent to field observations and sampling will be recorded in a bound logbook and a photolog will be taken during actual sampling activities. Entries in the logbook will include at least the following information:

- Site location of sampling activity;
- Type of material (solid, liquid, etc.);
- Approximate volume of sample collected from each drum;
- Approximate volume of material contained in each drum;
- Drum identification number;
- Date and time of collection;
- Sample identification number(s);
- Field observations;
- Weather conditions; and
- Sampler's name.

3.1.2 Documentation of Composite Samples

Pertinent information will be collected when conducting compatibility tests and compositing the samples. This information will be entered into the logbook and will include the following:

- Composite sample identification number;
- Drum sample numbers comprising each composite sample;
- Date sample was composited;
- Sample technician's name;
- Results of compatibility testing; and
- Types of analyses to be conducted on each sample composite.

3.1.3 Chain-of-Custody

In addition to the field logbook, each sample collected and submitted for compatibility analysis will be recorded on a chain-of-custody record. An identifying code will be assigned to each sample and this code will be used on the chain-of-custody and in the logbook.

After samples have been composited, a new chain-of-custody will be developed for these samples. An identifying code will be assigned to each composite sample and this code will be used on the chain-of-custody and in the logbook. Chain-of-custody forms will become the permanent records of sample handling and shipment. A sample chain-of-custody form is provided in *Appendix C*.

A sample is considered to be in custody if it is:

1. In the field personnel's or transferee's actual possession;
2. In the field personnel's or transferee's view, after being in actual possession;
3. Secured to prevent tampering after being in physical possession;
or
4. Placed in a designated secure area.

The person collecting a sample will initiate the document(s) at the source of the sample and start the chain-of-custody procedure. Chain-of-custody documentation for samples collected from each drum will include the following applicable data:

- Field sample number and site name;
- Date sample taken;
- Date sample submitted for compatibility testing;
- Sample taken by (signature);
- Number and type of shipping containers;
- Sample containers (number, type, etc.); and
- Signature of persons relinquishing and obtaining custody of samples.

The person compositing the samples will start a new chain-of-custody procedure for each composite sample. Chain-of-custody documentation for the composite samples will include the following applicable data:

- Site name;
- Composite sample number;
- Date sample was composited;
- Date composite sample submitted for analysis;

- Sample composited by (signature);
- Number and type of shipping containers;
- Sample containers (number, type, etc.);
- Type of analyses to be conducted; and
- Signature of persons relinquishing and obtaining custody of composite samples.

The samples will be kept in sealed coolers or locked storage until custody is relinquished and formal documentation of the transfer is completed.

The ETI/MEC Site Manager will be responsible for sample security, storage, shipment, and completing the sample accountability records. Upon each transfer of custody, the person involved will verify sample numbers and condition and will document the sample acquisition and transfer. The ETI/MEC Site Manager or his designee will properly package the samples and document the shipping method. Documentation for the shipment such as a certified mail receipt or bill of lading number and copies of the chain of custody will be maintained by field personnel.

3.1.4 Labels

Samples will be labeled immediately after collection. The label will carry information such as:

- Project name;
- Date and time of sampling;
- Collector's sample number (this number must be identical with the number on the chain-of-custody); and
- Drum identifier number from which sample was collected.

A clean jar and new label will be used for the composite sample.

Information on the label of the composite sample will include:

- Project name;
- Type of analyses;
- Date of sample composition;
- Composite sample identification number; and
- Drum numbers comprising composite sample.

3.1.5 Laboratory Receipt of Samples

Upon receipt of composite samples by the laboratory, sample containers will be checked for signs of tampering. The custody seals will be verified, and the samples checked for breakage. The person involved with the transfer of custody must be in agreement with the corresponding chain-of-custody form. The chain-of-custody form shall accompany the samples throughout the analysis program until final disposition has been approved.

3.2 Analytical Protocol

Each composite sample submitted to the laboratory will be analyzed for hazardous waste characterization (TCLP), *method SW846-1311*; ignitability, *method SW846-1010*; corrosivity, *method SW846-9040 (liquid) or method SW846-9045 (solid)*; and reactivity, *method 846-Section 7.3.3.2 and method 846-Section 7.3.4.2*. Total petroleum hydrocarbons (TPH) analysis, *method SM-503-B-D-E*, will be conducted in lieu of I,R,C analysis if sample is primarily aqueous-based. In addition to TCLP with I,R,C analysis, oil-based samples will be analyzed for density, *method AOAC 920-212*; total solids, *method EPA 160.2*; heating value, *method ASTM D3286-73*; ash content, *method AOAC 942.05*; flash point, *method SW846-1010 (solid) and method ASTM D93 (liquid)*; total organic halides (TOX), *method SW846-9020*; total organic carbon (TOC), *method SW846-9060*; and polychlorinated biphenyls (PCBs), *method 846-8080*.

4.0 HEALTH AND SAFETY

This section establishes guidelines and requirements for the safety of personnel involved with sampling of drums and conductance of compatibility tests associated with this project. Employees of ETI, MEC, and other personnel associated with the work are required to abide by the provisions set forth in this section.

The health and safety guidelines and requirements presented are based on review of available information and an evaluation of potential hazards and have been developed to minimize the potential for exposure of field personnel to potentially hazardous materials. Modifications may be made as additional information is obtained.

4.1 Potential Hazards

4.1.1 Chemical Exposure

Preventing exposure to potentially toxic chemicals is a primary concern. The constituents of concern for this project are unknown and care should be taken when handling the material. In general, all potentially contaminated materials should be considered toxic by ingestion, inhalation, skin absorption or eye contact. Contact with bare skin and eyes should be avoided. Contact should be immediately followed with thorough decontamination. Contaminated clothing, gloves, boots, disposables and other apparel should be disposed in an environmentally safe manner.

4.1.2 Physical Safety Hazards

Physical safety hazards common to this site could include limited work spaces and slippery surfaces. In addition, inherent hazards are associated with

drum sampling including removal of lids, moving drums, working with hand tools, etc. Personnel on site will be required to wear steel-toed boots. Workers must be cognizant of these conditions to avoid falling, smashing fingers between drums, etc.

4.1.3 Heat Stress

Heat stress can be a major health hazard. Workers in protective clothing are at the highest risk. Activities will be planned to minimize work in temperature extremes. In its early stages, heat stress can cause rashes, cramps, discomfort, and drowsiness, resulting in impaired functional ability that threatens the safety of both the individual and co-workers. Continued heat stress can lead to heat stroke and death. Signs of heat stress will be monitored.

4.1.4 Cold Exposure

Cold injury (frostbite and hypothermia) and impaired ability to work are dangers at low temperatures and when the wind-chill factor is low. Activities will be planned to minimize work in temperature extremes. Signs of cold injury include shivering, dizziness, impaired vision, and drowsiness. To

guard against cold injury, workers will be required to wear appropriate clothing. A warm shelter will be available as required.

4.1.5 Fire/Explosion Hazards

Workers should be aware that some of the contents of these vessels may be pressurized and could pose an explosion threat. The drums should be observed for signs of pressure including bulging sides, tops, etc. The work area, and individual drums as required, will be checked with an explosion meter and photo-ionization meter before sampling. One person shall always be responsible for monitoring for vapors and gases.

4.2 Notification

Before any work is conducted at the Site, ETI will notify the NASMEM Health and Fire Departments as a precautionary measure. Information regarding the work to be conducted and schedule of activities will be communicated to NASMEM Public Works Environmental Division personnel.

4.3 Employee Training

Personnel on site will be trained in accordance with "29 CFR 1910.120 Hazardous Waste Operations and Emergency Responses," in accordance with "(e) Training". Specifically, all workers will have successfully attended and completed a minimum of 40 hours of off site training and a minimum of three days of actual field experience under the direct supervision of a trained, experienced supervisor. Workers who may be exposed to unique or special hazards shall be provided with additional training. The level of training provided shall be consistent with the employee's job function and responsibilities. On-site management and supervisors directly responsible for, or who supervise employees engaged in hazardous waste operations, shall receive at least eight additional hours of training. Workers, managers, and supervisors must also successfully complete an annual refresher course on the items covered in the worker training and the supervisor training. Site personnel will be trained on site-specific hazards, site conditions, emergency operating procedures as well as other pertinent topics prior to job initiation. In addition, field personnel will be trained in multimedia first aid and CPR.

4.4 Medical Surveillance

Personnel involved in the sampling event will be enrolled in a medical surveillance program in compliance with *29 CFR 1910.120(f)*. Medical surveillance is required prior to conducting work as required by this Plan. As a minimum, there will be a baseline physical, annual physical and termination physical. The baseline, annual, and termination physical will be administered by a licensed physician and shall be provided without cost to the employee, without loss of pay, and at a reasonable time and place.

The employer shall obtain and furnish the employee with a copy of a written opinion from the examining physician containing: a) the results of the medical examination and tests if requested by the employee; b) the physician's opinion as to whether the employee has any detected medical condition which would place the employee at increased risk of material impairment of the employee's health from work in hazardous waste operations for which respiratory protection is required; c) the physician's recommended limitations upon the employee's assigned work, and d) a statement that the employee has been informed by the physician of the results of the medical examination and any medical conditions which require further examination or treatment. The written opinion obtained by the employer shall not

reveal specific findings or diagnoses unrelated to occupational exposure. Records of the medical surveillance shall be kept by the employer for at least 30 years.

4.5 Personal Protective Equipment

The following personal protective equipment (PPE) will be used for the sampling event at the Site.

LEVEL C

- Air-purifying, full face respirator with organic vapor particulate matter cartridges
- Tyvek suit
- Work gloves
- Steel-toed boots
- Disposable booties
- Hardhat

4.6 Decontamination

Decontamination is the process of removing or neutralizing possible constituents that may have accumulated on personnel and equipment. Decontamination protects workers from hazardous substances that may contaminate and eventually permeate the personal protective equipment (PPE), tools, vehicles and other equipment used on site. It protects personnel by minimizing the transfer of

harmful materials into clean areas and it helps to prevent mixing of incompatible chemicals.

Workers will leave the work area through a designated decontamination area. Used PPE will be placed in plastic bags to be transported to the local municipal landfill for disposal. Personnel should wash their hands and face with an Alconox soap/water mixture and rinse with tap water before leaving the Site. Personnel should shower as soon as practical after leaving NASMEM.

4.7 Emergency Response Plan

Emergency equipment will be maintained by sampling personnel including a first-aid kit and a fire extinguisher. In addition, the route to the nearest hospital and the NASMEM infirmary will be shown on a diagram and kept by the sampling personnel. Emergency containment equipment will be maintained by the sampling personnel including adsorbent material, a shovel, storage drum, absorbent pads and booms.

APPENDIX A

TABLE 1 - DRUM SITE INFORMATION

TABLE 1

Drum Site Information

SITE	LOCATION	# OF DRUMS	DESCRIPTION	DRUM ID
N-1	Auto Hobby Shop and National Guard Area	5	1 kitty litter 2 trash/oil-30 gal 1 30 wt oil 1 held floor wax-empty	784.00 785.00, 786.00 7700.01 7700.02
N-2	N-338 Fuel Farm	4	1 unknown/possible fuel-full 1 possible OWS sludge-1/2 full 1 OWS sludge 1 lube oil-1/3 full	700.00 701.00 1622.03 7753.00
N-3	Building N-94 and N-899	6	5 soil/water mix 1 oil sponges	740.00-744.00 751.00
N-4	Building N-16	29	10 protein foam 10 PKP/ABC-full 1 used oil 1 rainwater/possible oil mix-3/4 full 2 sludge from OWS 1 pine oil cleaner 2 AFFF 2 unknown-empty	754.00-763.00 764.00-766.00, 769.00-775.00 767.00 768.00 776.00, 777.00 780.00 781.00, 782.00 7729.00, 7730.00
N-5	Building N-12	27	1 old lithium bromide drum-empty 1 held lube oil-empty 6 no information available-empty 1 water\transformer oil mix-1 qt 1 old oil drum-empty 1 held ethylene glycol-empty 2 unknown-1 empty 1 tar residue-empty 3 held soap skin cleanser-empty 5 possibly held wax-empty 5 held PKP-empty	5.00 14.00 15.00,16.00,230.00,231.00,504.00,7700.00 77.00 84.00 227.00 502.00, 747.00 752.00 791.01, 795.00, 797.00 793.00, 794.00, 796.00, 798.00, 799.00 7734.00-7738.00
N-6	Building N-110	13	10 used glycol-6 full 2 diesel 1 held glycol-empty	7701.00-7709.00, 7712.00 7710.00, 7711.00 7754.00
N-7	Building N-1552	9	2 old 1 gal paint cans 2 floor wax-full 1 cleaning compound-full 1 petroleum products-approx 1 gal 2 unknown-empty 1 unknown solid/gel	610.00, 611.00 612.00, 614.00 613.00 615.00 616.00, 617.00 618.00
N-8	Building N-100	4	4 unknown fluid	602.00-605.00
N-10	Navy Lake	2	1 diesel fuel 1 fuel oil	547.00 601.00

APPENDIX B

HAZARDOUS WASTE PROFILE SHEETS

TOXICITY CHARACTERISTIC LIST

EFFECTIVE 25 SEP 90 - LARGE QUANTITY GENERATORS
29 MAR 91 - SMALL QUANTITY GENERATORS

CONTAMINANT	EPA HW No.	(mg/L)	CONTAMINANT	EPA HW No.	(mg/L)
<input type="checkbox"/> ARSENIC	D004	_____	<input type="checkbox"/> HEXACHLORO-1,3,-BUTADIENE	D033	_____
<input type="checkbox"/> BARIUM	D005	_____	<input type="checkbox"/> HEXACHLOROETHANE	D034	_____
<input type="checkbox"/> BENZENE	D018	_____	<input type="checkbox"/> LEAD	D008	_____
<input type="checkbox"/> CADMIUM	D006	_____	<input type="checkbox"/> LINDANE	D013	_____
<input type="checkbox"/> CARBON TETRACHLORIDE	D019	_____	<input type="checkbox"/> MERCURY	D009	_____
<input type="checkbox"/> CHLORDANE	D020	_____	<input type="checkbox"/> METHOXYCHLOR	D014	_____
<input type="checkbox"/> CHLOROBENZENE	D021	_____	<input type="checkbox"/> METHYL ETHYL KETONE	D035	_____
<input type="checkbox"/> CHLOROFORM	D022	_____	<input type="checkbox"/> NITROBENZENE	D036	_____
<input type="checkbox"/> CHROMIUM	D007	_____	<input type="checkbox"/> PENTACHLOROPHENOL	D037	_____
<input type="checkbox"/> O-CRESOL	D023	_____	<input type="checkbox"/> PYRIDINE	D038	_____
<input type="checkbox"/> M-CRESOL	D024	_____	<input type="checkbox"/> SELENIUM	D010	_____
<input type="checkbox"/> P-CRESOL	D025	_____	<input type="checkbox"/> SILVER	D011	_____
<input type="checkbox"/> CRESOL	D026	_____	<input type="checkbox"/> TETRACHLOROETHYLENE	D039	_____
<input type="checkbox"/> 2,4-D	D016	_____	<input type="checkbox"/> TOXOPHENE	D015	_____
<input type="checkbox"/> 1,4-DICHLOROENZENE	D027	_____	<input type="checkbox"/> TRICHLOROETHYLENE	D040	_____
<input type="checkbox"/> 1,2-DICHLOROETHANE	D028	_____	<input type="checkbox"/> 2,4,5-TRICHLOROPHENOL	D041	_____
<input type="checkbox"/> 1,1-DICHLOROETHYLENE	D029	_____	<input type="checkbox"/> 2,4,6-TRICHLOROPHENOL	D042	_____
<input type="checkbox"/> 2,4-DINITROTOLUENE	D030	_____	<input type="checkbox"/> 2,45-TP (SILVEX)	D017	_____
<input type="checkbox"/> ENDRIN	D012	_____	<input type="checkbox"/> VINYL CHLORIDE	D043	_____
<input type="checkbox"/> HEPTACHLOR (AND ITS HYDROXIDE)	D031	_____			
<input type="checkbox"/> HEXACHLOROBENZENE	D032	_____			

PART III

FOR DRMO USE ONLY

DRMO VERIFICATION

1. DATE VERIFIED _____

2. RESULTS ATTACHED

pH _____ FLASH POINT _____ SPECIFIC GRAVITY _____ HALIDES (TOX) _____

REACTIVITY: WATER REACTIVITY _____ CYANIDES _____ SULFIDES _____

TCLP _____

APPENDIX C

SAMPLE CHAIN OF CUSTODY FORM

ATTACHMENT C
TABLES 1 THROUGH 7

TABLE 1 - PAGE 1**NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS****Naval Air Station - Memphis
Millington, Tennessee**

Site	Drum	Reason Not Sampled
N-1	785.00	RCRA empty
N-1	787.00	RCRA empty
N-1	7700.01	Previously Removed by NASMEM Personnel
N-1	7700.02	RCRA empty
N-2	1622.03	Previously Removed by NASMEM Personnel
N-4	761.00	RCRA empty
N-4	762.00	RCRA empty
N-4	776.00	Previously Removed by NASMEM Personnel
N-4	777.00	Previously Removed by NASMEM Personnel
N-4	7729.00	RCRA empty
N-4	7730.00	RCRA empty
N-5	5.00	RCRA empty
N-5	16.00	RCRA empty
N-5	77.00	RCRA empty
N-5	84.00	RCRA empty
N-5	227.00	RCRA empty
N-5	231.00	RCRA empty
N-5	504.00	RCRA empty
N-5	747.00	Previously Removed by NASMEM Personnel
N-5	752.00	RCRA empty
N-5	793.00	RCRA empty
N-5	794.00	RCRA empty
N-5	795.00	RCRA empty

TABLE 1 - PAGE 2**NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS****Naval Air Station - Memphis
Millington, Tennessee**

Site	Drum	Reason Not Sampled
N-5	796.00	RCRA empty
N-5	797.00	RCRA empty
N-5	798.00	RCRA empty
N-5	799.00	RCRA empty
N-5	7734.00	RCRA empty
N-5	7735.00	RCRA empty
N-5	7736.00	RCRA empty
N-5	7737.00	RCRA empty
N-6	7710.00	RCRA empty
N-6	7711.00	RCRA empty
N-6	7754.00	RCRA empty
N-7	616.00	RCRA empty
N-7	617.00	RCRA empty
N-8	604.00	RCRA empty
N-8	605.00	RCRA empty

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**NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS
PRELIMINARY EVALUATION**

Naval Air Station - Memphis
Millington, Tennessee

EVALUATION DATE	DRUM ID	SAMPLE ID NO.	PHYSICAL DESCRIPTION	HEADSPACE ORGANIC VAPOR CONCENTRATION (ppm)	Number of Phases	WATER SOLUBLE? (For Each Phase)	pH	BEILSTEIN METHOD FOR CHLORINE
11-17-92	14	111192-DH-130	White-gray emulsion in upper phase; light gray water in bottom phase	<1	2	Top Phase - No	NA	Negative
						Bottom Phase - yes	7.8	
11-17-92	756 Inner	123	Pale yellow, soapy	7	1	Yes	9.4	Negative
11-17-92	759 Inner	124	Dark brown, oily	4	1	Yes	6.5	Negative
11-17-92	230	126	Dark pink	6	1	No	7.5	Negative
11-17-92	791.01	111192-DH-128	Pink, soapy liquid with white semi-solid on bottom	7.7	2	Top Phase - Yes	8.7	Negative
						Bottom Phase - No	NA	
11-17-92	754 Inner	110	Dark, watery	<1	1	Yes	6.3	Negative
11-17-92	755 Outer	113	Clear	<1	1 dark residue	Yes	5.8	Negative
11-17-92	755 Inner	114	Darker	187	1	Yes	6.9	Negative
11-17-92	763 Outer	112	Dark, foamy, watery	5.9	1	Yes	6.2	Negative
11-17-92	763 Inner	120	Dark, watery	6.7	1	Yes	7.0	Negative
11-17-92	758 Inner	121	Dark, very viscous	35.4	1	No	-	Negative
11-17-92	760 Inner	122	Dark, watery	27.1	1	Yes	7.0	Negative
11-17-92	757 Inner	115	Dark	16.2	1	Yes	7.0	Negative
11-17-92	757 Outer	116	Clear	2.0	1 residue at bottom	Yes	7.2	Negative
11-17-92	756 Outer	119	Clear	0	1	Yes	5.5	Negative
11-17-92	7738	109	Pale	0.8	1	Yes	9.4	Negative

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**NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS
PRELIMINARY EVALUATION**

Naval Air Station - Memphis
Millington, Tennessee

EVALUATION DATE	DRUM ID	SAMPLE ID NO.	PHYSICAL DESCRIPTION	HEADSPACE ORGANIC VAPOR CONCENTRATION (ppm)	Number of Phases	WATER SOLUBLE? (For Each Phase)	pH	BEILSTEIN METHOD FOR CHLORINE
11-17-92	758 Outer	111	Dark	6	1	Yes	5.6	Negative
11-17-92	759 Outer	117	Pale	1.1	1	Yes	6.3	Negative
11-17-92	760 Outer	118	Pale clear	1.1	1	Yes	6.1	Negative
11-17-92	775	149	Gray powder, fine	1	1	No	-	Negative
11-17-92	502	130	Pale liquid	0	1	Yes	9.3	Negative
11-17-92	765	151	Sulfur-like powder	<0	1	No	-	Negative
11-17-92	766	152	Pale solution	2	1	Yes	9.6	Negative
11-17-92	764	150	Gray powder, fine	1	1	No	-	Negative
11-17-92	767	111292-DH-146	Oil on top; clear water-like liquid on bottom	3	2	Top Phase - No	NA	Negative
						Bottom Phase - Yes	6.3	
11-17-92	780	111292-DH-154	Oil on top, water-like material with suspended brown particles on bottom	220	2	Top Phase - No	NA	Negative
						Bottom Phase - Yes	4.6	
11-17-92	766	152	Pale Solution	2	1	Yes	9.6	Negative
11-17-92	7709	111292-DH-140	Dark brown oil on top; clear water-like liquid on bottom	100	2	Top phase - No	NA	Negative
						Bottom phase - Yes	-	
11-17-92	7712	111292-DH-139	Brown paper-like solid	<1	1	No	NA	Negative
11-17-92	7708	136	Orange-red solution	<1	1	No	7.4	Negative
11-17-92	768	111292-DH-141	Orange-red liquid with red suspended solids	<1	1	Yes	6.7	Negative

TABLE 2 - Page 3

**NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS
PRELIMINARY EVALUATION**

Naval Air Station - Memphis
Millington, Tennessee

EVALUATION DATE	DRUM ID	SAMPLE ID NO.	PHYSICAL DESCRIPTION	HEADSPACE ORGANIC VAPOR CONCENTRATION (ppm)	Number of Phases	WATER SOLUBLE? (For Each Phase)	pH	BEILSTEIN METHOD FOR CHLORINE
11-18-92	781	156	Sulfur in water	1	2	Yes	5.3	Negative
11-18-92	782	155	Sulfur and solid	<1	1	No	-	Negative
11-18-92	766(Bag)	111292-DH-153	Purple powder floating on top of clear water-like liquid	<1	2	Top Phase - No	NA	Negative
						Bottom Phase - Yes	9.6	
11-18-92	769	142	Gray/pinkish powder	3	1	No	-	Negative
11-18-92	770	143	Gray/pinkish powder	<1	1	No	-	Negative
11-18-92	771	144	Gray/pinkish powder	3	1	No	-	Negative
11-18-92	772	111292-DH-145	Fine grey-pink powder; particles possibly electrostatic and were shifting in container	<1	1	No	NA	Negative
11-18-92	773	145	Gray/pink powder	3	1	No	-	Negative
11-18-92	774	148	Gray/pink powder	3	1	No	-	Negative
11-18-92	700	158	Yellow clear liquid	220	1	No	6.3	Negative
11-18-92	601	160	Clear oily liquid	220	1	No	6.5	Negative
11-18-92	701	111392-DH-157	White-grey emulsion on top of water-like liquid	<1	2	Top Phase - No	NA	Negative
						Bottom Phase - Yes	6.5	
11-18-92	547	161	Dark oil	220	1	No	-	Negative
11-18-92	7753	159	Dark oil	180	1	No	-	Negative
11-18-92	7701	137	Orange water	<1	1	Yes	7.5	Negative
11-18-92	7702	133	Orange water	<1	1	Yes	8.1	Negative

TABLE 2 - Page 4

**NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS
PRELIMINARY EVALUATION**

Naval Air Station - Memphis
Millington, Tennessee

EVALUATION DATE	DRUM ID	SAMPLE ID NO.	PHYSICAL DESCRIPTION	HEADSPACE ORGANIC VAPOR CONCENTRATION (ppm)	Number of Phases	WATER SOLUBLE? (For Each Phase)	pH	BEILSTEIN METHOD FOR CHLORINE
11-18-92	7703	132	Orange water	<1	1	Yes	7.5	Negative
11-18-92	7704	131	Orange water	<1	1	Yes	7.6	Negative
11-18-92	7706	135	Orange water	<1	1	Yes	7.6	Negative
11-18-92	7705	134	Clear water	<1	1	Yes	7.5	Negative
11-18-92	751	095	Dark gravel-like	7	1	No	-	Negative
11-18-92	610A	111092-DH-108	Brown oil material on top of water-like material with suspended brown solids	140	2	Top Phase - No	NA	Negative
						Bottom Phase - Yes	7.5	
11-25-92	610B	111092-DH-108	Dark brown oil on top of clear water-like liquid	-	2	Top Phase - No	-	-
						Bottom Phase - Yes	-	
11-25-92	610C	111092-DH-108	Dark brown oil on top; paint residue in middle; water-like liquid on bottom	-	3	Top Phase - No	-	-
						Middle Phase - No	-	
						Bottom Phase - Yes	-	
11-25-92	610D	111092-DH-108	Oil-water emulsion on top of paint residue	-	2	Top Phase - No	-	-
						Bottom Phase - Yes	-	
11-25-92	610E	111092-DH-108	Water-like liquid	-	1	Yes	-	-
11-25-92	610F	111092-DH-108	Oil on top and paint residue on bottom with a water-like middle layer	-	3	Top Phase - No	-	-
						Middle Phase - Yes	-	
						Bottom Phase - No	-	

TABLE 2 - Page 5

**NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS
PRELIMINARY EVALUATION**

**Naval Air Station - Memphis
Millington, Tennessee**

EVALUATION DATE	DRUM ID	SAMPLE ID NO.	PHYSICAL DESCRIPTION	HEADSPACE ORGANIC VAPOR CONCENTRATION (ppm)	Number of Phases	WATER SOLUBLE? (For Each Phase)	pH	BEILSTEIN METHOD FOR CHLORINE
11-18-92	611	111092-DH-107	Brown oil material on top of clear water-like liquid	140	2	Top Phase - No	NA	Negative
						Bottom Phase - Yes	6.2	
11-18-92	741	097	Clear watery sludge at bottom	<1	1	Yes	8	Negative
11-18-92	784	101	Gravel, dark, oily	3.5	1	No	-	Negative
11-18-92	740	096	Clear water, sludge at bottom	<1	1	Yes	8.5	Negative
11-18-92	602	093	Clear water with sludge	25	1	Yes	7.5	Negative
11-18-92	743	099	Clear water with sludge	<1	1	Yes	8.3	Negative
11-18-92	744	100	Clear water with sludge	<1	1	Yes	7.5	Negative
11-18-92	742	098	Clear water with sludge	<1	1	Yes	7.6	Negative
11-18-92	603	094	Black pasty solid	2	1	Semi-soluble	-	Negative
11-18-92	618	106	Black oil	200	1	No	-	Negative
11-18-92	612	104	White liquid	15.5	1	No	1	Negative
11-18-92	614	105	White liquid	20	1	No	-	Negative
11-18-92	615	102	Black oil	200	1	No	-	Negative
11-18-92	613	103	Brown viscous oil	2	1	No	-	Negative
11-17-92	7707	138	Orange-red liquid	<1	1	Yes	7.2	Negative

TABLE 3

**NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS
COMPOSITE SAMPLES**

**Naval Air Station - Memphis
Millington, Tennessee**

Composite	Drums Comprising Sample	Type of Matrix
112092-DH-001	14, 502, 701, 740, 741, 742, 743, 744, 756 outer, 757 outer, 768, 7738*	Water
112492-DH-002	602, 612, 614, 755 outer, 756 inner*, 760 outer, 766, 766.00 bag, 767, 780*, 781, 791.01	Water
112492-DH-003	547, 601, 700, 7753	Fuels
112492-DH-004	230*, 754 inner, 755 inner*, 757 inner*, 758 outer, 759 inner, 759 outer, 760 inner*, 763 inner, 763 outer	Light oils
112492-DH-005	7701, 7702, 7703, 7704, 7705, 7706, 7707, 7708	Orange water
112492-DH-006	613, 615, 7709	Heavy oils
112092-DH-007	14, 502, 701, 740, 741, 742, 743, 744, 756 outer, 757 outer, 768, 7738	Semi-solids Lightweight
112492-DH-008	602, 755 outer, 756 inner, 760 outer, 766, 767, 780, 781, 791.01	Semi-solids Lightweight
112492-DH-009	603	Dry oily sludge
112492-DH-010	618	Wet oily sludge
112492-DH-011	751, 784*	Dry brown granules
112492-DH-012	764, 765, 766, 769, 770, 771, 772, 773, 774, 775, 782	Dry colloidal powder
112492-DH-013	7712	Dry paper-like material
112592-DH-014	610, 611	Water
112592-DH-015	610, 611	Non-aqueous liquid
112592-DH-016	610, 611	Sludge

* Sampling rendered drum RCRA Empty

outer = material sampled from between outer drum and inner containment

inner = material sampled from inner containment

bag = sample taken from plastic bag inside drum

TABLE 4 - Page 1
 NORTHSIDE HAZARDOUS WASTE CHARACTERIZATION ANALYTICAL RESULTS (ppm)

TCLP CONSTITUENT	REGULATORY LEVEL	SAMPLE ID NO. 112092-DH-001		SAMPLE ID NO. 112492-DH-002		SAMPLE ID NO. 112492-DH-003	
		TCLP CONCENTRATION	DETECTION LIMIT	TCLP CONCENTRATION	DETECTION LIMIT	TCLP CONCENTRATION	DETECTION LIMIT
Benzene	0.5 ppm	ND	0.05	ND	2.5	122	71.5
Carbon Tetrachloride	0.5 ppm	ND	0.05	ND	2.5	ND	71.5
Chlorobenzene	100.0 ppm	ND	0.05	ND	2.5	ND	71.5
Chloroform	6.0 ppm	ND	0.05	ND	2.5	ND	71.5
1,4-Dichlorobenzene	7.5 ppm	ND	0.05	ND	2.5	ND	71.5
1,2-Dichloroethane	0.5 ppm	ND	0.05	ND	2.5	ND	71.5
1,1-Dichloroethylene	0.7 ppm	ND	0.05	ND	2.5	ND	71.5
Methylethyl Ketone	200.0 ppm	ND	0.50	ND	25.0	ND	715
Tetrachloroethylene	0.7 ppm	ND	0.05	ND	2.5	ND	71.5
Trichloroethylene	0.5 ppm	ND	0.05	ND	2.5	ND	71.5
Vinyl Chloride	0.2 ppm	ND	0.10	ND	5.0	ND	143
Cresols	200.0 ppm	ND	1.0	ND	10,000	ND	250,000
2,4-Dinitrotoluene	0.13 ppm ☉	ND	0.50	ND	5,000	ND	125,000
Hexachlorobenzene	0.13 ppm ☉	ND	0.50	ND	5,000	ND	125,000
Hexachlorobutadiene	0.5 ppm	ND	0.50	ND	5,000	ND	125,000
Hexachloroethane	3.0 ppm	ND	0.50	ND	5,000	ND	125,000
Nitrobenzene	2.0 ppm	ND	0.50	ND	5,000	ND	125,000
Pentachlorophenol	100.0 ppm	ND	1.0	ND	10,000	ND	250,000
Pyridine	5.0 ppm ☉	ND	0.50	ND	5,000	ND	125,000
2,4,5-Trichlorophenol	400.0 ppm	ND	1.0	ND	10,000	ND	250,000
2,4,6-Trichlorophenol	2.0 ppm	ND	1.0	ND	10,000	ND	250,000
Arsenic	5.0 ppm	ND	0.05	ND	0.05	ND	1.0
Barium	100.0 ppm	ND	5.0	ND	5.0	ND	20.0
Cadmium	1.0 ppm	ND	0.025	ND	0.025	ND	0.5
Chromium	5.0 ppm	1.26	1.0	ND	1.0	ND	1.0
Lead	5.0 ppm	ND	0.25	ND	0.25	ND	5
Mercury	0.2 ppm	ND	0.002	ND	0.02	ND	0.2
Selenium	1.0 ppm	ND	0.025	ND	0.025	ND	0.5
Silver	5.0 ppm	ND	0.10	ND	0.10	ND	2.0
BHC, gamma (Lindane)	0.4 ppm	ND	0.0002	ND	0.0002	ND	12.5
Chlordane	0.03 ppm	ND	0.002	0.0271	0.002	ND	250
Endrin	0.02 ppm	ND	0.0002	ND	0.0002	ND	12.5
Heptachlor	0.008 ppm	ND	0.0002	ND	0.0002	ND	12.5
Heptachlor Epoxide	0.008 ppm	ND	0.0002	ND	0.0002	ND	12.5
Methoxychlor	10.0 ppm	ND	0.002	ND	0.002	ND	125
Toxaphene	0.5 ppm	ND	0.02	ND	0.02	ND	1250
2,4 D	10.0 ppm	ND	0.125	ND	100	ND	1.25
Silvex (2,4,5-Silvex)	1.0 ppm	ND	0.025	ND	20.0	ND	0.25
Ignitability	< 140° F	> 140° F	NA	127° F	NA	> 140°	NA
Corrosivity (pH units)	< 2.0 / > 12.5	6.45	NA	8.75	NA	7.43	NA
Reactivity-Cyanide (reactive)	> 250 ppm	ND	1	ND	1	ND	1
Reactivity-Sulfide (reactive)	> 500 ppm	ND	1	ND	1	ND	10

TABLE 4 - Page 2
NORTHSIDE HAZARDOUS WASTE CHARACTERIZATION ANALYTICAL RESULTS (ppm)

TCLP CONSTITUENT	REGULATORY LEVEL	SAMPLE ID NO. 112492-DH-004		SAMPLE ID NO. 112492-DH-005		SAMPLE ID NO. 112492-DH-006-SOLID	
		TCLP CONCENTRATION	DETECTION LIMIT	TCLP CONCENTRATION	DETECTION LIMIT	TCLP CONCENTRATION	DETECTION LIMIT
Benzene	0.5 ppm	ND	0.25	ND	0.05	0.749	0.10
Carbon Tetrachloride	0.5 ppm	ND	0.25	ND	0.05	ND	0.10
Chlorobenzene	100.0 ppm	ND	0.25	ND	0.05	ND	0.10
Chloroform	6.0 ppm	ND	0.25	ND	0.05	ND	0.10
1,4-Dichlorobenzene	7.5 ppm	ND	0.25	ND	0.05	ND	0.10
1,2-Dichloroethane	0.5 ppm	ND	0.25	ND	0.05	ND	0.10
1,1-Dichloroethylene	0.7 ppm	ND	0.25	ND	0.05	ND	0.10
Methylethyl Ketone	200.0 ppm	ND	2.5	ND	0.50	ND	1.0
Tetrachloroethylene	0.7 ppm	ND	0.25	ND	0.05	ND	0.10
Trichloroethylene	0.5 ppm	ND	0.25	ND	0.05	ND	0.10
Vinyl Chloride	0.2 ppm	ND	0.50	ND	0.10	ND	0.20
Cresols	200.0 ppm	ND	1.0	ND	250,000	ND	1.0
2,4-Dinitrotoluene	0.13 ppm ◊	ND	0.50	ND	125,000	ND	0.50
Hexachlorobenzene	0.13 ppm ◊	ND	0.50	ND	125,000	ND	0.50
Hexachlorobutadiene	0.5 ppm	ND	0.50	ND	125,000	ND	0.50
Hexachloroethane	3.0 ppm	ND	0.50	ND	125,000	ND	0.50
Nitrobenzene	2.0 ppm	ND	0.50	ND	125,000	ND	0.50
Pentachlorophenol	100.0 ppm	ND	1.0	ND	250,000	ND	1.0
Pyridine	5.0 ppm ◊	ND	0.50	ND	125,000	ND	0.50
2,4,5-Trichlorophenol	400.0 ppm	1.13	1.0	ND	250,000	ND	1.0
2,4,6-Trichlorophenol	2.0 ppm	ND	1.0	ND	250,000	ND	1.0
Arsenic	5.0 ppm	ND	0.05	ND	1.0	ND	0.05
Barium	100.0 ppm	ND	5.0	ND	20.0	ND	5.0
Cadmium	1.0 ppm	ND	0.025	ND	0.5	ND	0.025
Chromium	5.0 ppm	ND	1.0	ND	1.0	ND	1.0
Lead	5.0 ppm	0.30	0.25	ND	5	0.35	0.25
Mercury	0.2 ppm	ND	0.002	ND	0.2	ND	0.002
Selenium	1.0 ppm	ND	0.025	ND	0.5	ND	0.025
Silver	5.0 ppm	ND	0.10	ND	2.0	ND	0.10
BHC, gamma (Lindane)	0.4 ppm	ND	0.0002	ND	12.5	ND	12.5
Chlordane	0.03 ppm	ND	0.002	ND	250	ND	250
Endrin	0.02 ppm	ND	0.0002	ND	12.5	ND	12.5
Heptachlor	0.008 ppm	ND	0.0002	ND	12.5	ND	12.5
Heptachlor Epoxide	0.008 ppm	ND	0.0002	ND	12.5	ND	12.5
Methoxychlor	10.0 ppm	ND	0.002	ND	125	ND	125
Toxaphene	0.5 ppm	ND	0.02	ND	1250	ND	1250
2,4 D	10.0 ppm	ND	0.25	ND	1.25	ND	0.05
Silvex (2,4,5-Silvex)	1.0 ppm	ND	0.05	ND	0.25	ND	0.01
Ignitability	< 140° F	> 140° F	NA	> 140° F	NA	NA	NA
Corrosivity (pH units)	< 2.0 / > 12.5	6.70	NA	8.34	NA	NA	NA
Reactivity-Cyanide (reactive)	> 250 ppm	ND	1	ND	1	NA	NA
Reactivity-Sulfide (reactive)	> 500 ppm	291	10	ND	10	NA	NA

TABLE 4 - Page 3
NORTHSIDE HAZARDOUS WASTE CHARACTERIZATION ANALYTICAL RESULTS (ppm)

TCLP CONSTITUENT	REGULATORY LEVEL	SAMPLE ID #112492-DH-006-LIQUID		SAMPLE ID NO. 112092-DH-007		SAMPLE ID NO. 112492-DH-008	
		TCLP CONCENTRATION	DETECTION LIMIT	TCLP CONCENTRATION	DETECTION LIMIT	TCLP CONCENTRATION	DETECTION LIMIT
Benzene	0.5 ppm	NA	NA	ND	2.5	ND	0.05
Carbon Tetrachloride	0.5 ppm	NA	NA	ND	2.5	ND	0.05
Chlorobenzene	100.0 ppm	NA	NA	ND	2.5	ND	0.05
Chloroform	6.0 ppm	NA	NA	ND	2.5	ND	0.05
1,4-Dichlorobenzene	7.5 ppm	NA	NA	ND	2.5	ND	0.05
1,2-Dichloroethane	0.5 ppm	NA	NA	ND	2.5	ND	0.05
1,1-Dichloroethylene	0.7 ppm	NA	NA	ND	2.5	ND	0.05
Methylethyl Ketone	200.0 ppm	NA	NA	ND	5.0	ND	0.10
Tetrachloroethylene	0.7 ppm	NA	NA	ND	2.5	ND	0.05
Trichloroethylene	0.5 ppm	NA	NA	ND	2.5	ND	0.05
Vinyl Chloride	0.2 ppm	NA	NA	ND	5.0	ND	0.10
Cresols	200.0 ppm	ND	1000	ND	10.0	204	50.0
2,4-Dinitrotoluene	0.13 ppm ◊	ND	500	ND	5.0	ND	25.0
Hexachlorobenzene	0.13 ppm ◊	ND	500	ND	5.0	ND	25.0
Hexachlorobutadiene	0.5 ppm	ND	500	ND	5.0	ND	25.0
Hexachloroethane	3.0 ppm	ND	500	ND	5.0	ND	25.0
Nitrobenzene	2.0 ppm	ND	500	ND	5.0	ND	25.0
Pentachlorophenol	100.0 ppm	ND	1000	ND	10.0	ND	50.0
Pyridine	5.0 ppm ◊	ND	500	ND	5.0	ND	25.0
2,4,5-Trichlorophenol	400.0 ppm	ND	1000	ND	10.0	ND	50.0
2,4,6-Trichlorophenol	2.0 ppm	ND	1000	ND	10.0	ND	50.0
Arsenic	5.0 ppm	ND	1.0	ND	0.05	ND	0.05
Barium	100.0 ppm	ND	20.0	ND	5.0	ND	5.0
Cadmium	1.0 ppm	ND	0.5	ND	0.025	ND	0.025
Chromium	5.0 ppm	ND	1.0	ND	1.0	ND	1.0
Lead	5.0 ppm	11	5	ND	0.25	ND	0.25
Mercury	0.2 ppm	ND	0.2	ND	0.002	ND	0.002
Selenium	1.0 ppm	ND	0.5	ND	0.025	ND	0.025
Silver	5.0 ppm	ND	2.0	ND	0.10	ND	0.10
BHC, gamma (Lindane)	0.4 ppm	ND	12.5	ND	0.0002	ND	0.0002
Chlordane	0.03 ppm	ND	250	ND	0.004	ND	0.004
Endrin	0.02 ppm	ND	12.5	ND	0.0002	ND	0.0002
Heptachlor	0.008 ppm	ND	12.5	ND	0.0002	ND	0.0002
Heptachlor Epoxide	0.008 ppm	ND	12.5	ND	0.0002	ND	0.0002
Methoxychlor	10.0 ppm	ND	125	ND	0.002	ND	0.002
Toxaphene	0.5 ppm	ND	1250	ND	0.02	ND	0.02
2,4 D	10.0 ppm	ND	1.25	ND	0.04	ND	0.04
Silvex (2,4,5-Silvex)	1.0 ppm	ND	0.25	ND	0.01	ND	0.01
Ignitability	< 140° F	94° F	NA	> 140° F	NA	> 140° F	NA
Corrosivity (pH units)	< 2.0 / > 12.5	11.45	NA	7.10	NA	6.88	NA
Reactivity-Cyanide (reactive)	> 250 ppm	ND	1	ND	1	ND	1
Reactivity-Sulfide (reactive)	> 500 ppm	ND	10	ND	10	ND	10

TABLE 4 - Page 4
NORTHSIDE HAZARDOUS WASTE CHARACTERIZATION ANALYTICAL RESULTS (ppm)

TCLP CONSTITUENT	REGULATORY LEVEL	SAMPLE ID NO. 112492-DH-009		SAMPLE ID NO. 112492-DH-010		SAMPLE ID NO. 112492-DH-011	
		TCLP CONCENTRATION	DETECTION LIMIT	TCLP CONCENTRATION	DETECTION LIMIT	TCLP CONCENTRATION	DETECTION LIMIT
Benzene	0.5 ppm	ND	0.05	ND	0.50	ND	0.05
Carbon Tetrachloride	0.5 ppm	ND	0.05	ND	0.50	ND	0.05
Chlorobenzene	100.0 ppm	ND	0.05	ND	0.50	ND	0.05
Chloroform	6.0 ppm	ND	0.05	ND	0.50	ND	0.05
1,4-Dichlorobenzene	7.5 ppm	ND	0.05	ND	0.50	ND	0.05
1,2-Dichloroethane	0.5 ppm	ND	0.05	ND	0.50	ND	0.05
1,1-Dichloroethylene	0.7 ppm	ND	0.05	ND	0.50	ND	0.05
Methylethyl Ketone	200.0 ppm	ND	0.10	ND	1.0	ND	0.10
Tetrachloroethylene	0.7 ppm	ND	0.05	ND	0.50	ND	0.05
Trichloroethylene	0.5 ppm	ND	0.05	ND	0.50	ND	0.05
Vinyl Chloride	0.2 ppm	ND	0.10	ND	1.0	ND	0.10
Cresols	200.0 ppm	ND	1.0	ND	1.0	ND	1.0
2,4-Dinitrotoluene	0.13 ppm ◊	ND	0.50	ND	0.50	ND	0.50
Hexachlorobenzene	0.13 ppm ◊	ND	0.50	ND	0.50	ND	0.50
Hexachlorobutadiene	0.5 ppm	ND	0.50	ND	0.50	ND	0.50
Hexachloroethane	3.0 ppm	ND	0.50	ND	0.50	ND	0.50
Nitrobenzene	2.0 ppm	ND	0.50	ND	0.50	ND	0.50
Pentachlorophenol	100.0 ppm	ND	1.0	ND	1.0	ND	1.0
Pyridine	5.0 ppm ◊	ND	0.50	ND	0.50	ND	0.50
2,4,5-Trichlorophenol	400.0 ppm	ND	1.0	ND	1.0	ND	1.0
2,4,6-Trichlorophenol	2.0 ppm	ND	1.0	ND	1.0	ND	1.0
Arsenic	5.0 ppm	ND	0.05	ND	0.05	ND	0.05
Barium	100.0 ppm	ND	5.0	ND	5.0	ND	5.0
Cadmium	1.0 ppm	ND	0.025	0.42	0.025	ND	0.025
Chromium	5.0 ppm	ND	1.0	ND	1.0	ND	1.0
Lead	5.0 ppm	ND	0.25	ND	0.25	ND	0.25
Mercury	0.2 ppm	ND	0.002	ND	0.002	ND	0.002
Selenium	1.0 ppm	ND	0.025	ND	0.025	ND	0.025
Silver	5.0 ppm	ND	0.10	ND	0.10	ND	0.10
BHC, gamma (Lindane)	0.4 ppm	ND	0.0002	ND	0.0002	ND	0.0002
Chlordane	0.03 ppm	ND	0.004	ND	0.004	ND	0.004
Endrin	0.02 ppm	ND	0.0002	ND	0.0002	ND	0.0002
Heptachlor	0.008 ppm	ND	0.0002	ND	0.0002	ND	0.0002
Heptachlor Epoxide	0.008 ppm	ND	0.0002	ND	0.0002	ND	0.0002
Methoxychlor	10.0 ppm	ND	0.002	ND	0.002	ND	0.002
Toxaphene	0.5 ppm	ND	0.02	ND	0.02	ND	0.02
2,4 D	10.0 ppm	ND	0.04	ND	0.04	ND	0.04
Silvex (2,4,5-Silvex)	1.0 ppm	ND	0.01	ND	0.01	ND	0.01
Ignitability	< 140° F	> 140° F	NA	118° F	NA	> 140° F	NA
Corrosivity (pH units)	< 2.0 / > 12.5	8.93	NA	5.35	NA	6.80	NA
Reactivity-Cyanide (reactive)	> 250 ppm	ND	1	ND	1	ND	1
Reactivity-Sulfide (reactive)	> 500 ppm	ND	10	ND	10	ND	10

TABLE 4 - Page 5
 NORTHSIDE HAZARDOUS WASTE CHARACTERIZATION ANALYTICAL RESULTS (ppm)

TCLP CONSTITUENT	REGULATORY LEVEL	SAMPLE ID NO. 112492-DH-012		SAMPLE ID NO. 112492-DH-013		SAMPLE ID NO. 112592-DH-014	
		TCLP CONCENTRATION	DETECTION LIMIT	TCLP CONCENTRATION	DETECTION LIMIT	TCLP CONCENTRATION	DETECTION LIMIT
Benzene	0.5 ppm	ND	0.05	ND	0.05	ND	5.0
Carbon Tetrachloride	0.5 ppm	ND	0.05	ND	0.05	ND	5.0
Chlorobenzene	100.0 ppm	ND	0.05	ND	0.05	ND	5.0
Chloroform	6.0 ppm	ND	0.05	ND	0.05	ND	5.0
1,4-Dichlorobenzene	7.5 ppm	ND	0.05	ND	0.05	ND	5.0
1,2-Dichloroethane	0.5 ppm	ND	0.05	ND	0.05	ND	5.0
1,1-Dichloroethylene	0.7 ppm	ND	0.05	ND	0.05	ND	5.0
Methylethyl Ketone	200.0 ppm	ND	0.10	ND	0.10	206	50.0
Tetrachloroethylene	0.7 ppm	ND	0.05	ND	0.05	ND	5.0
Trichloroethylene	0.5 ppm	ND	0.05	ND	0.05	ND	5.0
Vinyl Chloride	0.2 ppm	ND	0.10	ND	0.10	ND	10.0
Cresols	200.0 ppm	ND	1.0	32.5	1.0	195	1.0
2,4-Dinitrotoluene	0.13 ppm ◊	ND	0.50	ND	0.50	ND	0.50
Hexachlorobenzene	0.13 ppm ◊	ND	0.50	ND	0.50	ND	0.50
Hexachlorobutadiene	0.5 ppm	ND	0.50	ND	0.50	ND	0.50
Hexachloroethane	3.0 ppm	ND	0.50	ND	0.50	ND	0.50
Nitrobenzene	2.0 ppm	ND	0.50	ND	0.50	ND	0.50
Pentachlorophenol	100.0 ppm	ND	1.0	ND	1.0	ND	1.0
Pyridine	5.0 ppm ◊	ND	0.50	ND	0.50	ND	0.50
2,4,5-Trichlorophenol	400.0 ppm	ND	1.0	ND	1.0	ND	1.0
2,4,6-Trichlorophenol	2.0 ppm	ND	1.0	ND	1.0	ND	1.0
Arsenic	5.0 ppm	ND	0.50	ND	0.05	ND	0.050
Barium	100.0 ppm	ND	10.0	ND	5.0	ND	5.0
Cadmium	1.0 ppm	ND	0.05	ND	0.025	ND	0.025
Chromium	5.0 ppm	ND	2.0	ND	1.0	1.1	1.0
Lead	5.0 ppm	ND	0.50	ND	0.25	0.85	0.25
Mercury	0.2 ppm	ND	0.004	0.151	0.002	ND	0.002
Selenium	1.0 ppm	ND	0.05	ND	0.025	ND	0.025
Silver	5.0 ppm	ND	0.20	ND	0.10	ND	0.10
BHC, gamma (Lindane)	0.4 ppm	ND	0.0002	ND	0.0002	ND	0.20
Chlordane	0.03 ppm	ND	0.004	ND	0.004	ND	2.0
Endrin	0.02 ppm	ND	0.0002	ND	0.0002	ND	0.20
Heptachlor	0.008 ppm	ND	0.0002	ND	0.0002	ND	0.20
Heptachlor Epoxide	0.008 ppm	ND	0.0002	ND	0.0002	ND	0.20
Methoxychlor	10.0 ppm	ND	0.002	ND	0.002	ND	2.0
Toxaphene	0.5 ppm	ND	0.02	ND	0.02	ND	20
2,4 D	10.0 ppm	ND	0.04	ND	0.04	ND	0.50
Silvex (2,4,5-Silvex)	1.0 ppm	ND	0.01	ND	0.01	ND	0.10
Ignitability	< 140° F	100° F	NA	> 140° F	NA	> 140° F	NA
Corrosivity (pH units)	< 2.0 / > 12.5	9.45	NA	9.22	NA	8.87	NA
Reactivity-Cyanide (reactive)	> 250 ppm	ND	6	ND	1	ND	1
Reactivity-Sulfide (reactive)	> 500 ppm	ND	10	ND	10	10.9	10

TABLE 4 - Page 6
NORTHSIDE HAZARDOUS WASTE CHARACTERIZATION ANALYTICAL RESULTS (ppm)

TCLP CONSTITUENT	REGULATORY LEVEL	SAMPLE ID NO.112592-DH-015-SOLID		SAMPLE ID NO.112592-DH-015-LIQUID		SAMPLE ID NO. 112592-DH-016	
		TCLP CONCENTRATION	DETECTION LIMIT	TCLP CONCENTRATION	DETECTION LIMIT	TCLP CONCENTRATION	DETECTION LIMIT
Benzene	0.5 ppm	ND	0.50	NA	NA	ND	0.50
Carbon Tetrachloride	0.5 ppm	ND	0.50	NA	NA	ND	0.50
Chlorobenzene	100.0 ppm	ND	0.50	NA	NA	ND	0.50
Chloroform	6.0 ppm	ND	0.50	NA	NA	ND	0.50
1,4-Dichlorobenzene	7.5 ppm	ND	0.50	NA	NA	ND	0.50
1,2-Dichloroethane	0.5 ppm	ND	0.50	NA	NA	ND	0.50
1,1-Dichloroethylene	0.7 ppm	ND	0.50	NA	NA	ND	0.50
Methylethyl Ketone	200.0 ppm	ND	5.0	NA	NA	14.8	5.0
Tetrachloroethylene	0.7 ppm	ND	0.50	NA	NA	ND	0.50
Trichloroethylene	0.5 ppm	ND	0.50	NA	NA	ND	0.50
Vinyl Chloride	0.2 ppm	ND	1.0	NA	NA	ND	1.0
Cresols	200.0 ppm	17.5	1.0	5,000	2,500	ND	1.0
2,4-Dinitrotoluene	0.13 ppm ☉	ND	0.50	ND	1,250	ND	0.50
Hexachlorobenzene	0.13 ppm ☉	ND	0.50	ND	1,250	ND	0.50
Hexachlorobutadiene	0.5 ppm	ND	0.50	ND	1,250	ND	0.50
Hexachloroethane	3.0 ppm	ND	0.50	ND	1,250	ND	0.50
Nitrobenzene	2.0 ppm	ND	0.50	ND	1,250	ND	0.50
Pentachlorophenol	100.0 ppm	ND	1.0	ND	2,500	ND	1.0
Pyridine	5.0 ppm ☉	ND	0.50	ND	1,250	ND	0.50
2,4,5-Trichlorophenol	400.0 ppm	ND	1.0	ND	2,500	ND	1.0
2,4,6-Trichlorophenol	2.0 ppm	ND	1.0	ND	2,500	ND	1.0
Arsenic	5.0 ppm	ND	0.05	ND	1.0	ND	0.05
Barium	100.0 ppm	ND	5.0	ND	20.0	ND	5.0
Cadmium	1.0 ppm	ND	0.025	0.7	0.50	ND	0.025
Chromium	5.0 ppm	ND	1.0	314	1.0	1.47	1.0
Lead	5.0 ppm	4.9	0.25	862	5.0	0.95	0.25
Mercury	0.2 ppm	ND	0.002	ND	0.20	ND	0.002
Selenium	1.0 ppm	ND	0.025	ND	0.50	ND	0.025
Silver	5.0 ppm	ND	0.10	ND	2.0	ND	0.10
BHC, gamma (Lindane)	0.4 ppm	ND	0.0002	ND	0.125	ND	0.0002
Chlordane	0.03 ppm	ND	0.002	ND	2.5	ND	0.004
Endrin	0.02 ppm	ND	0.0002	ND	0.125	ND	0.0002
Heptachlor	0.008 ppm	ND	0.0002	ND	0.125	ND	0.0002
Heptachlor Epoxide	0.008 ppm	ND	0.0002	ND	0.125	ND	0.0002
Methoxychlor	10.0 ppm	ND	0.002	ND	1.25	ND	0.002
Toxaphene	0.5 ppm	ND	0.02	ND	12.5	ND	0.02
2,4 D	10.0 ppm	ND	0.125	ND	1.25	ND	2.0
Silvex (2,4,5-Silvex)	1.0 ppm	ND	0.025	ND	0.25	ND	0.50
Ignitability	< 140° F	NA	NA	69° F	NA	73° F	NA
Corrosivity (pH units)	< 2.0 / > 12.5	NA	NA	6.64	NA	6.48	NA
Reactivity-Cyanide (reactive)	> 250 ppm	NA	NA	ND	1	ND	1
Reactivity-Sulfide (reactive)	> 500 ppm	NA	NA	141	10	178	10

NOTES FOR TABLE 4

- ⊛ Quantitation limit is greater than the calculated regulatory limit.
The Quantitation limit therefore becomes the regulatory limit.

ppm = parts per million

ND = Non-detectable

NA = Not applicable

TABLE 5

NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS
 ADDITIONAL ANALYTICAL RESULTS FOR POTENTIAL SUBSTITUTE FUELS

Naval Air Station - Memphis
 Millington, Tennessee

CONSTITUENT	SAMPLE ID NO. 112492-DH-003		SAMPLE ID NO. 112492-DH-004		SAMPLE ID NO. 112492-DH-006		SAMPLE ID NO. 112492-DH-009		SAMPLE ID NO. 112492-DH-010	
	Concentration	Detection Limit								
Ash Content (%)	ND	1	1.47	1	ND	1	27.1	1	3.25	1
Heating Value (btu/lb)	19500	1000	1840	1000	10600	1000	7090	1000	17300	1000
Density	0.8264	NA	1.0334	NA	0.8611	NA	NA	NA	0.9166	NA
Solids-total (ppm)	124	100	53500	100	237000	100	NA	100	838000	100
Bromine (ppm)	ND	20	ND	20	ND	20	ND	20	7060	20
Chlorine (ppm)	13	10	4610	10	64	10	14	10	94	10
Fluorine (ppm)	160	25	71	25	190	25	104	25	124	25
Iodine (ppm)	ND	5								
PCB-aroclor (ppm)	ND	50	ND	500	ND	200	ND	500	ND	1000
TOC (%)	NA	NA	NA	NA	>10	NA	NA	NA	>10	NA

TABLE 6 - Page 1

NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS
RECOMMENDED METHODS OF MANAGEMENT

Naval Air Station, Memphis
Millington, Tennessee

Site	Location	Drum ID No.	Physical Characterization	Vol (gal)	Recommended Method of Management
N-1	Auto Hobby Shop	784.00	S	< 1	10
N-1	Same as 784.00	785.00	NA	0	10
N-1	Same as 784.00	787.00	NA	0	10
N-1	Previously Removed	7700.01	NA	NA	NA
N-1	National Guard Area-Fenced Area	7700.02	NA	0	10
N-2	Building N-338, Fuel Farm	700.00	L	45	3
N-2	Same as 700.00	701.00	L	2	1
N-2	Previously Removed	1622.03	NA	NA	NA
N-2	Building N-338, west of fuel farm, near railroad tracks	7753.00	L	30	3
N-3	Building N-94	740.00	L	20	1
N-3	Same as 740.00	741.00	L	15	1
N-3	Same as 740.00	742.00	L	15	1
N-3	Same as 740.00	743.00	L	15	1
N-3	Same as 740.00	744.00	L	10	1
N-3	Same as 740.00	751.00	S	30	9
N-4	Moved to N-5, Building N-12	754.00	L	20	4
N-4	Same as 754.00	755.00	L	5	2
N-4	Same as 754.00	756.00	L	5	1
N-4	Same as 754.00	757.00	L	5	1
N-4	Same as 754.00	758.00	L	5	4
N-4	Same as 754.00	759.00	L	5	4
N-4	Same as 754.00	760.00	L	5	2
N-4	Same as 754.00	761.00	NA	0	10
N-4	Same as 754.00	762.00	NA	0	10
N-4	Same as 754.00	763.00	L	5	4
N-4	North of Building N-16	764.00	S	20	9
N-4	Same as 764.00	765.00	S	45	9
N-4	Same as 764.00	766.00	L/SS	20	2

TABLE 6 - Page 2

**NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS
RECOMMENDED METHODS OF MANAGEMENT**

Naval Air Station, Memphis
Millington, Tennessee

Site	Location	Drum ID No.	Physical Characterization	Vol (gal)	Recommended Method of Management
N-4	Same as 764.00	767.00	L	55	2
N-4	Same as 764.00	768.00	L	30	1
N-4	Same as 764.00	769.00	S	50	9
N-4	Same as 764.00	770.00	S	50	9
N-4	Same as 764.00	771.00	S	55	9
N-4	Same as 764.00	772.00	S	55	9
N-4	Same as 764.00	773.00	S	55	9
N-4	Same as 764.00	774.00	S	55	9
N-4	Same as 764.00	775.00	S	55	9
N-4	Previously Removed	776.00	NA	NA	NA
N-4	Previously Removed	777.00	NA	NA	NA
N-4	Same as 764.00	780.00	L	<1	10
N-4	Same as 764.00	781.00	L/SS	55	2
N-4	Same as 764.00	782.00	S	55	9
N-4	Same as 764.00	7729.00	NA	0	10
N-4	Same as 764.00	7730.00	NA	0	10
N-5	Building N-12	5.00	NA	0	10
N-5	Same as 5.00	14.00	L	5	1
N-5	Same as 5.00	15.00	L	<1	10
N-5	Same as 5.00	16.00	NA	0	10
N-5	Same as 5.00	77.00	NA	0	10
N-5	Same as 5.00	84.00	NA	0	10
N-5	Same as 5.00	227.00	NA	0	10
N-5	Same as 5.00	230.00	L	<1	10
N-5	Same as 5.00	231.00	NA	0	10
N-5	Same as 5.00	502.00	L	5	1
N-5	Same as 5.00	504.00	NA	0	10
N-5	Previously Removed	747.00	NA	NA	NA
N-5	Same as 5.00	752.00	NA	0	10

TABLE 6 - Page 3

**NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS
RECOMMENDED METHODS OF MANAGEMENT**

Naval Air Station, Memphis
Millington, Tennessee

Site	Location	Drum ID No.	Physical Characterization	Vol (gal)	Recommended Method of Management
N-5	Same as 5.00	791.01	L	2	2
N-5	Same as 5.00	793.00	NA	0	10
N-5	Same as 5.00	794.00	NA	0	10
N-5	Same as 5.00	795.00	NA	0	10
N-5	Same as 5.00	796.00	NA	0	10
N-5	Same as 5.00	797.00	NA	0	10
N-5	Same as 5.00	798.00	NA	0	10
N-5	Same as 5.00	799.00	NA	0	10
N-5	Same as 5.00	7700.00	L	<1	10
N-5	Same as 5.00	7734.00	NA	0	10
N-5	Same as 5.00	7735.00	NA	0	10
N-5	Same as 5.00	7736.00	NA	0	10
N-5	Same as 5.00	7737.00	NA	0	10
N-5	Same as 5.00	7738.00	L	<1	10
N-6	East of Building N-110 in fenced-in area	7701.00	L	55	5
N-6	Same as 7701.00	7702.00	L	55	5
N-6	Same as 7701.00	7703.00	L	50	5
N-6	Same as 7701.00	7704.00	L	40	5
N-6	Same as 7701.00	7705.00	L	55	5
N-6	Same as 7701.00	7706.00	L	25	5
N-6	Same as 7701.00	7707.00	L	55	5
N-6	Same as 7701.00	7708.00	L	35	5
N-6	Same as 7701.00	7709.00	L	25	6
N-6	Same as 7701.00	7710.00	NA	0	10
N-6	Same as 7701.00	7711.00	NA	0	10
N-6	Same as 7701.00	7712.00	S	30	9
N-6	Same as 7701.00	7754.00	NA	0	10
N-7	East of Building N-1552, behind trailer	610.00	L	55	8
N-7	Same as 610.00	611.00	L	5	8

TABLE 6 - Page 4

NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS
RECOMMENDED METHODS OF MANAGEMENT

Naval Air Station, Memphis
Millington, Tennessee

Site	Location	Drum ID No.	Physical Characterization	Vol (gal)	Recommended Method of Management
N-7	East of Building N-1552 and 40 feet east of trailer	612.00	L	55	2
N-7	Same as 612.00	613.00	L	55	6
N-7	Same as 612.00	614.00	L	55	2
N-7	Same as 612.00	615.00	L	15	6
N-7	Same as 612.00	616.00	NA	0	10
N-7	Same as 612.00	617.00	NA	0	10
N-7	Same as 612.00	618.00	L	5	7
N-8	East of Building 1211, directly inside fence	602.00	L	45	2
N-8	Same as 602.00	603.00	SS	25	9
N-8	Previously Removed	604.00	NA	NA	NA
N-8	Previously Removed	605.00	NA	NA	NA
N-10	Navy Lake, east of Snack Shop in fenced off area	547.00	L	55	3
N-10	Same as 547.00	601.00	L	45	3

NA = Not Applicable

L = Liquid

S = Solid

SS = Semi-solid

TABLE 7

**NORTHSIDE DRUMMED WASTE CHARACTERIZATIONS
SUMMARY OF MANAGEMENT METHODS**

**Naval Air Station - Memphis
Millington, Tennessee**

Drum Identification Numbers	Recommended Method of Management
14, 502, 701, 740, 741, 742, 743, 744, 756, 757, 768	Management Method #1 - Manage as hazardous waste. (Hazardous Waste Profile Sheet #1)
602, 612, 614, 755, 760, 766, 767, 781, 791.01	Management Method #2 - Manage as hazardous waste. (Hazardous Waste Profile Sheet #2)
547, 601, 700, 7753	Management Method #3 - Manage as hazardous waste. (Hazardous Waste Profile Sheet #3)
754, 758, 759, 763	Management Method #4 - Manage as hazardous waste. (Hazardous Waste Profile Sheet #4)
7701, 7702, 7703, 7704, 7705, 7706, 7707, 7708	Management Method #5 - Manage as hazardous waste. (Hazardous Waste Profile Sheet #5)
613, 615, 7709	Management Method #6 - Manage as hazardous waste. (Hazardous Waste Profile Sheet #6)
618	Management Method #7 - Manage as hazardous waste. (Hazardous Waste Profile Sheet #7)
610, 611	Management Method #8 - Manage as hazardous waste. (Hazardous Waste Profile Sheet #8)
603, 751, 764, 765, 769, 770, 771, 772, 773, 774, 775, 782, 7712	Management Method #9 - Manage as special waste. (See Attachment F)
784, 785, 787, 7700.02, 761, 762, 780, 7729, 7730, 5, 15, 16, 77, 84, 227, 230, 231, 504, 752, 793, 794, 795, 796, 797, 798, 799, 7700, 7734, 7735, 7736, 7737, 7738, 7710, 7711, 7754, 616, 617	Management Method #10 - RCRA Empty Drums Manage per NASMEM standard operating procedures for hazardous containers.

NOTES FOR TABLE 7

Recommended Methods of Management:

1. Refer to Section 3.1 of *Report of Drum Sampling and Waste Characterization, Naval Air Station Memphis, Northside, March 1993.*
2. Refer to Section 3.2 of *Report of Drum Sampling and Waste Characterization, Naval Air Station Memphis, Northside, March 1993.*
3. Refer to Section 3.3 of *Report of Drum Sampling and Waste Characterization, Naval Air Station Memphis, Northside, March 1993.*
4. Refer to Section 3.4 of *Report of Drum Sampling and Waste Characterization, Naval Air Station Memphis, Northside, March 1993.*
5. Refer to Section 3.5 of *Report of Drum Sampling and Waste Characterization, Naval Air Station Memphis, Northside, March 1993.*
6. Refer to Section 3.6 of *Report of Drum Sampling and Waste Characterization, Naval Air Station Memphis, Northside, March 1993.*
7. Refer to Section 3.7 of *Report of Drum Sampling and Waste Characterization, Naval Air Station Memphis, Northside, March 1993.*
8. Refer to Section 3.8 of *Report of Drum Sampling and Waste Characterization, Naval Air Station Memphis, Northside, March 1993.*
9. Refer to Section 3.9 of *Report of Drum Sampling and Waste Characterization, Naval Air Station Memphis, Northside, March 1993.*

ATTACHMENT D

PHOTOLOG

NORTHSIDE DRUM SAMPLING
NAVAL AIR STATION - MEMPHIS
MILLINGTON, TENNESSEE

PHOTOLOG

Photographer: Karla Jenkins, Memphis Environmental Center, Inc.

November 10 - 13, 1992



Photo #1 - 11/10/92 - Site #N-1, Auto Hobby Shop, Drum Identification Number 784.00



Photo #2 - 11/13/92 - Site #N-2, Building #N-338 - Fuel Farm, Drum ID #700.00



Photo #3 - 11/13/92 - Site #N-2, Building #N-338 - Fuel Farm, Drum ID #701.00



Photo #4 - 11/13/92 - Site #N-2 - Building #N-338 - Fuel Farm, Drum ID #7753.00



Photo #5 - 11/10/92 - Site #N-3 - Building #1694 - Drum Identification Numbers, 740.00, 741.00, 742.00, 743.00, 744.00, and 751.00



Photo #6 - 11/12/92 - Site #N-4 - Building #N-16 - Drum ID Numbers 764.00, 765.00, 766.00

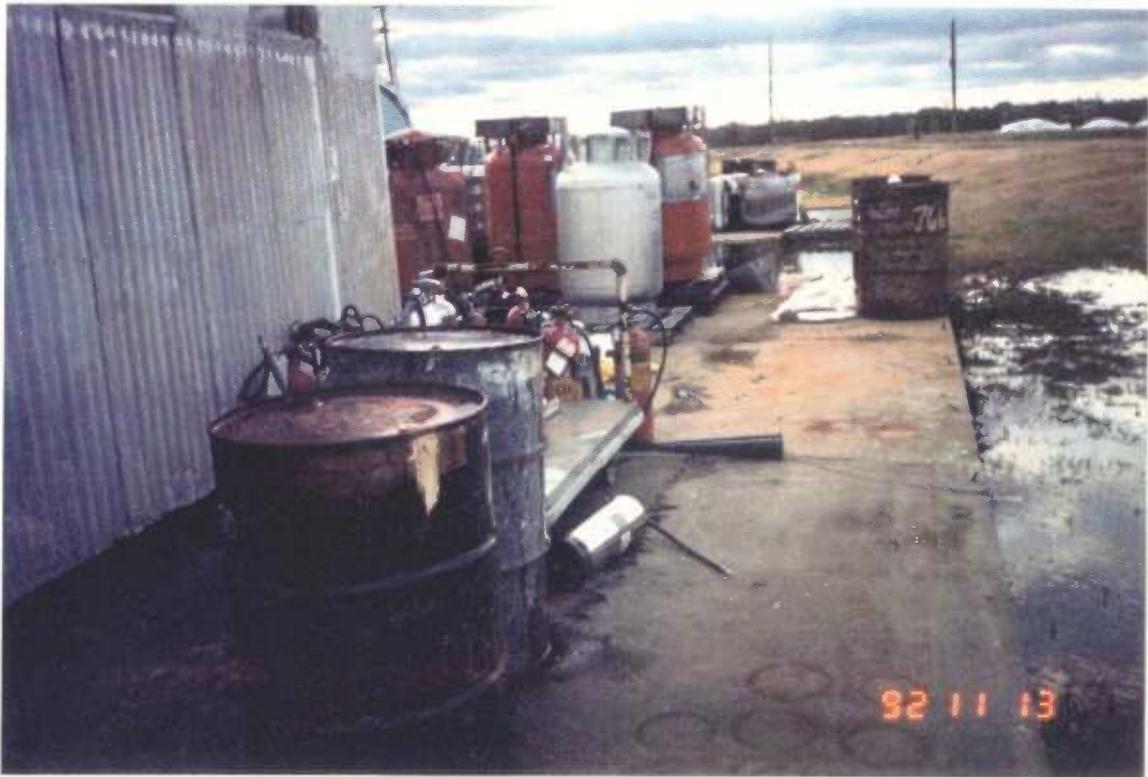


Photo #7 - 11/12/92 - Site #N-4, Building #N-16, Drum Identification Numbers 767.00, 768.00



Photo #8 - 11/12/92 - Site #N-4, Building N-16, Drum Identification Numbers 769.00, 770.00, 771.00, 772.00, 773.00, 774.00, 775.00



Photo #9 - 11/12/92 - Site #N-4, Building N-16, Drum Identification Numbers 780.00, 781.00, 782.00



Photo #10 - 11/12/92 - Site #N-4, Building N-16, Drum Identification Numbers 7729.00 and 7730.00



Photo #11 - 11/11/92 - Site N-5, Building N-12, Drum ID Numbers 5.00, 14.00, 15.00, 16.00, 77.00, 84.00, 227.00, 230.00, 231.00, 502.00, 504.00, 752.00, 754.00, 755.00, 756.00, 757.00, 758.00, 759.00, 760.00, 761.00, 762.00, 763.00, 791.01, 793.00, 794.00, 795.00, 796.00, 797.00, 798.00, 799.00, 7700.00, 7734.00, 7735.00, 7736.00, 7737.00, 7738.00



Photo #12 - 11/12/92 - Site #N-6, Building N-110, Drum Identification Numbers 7701.00, 7702.00, 7703.00, 7704.00, 7705.00, 7706.00, 7707.00, 7708.00, 7709.00, 7710.00, 7711.00, 7712.00, 7754.00



Photo #13 - 11/10/92 - Site #N-7, Building N-1552, Drum Identification Numbers 610.00 and 611.00



Photo #14 - 11/10/92 - Site #N-7, Building N-1552, Drum Identification Numbers 610.00 and 611.00



Photo #15 - 11/10/92 - Site #N-7, Building N-1552, Drum Identification Numbers 612.00, 613.00, 614.00, 615.00, 616.00, 617.00



Photo #16 - 11/10/92 - Site #N-8, Building N-100, Drum Identification Number 602.00



Photo #17 - 11/10/92 - Site #N-8, Building N-100, Drum Identification Number 603.00



Photo #18 - 11/13/92 - Site #N-10, Navy Lake, Drum Identification Numbers 547.00 and 601.00

ATTACHMENT E
COMPLETE LABORATORY REPORTS

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100
 Memphis, Tennessee 38132
 (901)-345-1788

Client Contact: Bobby Allen
Project: E T I - NAS
 Northside
Sample(s) Type: Water Waste

Report No: R-921460
Report Date: 12/29/92
Facility ID#:

Quality Assurance Summary:

<u>Type of Analysis</u>	<u>Method</u>	<u>Holding Time</u>	<u>Surrogate Recovery</u>	<u>Matrix Spike Recoveries</u>	<u>Blanks</u>	<u>Overall Summary</u>
FLASHPOINT/ IGNITABILITY	SW846- 1010	A	NA	NA	NA	A
TPH	EPA 418.1	A	NA	N-1	A	A (See N-1)
TCLP	SW846- 1311	A				
VOC	SW846- 8240	A	A	A	A	A
BNA	SW846- 3510/ 8270	A	N-2	N-3	A	A (See N-2 and N-3)
PESTICIDES	SW846- 3510/ 8080	A	A	A(N-3)	A	A (See N-3)
HERBICIDES	SW846- 3580/ 8150	A	A	A	A	A
METALS	SW846- 6010/ 7000	A	NA	A(N-4)	A	A (See N-4)

A = Requirements set by method were met
 NA = Not applicable
 N-1 = See NOTE 1 on page 2
 N-2 = See NOTE 2 on page 2
 N-3 = See NOTE 3 on page 2
 N-4 = See NOTE 4 on page 2

Terri Gray
 QA Officer

Terri Gray
 Laboratory Manager

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100

Memphis, Tennessee 38132

(901)-345-1788

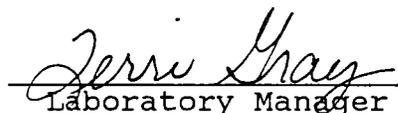
Client Contact: Bobby Allen
Project: E T I - NAS
Northside
Sample(s) Type: Water Waste

Report No: R-921460
Report Date: 12/29/92
Facility ID#:

Quality Assurance Summary page 2:

- NOTE 1: Due to the level of contamination present in the sample, the matrix spikes added were diluted out.
- NOTE 2: Due to the level of contamination present in the sample, the surrogates were diluted out in one of the samples as stated in the report.
- NOTE 3: As noted in the report, several matrix spike recoveries were unacceptable due to matrix interferences and dilutions of the sample.
- NOTE 4: As noted in one of the reports, one matrix spike sample had unacceptable recoveries due to matrix interferences.


QA Officer


Laboratory Manager

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
Analytical Report
General Chemistry
Results given in:

Report Date: 12-26-92 13:14
Prepared By KA
QA/QC Check LB
Lab Manager LB

Sample Number	112092-DH-001	112492-DH-002
Lab ID Number	9207655	9207656
Matrix	WATER WASTE	WATER WASTE
Type	SAMPLE**	SAMPLE**
Date of Collection	11-20-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	-	-
Date of Analysis	12-07-92	12-07-92
Ignitability (degrees)	140	127

** NOTES :

9207655*SAMPLE - RESULT FOR Ignitability > 140 DEGREES FAHRENHEIT.
9207656*SAMPLE - RESULT FOR Ignitability IS 127 DEGREES FAHRENHEIT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
QA/QC Report
General Chemistry
Results given in:

Report Date: 12-26-92 13:14
Prepared By *KH*
QA/QC Check *SP*
Lab Manager *SP*

Sample Number	112492-DH-002	112492-DH-002	LIMIT	LIMIT
Lab ID Number	9207656	9207656	OF	OF
Matrix	WATER WASTE	WATER WASTE	DETECTION	QUANTITATION
Type	SAMPLE**	LAB DUPLICATE**		
Date of Collection	11-24-92	11-24-92		
Date of Receipt	11-24-92	11-24-92		
Date of Extraction	-	-		
Date of Analysis	12-07-92	12-07-92		
Ignitability (degrees)	127	136	-	-

** NOTES :

9207656*SAMPLE - RESULT FOR Ignitability IS 127 DEGREES FAHRENHEIT.
9207656*LAB DUP - RESULT FOR Ignitability IS 136 DEGREES FAHRENHEIT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
Analytical Report
Total Petroleum Hydrocarbons By EPA-418.1
Results given in: mg/L

Report Date: 12-28-92 11:33
Prepared By *[Signature]*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number	112092-DH-001	112492-DH-002
Lab ID Number	9207655	9207656
Matrix	WATER WASTE	WATER WASTE
Type	SAMPLE**	SAMPLE**
Date of Collection	11-20-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-03-92	12-03-92
Date of Analysis	12-03-92	12-03-92
Total Petroleum Hydrocarbons	217	1660

** NOTES :

- 9207655*SAMPLE - DUE TO ORGANIC CONTAMINANTS PRESENT, 100ml WAS USED FOR EXTRACTION INSTEAD OF 1000ml, RESULTING IN HIGHER LOD FOR THIS SET OF SAMPLES.
- 9207656*SAMPLE - LOD FOR THIS SAMPLE IS 10 TIMES THE VALUE STATED.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
QA/QC Report - Spikes
Total Petroleum Hydrocarbons By EPA-418.1
Results given in: mg/L

Report Date: 12-28-92 11:33
Prepared By *RK*
QA/QC Check *JS*
Lab Manager *JS*

Sample Number	112092-DH-001	112092-DH-001	112092-DH-001
Lab ID Number	9207655-SPIKE-1	9207655-SPIKE-1	9207655-SPIKE-1
Matrix	WATER WASTE	WATER WASTE	WATER WASTE
Type	ADDED LEVEL	% RECOVERED 1**	% RECOVERED 2**
Date of Collection	11-20-92	11-20-92	11-20-92
Date of Receipt	11-24-92	11-24-92	11-24-92
Date of Extraction	12-03-92	12-03-92	12-03-92
Date of Analysis	12-03-92	12-03-92	12-03-92
Total Petroleum Hydrocarbons	53.4	-	-

** NOTES :

9207655*SPK1RCV1 - INVALID SPIKE DATA DUE TO HIGH CONCENTRATION OF SAMPLE.
9207655*SPK1RCV2 - INVALID SPIKE DATA DUE TO HIGH CONCENTRATION OF SAMPLE.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
 QA/QC Report - Blanks
 Total Petroleum Hydrocarbons By EPA-418.1
 Results given in: mg/L

Report Date: 12-28-92 11:33
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-03 SPK ADD	12-03 SPK RCV%	12-03-92	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-03-92	12-03-92	12-03-92		
Date of Analysis	12-03-92	12-03-92	12-03-92		
Total Petroleum Hydrocarbons	5.34	85.1	ND	1.00	-

** NOTES :

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	
Date of Collection	
Date of Receipt	
Date of Extraction	
Date of Analysis	
Total Petroleum Hydrocarbons	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 Analytical Report
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-28-92 11:08
 Prepared By BSM
 QA/QC Check BS
 Lab Manager BS

Sample Number	112092-DH-001	112492-DH-002
Lab ID Number	9207655	9207656
Matrix	LEACHATE	LEACHATE
Type	SAMPLE	SAMPLE**
Date of Collection	11-20-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-02-92	12-04-92
Date of Analysis	12-02-92	12-04-92
Benzene	ND	ND
Carbon tetrachloride	ND	ND
Chlorobenzene	ND	ND
Chloroform	ND	ND
Dichlorobenzene, 1,4-	ND	ND
Dichloroethane, 1,2-	ND	ND
Dichloroethene, 1,1-	ND	ND
Methylethyl ketone	ND	ND
SURR.(Bromofluorobenzene, 4-)%	91	92
SURR.(Toluene-d8) %	106	107
SURR.(d-4,1,2-Dichloroethane)%	107	101
Tetrachloroethene	ND	ND
Trichloroethene	ND	ND
Vinyl chloride	ND	ND

** NOTES :

9207656*SAMPLE - PQLs FOR THIS SAMPLE ARE 50 TIMES THE VALUES STATED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Spikes
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-28-92 11:08
 Prepared By SM
 QA/QC Check TL
 Lab Manager TL

Sample Number	112092-DH-001	112092-DH-001	112092-DH-001
Lab ID Number	9207655-SPIKE-1	9207655-SPIKE-1	9207655-SPIKE-1
Matrix	LEACHATE	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1	% RECOVERED 2
Date of Collection	11-20-92	11-20-92	11-20-92
Date of Receipt	11-24-92	11-24-92	11-24-92
Date of Extraction	12-02-92	12-02-92	12-02-92
Date of Analysis	12-02-92	12-02-92	12-02-92
Benzene	500	92	92
Carbon tetrachloride	500	95	94
Chlorobenzene	500	91	88
Chloroform	500	91	90
Dichlorobenzene, 1,4-	500	75	76
Dichloroethane, 1,2-	500	90	91
Dichloroethene, 1,1-	500	100	88
Methylethyl ketone	1000	81	95
SURR.(Bromofluorobenzene, 4-)%	415	98	96
SURR.(Toluene-d8) %	440	107	108
SURR.(d-4,1,2-Dichloroethane)%	464	102	102
Tetrachloroethene	500	98	91
Trichloroethene	500	87	86
Vinyl chloride	500	82	78

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-28-92 11:08
 Prepared By: *RML*
 QA/QC Check: *TP*
 Lab Manager: *TP*

Sample Number	BLANK	BLANK	BLANK	BLANK	METHOD
Lab ID Number	11-24 SPK ADD	11-24 SPK RCV%	11-24-92-1	11-24-92-2	DETECTION
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	LIMIT
Type	SAMPLE	SAMPLE	SAMPLE	SAMPLE	
Date of Collection					
Date of Receipt					
Date of Extraction	11-24-92	11-24-92	11-24-92	11-24-92	
Date of Analysis	12-02-92	12-02-92	12-02-92	12-04-92	
Benzene	500	88	ND	ND	
Carbon tetrachloride	500	93	ND	ND	
Chlorobenzene	500	90	ND	ND	
Chloroform	500	89	ND	ND	
Dichlorobenzene, 1,4-	500	79	ND	ND	
Dichloroethane, 1,2-	500	89	ND	ND	
Dichloroethene, 1,1-	500	95	ND	ND	
Methylethyl ketone	1000	86	ND	ND	
SURR.(Bromofluorobenzene, 4-)%	415	99	97	91	
SURR.(Toluene-d8) %	440	107	106	101	
SURR.(d-4,1,2-Dichloroethane)%	464	103	107	100	
Tetrachloroethene	500	94	ND	ND	
Trichloroethene	500	85	ND	ND	
Vinyl chloride	500	75	ND	ND	

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: EII/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-28-92 11:08
 Prepared By RM
 QA/QC Check TS
 Lab Manager TS

Sample Number	PRACTICAL	SURROGATE
Lab ID Number	QUANTITATION	SPIKE
Matrix	LIMIT	LEVELS
Type		

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

Benzene	50	-
Carbon tetrachloride	50	-
Chlorobenzene	50	-
Chloroform	50	-
Dichlorobenzene, 1,4-	50	-
Dichloroethane, 1,2-	50	-
Dichloroethene, 1,1-	50	-
Methylethyl ketone	500	-
SURR.(Bromofluorobenzene, 4-)%	-	415
SURR.(Toluene-d8) %	-	440
SURR.(d-4,1,2-Dichloroethane)%	-	464
Tetrachloroethene	50	-
Trichloroethene	50	-
Vinyl chloride	100	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
Analytical Report
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-28-92 14:27
Prepared By: [Signature]
QA/QC Check: [Signature]
Lab Manager: [Signature]

Sample Number 112092-DH-001
Lab ID Number 9207655
Matrix WATER WASTE
Type SAMPLE**

Date of Collection 11-20-92
Date of Receipt 11-24-92
Date of Extraction 12-04-92
Date of Analysis 12-16-92

Cresols	ND
Dinitrotoluene, 2,4-	ND
Hexachlorobenzene	ND
Hexachlorobutadiene	ND
Hexachloroethane	ND
Nitrobenzene	ND
Pentachlorophenol	ND
Pyridine	ND
SURR.(Fluorobiphenyl, 2-) %	90.0
SURR.(Fluorophenol, 2-) %	56.6
SURR.(Nitrobenzene, d-5) %	89.3
SURR.(Phenol, d-6) %	44.7
SURR.(Terphenyl, d-14-p-) %	90.7
SURR.(Tribromophenol, 2,4,6-)%	99.6
Trichlorophenol, 2,4,5-	ND
Trichlorophenol, 2,4,6-	ND

** NOTES :

9207655*SAMPLE - TCLP EXTRACTION FOR THIS SET OF SAMPLES IS 12/03/92. LOQs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
 QA/QC Report - Spikes
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 14:27
 Prepared By: 
 QA/QC Check: 
 Lab Manager: 

Sample Number	112092-DH-001	112092-DH-001
Lab ID Number	9207655-SPIKE-1	9207655-SPIKE-1
Matrix	WATER WASTE	WATER WASTE
Type	ADDED LEVEL	% RECOVERED 1
Date of Collection	11-20-92	11-20-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-04-92	12-04-92
Date of Analysis	12-16-92	12-16-92
Cresols	2400	83.0
Dinitrotoluene, 2,4-	800	96.5
Hexachlorobenzene	800	81.9
Hexachlorobutadiene	800	68.3
Hexachloroethane	800	70.4
Nitrobenzene	800	81.1
Pentachlorophenol	800	76.5
Pyridine	800	37.6
SURR.(Fluorobiphenyl, 2-) %	400	87.3
SURR.(Fluorophenol, 2-) %	800	61.6
SURR.(Nitrobenzene, d-5) %	400	93.4
SURR.(Phenol, d-6) %	800	48.1
SURR.(Terphenyl, d-14-p-) %	400	83.3
SURR.(Tribromophenol, 2,4,6-) %	800	114
Trichlorophenol, 2,4,5-	800	125
Trichlorophenol, 2,4,6-	800	87.1

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 14:27
 Prepared By [Signature]
 QA/QC Check [Signature]
 Lab Manager [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-04-92-2	12-4-2 SPK ADD	12-4-2 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-16-92	12-16-92	12-16-92		
Cresols	ND	240	51.2		100
Dinitrotoluene, 2,4-	ND	80	69.6		50
Hexachlorobenzene	ND	80	65.5		50
Hexachlorobutadiene	ND	80	47.4		50
Hexachloroethane	ND	80	44.3		50
Nitrobenzene	ND	80	54.4		50
Pentachlorophenol	ND	80	74.1		100
Pyridine	ND	80	33.6		50
SURR.(Fluorobiphenyl, 2-) %	65.4	40	65.6		-
SURR.(Fluorophenol, 2-) %	47.8	80	49.1		-
SURR.(Nitrobenzene, d-5) %	67.0	40	66.2		-
SURR.(Phenol, d-6) %	34.6	80	36.3		-
SURR.(Terphenyl, d-14-p-) %	63.4	40	69.1		-
SURR.(Tribromophenol, 2,4,6-)%	81.7	80	85.8		-
Trichlorophenol, 2,4,5-	ND	80	69.6		100
Trichlorophenol, 2,4,6-	ND	80	65.4		100

** NOTES :
 BLANK 12-04-92-2 - TCLP BLANK.
 BLANK 12-4-2 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-4-2 SPK RCV% - TCLP BLANK SPIKE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
QA/QC Report - Blanks
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-28-92 14:27
Prepared By: [Signature]
QA/QC Check: [Signature]
Lab Manager: [Signature]

Sample Number SURROGATE
Lab ID Number SPIKE
Matrix LEVELS
Type

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Cresols	-
Dinitrotoluene, 2,4-	-
Hexachlorobenzene	-
Hexachlorobutadiene	-
Hexachloroethane	-
Nitrobenzene	-
Pentachlorophenol	-
Pyridine	-
SURR.(Fluorobiphenyl, 2-) %	400
SURR.(Fluorophenol, 2-) %	800
SURR.(Nitrobenzene, d-5) %	400
SURR.(Phenol, d-6) %	800
SURR.(Terphenyl, d-14-p) %	400
SURR.(Tribromophenol, 2,4,6-) %	800
Trichlorophenol, 2,4,5-	-
Trichlorophenol, 2,4,6-	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
Analytical Report
Base/Neutral/Acid Extractables By SW846-1311/3580/8270
Results given in: ug/Kg

Report Date: 01-26-93 08:54

Sample Number 112492-DH-002
Lab ID Number 9207656
Matrix WATER WASTE
Type SAMPLE**

Date of Collection 11-24-92
Date of Receipt 11-24-92
Date of Extraction 12-04-92
Date of Analysis 12-18-92

Cresols	ND
Dinitrotoluene, 2,4-	ND
Hexachlorobenzene	ND
Hexachlorobutadiene	ND
Hexachloroethane	ND
Nitrobenzene	ND
Pentachlorophenol	ND
Pyridine	ND
SURR.(Fluorobiphenyl, 2-) %	-
SURR.(Fluorophenol, 2-) %	-
SURR.(Nitrobenzene, d-5) %	-
SURR.(Phenol, d-6) %	-
SURR.(Terphenyl, d-14-p-) %	-
SURR.(Tribromophenol, 2,4,6-)%	-
Trichlorophenol, 2,4,5-	ND
Trichlorophenol, 2,4,6-	ND

** NOTES :

9207656*SAMPLE - LOQs FOR THIS SAMPLE ARE 10000 TIMES THE VALUES STATED. SURROGATES DILUTED OUT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
 QA/QC Report - Spikes
 Base/Neutral/Acid Extractables By SW846-1311/3580/8270
 Results given in: ug/Kg

Report Date: 01-26-93 08:54

Sample Number	112492-DH-002	112492-DH-002
Lab ID Number	9207656-SPIKE-1	9207656-SPIKE-1
Matrix	LEACHATE	LEACHATE
Type	ADDED LEVEL**	% RECOVERED 1**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-04-92	12-04-92
Date of Analysis	12-18-92	12-18-92

Cresols	-	-
Dinitrotoluene, 2,4-	-	-
Hexachlorobenzene	-	-
Hexachlorobutadiene	-	-
Hexachloroethane	-	-
Nitrobenzene	-	-
Pentachlorophenol	-	-
Pyridine	-	-
SURR.(Fluorobiphenyl, 2-) %	-	-
SURR.(Fluorophenol, 2-) %	-	-
SURR.(Nitrobenzene, d-5) %	-	-
SURR.(Phenol, d-6) %	-	-
SURR.(Terphenyl, d-14-p) %	-	-
SURR.(Tribromophenol, 2,4,6-) %	-	-
Trichlorophenol, 2,4,5-	-	-
Trichlorophenol, 2,4,6-	-	-

** NOTES :

9207656*SPK1ADD - MATRIX SPIKE DILUTED OUT. NO RECOVERIES AVAILABLE.
 9207656*SPK1RCV1 - MATRIX SPIKE DILUTED OUT. NO RECOVERIES AVAILABLE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3580/8270
 Results given in: ug/Kg

Report Date: 01-26-93 08:54

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-03 SPK ADD	12-03 SPK RCV%	12-03-92	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-03-92	12-03-92	12-03-92		
Date of Analysis	12-17-92	12-17-92	12-17-92		
Cresols	2000	168	ND		1000
Dinitrotoluene, 2,4-	2000	61.9	ND		500
Hexachlorobenzene	2000	0	ND		500
Hexachlorobutadiene	2000	98.8	ND		500
Hexachloroethane	2000	114	ND		500
Nitrobenzene	2000	103	ND		500
Pentachlorophenol	2000	101	ND		1000
Pyridine	2000	62.2	ND		500
SURR.(Fluorobiphenyl, 2-) %	1000	120	114		-
SURR.(Fluorophenol, 2-) %	2000	122	109		-
SURR.(Nitrobenzene, d-5) %	1000	108	111		-
SURR.(Phenol, d-6) %	2000	127	115		-
SURR.(Terphenyl, d-14-p-) %	1000	105	107		-
SURR.(Tribromophenol, 2,4,6-) %	2000	87.5	33.5		-
Trichlorophenol, 2,4,5-	2000	76.3	ND		1000
Trichlorophenol, 2,4,6-	2000	85.6	ND		1000

** NOTES :

BLANK 12-03 SPK RCV% - RECOVERY FOR Hexachlorobenzene BELOW ACCEPTED LIMIT. RECOVERIES ABOVE ACCEPTED LIMITS:
 SURR.(Fluorobiphenyl,2-)/116%, SURR.(Fluorophenol,2-)/100% AND SURR.(Phenol,d-6)/94%.
 BLANK 12-03-92 - LOQs FOR THIS BLANK ARE 25 TIMES THE VALUES STATED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
QA/QC Report - Blanks
Base/Neutral/Acid Extractables By SW846-1311/3580/8270
Results given in: ug/Kg

Report Date: 01-26-93 08:54

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Cresols	-
Dinitrotoluene, 2,4-	-
Hexachlorobenzene	-
Hexachlorobutadiene	-
Hexachloroethane	-
Nitrobenzene	-
Pentachlorophenol	-
Pyridine	-
SURR.(Fluorobiphenyl, 2-) %	1000
SURR.(Fluorophenol, 2-) %	2000
SURR.(Nitrobenzene, d-5) %	1000
SURR.(Phenol, d-6) %	2000
SURR.(Terphenyl, d-14-p-) %	1000
SURR.(Tribromophenol, 2,4,6-)%	2000
Trichlorophenol, 2,4,5-	-
Trichlorophenol, 2,4,6-	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 14:28
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-04-92-1	12-4-1 SPK ADD	12-4-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-16-92	12-16-92	12-16-92		
Cresols	ND	240	43.9		10
Dinitrotoluene, 2,4-	ND	80	49.3		5
Hexachlorobenzene	ND	80	47.8		5
Hexachlorobutadiene	ND	80	35.6		5
Hexachloroethane	ND	80	40.3		5
Nitrobenzene	ND	80	43.0		5
Pentachlorophenol	ND	80	45.2		10
Pyridine	ND	80	22.7		5
SURR.(Fluorobiphenyl, 2-) %	45.4	40	48.1		-
SURR.(Fluorophenol, 2-) %	31.9	80	37.8		-
SURR.(Nitrobenzene, d-5) %	47.5	40	47.7		-
SURR.(Phenol, d-6) %	27.1	80	26.0		-
SURR.(Terphenyl, d-14-p-) %	46.6	40	48.4		-
SURR.(Tribromophenol, 2,4,6-) %	52.7	80	59.4		-
Trichlorophenol, 2,4,5-	ND	80	47.4		10
Trichlorophenol, 2,4,6-	ND	80	49.6		10

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ET1/NAS - WATER WASTE

Memphis Environmental Center
QA/QC Report - Blanks
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-28-92 14:28
Prepared By [Signature]
QA/QC Check [Signature]
Lab Manager [Signature]

Sample Number SURROGATE
Lab ID Number SPIKE
Matrix LEVELS
Type

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Cresols	-
Dinitrotoluene, 2,4-	-
Hexachlorobenzene	-
Hexachlorobutadiene	-
Hexachloroethane	-
Nitrobenzene	-
Pentachlorophenol	-
Pyridine	-
SURR.(Fluorobiphenyl, 2-) %	40
SURR.(Fluorophenol, 2-) %	80
SURR.(Nitrobenzene, d-5) %	40
SURR.(Phenol, d-6) %	80
SURR.(Terphenyl, d-14-p-) %	40
SURR.(Tribromophenol, 2,4,6-) %	80
Trichlorophenol, 2,4,5-	-
Trichlorophenol, 2,4,6-	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Pesticides By SW846-1311/3510/8080
Results given in: ug/L

Report Date: 12-28-92 10:42

Prepared By KW
QA/QC Check [Signature]
Lab Manager [Signature]

Sample Number	112092-DH-001	112492-DH-002
Lab ID Number	9207655	9207656
Matrix	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE
Date of Collection	11-20-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-05-92	12-05-92
Date of Analysis	12-07-92	12-07-92
BHC, gamma (Lindane)	ND	ND
Chlordane	ND	27.1
Endrin	ND	ND
Heptachlor	ND	ND
Heptachlor epoxide	ND	ND
Methoxychlor	ND	ND
SURR.(TCMX) %	64.9	20.0
Toxaphene	ND	ND

** NOTES :

9207655*SAMPLE - TCLP EXTRACTION DATE - 12/03-04/92.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Spikes
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-28-92 10:42
 Prepared By: 
 QA/QC Check: 
 Lab Manager: 

Sample Number	112092-DH-001	112092-DH-001	112492-DH-002	112492-DH-002
Lab ID Number	9207655-SPIKE-1	9207655-SPIKE-1	9207656-SPIKE-1	9207656-SPIKE-1
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	ADDED LEVEL**	% RECOVERED 1**	ADDED LEVEL**	% RECOVERED 1**
Date of Collection	11-20-92	11-20-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	12-05-92	12-05-92	12-05-92	12-05-92
Date of Analysis	12-07-92	12-07-92	12-07-92	12-07-92
BHC, gamma (Lindane)	1.66	136	1.66	136
Chlordane	-	-	-	-
Endrin	1.65	92.7	1.65	140
Heptachlor	2.92	76.7	2.92	26.2
Heptachlor epoxide	1.74	133	1.74	96.0
Methoxychlor	-	-	-	-
SURR.(TCMX) %	8.0	63.7	8.0	30.3
Toxaphene	-	-	-	-

** NOTES :

- 9207655*SPK1ADD - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. NO DATA REPORTED.
- 9207655*SPK1RCV1 - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. NO DATA REPORTED.
RECOVERY FOR BHC, gamma (Lindane) ABOVE ACCEPTED LIMIT OF 127%.
- 9207656*SPK1ADD - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. NO DATA REPORTED.
- 9207656*SPK1RCV1 - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. NO DATA REPORTED.
RECOVERY FOR BHC, gamma (Lindane) ABOVE ACCEPTED LIMIT OF 127%.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-28-92 10:42
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-05-92-2	12-5-2 SPK ADD	12-5-2 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-05-92	12-05-92	12-05-92		
Date of Analysis	12-07-92	12-07-92	12-07-92		
BHC, gamma (Lindane)	ND	0.416	95.1	0.20	-
Chlordane	ND	-	-	2.0	-
Endrin	ND	0.412	81.9	0.20	-
Heptachlor	ND	0.729	80.5	0.20	-
Heptachlor epoxide	ND	0.435	90.8	0.20	-
Methoxychlor	ND	-	-	2.0	-
SURR.(TCMX) %	-	2.0	67.2	-	-
Toxaphene	ND	-	-	20	-

** NOTES :

BLANK 12-05-92-2 - TCLP BLANK. VALUE FOR SURROGATE NOT AVAILABLE.
 BLANK 12-5-2 SPK ADD - TCLP BLANK SPIKE. Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED. SPIKE ADDED AMOUNTS FOR ALL ANALYTES ARE 4 TIMES THE VALUES STATED.
 BLANK 12-5-2 SPK RCV% - TCLP BLANK SPIKE. Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Blanks
Pesticides By SW846-1311/3510/8080
Results given in: ug/L

Report Date: 12-28-92 10:42
Prepared By KW
QA/QC Check TA
Lab Manager LP

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

BHC, gamma (Lindane)	-
Chlordane	-
Endrin	-
Heptachlor	-
Heptachlor epoxide	-
Methoxychlor	-
SURR.(TCMX) %	2.0
Toxaphene	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-28-92 10:42

Prepared By *[Signature]*
 QA/QC Check *[Signature]*
 Lab Manager *[Signature]*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-05-92-1	12-5-1 SPK ADD	12-5-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-05-92	12-05-92	12-05-92		
Date of Analysis	12-07-92	12-07-92	12-07-92		
BHC, gamma (Lindane)	ND	0.416	86.3	0.05	-
Chlordane	ND	-	-	1.0	-
Endrin	ND	0.412	79.1	0.05	-
Heptachlor	ND	0.729	83.1	0.05	-
Heptachlor epoxide	ND	0.435	89.4	0.05	-
Methoxychlor	ND	-	-	0.5	-
SURR.(TCMX) %	65.5	2.0	68.0	-	-
Toxaphene	ND	-	-	5.0	-

** NOTES :

BLANK 12-5-1 SPK ADD - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-5-1 SPK RCV% - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

BHC, gamma (Lindane)	-
Chlordane	-
Endrin	-
Heptachlor	-
Heptachlor epoxide	-
Methoxychlor	-
SURR.(TCMX) %	2.0
Toxaphene	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Herbicides By SW846-1311/8150
Results given in: ug/L

Report Date: 12-28-92 10:35

Prepared By KW
QA/QC Check JS
Lab Manager JS

Sample Number 112092-DH-001
Lab ID Number 9207655
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-20-92
Date of Receipt 11-24-92
Date of Extraction 12-06-92
Date of Analysis 12-11-92

2,4-D ND
SURR.(DCAA) % 181
Silvex (2,4,5-TP) ND

** NOTES :

9207655*SAMPLE - TCLP EXTRACTION DATE - 12/06/92. LODs FOR THIS SAMPLE ARE 25 TIMES THE VALUES STATED.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ET1/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Spikes
Herbicides By SW846-1311/8150
Results given in: ug/L

Report Date: 12-28-92 10:35

Prepared By KW/B
QA/QC Check TS
Lab Manager TS

Sample Number	112092-DH-001	112092-DH-001
Lab ID Number	9207655-SPIKE-1	9207655-SPIKE-1
Matrix	LEACHATE	LEACHATE
Type	ADDED LEVEL**	% RECOVERED 1**

Date of Collection	11-20-92	11-20-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-06-92	12-06-92
Date of Analysis	12-11-92	12-11-92

2,4-D	8.28	-
SURR.(DCAA) %	40.5	101
Silvex (2,4,5-TP)	7.72	110

** NOTES :

9207655*SPK1ADD - LODs FOR THIS MATRIX SPIKE ARE 25 TIMES THE VALUES STATED.
9207655*SPK1RCV1 - RECOVERY FOR 2,4-D UNAVAILABLE DUE TO DILUTION.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-28-92 10:35
 Prepared By *KW*
 QA/QC Check *TA*
 Lab Manager *EG*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-06-92-2	12-6-2 SPK ADD	12-6-2 SPK RCV	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-06-92	12-06-92	12-06-92		
Date of Analysis	12-08-92	12-08-92	12-08-92		
2,4-D	ND	8.28	81.4	5.0	-
SURR.(DCAA) %	48.0	10.0	84.8	-	-
Silvex (2,4,5-TP)	ND	7.72	71.3	1.0	-

** NOTES :

BLANK 12-06-92-2 - TCLP BLANK.
 BLANK 12-6-2 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-6-2 SPK RCV - TCLP BLANK SPIKE.

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	
Date of Collection	
Date of Receipt	
Date of Extraction	
Date of Analysis	
2,4-D	-
SURR.(DCAA) %	10.0
Silvex (2,4,5-TP)	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-28-92 10:35
 Prepared By *KWB*
 QA/QC Check *JS*
 Lab Manager *JS*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-06-92-1	12-6-1 SPK ADD	12-6-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-06-92	12-06-92	12-06-92		
Date of Analysis	12-08-92	12-08-92	12-08-92		
2,4-D	ND	2.07	0.0	1.25	-
SURR.(DCAA) %	113	10.0	19.8		-
Silvex (2,4,5-TP)	ND	1.93	9.2	0.25	-

** NOTES :

BLANK 12-6-1 SPK RCV% - UNACCEPTABLE SPIKE RECOVERY FOR 2,4-D DUE TO ANALYTICAL INTERFERENCES.

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	
Date of Collection	
Date of Receipt	
Date of Extraction	
Date of Analysis	
2,4-D	-
SURR.(DCAA) %	10.0
Silvex (2,4,5-TP)	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Herbicides By SW846-1311/8150
Results given in: mg/Kg

Report Date: 12-28-92 10:35
Prepared By KW
QA/QC Check JG
Lab Manager JG

Sample Number 112492-DH-002
Lab ID Number 9207656
Matrix LEACHATE
Type SAMPLE

Date of Collection 11-24-92
Date of Receipt 11-24-92
Date of Extraction 12-06-92
Date of Analysis 12-18-92

2,4-D ND
SURR. (DCAA) % 65.9
Silvex (2,4,5-TP) ND

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report
 Herbicides By SW846-1311/8150
 Results given in: mg/Kg

Report Date: 12-28-92 10:35
 Prepared By *[Signature]*
 QA/QC Check *[Signature]*
 Lab Manager *[Signature]*

Sample Number	112492-DH-002	112492-DH-002	LIMIT	LIMIT	SURROGATE
Lab ID Number	9207656-SPIKE-1	9207656-SPIKE-1	OF	OF	SPIKE
Matrix	LEACHATE	LEACHATE	DETECTION	QUANTITATION	LEVELS
Type	ADDED LEVEL**	% RECOVERED 1**			
Date of Collection	11-24-92	11-24-92			
Date of Receipt	11-24-92	11-24-92			
Date of Extraction	12-06-92	12-06-92			
Date of Analysis	12-18-92	12-18-92			
2,4-D	-	-	100	-	-
SURR.(DCAA) %	40.5	38.6	-	-	10.0
Silvex (2,4,5-TP)	-	-	20	-	-

** NOTES :

9207656*SPK1ADD - 2,4-D AND Silvex (2,4,5-TP) SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.
 9207656*SPK1RCV1 - 2,4-D AND Silvex (2,4,5-TP) SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Metals By SW846-1311/6010/7000
Results given in: ug/L

Report Date: 12-28-92 11:25
Prepared By *KH*
QA/QC Check *TP*
Lab Manager *TP*

Sample Number	112092-DH-001	112492-DH-002
Lab ID Number	9207655	9207656
Matrix	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**
Date of Collection	11-20-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Digestion	12-92	12-92
Date of Analysis	12-92	12-92
Arsenic	ND	ND
Barium	ND	ND
Cadmium	ND	ND
Chromium	1260	ND
Lead	ND	ND
Mercury	ND	ND
Selenium	ND	ND
Silver	ND	ND

** NOTES :

- 9207655*SAMPLE - TCLP EXTRACTION STARTED 12/03/92. Hg ANALYSIS DATE 12/10/92. DUE TO HIGH LEVELS OF ORGANICS, SAMPLE DILUTED 1:5 FOR ALL DIGESTIONS (Hg 1:10); THEREFORE, LODs 5 TIMES HIGHER THAN NORMAL (Hg 10 TIMES).
- 9207656*SAMPLE - 1ml SAMPLE SIZE USED IN DIGESTION; LOD FOR Mercury IS 20 ug/L.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Spikes
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 12-28-92 11:25
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	112092-DH-001	112092-DH-001	112492-DH-002	112492-DH-002
Lab ID Number	9207655-SPIKE-1	9207655-SPIKE-1	9207656-SPIKE-1	9207656-SPIKE-1
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1	ADDED LEVEL	% RECOVERED 1**
Date of Collection	11-20-92	11-20-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92
Date of Digestion	12-92	12-92	12-92	12-92
Date of Analysis	12-92	12-92	12-92	12-92
Arsenic	1000	97.6	1000	-
Barium	25000	95.6	25000	87.7
Cadmium	5000	97.2	5000	85.2
Chromium	5000	92.3	5000	88.5
Lead	5000	103	5000	77.0
Mercury	50.0	98.8	50.0	98.8
Selenium	1000	104	1000	-
Silver	2500	102	2500	77.4

** NOTES :

9207656*SPK1RCV1 - UNACCEPTABLE SPIKE RECOVERY FOR Arsenic AND Selenium DUE TO MATRIX INTERFERENCE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 12-28-92 11:25
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-92-1	12-92-1 SPK ADD	12-92-1 SPK RCV%	12-92-2	12-92-2 SPK ADD
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE	SAMPLE	SAMPLE	SAMPLE**	SAMPLE**
Date of Collection					
Date of Receipt					
Date of Digestion	12-92	12-92	12-92	12-92	12-92
Date of Analysis	12-92	12-92	12-92	12-92	12-92
Arsenic	ND	1000	97.5	ND	1000
Barium	ND	25000	97.5	ND	25000
Cadmium	ND	5000	95.8	ND	5000
Chromium	ND	5000	98.4	ND	5000
Lead	ND	5000	98.0	ND	5000
Mercury	ND	50.0	101	ND	50.0
Selenium	ND	1000	99.9	ND	1000
Silver	ND	2500	101	ND	2500

**** NOTES :**

BLANK 12-92-2 - TCLP BLANK.
 BLANK 12-92-2 SPK ADD - TCLP BLANK SPIKE.

Sample Number	BLANK	LIMIT	LIMIT
Lab ID Number	12-92-2 SPK RCV%	OF	OF
Matrix	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**		
Date of Collection			
Date of Receipt			
Date of Digestion	12-92		
Date of Analysis	12-92		
Arsenic	102	50	-
Barium	97.5	5000	-
Cadmium	96.5	25	-
Chromium	91.5	1000	-
Lead	95.0	250	-
Mercury	101	2	-
Selenium	94.9	25	-
Silver	98.2	100	-

**** NOTES :**

BLANK 12-92-2 SPK RCV% - TCLP BLANK SPIKE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100

Memphis, Tennessee 38132

(901)-345-1788

Client Contact: Bobby Allen
Project: E T I
N A S
Sample(s) Type: Water Waste

Report No: R-921460-A
Report Date: 01/20/93
Facility ID#:

Quality Assurance Summary:

<u>Type of Analysis</u>	<u>Method</u>	<u>Holding Time</u>	<u>Surrogate Recovery</u>	<u>Matrix Spike Recoveries</u>	<u>Blanks</u>	<u>Overall Summary</u>
CORROSIVITY (ph)	SW846-9045	N-1	NA	NA	NA	See N-1
CYANIDE (reactive)	SW846-7.3.3.2	N-2	NA	NA	A	See N-2
SULFIDE (reactive)	SW846-7.3.4.2	N-2	NA	NA	A	See N-2

NOTE 1: This analysis should have been performed immediately.

NOTE 2: This analysis was requested by the client after the holding time was exceeded. The values reported are considered estimated.

A = Requirements set by method were met

NA = Not applicable

N-1 = See NOTE 1

N-2 = See NOTE 2

N-3 =

N-4 =


Kirk Hoover
QA Officer


Terri Gray
Laboratory Manager

Report Number: R-921460
Project Number: 375-05-02-00
Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
Analytical Report
General Chemistry
Results given in: mg/Kg

Report Date: 01-18-93 10:39

Sample Number	112092-DH-001	112492-DH-002
Lab ID Number	9207655	9207656
Matrix	WATER WASTE	WATER WASTE
Type	SAMPLE**	SAMPLE**
Date of Collection	11-20-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	-	-
Date of Analysis	01-05-93	01-05-93
Corrosivity - pH (ph units)	6.45	8.75
Cyanide (Reactive)	ND	ND
Sulfide (Reactive)	ND	ND

** NOTES :

9207655*SAMPLE - ALL ANALYSES WERE REQUESTED BY THE CLIENT AFTER HOLDING TIMES FOR ALL TESTS WERE EXCEEDED. Corrosivity - pH ANALYZED 01/04/93.
9207656*SAMPLE - Corrosivity - pH ANALYZED 01/04/93.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOD, Above LOD

Report Number: R-921460
 Project Number: 375-05-02-00
 Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
 QA/QC Report - Blanks
 General Chemistry
 Results given in: mg/Kg

Report Date: 01-18-93 10:39

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	01-05 SPK ADD	01-05 SPK RCV5	01-05-93	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	-	-	-		
Date of Analysis	01-05-93	01-05-93	01-05-93		
Corrosivity - pH (ph units)	-	-	-	-	-
Cyanide (Reactive)	20	110	ND	1	-
Sulfide (Reactive)	35.6	59.6	ND	1	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100
Memphis, Tennessee 38132
(901)-345-1788

Client Contact: Bobby Allen
Project: E T I - NAS
Northside
Sample(s) Type: Liquid Waste

Report No: R-921461
Report Date: 12/29/92
Facility ID#:

Quality Assurance Summary:

<u>Type of Analysis</u>	<u>Method</u>	<u>Holding Time</u>	<u>Surrogate Recovery</u>	<u>Matrix Spike Recoveries</u>	<u>Blanks</u>	<u>Overall Summary</u>
PESTICIDES	SW846- 3580/ 8080	A	N-1	NA	A	A (See N-1)
ASH CONTENT	AOAC- 942-05	NA	NA	NA	A	A
BTU	ASTM- D240 (N-2)	NA	NA	NA	NA	A
CORROSIVITY	SW846- 9040	A	NA	NA	NA	A
CYANIDE (reactive)	SW846- 7.3.3.2	A	NA	NA	A	A
DENSITY	AOAC- 920-212	NA	NA	NA	NA	A
SOLIDS (total suspended solids)	EPA- 160.2	N-3	NA	NA	NA	See N-3
SULFIDE (reactive)	SW846- 7.3.4.2	A	NA	A	NA	A

A = Requirements set by method were met

NA = Not applicable

N-1 = See NOTE 1 on page 3

N-5 = See NOTE 5 on Page 3

N-2 = See NOTE 2 on page 3

N-6 = See NOTE 6 on Page 3

N-3 = See NOTE 3 on page 3

N-7 = See NOTE 7 on Page 3

N-4 = See NOTE 4 on page 3

N-8 = See NOTE 8 on Page 3

Jerri Gray
QA Officer

Jerri Gray
Laboratory Manager

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100
Memphis, Tennessee 38132
(901)-345-1788

Client Contact: Bobby Allen
Project: E T I - NAS
Northside
Sample(s) Type: Liquid Waste

Report No: R-921461
Report Date: 12/29/92
Facility ID#:

Quality Assurance Summary page 2:

<u>Type of Analysis</u>	<u>Method</u>	<u>Holding Time</u>	<u>Surrogate Recovery</u>	<u>Matrix Spike Recoveries</u>	<u>Blanks</u>	<u>Overall Summary</u>
FLASHPOINT/ IGNITABILITY	ASTM- D93/ SW846- 1010	A	NA	NA	NA	A
HALOGENS	N-4	N-5	NA	A	A	See N-4 and N-5
TPH	EPA- 418.1	A	NA		A	
TCLP	SW846- 1311	A				
VOC	SW846- 8240	A	A	A	A	A
BNA 2 Reports	SW846- 3580/ 8270	A	N-6	N-7	A	A (See N-6 and N-7)
PESTICIDES	SW846- 3510/ 8080	A	N-6	N-7	A	A (See N-6 and N-7)
HERBICIDES	SW846- 3580/ 8150	A	A(N-8)	A	A	A (See N-8)
METALS 2 Reports	SW846- 6010/ 7000	A	NA	A	A	A

A = Requirements set by method were met

NA = Not applicable

N-1 = See NOTE 1 on page 3

N-5 = See NOTE 5 on Page 3

N-2 = See NOTE 2 on page 3

N-6 = See NOTE 6 on Page 3

N-3 = See NOTE 3 on page 3

N-7 = See NOTE 7 on Page 3

N-4 = See NOTE 4 on page 3

N-8 = See NOTE 8 on Page 3

Jurri Gray
QA Officer

Jurri Gray
Laboratory Manager

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100

Memphis, Tennessee 38132

(901)-345-1788

Client Contact: Bobby Allen
Project: E T I - NAS
Northside
Sample(s) Type: Liquid Waste

Report No: R-921461
Report Date: 12/29/92
Facility ID#:

Quality Assurance Summary page 3:

- NOTE 1: The surrogate was diluted out.
- NOTE 2: This analysis performed by Galbraith Labs.
- NOTE 3: The holding time of seven days was exceeded.
- NOTE 4: These analyses were performed by Galbraith Lab:
- | | |
|----------|-----------------------|
| Bromine | ASTM-D808/EPA-300.0-1 |
| Chlorine | ASTM-D808/EPA-300.0-1 |
| Fluorine | ASTM-E442/D3761 |
| Iodine | ASTM-E442/D3869-C |
- NOTE 5: This analysis was requested after the holding time had expired.
- NOTE 6: Due to the level of contamination present in the sample, the surrogates were diluted out in the samples.
- NOTE 7: Due to the level of contamination present in the sample, the matrix spikes added were diluted out.
- NOTE 8: As noted in one of the reports, several samples had unacceptable surrogate recoveries due to matrix interferences.


QA Officer


Laboratory Manager

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
Analytical Report
Pesticides By SW846-3580/8080
Results given in: mg/Kg

Report Date: 12-28-92 17:08
Prepared By *SLA*
QA/QC Check *TG*
Lab Manager *TG*

Sample Number	112492-DH-003	112492-DH-004	112492-DH-006
Lab ID Number	9207657	9207658	9207660
Matrix	LIQUID WASTE	LIQUID WASTE	LIQUID WASTE
Type	SAMPLE**	SAMPLE**	SAMPLE**
Date of Collection	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92
Date of Extraction	12-04-92	12-04-92	12-04-92
Date of Analysis	12-15-92	12-15-92	12-15-92

Aroclor-total	ND	ND	ND
SURR.(TCMX) %	-	-	-

** NOTES :

9207657*SAMPLE - LOD FOR THIS SAMPLE IS 50 TIMES THE VALUE STATED. SURROGATE DILUTED OUT.
9207658*SAMPLE - LOD FOR THIS SAMPLE IS 500 TIMES THE VALUE STATED. SURROGATE DILUTED OUT.
9207660*SAMPLE - LOD FOR THIS SAMPLE IS 200 TIMES THE VALUE STATED. SURROGATE DILUTED OUT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
QA/QC Report - Laboratory Duplicate Samples
Pesticides By SW846-3580/8080
Results given in: mg/Kg

Report Date: 12-28-92 17:08
Prepared By *[Signature]*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number	112492-DH-004	112492-DH-004
Lab ID Number	9207658	9207658
Matrix	LIQUID WASTE	LIQUID WASTE
Type	SAMPLE**	LAB DUPLICATE**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-04-92	12-04-92
Date of Analysis	12-15-92	12-15-92

Aroclor-total	ND	ND
SURR.(TCMX) %	-	-

** NOTES :

9207658*SAMPLE - LOD FOR THIS SAMPLE IS 500 TIMES THE VALUE STATED. SURROGATE DILUTED OUT.
9207658*LAB DUP - LOD FOR THIS DUPLICATE IS 500 TIMES THE VALUE STATED. SURROGATE DILUTED OUT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-3580/8080
 Results given in: mg/Kg

Report Date: 12-28-92 17:08
 Prepared By *[Signature]*
 QA/QC Check *[Signature]*
 Lab Manager *[Signature]*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-04 SPK ADD	12-04 SPK RCV%	12-04-92	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-15-92	12-15-92	12-15-92		
Aroclor-total	4.0	83.2	ND	1.0	-
SURR.(TCMX) %	4.0	71.2	72.8	-	-

** NOTES :

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	
Date of Collection	
Date of Receipt	
Date of Extraction	
Date of Analysis	
Aroclor-total	-
SURR.(TCMX) %	4.0

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 VA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
 Analytical Report
 General Chemistry
 Results given in: mg/Kg

Report Date: 12-29-92 08:38
 Prepared By: *CW/KAT*
 QA/QC Check: *Ly*
 Lab Manager: *Jg*

Sample Number	112492-DH-003	112492-DH-004	112492-DH-005	112492-DH-006
Lab ID Number	9207657	9207658	9207659	9207660
Matrix	LIQUID WASTE	LIQUID WASTE	LIQUID WASTE	LIQUID WASTE
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**
Date of Collection	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	-	-	-	-
Date of Analysis	12-01-92	12-01-92	11-30-92	12-01-92
Ash content (percent)	ND	1.47	-	ND
BTU (btu/lb)	19500	1840	-	10600
Corrosivity - pH (ph units)	7.43	6.70	8.34	11.45
Cyanide (Reactive)	ND	ND	ND	ND
Density	0.8264	1.0334	-	0.8611
Sulfide (Reactive)	ND	291	ND	ND
Total suspended solids (mg/L)	124	53500	-	237000

** NOTES :

- 9207657*SAMPLE - ANALYSES DATES: Ash content 12/08/92, BTU 12/09/92, Corrosivity-pH 11/30/92, Cyanide (Reactive) 12/04-07/92, & Density 12/04/92 EXPRESSED AS SPECIFIC GRAVITY AT 25 DEGREES CELSIUS/25 DEGREES CELSIUS.
- 9207658*SAMPLE - ANALYSES DATES: Ash content 12/08/92, BTU 12/09/92, Corrosivity-pH 11/30/92, Cyanide (Reactive) 12/04-07/92, & Density 12/04/92 EXPRESSED AS SPECIFIC GRAVITY AT 25 DEGREES CELSIUS/25 DEGREES CELSIUS.
- 9207659*SAMPLE - Cyanide (Reactive) ANALYZED 12/04-07/92 AND Sulfide (Reactive) ANALYZED 12/01/92.
- 9207660*SAMPLE - ANALYSES DATES: Ash content 12/08/92, BTU 12/09/92, Corrosivity-pH 11/30/92, Cyanide (Reactive) 12/04-07/92, & Density 12/04/92 EXPRESSED AS SPECIFIC GRAVITY AT 25 DEGREES CELSIUS/25 DEGREES CELSIUS.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
 QA/QC Report - Laboratory Duplicate Samples
 General Chemistry
 Results given in: mg/Kg

Report Date: 12-29-92 08:38

Prepared By *CW/KH*
 QA/QC Check *ES*
 Lab Manager *ES*

Sample Number	112492-DH-003	112492-DH-003	112492-DH-005	112492-DH-005
Lab ID Number	9207657	9207657	9207659	9207659
Matrix	LIQUID WASTE	LIQUID WASTE	LIQUID WASTE	LIQUID WASTE
Type	SAMPLE**	LAB DUPLICATE**	SAMPLE**	LAB DUPLICATE**
Date of Collection	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	-	-	-	-
Date of Analysis	12-01-92	12-92	11-30-92	12-92
Ash content (percent)	ND	-	-	-
BTU (btu/lb)	19500	19500	-	-
Corrosivity - pH (ph units)	7.43	-	8.34	-
Cyanide (Reactive)	ND	-	ND	ND
Density	0.8264	-	-	-
Sulfide (Reactive)	ND	-	ND	ND
Total suspended solids (mg/L)	124	120	-	-

** NOTES :

- 9207657*SAMPLE - ANALYSES DATES: Ash content 12/08/92, BTU 12/09/92, Corrosivity-pH 11/30/92, Cyanide (Reactive) 12/04-07/92, & Density 12/04/92 EXPRESSED AS SPECIFIC GRAVITY AT 25 DEGREES CELSIUS/25 DEGREES CELSIUS.
- 9207657*LAB DUP - BTU ANALYZED 12/09/92 AND Total suspended solids ANALYZED 12/01/92.
- 9207659*SAMPLE - Cyanide (Reactive) ANALYZED 12/04-07/92 AND Sulfide (Reactive) ANALYZED 12/01/92.
- 9207659*LAB DUP - Cyanide (Reactive) ANALYZED 12/04-07/92 AND Sulfide (Reactive) ANALYZED 12/01/92.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
 QA/QC Report - Blanks
 General Chemistry
 Results given in: mg/Kg

Report Date: 12-29-92 08:38
 Prepared By: *Ch...*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-92	12-92 SPK ADD	12-92 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	-	-	-		
Date of Analysis	12-92	12-92	12-92		
Ash content (percent)	-	-	-	1	-
BTU (btu/lb)	-	-	-	1000	-
Corrosivity - pH (ph units)	-	-	-	-	-
Cyanide (Reactive)	ND	20	71.2	1	-
Density	-	-	-	-	-
Sulfide (Reactive)	ND	620	53.2	10	-
Total suspended solids (mg/L)	-	-	-	100	-

** NOTES :

BLANK 12-92 - Cyanide (Reactive) ANALYZED 12/04-07/92 AND Sulfide (Reactive) ANALYZED 12/01/92.
 BLANK 12-92 SPK ADD - Cyanide (Reactive) ANALYZED 12/04-07/92 AND Sulfide (Reactive) ANALYZED 12/01/92.
 BLANK 12-92 SPK RCV% - Cyanide (Reactive) ANALYZED 12/04-07/92 AND Sulfide (Reactive) ANALYZED 12/01/92.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
Analytical Report
General Chemistry
Results given in:

Report Date: 12-29-92 14:52
Prepared By *RH*
QA/QC Check *LG*
Lab Manager *LG*

Sample Number	112492-DH-003	112492-DH-004	112492-DH-005	112492-DH-006
Lab ID Number	9207657	9207658	9207659	9207660
Matrix	LIQUID WASTE	LIQUID WASTE	LIQUID WASTE	LIQUID WASTE
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**
Date of Collection	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	-	-	-	-
Date of Analysis	12-07-92	12-07-92	12-07-92	12-16-92
Flash point (degrees)	-	-	-	94
Ignitability (degrees)	-	-	140	-

** NOTES :

- 9207657*SAMPLE - SAMPLE BOILED AT 194 DEGREES FAHRENHEIT. Flash point UNOBTAINABLE.
- 9207658*SAMPLE - SAMPLE BOILED AT 216 DEGREES FAHRENHEIT. Flash point UNOBTAINABLE.
- 9207659*SAMPLE - RESULT FOR Ignitability > 140 DEGREES FAHRENHEIT.
- 9207660*SAMPLE - RESULT FOR Flash point REPORTED IN DEGREES FAHRENHEIT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ET1/NAS - LIQUID WASTE

Memphis Environmental Center
QA/QC Report
General Chemistry
Results given in:

Report Date: 12-29-92 14:52
Prepared By: *KH*
QA/QC Check: *[Signature]*
Lab Manager: *[Signature]*

Sample Number	112492-DH-006	112492-DH-006	LIMIT	LIMIT
Lab ID Number	9207660	9207660	OF	OF
Matrix	LIQUID WASTE	LIQUID WASTE	DETECTION	QUANTITATION
Type	SAMPLE**	LAB DUPLICATE**		
Date of Collection	11-24-92	11-24-92		
Date of Receipt	11-24-92	11-24-92		
Date of Extraction	-	-		
Date of Analysis	12-16-92	12-16-92		
Flash point (degrees)	94	99	-	-
Ignitability (degrees)	-	-	-	-

** NOTES :

9207660*SAMPLE - RESULT FOR Flash point REPORTED IN DEGREES FAHRENHEIT.
9207660*LAB DUP - RESULT FOR Flash point REPORTED IN DEGREES FAHRENHEIT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
Analytical Report
General Chemistry
Results given in: ppm

Report Date: 12-26-92 13:37
Prepared By: *[Signature]*
QA/QC Check: *[Signature]*
Lab Manager: *[Signature]*

Sample Number	112492-DH-003	112492-DH-004	112492-DH-006
Lab ID Number	9207657	9207658	9207660
Matrix	LIQUID WASTE	LIQUID WASTE	LIQUID WASTE
Type	SAMPLE**	SAMPLE	SAMPLE
Date of Collection	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92
Date of Extraction	-	-	-
Date of Analysis	12-92	12-92	12-92
Bromine	ND	ND	ND
Chlorine	13	4610	64
Fluorine	160	71	190
Iodine	ND	ND	ND

** NOTES :

9207657*SAMPLE - FOR ALL SAMPLES, ANALYSES REQUESTED AFTER HOLDING TIME EXPIRED. ANALYSES PERFORMED BY GALBRAITH LABS FOR Bromine ON 12/14/92, Chlorine ON 12/14/92, Fluorine ON 12/08/92 & Iodine ON 12/11/92.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
QA/QC Report - Laboratory Duplicate Samples
General Chemistry
Results given in: ppm

Report Date: 12-26-92 13:37
Prepared By *RA*
QA/QC Check *g*
Lab Manager *g*

Sample Number	112492-DH-003	112492-DH-003
Lab ID Number	9207657	9207657
Matrix	LIQUID WASTE	LIQUID WASTE
Type	SAMPLE**	LAB DUPLICATE
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	-	-
Date of Analysis	12-92	12-92
Bromine	ND	ND
Chlorine	13	22
Fluorine	160	154
Iodine	ND	ND

** NOTES :

9207657*SAMPLE - FOR ALL SAMPLES, ANALYSES REQUESTED AFTER HOLDING TIME EXPIRED. ANALYSES PERFORMED BY GALBRAITH LABS FOR Bromine ON 12/14/92, Chlorine ON 12/14/92, Fluorine ON 12/08/92 & Iodine ON 12/11/92.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
 QA/QC Report - Blanks
 General Chemistry
 Results given in: ppm

Report Date: 12-26-92 13:37
 Prepared By: *KA*
 QA/QC Check: *TP*
 Lab Manager: *LG*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-92	12-92 SPK ADD	12-92 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	-	-	-		
Date of Analysis	12-92	12-92	12-92		
Bromine	ND	1000	103	20	-
Chlorine	ND	100	107	10	-
Fluorine	ND	134000	98.5	25	-
Iodine	ND	500	95.2	5	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
Analytical Report
Total Petroleum Hydrocarbons By EPA-418.1
Results given in: mg/L

Report Date: 12-26-92 13:21
Prepared By *KH*
QA/QC Check *TP*
Lab Manager *LP*

Sample Number 112492-DH-005
Lab ID Number 9207659
Matrix LIQUID WASTE
Type SAMPLE**

Date of Collection 11-24-92
Date of Receipt 11-24-92
Date of Extraction 12-03-92
Date of Analysis 12-03-92

Total Petroleum Hydrocarbons 318

** NOTES :

9207659*SAMPLE - DUE TO ORGANIC CONTAMINANTS, 100ml WAS USED FOR EXTRACTION INSTEAD OF 1000ml. LOD FOR THIS SAMPLE IS 10 TIMES THE VALUE STATED.

- Not Applicable
ND Non detected at stated limit
IA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
QA/QC Report - Blanks
Total Petroleum Hydrocarbons By EPA-418.1
Results given in: mg/L

Report Date: 12-26-92 13:21
Prepared By *KY*
QA/QC Check *TL*
Lab Manager *TL*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-03 SPK ADD	12-03 SPK RCV%	12-03-92	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-03-92	12-03-92	12-03-92		
Date of Analysis	12-03-92	12-03-92	12-03-92		
Total Petroleum Hydrocarbons	5.34	85.1	ND	1.00	-

** NOTES :

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	
Date of Collection	
Date of Receipt	
Date of Extraction	
Date of Analysis	
Total Petroleum Hydrocarbons	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 Analytical Report
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-29-92 06:24
 Prepared By *[Signature]*
 QA/QC Check *[Signature]*
 Lab Manager *[Signature]*

Sample Number	112492-DH-003	112492-DH-004	112492-DH-005	112492-DH-006
Lab ID Number	9207657	9207658	9207659	9207660
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**	SAMPLE	SAMPLE**
Date of Collection	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	11-24-92	12-07-92	12-07-92	12-04-92
Date of Analysis	12-04-92	12-16-92	12-07-92	12-07-92
Benzene	122000	ND	ND	749
Carbon tetrachloride	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND
Dichlorobenzene, 1,4-	ND	ND	ND	ND
Dichloroethane, 1,2-	ND	ND	ND	ND
Dichloroethene, 1,1-	ND	ND	ND	ND
Methylethyl ketone	ND	ND	ND	ND
SURR.(Bromofluorobenzene, 4-)%	88	95	87	88
SURR.(Toluene-d8) %	100	107	107	100
SURR.(d-4,1,2-Dichloroethane)%	100	111	104	99
Tetrachloroethene	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND

** NOTES :
 9207657*SAMPLE - PQLs FOR THIS SAMPLE ARE 1430 TIMES THE VALUES STATED.
 9207658*SAMPLE - PQLs FOR THIS SAMPLE ARE 5 TIMES THE VALUES STATED.
 9207660*SAMPLE - PQLs FOR THIS SAMPLE ARE 2 TIMES THE VALUES STATED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Spikes
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-29-92 06:24
 Prepared By *R.M.*
 QA/QC Check *J.P.*
 Lab Manager *J.P.*

Sample Number	112492-DH-006	112492-DH-006	112492-DH-006
Lab ID Number	9207660-SPIKE-1	9207660-SPIKE-1	9207660-SPIKE-1
Matrix	LEACHATE	LEACHATE	LEACHATE
Type	ADDED LEVEL**	% RECOVERED 1	% RECOVERED 2
Date of Collection	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92
Date of Extraction	12-04-92	12-04-92	12-04-92
Date of Analysis	12-07-92	12-07-92	12-07-92
Benzene	5000	104	101
Carbon tetrachloride	5000	96	94
Chlorobenzene	5000	95	88
Chloroform	5000	91	88
Dichlorobenzene, 1,4-	5000	80	80
Dichloroethane, 1,2-	5000	86	84
Dichloroethene, 1,1-	5000	89	85
Methylethyl ketone	10000	78	85
SURR.(Bromofluorobenzene, 4-)%	4150	96	93
SURR.(Toluene-d8) %	4400	100	100
SURR.(d-4,1,2-Dichloroethane)%	4640	94	97
Tetrachloroethene	5000	103	96
Trichloroethene	5000	92	88
Vinyl chloride	5000	70	67

** NOTES :

9207660*SPK1ADD - PQLs FOR THIS MATRIX SPIKE ARE 10 TIMES THE VALUES STATED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-29-92 06:24
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	11-24-92	12-04-92-1	12-04-92-2	12-04-92-3	12-07 SPK ADD
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE	SAMPLE	SAMPLE	SAMPLE	SAMPLE
Date of Collection					
Date of Receipt					
Date of Extraction	11-24-92	12-04-92	12-04-92	12-04-92	12-07-92
Date of Analysis	12-02-92	12-07-92	12-16-92	12-04-92	12-07-92
Benzene	ND	ND	ND	ND	50
Carbon tetrachloride	ND	ND	ND	ND	-
Chlorobenzene	ND	ND	ND	ND	50
Chloroform	ND	ND	ND	ND	-
Dichlorobenzene, 1,4-	ND	ND	ND	ND	-
Dichloroethane, 1,2-	ND	ND	ND	ND	-
Dichloroethene, 1,1-	ND	ND	ND	ND	50
Methylethyl ketone	ND	ND	ND	ND	-
SURR.(Bromofluorobenzene, 4-)%	97	90	100	91	41.5
SURR.(Toluene-d8) %	106	105	106	101	44
SURR.(d-4,1,2-Dichloroethane)%	107	105	109	100	46.4
Tetrachloroethene	ND	ND	ND	ND	-
Trichloroethene	ND	ND	ND	ND	50
Vinyl chloride	ND	ND	ND	ND	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-29-92 06:24
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-07 SPK RCV%	12-07-92	12-4-1 SPK ADD	12-4-1 SPK RCV%	12-4-2 SPK ADD
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE**	SAMPLE	SAMPLE	SAMPLE	SAMPLE
Date of Collection					
Date of Receipt					
Date of Extraction	12-07-92	12-07-92	12-04-92	12-04-92	12-04-92
Date of Analysis	12-07-92	12-07-92	12-07-92	12-07-92	12-04-92
Benzene	79	ND	500	86	50
Carbon tetrachloride	-	ND	500	94	-
Chlorobenzene	85	ND	500	90	50
Chloroform	-	ND	500	86	-
Dichlorobenzene, 1,4-	-	ND	500	80	-
Dichloroethane, 1,2-	-	ND	500	84	-
Dichloroethene, 1,1-	-	ND	500	85	50
Methylethyl ketone	-	ND	1000	82	-
SURR.(Bromofluorobenzene, 4-)%	94	91	415	97	41.5
SURR.(Toluene-d8) %	105	107	440	103	44
SURR.(d-4,1,2-Dichloroethane)%	98	108	464	95	46.4
Tetrachloroethene	-	ND	500	98	-
Trichloroethene	80	ND	500	88	50
Vinyl chloride	-	ND	500	67	-

** NOTES :

BLANK 12-07 SPK RCV% - Dichloroethene, 1,1- NOT ANALYZED FOR THIS BLANK SPIKE. NO RECOVERY AVAILABLE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-29-92 06:24
 Prepared By *BM*
 QA/QC Check *TL*
 Lab Manager *TL*

Sample Number	BLANK	METHOD	PRACTICAL	SURROGATE
Lab ID Number	12-4-2 SPK RCV%	DETECTION	QUANTITATION	SPIKE
Matrix	SYSTEM	LIMIT	LIMIT	LEVELS
Type	SAMPLE			

Date of Collection	
Date of Receipt	
Date of Extraction	12-04-92
Date of Analysis	12-04-92

Benzene	96		50	-
Carbon tetrachloride	-		50	-
Chlorobenzene	100		50	-
Chloroform	-		50	-
Dichlorobenzene, 1,4-	-		50	-
Dichloroethane, 1,2-	-		50	-
Dichloroethene, 1,1-	99		50	-
Methylethyl ketone	-		500	-
SURR.(Bromofluorobenzene, 4-)%	94		-	415
SURR.(Toluene-d8) %	101		-	440
SURR.(d-4,1,2-Dichloroethane)%	96		-	464
Tetrachloroethene	-		50	-
Trichloroethene	102		50	-
Vinyl chloride	-		100	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00

Memphis Environmental Center
Analytical Report

Report Date: 12-28-92 17:19

Description: ETI/NAS - TCLP LIQUID PHASE

Base/Neutral/Acid Extractables By SW846-1311/3580/8270
Results given in: mg/Kg

Prepared By: 
QA/QC Check: 
Lab Manager: 

Sample Number 112492-DH-006
Lab ID Number 9207660
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-24-92
Date of Receipt 11-24-92
Date of Extraction 12-03-92
Date of Analysis 12-18-92

Cresols	ND
Dinitrotoluene, 2,4-	ND
Hexachlorobenzene	ND
Hexachlorobutadiene	ND
Hexachloroethane	ND
Nitrobenzene	ND
Pentachlorophenol	ND
Pyridine	ND
SURR.(Fluorobiphenyl, 2-) %	-
SURR.(Fluorophenol, 2-) %	-
SURR.(Nitrobenzene, d-5) %	-
SURR.(Phenol, d-6) %	-
SURR.(Terphenyl, d-14-p) %	-
SURR.(Tribromophenol, 2,4,6-) %	-
Trichlorophenol, 2,4,5-	ND
Trichlorophenol, 2,4,6-	ND

** NOTES :

9207660*SAMPLE - THIS SAMPLE WAS ANALYZED BY WASTE DILUTION. SURROGATES DILUTED OUT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00

Memphis Environmental Center

Report Date: 12-28-92 17:19

Description: ETI/NAS - TCLP LIQUID PHASE

QA/QC Report - Spikes
Base/Neutral/Acid Extractables By SW846-1311/3580/8270
Results given in: mg/Kg

Prepared By [Signature]
QA/QC Check [Signature]
Lab Manager [Signature]

Sample Number	112492-DH-006	112492-DH-006
Lab ID Number	9207660-SPIKE-1	9207660-SPIKE-1
Matrix	LEACHATE	LEACHATE
Type	ADDED LEVEL**	% RECOVERED 1**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-03-92	12-03-92
Date of Analysis	12-18-92	12-18-92

Cresols	-	-
Dinitrotoluene, 2,4-	-	-
Hexachlorobenzene	-	-
Hexachlorobutadiene	-	-
Hexachloroethane	-	-
Nitrobenzene	-	-
Pentachlorophenol	-	-
Pyridine	-	-
SURR.(Fluorobiphenyl, 2-) %	-	-
SURR.(Fluorophenol, 2-) %	-	-
SURR.(Nitrobenzene, d-5) %	-	-
SURR.(Phenol, d-6) %	-	-
SURR.(Terphenyl, d-14-p) %	-	-
SURR.(Tribromophenol, 2,4,6-) %	-	-
Trichlorophenol, 2,4,5-	-	-
Trichlorophenol, 2,4,6-	-	-

** NOTES :

9207660*SPK1ADD - SURROGATES AND MATRIX SPIKES DILUTED OUT. NO DATA AVAILABLE.
9207660*SPK1RCV1 - SURROGATES AND MATRIX SPIKES DILUTED OUT. NO DATA AVAILABLE.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3580/8270
 Results given in: mg/Kg

Report Date: 12-28-92 17:19
 Prepared By [Signature]
 QA/QC Check [Signature]
 Lab Manager [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-03 SPK ADD	12-03 SPK RCV%	12-03-92	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-03-92	12-03-92	12-03-92		
Date of Analysis	12-17-92	12-17-92	12-17-92		
Cresols	6000	168	ND		1000
Dinitrotoluene, 2,4-	2000	61.9	ND		500
Hexachlorobenzene	2000	0	ND		500
Hexachlorobutadiene	2000	98.8	ND		500
Hexachloroethane	2000	114	ND		500
Nitrobenzene	2000	103	ND		500
Pentachlorophenol	2000	101	ND		1000
Pyridine	2000	62.2	ND		500
SURR.(Fluorobiphenyl, 2-) %	1000	120	114		-
SURR.(Fluorophenol, 2-) %	2000	122	109		-
SURR.(Nitrobenzene, d-5) %	1000	108	111		-
SURR.(Phenol, d-6) %	2000	127	115		-
SURR.(Terphenyl, d-14-p) %	1000	105	107		-
SURR.(Tribromophenol, 2,4,6-) %	2000	87.5	33.5		-
Trichlorophenol, 2,4,5-	2000	76.3	ND		1000
Trichlorophenol, 2,4,6-	2000	85.6	ND		1000

** NOTES :

BLANK 12-03 SPK RCV% - UNACCEPTABLE RECOVERY FOR Hexachlorobenzene. RECOVERIES ABOVE ACCEPTED LIMITS:
 SURR.(Fluorobiphenyl,2-)/116%, SURR.(Fluorophenol,2-)/100% AND SURR.(Phenol,d-6)/94%.
 BLANK 12-03-92 - LOQs FOR THIS SAMPLE ARE 25 TIMES THE VALUES STATED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP LIQUID PHASE

Memphis Environmental Center
QA/QC Report - Blanks
Base/Neutral/Acid Extractables By SW846-1311/3580/8270
Results given in: mg/Kg

Report Date: 12-28-92 17:20
Prepared By [Signature]
QA/QC Check [Signature]
Lab Manager [Signature]

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Cresols	-
Dinitrotoluene, 2,4-	-
Hexachlorobenzene	-
Hexachlorobutadiene	-
Hexachloroethane	-
Nitrobenzene	-
Pentachlorophenol	-
Pyridine	-
SURR.(Fluorobiphenyl, 2-) %	1000
SURR.(Fluorophenol, 2-) %	2000
SURR.(Nitrobenzene, d-5) %	1000
SURR.(Phenol, d-6) %	2000
SURR.(Terphenyl, d-14-p-) %	1000
SURR.(Tribromophenol, 2,4,6-) %	2000
Trichlorophenol, 2,4,5-	-
Trichlorophenol, 2,4,6-	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Base/Neutral/Acid Extractables By SW846-1311/3580/8270
Results given in: mg/Kg

Report Date: 12-29-92 08:28
Prepared By [Signature]
QA/QC Check [Signature]
Lab Manager [Signature]

Sample Number	112492-DH-003	112492-DH-005
Lab ID Number	9207657	9207659
Matrix	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-03-92	12-03-92
Date of Analysis	12-18-92	12-18-92

Cresols	ND	ND
Dinitrotoluene, 2,4-	ND	ND
Hexachlorobenzene	ND	ND
Hexachlorobutadiene	ND	ND
Hexachloroethane	ND	ND
Nitrobenzene	ND	ND
Pentachlorophenol	ND	ND
Pyridine	ND	ND
SURR.(Fluorobiphenyl, 2-) %	-	-
SURR.(Fluorophenol, 2-) %	-	-
SURR.(Nitrobenzene, d-5) %	-	-
SURR.(Phenol, d-6) %	-	-
SURR.(Terphenyl, d-14-p-) %	-	-
SURR.(Tribromophenol, 2,4,6-) %	-	-
Trichlorophenol, 2,4,5-	ND	ND
Trichlorophenol, 2,4,6-	ND	ND

** NOTES :

- 9207657*SAMPLE - TCLP EXTRACTION DATE FOR THIS SET OF SAMPLES IS 12/03/92. THIS SAMPLE WAS ANALYZED BY WASTE DILUTION. LOQS FOR THIS SAMPLE ARE 2500 TIMES THE VALUES STATED. SURROGATES DILUTED OUT.
- 9207659*SAMPLE - THIS SAMPLE WAS ANALYZED BY WASTE DILUTION. LOQS FOR THIS SAMPLE ARE 2500 TIMES THE VALUES STATED. SURROGATES DILUTED OUT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3580/8270
 Results given in: mg/Kg

Report Date: 12-29-92 08:28
 Prepared By SE
 QA/QC Check TS
 Lab Manager TS

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-03 SPK ADD	12-03 SPK RCV%	12-03-92	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE**	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-03-92	12-03-92	12-03-92		
Date of Analysis	12-17-92	12-17-92	12-17-92		
Cresols	6000	168	ND		100
Dinitrotoluene, 2,4-	2000	61.9	ND		50
Hexachlorobenzene	2000	-	ND		50
Hexachlorobutadiene	2000	98.8	ND		50
Hexachloroethane	2000	114	ND		50
Nitrobenzene	2000	103	ND		50
Pentachlorophenol	2000	101	ND		100
Pyridine	2000	62.2	ND		50
SURR.(Fluorobiphenyl, 2-) %	1000	120	114		-
SURR.(Fluorophenol, 2-) %	2000	122	109		-
SURR.(Nitrobenzene, d-5) %	1000	108	111		-
SURR.(Phenol, d-6) %	2000	127	115		-
SURR.(Terphenyl, d-14-p-) %	1000	105	107		-
SURR.(Tribromophenol, 2,4,6-) %	2000	87.5	33.5		-
Trichlorophenol, 2,4,5-	2000	76.3	ND		100
Trichlorophenol, 2,4,6-	2000	85.6	ND		100

** NOTES :

BLANK 12-03 SPK RCV% - RECOVERIES ABOVE ACCEPTED LIMITS: SURR.(Fluorobiphenyl,2-) ABOVE 116%, SURR.(Fluorophenol,2-) ABOVE 100% AND SURR.(Phenol,d-6) ABOVE 94%. UNACCEPTABLE RECOVERY FOR Hexachlorobenzene.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Blanks
Base/Neutral/Acid Extractables By SW846-1311/3580/8270
Results given in: mg/Kg

Report Date: 12-29-92 08:29
Prepared By: *[Signature]*
QA/QC Check: *[Signature]*
Lab Manager: *[Signature]*

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Cresols	-
Dinitrotoluene, 2,4-	-
Hexachlorobenzene	-
Hexachlorobutadiene	-
Hexachloroethane	-
Nitrobenzene	-
Pentachlorophenol	-
Pyridine	-
SURR.(Fluorobiphenyl, 2-) %	400
SURR.(Fluorophenol, 2-) %	800
SURR.(Nitrobenzene, d-5) %	400
SURR.(Phenol, d-6) %	800
SURR.(Terphenyl, d-14-p-) %	400
SURR.(Tribromophenol, 2,4,6-) %	800
Trichlorophenol, 2,4,5-	-
Trichlorophenol, 2,4,6-	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 Analytical Report
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-29-92 08:29
 Prepared By [Signature]
 QA/QC Check [Signature]
 Lab Manager [Signature]

Sample Number	112492-DH-004	112492-DH-006
Lab ID Number	9207658	9207660
Matrix	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-04-92	12-04-92
Date of Analysis	12-18-92	12-17-92
Cresols	ND	ND
Dinitrotoluene, 2,4-	ND	ND
Hexachlorobenzene	ND	ND
Hexachlorobutadiene	ND	ND
Hexachloroethane	ND	ND
Nitrobenzene	ND	ND
Pentachlorophenol	ND	ND
Pyridine	ND	ND
SURR.(Fluorobiphenyl, 2-) %	64.6	83.5
SURR.(Fluorophenol, 2-) %	46.8	49.9
SURR.(Nitrobenzene, d-5) %	101	81.3
SURR.(Phenol, d-6) %	38.0	31.5
SURR.(Terphenyl, d-14-p-) %	61.4	80.9
SURR.(Tribromophenol, 2,4,6-) %	65.2	89.2
Trichlorophenol, 2,4,5-	1130	ND
Trichlorophenol, 2,4,6-	ND	ND

** NOTES :

- 9207658*SAMPLE - LOqs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.
- 9207660*SAMPLE - LOqs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Spikes
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-29-92 08:29
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	112492-DH-006	112492-DH-006
Lab ID Number	9207660-SPIKE-1	9207660-SPIKE-1
Matrix	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-04-92	12-04-92
Date of Analysis	12-17-92	12-17-92

Cresols	2400	66.1
Dinitrotoluene, 2,4-	800	53.1
Hexachlorobenzene	800	65.1
Hexachlorobutadiene	800	55.4
Hexachloroethane	800	58.5
Nitrobenzene	800	63.6
Pentachlorophenol	800	48.1
Pyridine	800	17.9
SURR.(Fluorobiphenyl, 2-) %	400	75.1
SURR.(Fluorophenol, 2-) %	800	58.9
SURR.(Nitrobenzene, d-5) %	400	71.2
SURR.(Phenol, d-6) %	800	40.6
SURR.(Terphenyl, d-14-p-) %	400	75.6
SURR.(Tribromophenol, 2,4,6-) %	800	75.3
Trichlorophenol, 2,4,5-	800	60.6
Trichlorophenol, 2,4,6-	800	63.0

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-29-92 08:29
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-04-92-2	12-4-2 SPK ADD	12-4-2 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-16-92	12-16-92	12-16-92		
Cresols	ND	240	51.2		100
Dinitrotoluene, 2,4-	ND	80	69.6		50
Hexachlorobenzene	ND	80	65.5		50
Hexachlorobutadiene	ND	80	47.4		50
Hexachloroethane	ND	80	44.3		50
Nitrobenzene	ND	80	54.4		50
Pentachlorophenol	ND	80	74.1		100
Pyridine	ND	80	33.6		50
SURR.(Fluorobiphenyl, 2-) %	65.4	40	65.6		-
SURR.(Fluorophenol, 2-) %	47.8	80	49.1		-
SURR.(Nitrobenzene, d-5) %	67.0	40	66.2		-
SURR.(Phenol, d-6) %	34.6	80	36.3		-
SURR.(Terphenyl, d-14-p-) %	63.4	40	69.1		-
SURR.(Tribromophenol, 2,4,6-) %	81.7	80	85.8		-
Trichlorophenol, 2,4,5-	ND	80	69.6		100
Trichlorophenol, 2,4,6-	ND	80	65.4		100

** NOTES :

BLANK 12-04-92-2 - TCLP BLANK.
 BLANK 12-4-2 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-4-2 SPK RCV% - TCLP BLANK SPIKE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Blanks
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-29-92 08:30
Prepared By [Signature]
QA/QC Check [Signature]
Lab Manager [Signature]

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Cresols	-
Dinitrotoluene, 2,4-	-
Hexachlorobenzene	-
Hexachlorobutadiene	-
Hexachloroethane	-
Nitrobenzene	-
Pentachlorophenol	-
Pyridine	-
SURR.(Fluorobiphenyl, 2-) %	400
SURR.(Fluorophenol, 2-) %	800
SURR.(Nitrobenzene, d-5) %	400
SURR.(Phenol, d-6) %	800
SURR.(Terphenyl, d-14-p-) %	400
SURR.(Tribromophenol, 2,4,6-) %	800
Trichlorophenol, 2,4,5-	-
Trichlorophenol, 2,4,6-	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-29-92 08:30
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-04-92-1	12-4-1 SPK ADD	12-4-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-16-92	12-16-92	12-16-92		
Cresols	ND	240	43.9		10
Dinitrotoluene, 2,4-	ND	80	49.3		5
Hexachlorobenzene	ND	80	47.8		5
Hexachlorobutadiene	ND	80	35.6		5
Hexachloroethane	ND	80	40.3		5
Nitrobenzene	ND	80	43.0		5
Pentachlorophenol	ND	80	45.2		10
Pyridine	ND	80	22.7		5
SURR.(Fluorobiphenyl, 2-) %	45.4	40	48.1		-
SURR.(Fluorophenol, 2-) %	31.9	80	37.8		-
SURR.(Nitrobenzene, d-5) %	47.5	40	47.7		-
SURR.(Phenol, d-6) %	27.1	80	26.0		-
SURR.(Terphenyl, d-14-p-) %	46.6	40	48.4		-
SURR.(Tribromophenol, 2,4,6-) %	52.7	80	59.4		-
Trichlorophenol, 2,4,5-	ND	80	47.4		10
Trichlorophenol, 2,4,6-	ND	80	49.6		10

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Blanks
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-29-92 08:30

Prepared By [Signature]
QA/QC Check [Signature]
Lab Manager [Signature]

Sample Number SURROGATE
Lab ID Number SPIKE
Matrix LEVELS
Type

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Cresols	-
Dinitrotoluene, 2,4-	-
Hexachlorobenzene	-
Hexachlorobutadiene	-
Hexachloroethane	-
Nitrobenzene	-
Pentachlorophenol	-
Pyridine	-
SURR.(Fluorobiphenyl, 2-) %	40
SURR.(Fluorophenol, 2-) %	80
SURR.(Nitrobenzene, d-5) %	40
SURR.(Phenol, d-6) %	80
SURR.(Terphenyl, d-14-p-) %	40
SURR.(Tribromophenol, 2,4,6-) %	80
Trichlorophenol, 2,4,5-	-
Trichlorophenol, 2,4,6-	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Pesticides By SW846-1311/3580/8080
Results given in: mg/Kg

Report Date: 12-29-92 13:46
Prepared By *[Signature]*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number	112492-DH-003	112492-DH-005	112492-DH-006
Lab ID Number	9207657	9207659	9207660
Matrix	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**	SAMPLE**
Date of Collection	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92
Date of Extraction	12-03-92	12-03-92	12-03-92
Date of Analysis	12-06-92	12-06-92	12-06-92
BHC, gamma (Lindane)	ND	ND	ND
Chlordane	ND	ND	ND
Endrin	ND	ND	ND
Heptachlor	ND	ND	ND
Heptachlor epoxide	ND	ND	ND
Methoxychlor	ND	ND	ND
SURR.(TCMX) %	-	-	-
Toxaphene	ND	ND	ND

** NOTES :

- 9207657*SAMPLE - TCLP EXTRACTION FOR THIS SET OF SAMPLES 12/03-04/92. LODs FOR THIS SAMPLE ARE 100 TIMES THE VALUES STATED. SURROGATE DILUTED OUT.
- 9207659*SAMPLE - LODs FOR THIS SAMPLE ARE 100 TIMES THE VALUES STATED. SURROGATE DILUTED OUT.
- 9207660*SAMPLE - LODs FOR THIS SAMPLE ARE 100 TIMES THE VALUES STATED. SURROGATE DILUTED OUT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Laboratory Duplicate Samples
Pesticides By SW846-1311/3580/8080
Results given in: mg/Kg

Report Date: 12-29-92 13:46
Prepared By *K*
QA/QC Check *JA*
Lab Manager *JA*

Sample Number	112492-DH-006	112492-DH-006
Lab ID Number	9207660	9207660
Matrix	LEACHATE	LEACHATE
Type	SAMPLE**	LAB DUPLICATE**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-03-92	12-05-92
Date of Analysis	12-06-92	12-07-92
BHC, gamma (Lindane)	ND	ND
Chlordane	ND	ND
Endrin	ND	ND
Heptachlor	ND	ND
Heptachlor epoxide	ND	ND
Methoxychlor	ND	ND
SURR.(TCMX) %	-	48.4
Toxaphene	ND	ND

** NOTES :

9207660*SAMPLE - LODs FOR THIS SAMPLE ARE 100 TIMES THE VALUES STATED. SURROGATE DILUTED OUT.
9207660*LAB DUP - DUPLICATE ANALYZED BY SW846-1311/3510/8080; REPORTED IN ug/L. LODs LISTED ON PAGE 7.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Spikes
 Pesticides By SW846-1311/3580/8080
 Results given in: mg/Kg

Report Date: 12-29-92 13:46
 Prepared By [Signature]
 QA/QC Check [Signature]
 Lab Manager [Signature]

Sample Number	112492-DH-006	112492-DH-006	112492-DH-006	112492-DH-006
Lab ID Number	9207660-SPIKE-1	9207660-SPIKE-1	9207660-SPIKE-2	9207660-SPIKE-2
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	ADDED LEVEL**	% RECOVERED 1**	ADDED LEVEL**	% RECOVERED 1**
Date of Collection	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	12-03-92	12-03-92	12-05-92	12-05-92
Date of Analysis	12-06-92	12-06-92	12-07-92	12-07-92
BHC, gamma (Lindane)	0.403	-	1.66	89.2
Chlordane	-	-	-	-
Endrin	0.412	-	1.65	56.1
Heptachlor	0.708	-	2.92	75.3
Heptachlor epoxide	0.423	-	1.74	62.1
Methoxychlor	-	-	-	-
SURR.(TCMX) %	4.0	-	8.0	50.0
Toxaphene	-	-	-	-

** NOTES :

- 9207660*SPK1ADD - LODs FOR THIS MATRIX SPIKE ARE 100 TIMES THE VALUES STATED. Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.
- 9207660*SPK1RCV1 - NO RECOVERIES AVAILABLE DUE TO SAMPLE DILUTION.
- 9207660*SPK2ADD - MATRIX SPIKE ANALYZED BY SW846-1311/3510/8080; REPORTED IN ug/L. LODs LISTED ON PAGE 7. Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.
- 9207660*SPK2RCV1 - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3580/8080
 Results given in: mg/Kg

Report Date: 12-29-92 13:46
 Prepared By:
 QA/QC Check:
 Lab Manager:

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-03-92-1	12-03-92-2	12-3-1 SPK ADD	12-3-1 SPK RCV%	12-3-2 SPK ADD
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**
Date of Collection					
Date of Receipt					
Date of Extraction	12-03-92	12-03-92	12-03-92	12-03-92	12-03-92
Date of Analysis	12-06-92	12-06-92	12-06-92	12-06-92	12-06-92
BHC, gamma (Lindane)	ND	ND	0.416	57.0	0.416
Chlordane	ND	ND	-	-	-
Endrin	ND	ND	0.412	117	0.412
Heptachlor	ND	ND	0.729	115	0.729
Heptachlor epoxide	ND	ND	0.435	157	-
Methoxychlor	ND	ND	-	-	-
SURR.(TCMX) %	75.1	-	4.0	80.2	-
Toxaphene	ND	ND	-	-	-

** NOTES :

BLANK 12-03-92-2 - SURROGATE NOT APPLICABLE.
 BLANK 12-3-1 SPK ADD - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-3-1 SPK RCV% - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-3-2 SPK ADD - SURROGATE NOT APPLICABLE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3580/8080
 Results given in: mg/Kg

Report Date: 12-29-92 13:46
 Prepared By [Signature]
 QA/QC Check [Signature]
 Lab Manager [Signature]

Sample Number	BLANK	LIMIT	LIMIT	SURROGATE
Lab ID Number	12-3-2 SPK RCV%	OF	OF	SPIKE
Matrix	SYSTEM	DETECTION	QUANTITATION	LEVELS
Type	SAMPLE**			

Date of Collection	
Date of Receipt	
Date of Extraction	12-03-92
Date of Analysis	12-06-92

BHC, gamma (Lindane)	171	0.125	-	-
Chlordane	-	2.5	-	-
Endrin	50	0.125	-	-
Heptachlor	169	0.125	-	-
Heptachlor epoxide	-	0.125	-	-
Methoxychlor	-	1.25	-	-
SURR.(TCMX) %	-	-	-	4.0
Toxaphene	-	12.5	-	-

** NOTES :

BLANK 12-3-2 SPK RCV% - SURROGATE NOT APPLICABLE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Pesticides By SW846-1311/3510/8080
Results given in: ug/L

Report Date: 12-29-92 13:46
Prepared By [Signature]
QA/QC Check [Signature]
Lab Manager [Signature]

Sample Number 112492-DH-004
Lab ID Number 9207658
Matrix LEACHATE
Type SAMPLE

Date of Collection 11-24-92
Date of Receipt 11-24-92
Date of Extraction 12-05-92
Date of Analysis 12-07-92

BHC, gamma (Lindane)	ND
Chlordane	ND
Endrin	ND
Heptachlor	ND
Heptachlor epoxide	ND
Methoxychlor	ND
SURR.(TCMX) %	35.4
Toxaphene	ND

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-29-92 13:46
 Prepared By [Signature]
 QA/QC Check [Signature]
 Lab Manager [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-05-92-2	12-5-2 SPK ADD	12-5-2 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-05-92	12-05-92	12-05-92		
Date of Analysis	12-07-92	12-07-92	12-07-92		
BHC, gamma (Lindane)	ND	0.416	95.1	0.20	-
Chlordane	ND	-	-	2.0	-
Endrin	ND	0.412	81.9	0.20	-
Heptachlor	ND	0.729	80.5	0.20	-
Heptachlor epoxide	ND	0.435	90.8	0.20	-
Methoxychlor	ND	-	-	2.0	-
SURR.(TCMX) %	-	2.0	67.2	-	-
Toxaphene	ND	-	-	20	-

** NOTES :

BLANK 12-05-92-2 - TCLP BLANK. SURROGATE NOT AVAILABLE.

BLANK 12-5-2 SPK ADD - TCLP BLANK SPIKE. SPIKE ADDED AMOUNTS 4 TIMES THE VALUES STATED. Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.

BLANK 12-5-2 SPK RCV% - TCLP BLANK SPIKE. Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-29-92 13:46
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-05-92-1	12-5-1 SPK ADD	12-5-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-05-92	12-05-92	12-05-92		
Date of Analysis	12-07-92	12-07-92	12-07-92		
BHC, gamma (Lindane)	ND	0.416	86.3	0.05	-
Chlordane	ND	-	-	1.0	-
Endrin	ND	0.412	79.1	0.05	-
Heptachlor	ND	0.729	83.1	0.05	-
Heptachlor epoxide	ND	0.435	89.4	0.05	-
Methoxychlor	ND	-	-	0.5	-
SURR.(TCMX) %	65.5	2.0	68.0	-	-
Toxaphene	ND	-	-	5.0	-

** NOTES :

BLANK 12-5-1 SPK ADD - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-5-1 SPK RCV% - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.

Sample Number SURROGATE
 Lab ID Number SPIKE
 Matrix LEVELS
 Type

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

BHC, gamma (Lindane)	-
Chlordane	-
Endrin	-
Heptachlor	-
Heptachlor epoxide	-
Methoxychlor	-
SURR.(TCMX) %	2.0
Toxaphene	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP LIQUID PHASE

Memphis Environmental Center
Analytical Report
Herbicides By SW846-1311/3580/8150
Results given in: mg/Kg

Report Date: 12-29-92 10:48

Prepared By Y.
QA/QC Check [Signature]
Lab Manager [Signature]

Sample Number 112492-DH-006
Lab ID Number 9207660
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-24-92
Date of Receipt 11-24-92
Date of Extraction 12-04-92
Date of Analysis 12-09-92

2,4-D ND
SURRE.(DCAA) % 163
Silvex (2,4,5-TP) ND

** NOTES :

9207660*SAMPLE - THESE ARE THE RESULTS FOR THE WASTE DILUTION ANALYSIS OF SAMPLE #9207660. RECOVERY FOR SURRE.(DCAA) ABOVE ACCEPTED LIMIT OF 150%.

- Not Applicable

ND Non detected at stated limit

NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP LIQUID PHASE

Memphis Environmental Center
 QA/QC Report - Spikes
 Herbicides By SW846-1311/3580/8150
 Results given in: mg/Kg

Report Date: 12-29-92 10:48
 Prepared By _____
 QA/QC Check _____
 Lab Manager _____

Sample Number	112492-DH-006	112492-DH-006	112492-DH-006
Lab ID Number	9207660-SPIKE-2	9207660-SPIKE-2	9207660-SPIKE-2
Matrix	LEACHATE	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1	% RECOVERED 2**
Date of Collection	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92
Date of Extraction	12-04-92	12-04-92	12-04-92
Date of Analysis	12-09-92	12-09-92	12-09-92
2,4-D	3.98	103	143
SURR.(DCAA) %	20.0	125	191
Silvex (2,4,5-TP)	3.71	86.8	144

** NOTES :
 9207660*SPK2RCV2 - RECOVERY FOR SURR.(DCAA) ABOVE ACCEPTED LIMIT OF 150%.

Sample Number	LIMIT	LIMIT	SURROGATE
Lab ID Number	OF	OF	SPIKE
Matrix	DETECTION	QUANTITATION	LEVELS
Type			
Date of Collection			
Date of Receipt			
Date of Extraction			
Date of Analysis			
2,4-D	1.25	-	-
SURR.(DCAA) %	-	-	20.0
Silvex (2,4,5-TP)	0.25	-	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Herbicides By SW846-1311/3580/8150
Results given in: mg/Kg

Report Date: 12-29-92 11:08

Prepared By
QA/QC Check
Lab Manager

Sample Number	112492-DH-003	112492-DH-005
Lab ID Number	9207657	9207659
Matrix	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-04-92	12-04-92
Date of Analysis	12-09-92	12-09-92
2,4-D	ND	ND
SURR.(DCAA) %	147	176
Silvex (2,4,5-TP)	ND	ND

** NOTES :

9207657*SAMPLE - TCLP EXTRACTION DATE FOR THIS SET OF SAMPLES IS 12/06/92.
9207659*SAMPLE - RECOVERY FOR SURR.(DCAA) ABOVE ACCEPTED LIMIT OF 150%.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/3580/8150
 Results given in: mg/Kg

Report Date: 12-29-92 11:08
 Prepared By [Signature]
 QA/QC Check [Signature]
 Lab Manager [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-04-92-1	12-4-1 SPK ADD	12-4-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-09-92	12-09-92	12-09-92		
2,4-D	ND	4.14	137	1.25	-
SURR.(DCAA) %	176	20	176	-	-
Silvex (2,4,5-TP)	ND	3.86	124	0.25	-

** NOTES :

BLANK 12-04-92-1 - RECOVERY FOR SURR.(DCAA) ABOVE ACCEPTED LIMIT OF 150%.
 BLANK 12-4-1 SPK RCV% - RECOVERY FOR SURR.(DCAA) ABOVE ACCEPTED LIMIT OF 150%.

Sample Number SURROGATE
 Lab ID Number SPIKE
 Matrix LEVELS
 Type

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

2,4-D -
 SURR.(DCAA) % 20.0
 Silvex (2,4,5-TP) -

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-29-92 11:08
 Prepared By:
 QA/QC Check:
 Lab Manager:

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-06-92-1	12-6-1 SPK ADD	12-6-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-06-92	12-06-92	12-06-92		
Date of Analysis	12-08-92	12-08-92	12-08-92		
2,4-D	ND	2.07	0.0	1.25	-
SURR.(DCAA) %	113	10.0	19.8		-
Silvex (2,4,5-TP)	ND	1.93	9.2	0.25	-

** NOTES :

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	
Date of Collection	
Date of Receipt	
Date of Extraction	
Date of Analysis	
2,4-D	-
SURR.(DCAA) %	10.0
Silvex (2,4,5-TP)	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Herbicides By SW846-1311/8150
Results given in: ug/L

Report Date: 12-29-92 11:08
Prepared By [Signature]
QA/QC Check [Signature]
Lab Manager [Signature]

Sample Number	112492-DH-004	112492-DH-006
Lab ID Number	9207658	9207660
Matrix	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-06-92	12-06-92
Date of Analysis	12-11-92	12-11-92
2,4-D	ND	ND
SURR.(DCAA) %	231	79.0
Silvex (2,4,5-TP)	ND	ND

** NOTES :

9207658*SAMPLE - LODs FOR THIS SAMPLE ARE 50 TIMES THE VALUES STATED. RECOVERY FOR SURR.(DCAA) ABOVE ACCEPTED LIMIT OF 150%.
9207660*SAMPLE - LODs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Spikes
Herbicides By SW846-1311/8150
Results given in: ug/L

Report Date: 12-29-92 11:08

Prepared By
QA/QC Check
Lab Manager

Sample Number	112492-DH-006	112492-DH-006
Lab ID Number	9207660-SPIKE-1	9207660-SPIKE-1
Matrix	LEACHATE	LEACHATE
Type	ADDED LEVEL**	% RECOVERED 1
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-06-92	12-06-92
Date of Analysis	12-11-92	12-11-92
2,4-D	8.28	31.7
SURR.(DCAA) %	40.0	59.0
Silvex (2,4,5-TP)	7.72	43.7

** NOTES :

9207660*SPK1ADD - LODs FOR THIS MATRIX SPIKE ARE 10 TIMES THE VALUES STATED.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-29-92 11:08

Prepared By
 QA/QC Check
 Lab Manager

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-07-92-2	12-6-2 SPK ADD	12-6-2 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-06-92	12-06-92	12-06-92		
Date of Analysis	12-08-92	12-08-92	12-08-92		
2,4-D	ND	8.28	81.4	5.0	-
SURR.(DCAA) %	48.0	10.0	84.8		-
Silvex (2,4,5-TP)	ND	7.72	71.3	1.0	-

** NOTES :

BLANK 12-07-92-2 - TCLP BLANK.
 BLANK 12-6-2 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-6-2 SPK RCV% - TCLP BLANK SPIKE.

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	
Date of Collection	
Date of Receipt	
Date of Extraction	
Date of Analysis	
2,4-D	-
SURR.(DCAA) %	10.0
Silvex (2,4,5-TP)	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Metals By SW846-1311/6010/7000
Results given in: mg/Kg

Report Date: 12-29-92 06:54
Prepared By *[Signature]*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number	112492-DH-003	112492-DH-005
Lab ID Number	9207657	9207659
Matrix	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Digestion	12-92	12-92
Date of Analysis	12-92	12-92

Arsenic	ND	ND
Barium	ND	ND
Cadmium	ND	ND
Chromium	ND	ND
Lead	ND	ND
Mercury	ND	ND
Selenium	ND	ND
Silver	ND	ND

** NOTES :

- 9207657*SAMPLE - TCLP EXTRACTION DATE 12/03/92. Hg ANALYSIS DATE 12/04/92. RESULTS FOR THIS SAMPLE REPRESENT THE SOLIDS FROM THIS SAMPLE.
- 9207659*SAMPLE - TCLP EXTRACTION DATE 12/03/92. Hg ANALYSIS DATE 12/04/92. RESULTS FOR THIS SAMPLE REPRESENT THE SOLIDS FROM THIS SAMPLE.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Metals By SW846-1311/6010/7000
 Results given in: mg/Kg

Report Date: 12-29-92 06:54
 Prepared By *KH*
 QA/QC Check *[Signature]*
 Lab Manager *[Signature]*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-92-1	12-92-1 SPK ADD	12-92-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Digestion	12-92	12-92	12-92		
Date of Analysis	12-92	12-92	12-92		
Arsenic	ND	19.8	92.5	1.0	-
Barium	ND	495	89.4	20.0	-
Cadmium	ND	99.0	87.1	0.5	-
Chromium	ND	99.0	89.6	1.0	-
Lead	ND	99.0	88.0	5	-
Mercury	ND	4.54	101	0.2	-
Selenium	ND	19.8	101	0.5	-
Silver	ND	49.5	99.0	2.0	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Metals By SW846-1311/6010/7000
Results given in: ug/L

Report Date: 12-29-92 06:54
Prepared By *[Signature]*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number	112492-DH-004	112492-DH-006
Lab ID Number	9207658	9207660
Matrix	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**

Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Digestion	12-92	12-92
Date of Analysis	12-92	12-92

Arsenic	ND	ND
Barium	ND	ND
Cadmium	ND	ND
Chromium	ND	ND
Lead	300	350
Mercury	ND	ND
Selenium	ND	ND
Silver	ND	ND

** NOTES :

9207658*SAMPLE - TCLP EXTRACTION DATE 12/03/92. Hg ANALYSIS DATE 12/10/92.
9207660*SAMPLE - TCLP EXTRACTION DATE 12/03/92. Hg ANALYSIS DATE 12/10/92.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Spikes
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 12-29-92 06:54
 Prepared By KH
 QA/QC Check JA
 Lab Manager TH

Sample Number	112492-DH-006	112492-DH-006
Lab ID Number	9207660-SPIKE-1	9207660-SPIKE-1
Matrix	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Digestion	12-92	12-92
Date of Analysis	12-92	12-92
Arsenic	1000	87.4
Barium	25000	100
Cadmium	5000	99.0
Chromium	5000	98.1
Lead	5000	105
Mercury	50.0	99.0
Selenium	1000	87.8
Silver	2500	-

** NOTES :

9207660*SPK1RCV1 - UNACCEPTABLE SPIKE RECOVERY FOR Silver DUE TO MATRIX INTERFERENCE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 12-29-92 06:54
 Prepared By: *KH*
 QA/QC Check: *TA*
 Lab Manager: *TA*

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-92-2	12-92-2 SPK ADD	12-92-2 SPK RCV%	12-92-3	12-92-3 SPK ADD
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE	SAMPLE
Date of Collection					
Date of Receipt					
Date of Digestion	12-92	12-92	12-92	12-92	12-92
Date of Analysis	12-92	12-92	12-92	12-92	12-92
Arsenic	ND	1000	102	ND	1000
Barium	ND	25000	97.5	ND	25000
Cadmium	ND	5000	96.5	ND	5000
Chromium	ND	5000	91.5	ND	5000
Lead	ND	5000	95.0	ND	5000
Mercury	ND	50.0	101	ND	50.0
Selenium	ND	1000	94.9	ND	1000
Silver	ND	2500	98.2	ND	2500

** NOTES :

BLANK 12-92-2 - TCLP BLANK.
 BLANK 12-92-2 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-92-2 SPK RCV% - TCLP BLANK SPIKE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 12-29-92 06:54
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	BLANK	LIMIT	LIMIT
Lab ID Number	12-92-3 SPK RCV%	OF	OF
Matrix	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE		

Date of Collection	
Date of Receipt	
Date of Digestion	12-92
Date of Analysis	12-92

Arsenic	97.5	50	-
Barium	97.5	5000	-
Cadmium	95.8	25	-
Chromium	98.4	1000	-
Lead	98.0	250	-
Mercury	101	2	-
Selenium	99.9	25	-
Silver	101	100	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP LIQUID PHASE

Memphis Environmental Center
Analytical Report
Metals By SW846-1311/6010/7000
Results given in: mg/Kg

Report Date: 12-28-92 16:55
Prepared By *[Signature]*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number 112492-DH-006
Lab ID Number 9207660
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-24-92
Date of Receipt 11-24-92
Date of Digestion 12-92
Date of Analysis 12-92

Arsenic	ND
Barium	ND
Cadmium	ND
Chromium	ND
Lead	11
Mercury	ND
Selenium	ND
Silver	ND

** NOTES :

9207660*SAMPLE - TCLP EXTRACTION STARTED 12/03/92. Hg ANALYSIS DATE - 12/04/92. THIS DATA IS FOR THE NON-AQUEOUS TCLP LIQUID PHASE; SAMPLE WAS PREPARED AS A SOLID.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP LIQUID PHASE

Memphis Environmental Center
 QA/QC Report - Spikes
 Metals By SW846-1311/6010/7000
 Results given in: mg/Kg

Report Date: 12-28-92 16:55
 Prepared By *RH*
 QA/QC Check *TG*
 Lab Manager *TL*

Sample Number	112492-DH-006	112492-DH-006
Lab ID Number	9207660-SPIKE-1	9207660-SPIKE-1
Matrix	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Digestion	12-92	12-92
Date of Analysis	12-92	12-92
Arsenic	20.0	-
Barium	495	97.9
Cadmium	99.0	97.5
Chromium	99.0	99.8
Lead	99.0	101
Mercury	4.17	102
Selenium	20.0	95.7
Silver	49.5	103

** NOTES :

9207660*SPK1RCV1 - UNACCEPTABLE RECOVERY FOR Arsenic DUE TO MATRIX INTERFERENCE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921461
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP LIQUID PHASE

Memphis Environmental Center
 QA/QC Report - Blanks
 Metals By SW846-1311/6010/7000
 Results given in: mg/Kg

Report Date: 12-28-92 16:55
 Prepared By *RH*
 QA/QC Check *TO*
 Lab Manager *TO*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-92	12-92 SPK ADD	12-92 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Digestion	12-92	12-92	12-92		
Date of Analysis	12-92	12-92	12-92		
Arsenic	ND	19.8	92.5	1.0	-
Barium	ND	495	89.4	20.0	-
Cadmium	ND	99.0	87.1	0.5	-
Chromium	ND	99.0	89.6	1.0	-
Lead	ND	99.0	88.0	5	-
Mercury	ND	4.54	101	0.2	-
Selenium	ND	19.8	101	0.5	-
Silver	ND	49.5	99.0	2.0	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100
 Memphis, Tennessee 38132
 (901)-345-1788

Client Contact: Bobby Allen	Report No: R-921462
Project: E T I - NAS	Report Date: 12/29/92
Northside	Facility ID#:
Sample(s) Type: Solid Waste/Sludge	

Quality Assurance Summary:

<u>Type of Analysis</u>	<u>Method</u>	<u>Holding Time</u>	<u>Surrogate Recovery</u>	<u>Matrix Spike Recoveries</u>	<u>Blanks</u>	<u>Overall Summary</u>
PESTICIDES	SW846- 3580/ 8080	A	N-1	NA	A	A (See N-1)
ASH CONTENT	AOAC- 942-05	NA	NA	NA	A	A
BTU	ASTM- D3286-73	NA	NA	NA	NA	A
CORROSIVITY	SW846- 9045	N-2	NA	NA	NA	See N-2
CYANIDE (reactive)	SW846- 7.3.3.2	A	NA	NA	A	A
DENSITY	AOAC- 920-212	NA	NA	NA	NA	A
PAINT FILTER	SW846- 9095	NA	NA	NA	NA	A
SOLIDS (total suspended solids)	EPA- 160.2	N-3	NA	NA	NA	See N-3
SULFIDE (reactive)	SW846- 7.3.4.2	N-3	NA	A	NA	See N-3

A = Requirements set by method were met

NA = Not applicable

N-1 = See NOTE 1 on page 3

N-5 = See NOTE 5 on Page 3

N-2 = See NOTE 2 on page 3

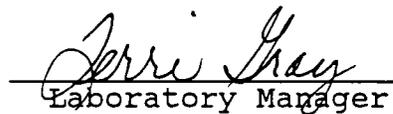
N-6 = See NOTE 6 on Page 3

N-3 = See NOTE 3 on page 3

N-7 = See NOTE 7 on Page 3

N-4 = See NOTE 4 on page 3


 QA Officer


 Laboratory Manager

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100
 Memphis, Tennessee 38132
 (901)-345-1788

Client Contact:	Bobby Allen	Report No:	R-921462
Project:	E T I - NAS	Report Date:	12/29/92
	Northside	Facility ID#:	
Sample(s) Type:	Solid Waste/Sludge		

Quality Assurance Summary page 2:

<u>Type of Analysis</u>	<u>Method</u>	<u>Holding Time</u>	<u>Surrogate Recovery</u>	<u>Matrix Spike Recoveries</u>	<u>Blanks</u>	<u>Overall Summary</u>
FLASHPOINT/ IGNITABILITY	ASTM- D93/ SW846- 1010	A	NA	NA	NA	A
HALOGENS	N-4	N-5	NA	A	A	(See N-4 (and N-5)
TCLP	SW846- 1311	A				
VOC	SW846- 8240	A	A	A	A	A
BNA	SW846- 3580/ 8270	A	N-6	A	A	A (See N-6)
PESTICIDES 2 Reports	SW846- 3510/ 8080	A	A	A	A	A
HERBICIDES 2 Reports	SW846- 3580/ 8150	A	A	A	A	A
METALS 2 Reports	SW846- 6010/ 7000	A	NA	A(N-7)	A	A (See N-7)

A = Requirements set by method were met

NA = Not applicable

N-1 = See NOTE 1 on page 3

N-5 = See NOTE 5 on Page 3

N-2 = See NOTE 2 on page 3

N-6 = See NOTE 6 on Page 3

N-3 = See NOTE 3 on page 3

N-7 = See NOTE 7 on Page 3

N-4 = See NOTE 4 on page 3

Terri Gray
 QA Officer

Terri Gray
 Laboratory Manager

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100

Memphis, Tennessee 38132

(901)-345-1788

Client Contact: Bobby Allen
Project: E T I - NAS
Northside
Sample(s) Type: Solid Waste/Sludge

Report No: R-921462
Report Date: 12/29/92
Facility ID#:

Quality Assurance Summary page 3:

- NOTE 1: The surrogate was diluted out.
- NOTE 2: This analysis should have been performed immediately.
- NOTE 3: The holding time of seven days was exceeded.
- NOTE 4: These analyses were performed by Galbraith Lab:
- | | |
|----------|-----------------------|
| Bromine | ASTM-D808/EPA-300.0-1 |
| Chlorine | ASTM-D808/EPA-300.0-1 |
| Fluorine | ASTM-E442/D3761 |
| Iodine | ASTM-E442/D3869-C |
- NOTE 5: This analysis was requested after the holding time had expired.
- NOTE 6: Due to the level of contamination present in the sample, the surrogates were diluted out in two samples. This is noted in the report.
- NOTE 7: As noted in the report, two matrix spike recoveries were unacceptable due to matrix interferences and dilutions of the sample.


QA Officer


Laboratory Manager

Report Number: R-921462
Project Number: 375-05-02-00
Description: ETI/NAS - SOLID WASTE SLUDGE

Memphis Environmental Center
Analytical Report
Pesticides By SW846-3580/8080
Results given in: mg/Kg

Report Date: 12-26-92 17:43
Prepared By: *[Signature]*
QA/QC Check: *[Signature]*
Lab Manager: *[Signature]*

Sample Number	112492-DH-009	112492-DH-010
Lab ID Number	9207663	9207664
Matrix	SOLID WASTE	SOLID WASTE
Type	SAMPLE**	SAMPLE**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-04-92	12-04-92
Date of Analysis	12-15-92	12-15-92

Aroclor-total	ND	ND
SURR.(TCMX) %	-	-

** NOTES :

9207663*SAMPLE - LOD FOR THIS SAMPLE IS 500 TIMES THE VALUE STATED. SURROGATE DILUTED OUT.
9207664*SAMPLE - LOD FOR THIS SAMPLE IS 1000 TIMES THE VALUE STATED. SURROGATE DILUTED OUT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - SOLID WASTE SLUDGE

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-3580/8080
 Results given in: mg/Kg

Report Date: 12-26-92 17:43
 Prepared By:
 QA/QC Check
 Lab Manager

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-04 SPK ADD	12-04 SPK RCV%	12-04-92	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-15-92	12-15-92	12-15-92		
Aroclor-total	4.0	83.2	ND	1.0	-
SURR.(TCMX) %	4.0	71.2	72.8	-	-

** NOTES :

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	
Date of Collection	
Date of Receipt	
Date of Extraction	
Date of Analysis	

Aroclor-total	-
SURR.(TCMX) %	4.0

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - SOLID WASTE SLUDGE

Memphis Environmental Center
 Analytical Report
 General Chemistry
 Results given in: mg/Kg

Report Date: 12-28-92 17:35
 Prepared By Ch
 QA/QC Check J
 Lab Manager J

Sample Number	112092-DH-007	112492-DH-008	112492-DH-009	112492-DH-010	112492-DH-011
Lab ID Number	9207661	9207662	9207663	9207664	9207665
Matrix Type	SOLID WASTE SAMPLE**				
Date of Collection	11-20-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	-	-	-	-	-
Date of Analysis	11-92 TO 12-92	11-92 TO 12-92	12-01-92	12-01-92	11-92 TO 12-92
Ash content (per cent)	-	-	21.7	3.25	-
BTU (btu/lb)	-	-	7090	17300	-
Corrosivity - pH (ph units)	7.10	6.88	8.93	5.35	6.80
Cyanide (Reactive)	ND	ND	ND	ND	ND
Density	-	-	NA	0.9166	-
Paint filter	-	-	-	-	-
Sulfide (Reactive)	ND	ND	ND	ND	ND
Total suspended solids	-	-	NA	838000	-

** NOTES :

- 9207661*SAMPLE - ANALYSES DATES: Corrosivity-pH 11/30/92, Cyanide (Reactive) 12/04-07/92, Sulfide (Reactive) 12/01/92 AND Paint filter 12/17/92. RESULT FOR Paint filter IS 'YES'.
- 9207662*SAMPLE - ANALYSES DATES: Corrosivity-pH 11/30/92, Cyanide (Reactive) 12/04-07/92, Sulfide (Reactive) 12/01/92 AND Paint filter 12/17/92. RESULT FOR Paint filter IS 'YES'.
- 9207663*SAMPLE - ANALYSES DATES: Ash content 12/08/92, BTU 12/09/92, Corrosivity-pH 11/30/92, Cyanide (Reactive) 12/04-07/92 & Paint filter 12/17/92. RESULT FOR Paint filter IS 'YES'. NA = METHOD NOT APPLICABLE.
- 9207664*SAMPLE - ANALYSES DATES IN NOTE FOR SAMPLE #9207663 APPLIES. RESULT FOR Paint filter IS 'NO'. Density ANALYZED 12/04/92 & EXPRESSED AS SPECIFIC GRAVITY AT 25 DEGREES CELSIUS/25 DEGREES CELSIUS.
- 9207665*SAMPLE - ANALYSES DATES: Corrosivity-pH 11/30/92, Cyanide (Reactive) 12/04-07/92 AND Sulfide (Reactive) 12/01/92.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - SOLID WASTE SLUDGE

Memphis Environmental Center
 Analytical Report
 General Chemistry
 Results given in: mg/Kg

Report Date: 12-28-92 17:36
 Prepared By: *CW*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	112492-DH-012	112492-DH-013
Lab ID Number	9207666	9207667
Matrix	SOLID WASTE	SOLID WASTE
Type	SAMPLE**	SAMPLE**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	-	-
Date of Analysis	11-92 TO 12-92	11-92 TO 12-92

Ash content (per cent)	-	-
BTU (btu/lb)	-	-
Corrosivity - pH (ph units)	9.45	9.22
Cyanide (Reactive)	ND	ND
Density	-	-
Paint filter	-	-
Sulfide (Reactive)	ND	ND
Total suspended solids	-	-

** NOTES :

- 9207666*SAMPLE - ANALYSES DATES: Corrosivity-pH 11/30/92, Cyanide (Reactive) 12/04-07/92 AND Sulfide (Reactive) 12/01/92. LOD FOR Cyanide (Reactive) IN THIS SAMPLE IS 6 TIMES THE VALUE STATED.
- 9207667*SAMPLE - ANALYSES DATES: Corrosivity-pH 11/30/92, Cyanide (Reactive) 12/04-07/92 AND Sulfide (Reactive) 12/01/92.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ET1/NAS - SOLID WASTE SLUDGE

Memphis Environmental Center
 QA/QC Report - Laboratory Duplicate Samples
 General Chemistry
 Results given in: mg/Kg

Report Date: 12-28-92 17:36
 Prepared By: *CA!*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	112492-DH-009	112492-DH-009
Lab ID Number	9207663	9207663
Matrix	SOLID WASTE	SOLID WASTE
Type	SAMPLE**	LAB DUPLICATE**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	-	-
Date of Analysis	12-01-92	12-92
Ash content (per cent)	21.7	17.6
BTU (btu/lb)	7090	-
Corrosivity - pH (ph units)	8.93	-
Cyanide (Reactive)	ND	-
Density	NA	-
Paint filter	-	-
Sulfide (Reactive)	ND	-
Total suspended solids	NA	-

** NOTES :

- 9207663*SAMPLE - ANALYSES DATES: Ash content 12/08/92, BTU 12/09/92, Corrosivity-pH 11/30/92, Cyanide (Reactive) 12/04-07/92 & Paint filter 12/17/92. RESULT FOR Paint filter IS 'YES'. NA = METHOD NOT APPLICABLE.
- 9207663*LAB DUP - Ash content ANALYZED 12/08/92 AND Paint filter ANALYZED 12/17/92. RESULT FOR Paint filter IS 'YES'.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - SOLID WASTE SLUDGE

Memphis Environmental Center
 QA/QC Report - Blanks
 General Chemistry
 Results given in: mg/Kg

Report Date: 12-28-92 17:36
 Prepared By: *Ch...*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-92	12-92 SPK ADD	12-92 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	-	-	-		
Date of Analysis	12-92	12-92	12-92		
Ash content (per cent)	-	-	-	1	-
BTU (btu/lb)	-	-	-	1000	-
Corrosivity - pH (ph units)	-	-	-	-	-
Cyanide (Reactive)	ND	20	71.2	1	-
Density	-	-	-	-	-
Paint filter	-	-	-	-	-
Sulfide (Reactive)	ND	620	53.2	10	-
Total suspended solids	-	-	-	100	-

** NOTES :

BLANK 12-92 - Cyanide (Reactive) ANALYZED 12/04-07/92 AND Sulfide (Reactive) ANALYZED 12/01/92.
 BLANK 12-92 SPK ADD - Cyanide (Reactive) ANALYZED 12/04-07/92 AND Sulfide (Reactive) ANALYZED 12/01/92.
 BLANK 12-92 SPK RCV% - Cyanide (Reactive) ANALYZED 12/04-07/92 AND Sulfide (Reactive) ANALYZED 12/01/92.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - SOLID WASTE SLUDGE

Memphis Environmental Center
 Analytical Report
 General Chemistry
 Results given in:

Report Date: 12-28-92 14:35
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	112092-DH-007	112492-DH-008	112492-DH-009	112492-DH-010	112492-DH-011
Lab ID Number	9207661	9207662	9207663	9207664	9207665
Matrix	SOLID WASTE				
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**
Date of Collection	11-20-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	-	-	-	-	-
Date of Analysis	12-16-92	12-11-92	12-16-92	12-16-92	12-11-92
Flash point (degrees)	-	-	-	118	-
Ignitability (degrees)	140	140	-	-	140

** NOTES :

- 9207661*SAMPLE - RESULT FOR Ignitability > 140 DEGREES FAHRENHEIT.
- 9207662*SAMPLE - RESULT FOR Ignitability > 140 DEGREES FAHRENHEIT.
- 9207663*SAMPLE - SAMPLE BOILED AT 194 DEGREES FAHRENHEIT; Flash point UNOBTAINABLE.
- 9207664*SAMPLE - RESULT FOR Flash point REPORTED IN DEGREES FAHRENHEIT.
- 9207665*SAMPLE - RESULT FOR Ignitability > 140 DEGREES FAHRENHEIT.

Sample Number	112492-DH-012	112492-DH-013
Lab ID Number	9207666	9207667
Matrix	SOLID WASTE	SOLID WASTE
Type	SAMPLE**	SAMPLE**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	-	-
Date of Analysis	12-11-92	12-11-92
Flash point (degrees)	-	-
Ignitability (degrees)	100	140

** NOTES :

- 9207666*SAMPLE - RESULT FOR Ignitability REPORTED IN DEGREES FAHRENHEIT.
- 9207667*SAMPLE - RESULT FOR Ignitability > 140 DEGREES FAHRENHEIT.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - SOLID WASTE SLUDGE

Memphis Environmental Center
 QA/QC Report - Laboratory Duplicate Samples
 General Chemistry
 Results given in:

Report Date: 12-28-92 14:35
 Prepared By *[Signature]*
 QA/QC Check *[Signature]*
 Lab Manager *[Signature]*

Sample Number	112492-DH-010	112492-DH-010	112492-DH-012	112492-DH-012
Lab ID Number	9207664	9207664	9207666	9207666
Matrix	SOLID WASTE	SOLID WASTE	SOLID WASTE	SOLID WASTE
Type	SAMPLE**	LAB DUPLICATE**	SAMPLE**	LAB DUPLICATE**
Date of Collection	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	-	-	-	-
Date of Analysis	12-16-92	12-16-92	12-11-92	12-11-92
Flash point (degrees)	118	116	-	-
Ignitability (degrees)	-	-	100	99

** NOTES :
 9207664*SAMPLE - RESULT FOR Flash point REPORTED IN DEGREES FAHRENHEIT.
 9207664*LAB DUP - RESULT FOR Flash point REPORTED IN DEGREES FAHRENHEIT.
 9207666*SAMPLE - RESULT FOR Ignitability REPORTED IN DEGREES FAHRENHEIT.
 9207666*LAB DUP - RESULT FOR Ignitability REPORTED IN DEGREES FAHRENHEIT.

Sample Number	LIMIT	LIMIT
Lab ID Number	OF	OF
Matrix	DETECTION	QUANTITATION
Type		
Date of Collection		
Date of Receipt		
Date of Extraction		
Date of Analysis		
Flash point (degrees)	-	-
Ignitability (degrees)	-	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
Project Number: 375-05-02-00
Description: ETI/NAS - SOLID WASTE SLUDGE

Memphis Environmental Center
Analytical Report
General Chemistry
Results given in: ppm

Report Date: 12-26-92 17:44
Prepared By *KH*
QA/QC Check *TS*
Lab Manager *GP*

Sample Number	112492-DH-009	112492-DH-010
Lab ID Number	9207663	9207664
Matrix	SOLID WASTE	SOLID WASTE
Type	SAMPLE**	SAMPLE
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	-	-
Date of Analysis	12-92	12-92
Bromine	ND	7060
Chlorine	14	94
Fluorine	104	124
Iodine	ND	ND

** NOTES :

9207663*SAMPLE - HOLDING TIME EXCEEDED FOR ALL SAMPLES. ANALYSES REQUESTED AFTER HOLDING TIME EXPIRED. ANALYSES PERFORMED BY GALBRAITH LAB. ANALYSES DATES: Br & Cl 12/14/92, F 12/08/92 & I 12/11/92.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - SOLID WASTE SLUDGE

Memphis Environmental Center
 QA/QC Report - Blanks
 General Chemistry
 Results given in: ppm

Report Date: 12-26-92 17:44
 Prepared By: *BH*
 QA/QC Check: *LB*
 Lab Manager: *LB*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-92	12-92 SPK ADD	12-92 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	-	-	-		
Date of Analysis	12-92	12-92	12-92		
Bromine	ND	1000	103	20	-
Chlorine	ND	100	107	10	-
Fluorine	ND	134000	98.5	25	-
Iodine	ND	500	95.2	5	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 Analytical Report
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-28-92 14:22
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	112492-DH-008	112492-DH-009	112492-DH-010	112492-DH-011	112492-DH-012
Lab ID Number	9207662	9207663	9207664	9207665	9207666
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE	SAMPLE	SAMPLE**	SAMPLE	SAMPLE
Date of Collection	11-24-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	12-04-92	12-01-92	12-07-92	12-01-92	12-01-92
Date of Analysis	12-07-92	12-02-92	12-14-92	12-03-92	12-03-92
Benzene	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND
Dichlorobenzene, 1,4-	ND	ND	ND	ND	ND
Dichloroethane, 1,2-	ND	ND	ND	ND	ND
Dichloroethene, 1,1-	ND	ND	ND	ND	ND
Methylethyl ketone	ND	ND	ND	ND	ND
SURR.(Bromofluorobenzene, 4-)%	93	95	95	91	95
SURR.(Toluene-d8) %	103	107	104	109	110
SURR.(d-4,1,2-Dichloroethane)%	106	107	107	109	110
Tetrachloroethene	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	ND

** NOTES :

9207664*SAMPLE - PQLs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Volatile Organics By Method: SW846-8240
Results given in: ug/L

Report Date: 12-28-92 14:22

Prepared By *HL*
QA/QC Check *TL*
Lab Manager *TL*

Sample Number 112492-DH-013
Lab ID Number 9207667
Matrix LEACHATE
Type SAMPLE

Date of Collection 11-24-92
Date of Receipt 11-24-92
Date of Extraction 12-01-92
Date of Analysis 12-03-92

Benzene	ND
Carbon tetrachloride	ND
Chlorobenzene	ND
Chloroform	ND
Dichlorobenzene, 1,4-	ND
Dichloroethane, 1,2-	ND
Dichloroethene, 1,1-	ND
Methylethyl ketone	ND
SURR.(Bromofluorobenzene, 4-)%	91
SURR.(Toluene-d8) %	104
SURR.(d-4,1,2-Dichloroethane)%	101
Tetrachloroethene	ND
Trichloroethene	ND
Vinyl chloride	ND

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Spikes
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-28-92 14:22
 Prepared By RF
 QA/QC Check LS
 Lab Manager TS

Sample Number	112492-DH-009	112492-DH-009	112492-DH-009
Lab ID Number	9207663-SPIKE-1	9207663-SPIKE-1	9207663-SPIKE-1
Matrix	LEACHATE	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1	% RECOVERED 2
Date of Collection	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92
Date of Extraction	12-01-92	12-01-92	12-01-92
Date of Analysis	12-04-92	12-04-92	12-04-92
Benzene	500	87	90
Carbon tetrachloride	500	92	99
Chlorobenzene	500	94	94
Chloroform	500	90	92
Dichlorobenzene, 1,4-	500	82	81
Dichloroethane, 1,2-	500	90	88
Dichloroethene, 1,1-	500	81	91
Methylethyl ketone	1000	83	78
SURR.(Bromofluorobenzene, 4-)%	415	96	92
SURR.(Toluene-d8) %	440	104	103
SURR.(d-4,1,2-Dichloroethane)%	464	97	97
Tetrachloroethene	500	92	102
Trichloroethene	500	86	92
Vinyl chloride	500	64	69

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Spikes
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-28-92 14:23
 Prepared By: TL
 QA/QC Check: TL
 Lab Manager: TL

Sample Number	112492-DH-012	112492-DH-012	112492-DH-012
Lab ID Number	9207666-SPIKE-1	9207666-SPIKE-1	9207666-SPIKE-1
Matrix	LEACHATE	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1	% RECOVERED 2
Date of Collection	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92
Date of Extraction	12-01-92	12-01-92	12-01-92
Date of Analysis	12-04-92	12-04-92	12-04-92
Benzene	500	86	82
Carbon tetrachloride	500	98	89
Chlorobenzene	500	89	89
Chloroform	500	89	86
Dichlorobenzene, 1,4-	500	58	73
Dichloroethane, 1,2-	500	88	85
Dichloroethene, 1,1-	500	20	80
Methylethyl ketone	1000	88	80
SURR.(Bromofluorobenzene, 4-)%	415	90	92
SURR.(Toluene-d8) %	440	105	103
SURR.(d-4,1,2-Dichloroethane)%	464	99	98
Tetrachloroethene	500	96	92
Trichloroethene	500	91	83
Vinyl chloride	500	70	63

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-28-92 14:23
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	11-24 SPK ADD	11-24 SPK RCV%	11-24-92-1	12-03-92-1	12-04 SPK ADD
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE	SAMPLE	SAMPLE	SAMPLE	SAMPLE
Date of Collection					
Date of Receipt					
Date of Extraction	11-24-92	11-24-92	11-24-92	12-03-92	12-04-92
Date of Analysis	12-02-92	12-02-92	12-02-92	12-03-92	12-11-92
Benzene	500	88	ND	ND	500
Carbon tetrachloride	500	92	ND	ND	500
Chlorobenzene	500	90	ND	ND	500
Chloroform	500	89	ND	ND	500
Dichlorobenzene, 1,4-	500	79	ND	ND	500
Dichloroethane, 1,2-	500	89	ND	ND	500
Dichloroethene, 1,1-	500	95	ND	ND	500
Methylethyl ketone	1000	86	ND	ND	1000
SURR.(Bromofluorobenzene, 4-)%	415	99	97	96	415
SURR.(Toluene-d8) %	440	107	106	107	440
SURR.(d-4,1,2-Dichloroethane)%	464	103	107	109	464
Tetrachloroethene	500	94	ND	ND	500
Trichloroethene	500	85	ND	ND	500
Vinyl chloride	500	75	ND	ND	500

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-28-92 14:23
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-04 SPK RCV%	12-04-92-1	12-04-92-2	12-07 SPK ADD	12-07 SPK RCV%
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE	SAMPLE	SAMPLE	SAMPLE	SAMPLE**
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92	12-07-92	12-07-92
Date of Analysis	12-11-92	12-04-92	12-14-92	12-07-92	12-07-92
Benzene	101	ND	ND	50	79
Carbon tetrachloride	108	ND	ND	-	-
Chlorobenzene	102	ND	ND	50	85
Chloroform	96	ND	ND	-	-
Dichlorobenzene, 1,4-	70	ND	ND	-	-
Dichloroethane, 1,2-	93	ND	ND	-	-
Dichloroethene, 1,1-	26	ND	ND	50	NA
Methylethyl ketone	90	ND	ND	-	-
SURR.(Bromofluorobenzene, 4-)%	97	91	95	41.5	94
SURR.(Toluene-d8) %	105	101	108	44	105
SURR.(d-4,1,2-Dichloroethane)%	99	100	109	46.4	98
Tetrachloroethene	109	ND	ND	-	-
Trichloroethene	95	ND	ND	50	80
Vinyl chloride	95	ND	ND	-	-

** NOTES :

BLANK 12-07 SPK RCV% - Dichloroethene, 1,1 WAS NOT ANALYZED IN THIS BLANK SPIKE. NO RECOVERY AVAILABLE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-28-92 14:23
 Prepared By: RL
 QA/QC Check: RL
 Lab Manager: RL

Sample Number	BLANK	METHOD	PRACTICAL	SURROGATE
Lab ID Number	12-07-92	DETECTION	QUANTITATION	SPIKE
Matrix	SYSTEM	LIMIT	LIMIT	LEVELS
Type	SAMPLE			

Date of Collection	
Date of Receipt	
Date of Extraction	12-07-92
Date of Analysis	12-07-92

Benzene	ND		50	-
Carbon tetrachloride	ND		50	-
Chlorobenzene	ND		50	-
Chloroform	ND		50	-
Dichlorobenzene, 1,4-	ND		50	-
Dichloroethane, 1,2-	ND		50	-
Dichloroethene, 1,1-	ND		50	-
Methylethyl ketone	ND		100	-
SURR.(Bromofluorobenzene, 4-)%	91		-	415
SURR.(Toluene-d8) %	107		-	440
SURR.(d-4,1,2-Dichloroethane)%	108		-	464
Tetrachloroethene	ND		50	-
Trichloroethene	ND		50	-
Vinyl chloride	ND		100	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ET1/NAS - TCLP

Memphis Environmental Center
 Analytical Report
 Volatile Organics By Method: SW846-8240
 Results given in: ug/Kg

Report Date: 12-28-92 14:23
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	112092-DH-007	METHOD	PRACTICAL	SURROGATE
Lab ID Number	9207661	DETECTION	QUANTITATION	SPIKE
Matrix	LEACHATE	LIMIT	LIMIT	LEVELS
Type	SAMPLE**			
Date of Collection	11-20-92			
Date of Receipt	11-24-92			
Date of Extraction	12-02-92			
Date of Analysis	12-02-92			
Benzene	ND		50	-
Carbon tetrachloride	ND		50	-
Chlorobenzene	ND		50	-
Chloroform	ND		50	-
Dichlorobenzene, 1,4-	ND		50	-
Dichloroethane, 1,2-	ND		50	-
Dichloroethene, 1,1-	ND		50	-
Methylethyl ketone	ND		100	-
SURR.(Bromofluorobenzene, 4-)%	90		-	415
SURR.(Toluene-d8) %	108		-	440
SURR.(d-4,1,2-Dichloroethane)%	110		-	464
Tetrachloroethene	ND		50	-
Trichloroethene	ND		50	-
Vinyl chloride	ND		100	-

** NOTES :

9207661*SAMPLE - SAMPLE ANALYZED AS A WASTE DILUTION. PQLs FOR THIS SAMPLE ARE 50 TIMES THE VALUES STATED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 Analytical Report
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 13:31
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	112092-DH-007	112492-DH-008	112492-DH-009	112492-DH-010	112492-DH-011
Lab ID Number	9207661	9207662	9207663	9207664	9207665
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**
Date of Collection	11-20-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	12-08-92	12-08-92	12-08-92	12-08-92	12-08-92
Date of Analysis	12-17-92	12-17-92	12-18-92	12-17-92	12-17-92

Cresols	ND	204000	ND	ND	ND
Dinitrotoluene, 2,4-	ND	ND	ND	ND	ND
Hexachlorobenzene	ND	ND	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND	ND
Hexachloroethane	ND	ND	ND	ND	ND
Nitrobenzene	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND
Pyridine	ND	ND	ND	ND	ND
SURR.(Fluorobiphenyl, 2-) %	-	-	65.2	101	92.3
SURR.(Fluorophenol, 2-) %	-	-	84.1	59.7	63.8
SURR.(Nitrobenzene, d-5) %	-	-	95.9	84.3	100
SURR.(Phenol, d-6) %	-	-	59.0	43.3	47.8
SURR.(Terphenyl, d-14-p) %	-	-	73.7	105	86.7
SURR.(Tribromophenol, 2,4,6-)%	-	-	90.6	102	109
Trichlorophenol, 2,4,5-	ND	ND	ND	ND	ND
Trichlorophenol, 2,4,6-	ND	ND	ND	ND	ND

** NOTES :

- 9207661*SAMPLE - TCLP EXTRACTION DATE - 12/04/92. LOQs FOR THIS SAMPLE ARE 100 TIMES THE VALUES STATED. SURROGATES DILUTED OUT.
- 9207662*SAMPLE - LOQs FOR THIS SAMPLE ARE 500 TIMES THE VALUES STATED. SUROGATES DILUTED OUT.
- 9207663*SAMPLE - LOQs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.
- 9207664*SAMPLE - LOQs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.
- 9207665*SAMPLE - LOQs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.

- Not Applicable
 ND Non detected at stated limit
 VA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-28-92 13:3'

Prepared By: *[Signature]*
QA/QC Check: *[Signature]*
Lab Manager: *[Signature]*

Sample Number	112492-DH-012	112492-DH-013
Lab ID Number	9207666	9207667
Matrix	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-08-92	12-08-92
Date of Analysis	12-17-92	12-17-92

Cresols	ND	32500
Dinitrotoluene, 2,4-	ND	ND
Hexachlorobenzene	ND	ND
Hexachlorobutadiene	ND	ND
Hexachloroethane	ND	ND
Nitrobenzene	ND	ND
Pentachlorophenol	ND	ND
Pyridine	ND	ND
SURR.(Fluorobiphenyl, 2-) %	89.8	78.6
SURR.(Fluorophenol, 2-) %	63.6	54.8
SURR.(Nitrobenzene, d-5) %	83.3	73.6
SURR.(Phenol, d-6) %	53.1	35.9
SURR.(Terphenyl, d-14-p-) %	89.4	76.9
SURR.(Tribromophenol, 2,4,6-) %	106	101
Trichlorophenol, 2,4,5-	ND	ND
Trichlorophenol, 2,4,6-	ND	ND

** NOTES :

9207666*SAMPLE - LOQs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.
9207667*SAMPLE - LOQs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Spikes
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 13:31

Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	112492-DH-009	112492-DH-009	112492-DH-012	112492-DH-012
Lab ID Number	9207663-SPIKE-1	9207663-SPIKE-1	9207666-SPIKE-1	9207666-SPIKE-1
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	ADDED LEVEL**	% RECOVERED 1	ADDED LEVEL	% RECOVERED 1
Date of Collection	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	12-08-92	12-08-92	12-08-92	12-08-92
Date of Analysis	12-17-92	12-17-92	12-17-92	12-17-92
Cresols	2400	72.0	2400	81.3
Dinitrotoluene, 2,4-	800	78.3	800	85.0
Hexachlorobenzene	800	76.9	800	76.6
Hexachlorobutadiene	800	48.6	800	61.3
Hexachloroethane	800	46.3	800	66.2
Nitrobenzene	800	60.3	800	68.9
Pentachlorophenol	800	73.1	800	75.6
Pyridine	800	20.9	800	30.5
SURR.(Fluorobiphenyl, 2-) %	400	79.5	400	87.9
SURR.(Fluorophenol, 2-) %	800	54.3	800	63.7
SURR.(Nitrobenzene, d-5) %	400	68.5	400	83.5
SURR.(Phenol, d-6) %	800	43.4	800	61.9
SURR.(Terphenyl, d-14-p-) %	400	78.9	400	86.4
SURR.(Tribromophenol, 2,4,6-)%	800	106	800	117
Trichlorophenol, 2,4,5-	800	77.9	800	78.0
Trichlorophenol, 2,4,6-	800	82.3	800	83.0

** NOTES :

9207663*SPK1ADD - LOQs FOR THIS MATRIX SPIKE ARE 10 TIMES THE VALUES STATED.

- Not Applicable
 ID Non detected at stated limit
 IA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ET1/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 13:31
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-04-92-2	12-08-92-1	12-08-92-2	12-4-2 SPK ADD	12-4-2 SPK RCV%
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-08-92	12-08-92	12-04-92	12-04-92
Date of Analysis	12-16-92	12-16-92	12-16-92	12-16-92	12-16-92
Cresols	ND	ND	ND	240	51.2
Dinitrotoluene, 2,4-	ND	ND	ND	80	69.6
Hexachlorobenzene	ND	ND	ND	80	65.5
Hexachlorobutadiene	ND	ND	ND	80	47.4
Hexachloroethane	ND	ND	ND	80	44.3
Nitrobenzene	ND	ND	ND	80	54.4
Pentachlorophenol	ND	ND	ND	80	74.1
Pyridine	ND	ND	ND	80	33.6
SURR.(Fluorobiphenyl, 2-) %	65.4	71.7	64.2	40	65.6
SURR.(Fluorophenol, 2-) %	47.8	49.1	47.0	80	49.1
SURR.(Nitrobenzene, d-5) %	67.0	70.0	65.7	40	66.2
SURR.(Phenol, d-6) %	34.6	34.9	35.1	80	36.3
SURR.(Terphenyl, d-14-p) %	63.4	71.1	66.5	40	69.1
SURR.(Tribromophenol, 2,4,6)%	81.7	89.5	88.3	80	85.8
Trichlorophenol, 2,4,5-	ND	ND	ND	80	69.6
Trichlorophenol, 2,4,6-	ND	ND	ND	80	65.4

** NOTES :

- BLANK 12-04-92-2 - TCLP BLANK.
- BLANK 12-08-92-1 - TCLP BLANK.
- BLANK 12-08-92-2 - TCLP BLANK.
- BLANK 12-4-2 SPK ADD - TCLP BLANK SPIKE.
- BLANK 12-4-2 SPK RCV% - TCLP BLANK SPIKE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 13:32
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	BLANK	LIMIT
Lab ID Number	12-8-1 SPK ADD	12-8-1 SPK RCV%	12-8-3 SPK ADD	12-8-3 SPK RCV%	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	DETECTION
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**	
Date of Collection					
Date of Receipt					
Date of Extraction	12-08-92	12-08-92	12-08-92	12-08-92	
Date of Analysis	12-16-92	12-16-92	12-16-92	12-16-92	
Cresols	2400	45.3	2400	42.9	
Dinitrotoluene, 2,4-	800	73.0	800	72.2	
Hexachlorobenzene	800	53.2	800	61.6	
Hexachlorobutadiene	800	51.6	800	50.3	
Hexachloroethane	800	47.2	800	38.1	
Nitrobenzene	800	53.2	800	53.3	
Pentachlorophenol	800	76.2	800	77.5	
Pyridine	800	33.5	800	30.1	
SURR.(Fluorobiphenyl, 2-) %	400	67.4	400	66.5	
SURR.(Fluorophenol, 2-) %	800	48.3	800	45.3	
SURR.(Nitrobenzene, d-5) %	400	67.3	400	67.4	
SURR.(Phenol, d-6) %	800	36.1	800	34.7	
SURR.(Terphenyl, d-14-p-) %	400	69.6	400	69.1	
SURR.(Tribromophenol, 2,4,6-) %	800	93.0	800	88.9	
Trichlorophenol, 2,4,5-	800	65.2	800	63.5	
Trichlorophenol, 2,4,6-	800	66.0	800	65.5	

** NOTES :

- BLANK 12-8-1 SPK ADD - TCLP BLANK SPIKE.
- BLANK 12-8-1 SPK RCV% - TCLP BLANK SPIKE.
- BLANK 12-8-3 SPK ADD - TCLP BLANK SPIKE.
- BLANK 12-8-3 SPK RCV% - TCLP BLANK SPIKE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Blanks
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-28-92 13:32

Prepared By: [Signature]
QA/QC Check: [Signature]
Lab Manager: [Signature]

Sample Number	LIMIT	SURROGATE
Lab ID Number	OF	SPIKE
Matrix	QUANTITATION	LEVELS
Type		

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Cresols	100	-
Dinitrotoluene, 2,4-	50	-
Hexachlorobenzene	50	-
Hexachlorobutadiene	50	-
Hexachloroethane	50	-
Nitrobenzene	50	-
Pentachlorophenol	100	-
Pyridine	50	-
SURR.(Fluorobiphenyl, 2-) %	-	400
SURR.(Fluorophenol, 2-) %	-	800
SURR.(Nitrobenzene, d-5) %	-	400
SURR.(Phenol, d-6) %	-	800
SURR.(Terphenyl, d-14-p-) %	-	400
SURR.(Tribromophenol, 2,4,6-) %	-	800
Trichlorophenol, 2,4,5-	100	-
Trichlorophenol, 2,4,6-	100	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 13:32
 Prepared By [Signature]
 QA/QC Check [Signature]
 Lab Manager [Signature]

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-04-92-1	12-08-92-3	12-4-1 SPK ADD	12-4-1 SPK RCV%	12-8-2 SPK ADD
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE	SAMPLE	SAMPLE	SAMPLE	SAMPLE
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-08-92	12-04-92	12-04-92	12-08-92
Date of Analysis	12-16-92	12-16-92	12-16-92	12-16-92	12-16-92
Cresols	ND	ND	240	43.9	240
Dinitrotoluene, 2,4-	ND	ND	80	49.3	80
Hexachlorobenzene	ND	ND	80	47.8	80
Hexachlorobutadiene	ND	ND	80	35.6	80
Hexachloroethane	ND	ND	80	40.3	80
Nitrobenzene	ND	ND	80	43.0	80
Pentachlorophenol	ND	ND	80	45.2	80
Pyridine	ND	ND	80	22.7	80
SURR.(Fluorobiphenyl, 2-) %	45.4	65.2	40	48.1	40
SURR.(Fluorophenol, 2-) %	31.9	45.8	80	37.8	80
SURR.(Nitrobenzene, d-5) %	47.5	67.1	40	47.7	40
SURR.(Phenol, d-6) %	27.1	34.1	80	26.0	80
SURR.(Terphenyl, d-14-p) %	46.6	67.3	40	48.4	40
SURR.(Tribromophenol, 2,4,6-)%	52.7	87.6	80	59.4	80
Trichlorophenol, 2,4,5-	ND	ND	80	47.4	80
Trichlorophenol, 2,4,6-	ND	ND	80	49.6	80

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 13:32
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	BLANK	LIMIT	LIMIT	SURROGATE
Lab ID Number	12-8-2 SPK RCV%	OF	OF	SPIKE
Matrix	SYSTEM	DETECTION	QUANTITATION	LEVELS
Type	SAMPLE**			
Date of Collection				
Date of Receipt				
Date of Extraction	12-08-92			
Date of Analysis	12-16-92			
Cresols	39.1		10	-
Dinitrotoluene, 2,4-	69.5		5	-
Hexachlorobenzene	61.1		5	-
Hexachlorobutadiene	49.1		5	-
Hexachloroethane	36.7		5	-
Nitrobenzene	50.7		5	-
Pentachlorophenol	70.2		10	-
Pyridine	34.6		5	-
SURR.(Fluorobiphenyl, 2-) %	64.7		-	40
SURR.(Fluorophenol, 2-) %	42.7		-	80
SURR.(Nitrobenzene, d-5) %	64.4		-	40
SURR.(Phenol, d-6) %	32.1		-	80
SURR.(Terphenyl, d-14-p-) %	67.9		-	40
SURR.(Tribromophenol, 2,4,6-) %	84.8		-	80
Trichlorophenol, 2,4,5-	69.5		10	-
Trichlorophenol, 2,4,6-	61.2		10	-

** NOTES :

BLANK 12-8-2 SPK RCV% - RECOVERY FOR Hexachloroethane BELOW ACCEPTED LIMIT OF 40%.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 Analytical Report
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-28-92 10:54

Prepared By:
 QA/QC Check:
 Lab Manager:

Sample Number	112092-DH-007	112492-DH-008	112492-DH-009	112492-DH-010	112492-DH-011
Lab ID Number	9207661	9207662	9207663	9207664	9207665
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE	SAMPLE	SAMPLE	SAMPLE
Date of Collection	11-20-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	12-12-92	12-12-92	12-12-92	12-12-92	12-12-92
Date of Analysis	12-13-92	12-13-92	12-13-92	12-13-92	12-13-92
BHC, gamma (Lindane)	ND	ND	ND	ND	ND
Chlordane	ND	ND	ND	ND	ND
Endrin	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND
Heptachlor epoxide	ND	ND	ND	ND	ND
Methoxychlor	ND	ND	ND	ND	ND
SURR.(TCMX) %	79.2	67.1	70.8	75.9	59.2
Toxaphene	ND	ND	ND	ND	ND

** NOTES :

9207661*SAMPLE - TCLP EXTRACTION DATE 12/04-05/92.

Sample Number	112492-DH-012	112492-DH-013
Lab ID Number	9207666	9207667
Matrix	LEACHATE	LEACHATE
Type	SAMPLE	SAMPLE
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-12-92	12-12-92
Date of Analysis	12-13-92	12-13-92
BHC, gamma (Lindane)	ND	ND
Chlordane	ND	ND
Endrin	ND	ND
Heptachlor	ND	ND
Heptachlor epoxide	ND	ND
Methoxychlor	ND	ND
SURR.(TCMX) %	58.3	46.4
Toxaphene	ND	ND

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Spikes
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-28-92 10:54
 Prepared By
 QA/QC Check
 Lab Manager

Sample Number	112492-DH-009	112492-DH-009	112492-DH-012	112492-DH-012
Lab ID Number	9207663-SPIKE-1	9207663-SPIKE-1	9207666-SPIKE-1	9207666-SPIKE-1
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	ADDED LEVEL**	% RECOVERED 1**	ADDED LEVEL**	% RECOVERED 1**
Date of Collection	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	12-12-92	12-12-92	12-12-92	12-12-92
Date of Analysis	12-13-92	12-13-92	12-13-92	12-13-92
BHC, gamma (Lindane)	1.66	75.3	1.66	70.1
Chlordane	-	-	-	-
Endrin	1.65	151	1.65	114
Heptachlor	2.92	77.6	2.92	35.4
Heptachlor epoxide	1.74	108	1.74	91.6
Methoxychlor	-	-	-	-
SURR.(TCMX) %	8.0	74.0	8.0	43.9
Toxaphene	-	-	-	-

** NOTES :

- 9207663*SPK1ADD - Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.
- 9207663*SPK1RCV1 - Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.
- 9207666*SPK1ADD - Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.
- 9207666*SPK1RCV1 - Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-28-92 10:54
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number Lab ID Number Matrix Type	BLANK			BLANK			BLANK			BLANK			
	12-12-1 SPK	ADD	12-12-1 SPK RCV%	12-12-2 SPK	ADD	12-12-2 SPK RCV%	12-12-2 SPK	ADD	12-12-2 SPK RCV%	12-12-92-1			
	SYSTEM			SYSTEM			SYSTEM			SYSTEM			
	SAMPLE**			SAMPLE**			SAMPLE**			SAMPLE**			
Date of Collection													
Date of Receipt													
Date of Extraction	12-12-92			12-12-92			12-12-92			12-12-92			12-12-92
Date of Analysis	12-13-92			12-13-92			12-13-92			12-13-92			12-13-92
BHC, gamma (Lindane)	1.66			67.5			0.416			81.7			ND
Chlordane	-			-			-			-			ND
Endrin	1.65			115			0.412			124			ND
Heptachlor	2.92			50.3			0.729			77.1			ND
Heptachlor epoxide	1.74			91.6			0.435			108			ND
Methoxychlor	-			-			-			-			ND
SURR.(TCMX) %	8.0			63.4			8.0			88.2			63.7
Toxaphene	-			-			-			-			ND

** NOTES :

BLANK 12-12-1 SPK ADD - TCLP BLANK SPIKE. Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-12-1 SPK RCV% - TCLP BLANK SPIKE. Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-12-2 SPK ADD - TCLP BLANK SPIKE. Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-12-2 SPK RCV% - TCLP BLANK SPIKE. Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-12-92-1 - TCLP BLANK.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-28-92 10:5-
 Prepared By
 QA/QC Check
 Lab Manager

Sample Number	BLANK	LIMIT	LIMIT	SURROGATE
Lab ID Number	12-12-92-2	OF	OF	SPIKE
Matrix	SYSTEM	DETECTION	QUANTITATION	LEVELS
Type	SAMPLE**			

Date of Collection	
Date of Receipt	
Date of Extraction	12-12-92
Date of Analysis	12-13-92

BHC, gamma (Lindane)	ND	0.20	-	-
Chlordane	ND	4.0	-	-
Endrin	ND	0.20	-	-
Heptachlor	ND	0.20	-	-
Heptachlor epoxide	ND	0.20	-	-
Methoxychlor	ND	2.0	-	-
SURR.(TCMX) %	85.9	-	-	2.0
Toxaphene	ND	20.0	-	-

** NOTES :

BLANK 12-12-92-2 - TCLP BLANK.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-28-92 10:5-
 Prepared By:
 QA/QC Check:
 Lab Manager:

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-12-3 SPK ADD	12-12-3 SPK RCV%	12-12-92-3	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-12-92	12-12-92	12-12-92		
Date of Analysis	12-13-92	12-13-92	12-13-92		
BHC, gamma (Lindane)	0.416	75.8	ND	0.05	-
Chlordane	-	-	ND	1.0	-
Endrin	0.412	119	ND	0.05	-
Heptachlor	0.729	74.0	ND	0.05	-
Heptachlor epoxide	0.435	102	ND	0.05	-
Methoxychlor	-	-	ND	0.50	-
SURR.(TCMX) %	8.0	87.3	85.0		-
Toxaphene	-	-	ND	5.0	-

**** NOTES :**

BLANK 12-12-3 SPK ADD - Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-12-3 SPK RCV% - Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

BHC, gamma (Lindane)	-
Chlordane	-
Endrin	-
Heptachlor	-
Heptachlor epoxide	-
Methoxychlor	-
SURR.(TCMX) %	2.0
Toxaphene	-

**** NOTES :**

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 Analytical Report
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-28-92 09:57
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	112092-DH-007	112492-DH-008	112492-DH-009	112492-DH-010	112492-DH-011
Lab ID Number	9207661	9207662	9207663	9207664	9207665
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE	SAMPLE	SAMPLE	SAMPLE
Date of Collection	11-20-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	12-10-92	12-10-92	12-10-92	12-10-92	12-10-92
Date of Analysis	12-12-92	12-12-92	12-12-92	12-12-92	12-12-92
2,4-D	ND	ND	ND	ND	ND
SURR.(DCAA) %	100	174	178	0.0	179
Silvex (2,4,5-TP)	ND	ND	ND	ND	ND

** NOTES :
 9207661*SAMPLE - TCLP EXTRACTION DATE - 12/04/92.

Sample Number	112492-DH-012	112492-DH-013
Lab ID Number	9207666	9207667
Matrix	LEACHATE	LEACHATE
Type	SAMPLE	SAMPLE
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Extraction	12-10-92	12-10-92
Date of Analysis	12-12-92	12-12-92
2,4-D	ND	ND
SURR.(DCAA) %	230	106
Silvex (2,4,5-TP)	ND	ND

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Spikes
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-28-92 09:57

Prepared By *[Signature]*
 QA/QC Check *[Signature]*
 Lab Manager *[Signature]*

Sample Number	112492-DH-009	112492-DH-009	112492-DH-012	112492-DH-012
Lab ID Number	9207663-SPIKE-1	9207663-SPIKE-1	9207666-SPIKE-1	9207666-SPIKE-1
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1	ADDED LEVEL	% RECOVERED 1
Date of Collection	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92
Date of Extraction	12-10-92	12-10-92	12-10-92	12-10-92
Date of Analysis	12-12-92	12-12-92	12-12-92	12-12-92
2,4-D	41.4	145	41.4	125
SURR.(DCAA) %	200	181	200	147
Silvex (2,4,5-TP)	38.6	162	38.6	144

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ET1/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-28-92 09:57
 Prepared By [Signature]
 QA/QC Check [Signature]
 Lab Manager [Signature]

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-10-1 SPK ADD	12-10-1 SPK RCV%	12-10-2 SPK ADD	12-10-2 SPK RCV%	12-10-92-1
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**
Date of Collection					
Date of Receipt					
Date of Extraction	12-10-92	12-10-92	12-10-92	12-10-92	12-10-92
Date of Analysis	12-12-92	12-12-92	12-12-92	12-12-92	12-12-92
2,4-D	41.4	133	41.4	143	ND
SURR.(DCAA) %	200	178	200	149	123
Silvex (2,4,5-TP)	38.6	157	38.6	134	ND

** NOTES :

BLANK 12-10-1 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-10-1 SPK RCV% - TCLP BLANK SPIKE.
 BLANK 12-10-2 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-10-2 SPK RCV% - TCLP BLANK SPIKE.
 BLANK 12-10-92-1 - TCLP BLANK.

Sample Number	BLANK	LIMIT	LIMIT	SURROGATE
Lab ID Number	12-10-92-2	OF	OF	SPIKE
Matrix	SYSTEM	DETECTION	QUANTITATION	LEVELS
Type	SAMPLE**			
Date of Collection				
Date of Receipt				
Date of Extraction	12-10-92			
Date of Analysis	12-12-92			
2,4-D	ND	40	-	-
SURR.(DCAA) %	120	-	-	10.0
Silvex (2,4,5-TP)	ND	10	-	-

** NOTES :

BLANK 12-10-92-2 - TCLP BLANK.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-28-92 09:57
 Prepared By: h
 QA/QC Check: h
 Lab Manager: h

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-10-3 SPK ADD	12-10-3 SPK RCV%	12-10-92-3	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-10-92	12-10-92	12-10-92		
Date of Analysis	12-12-92	12-12-92	12-12-92		
2,4-D	2.07	116	ND	2.0	-
SURR.(DCAA) %	10.0	141	166		-
Silvex (2,4,5-TP)	1.93	129	ND	0.5	-

** NOTES :

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	
Date of Collection	
Date of Receipt	
Date of Extraction	
Date of Analysis	
2,4-D	-
SURR.(DCAA) %	10.0
Silvex (2,4,5-TP)	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 Analytical Report
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 12-28-92 09:50
 Prepared By: KH
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	112092-DH-007	112492-DH-008	112492-DH-009	112492-DH-010	112492-DH-011
Lab ID Number	9207661	9207662	9207663	9207664	9207665
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE	SAMPLE	SAMPLE	SAMPLE
Date of Collection	11-20-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92	11-24-92
Date of Digestion	12-92	12-92	12-92	12-92	12-92
Date of Analysis	12-92	12-92	12-92	12-92	12-92
Arsenic	ND	ND	ND	ND	ND
Barium	ND	ND	ND	ND	ND
Cadmium	ND	ND	ND	420	ND
Chromium	ND	ND	ND	ND	ND
Lead	ND	ND	ND	ND	ND
Mercury	ND	ND	ND	ND	ND
Selenium	ND	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND

** NOTES :

9207661*SAMPLE - TCLP EXTRACTION DATE - 12/04/92. Hg ANALYSIS DATE - 12/10/92. DUE TO HIGH LEVELS OF ORGANICS, SAMPLES DILUTED 1:5 (EXCEPT Hg 1:10); THEREFORE, LODs 5 TIMES HIGHER THAN NORMAL (Hg 10 TIMES).

Sample Number	112492-DH-012	112492-DH-013
Lab ID Number	9207666	9207667
Matrix	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE
Date of Collection	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92
Date of Digestion	12-92	12-92
Date of Analysis	12-92	12-92
Arsenic	ND	ND
Barium	ND	ND
Cadmium	ND	ND
Chromium	ND	ND
Lead	ND	ND
Mercury	ND	151
Selenium	ND	ND
Silver	ND	ND

** NOTES :

9207666*SAMPLE - DIGESTED SAMPLE DILUTED 1:10 FOR ANALYSIS DUE TO MATRIX INTERFERENCE; LOD FOR Arsenic IS 500 ug/L.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Spikes
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 12-28-92 09:50
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	112492-DH-009	112492-DH-009	112492-DH-012	112492-DH-012
Lab ID Number	9207663-SPIKE-1	9207663-SPIKE-1	9207666-SPIKE-1	9207666-SPIKE-1
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1	ADDED LEVEL	% RECOVERED 1**
Date of Collection	11-24-92	11-24-92	11-24-92	11-24-92
Date of Receipt	11-24-92	11-24-92	11-24-92	11-24-92
Date of Digestion	12-92	12-92	12-92	12-92
Date of Analysis	12-92	12-92	12-92	12-92
Arsenic	1000	86.3	1000	-
Barium	25000	101	25000	98.8
Cadmium	5000	98.8	5000	95.8
Chromium	5000	103	5000	98.9
Lead	5000	102	5000	102
Mercury	50.0	101	50.0	98.8
Selenium	1000	84.9	1000	-
Silver	2500	93.8	2500	102

** NOTES :

9207666*SPK1RCV1 - UNACCEPTABLE SPIKE RECOVERY FOR Arsenic AND Selenium DUE TO MATRIX INTERFERENCE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 12-28-92 09:50
 Prepared By: *KH*
 QA/QC Check: *JA*
 Lab Manager: *JA*

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-92-1	12-92-1 SPK ADD	12-92-1 SPK RCV%	12-92-2	12-92-2 SPK ADD
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**
Date of Collection					
Date of Receipt					
Date of Digestion	12-92	12-92	12-92	12-92	12-92
Date of Analysis	12-92	12-92	12-92	12-92	12-92
Arsenic	ND	1000	88.9	ND	1000
Barium	ND	25000	101	ND	25000
Cadmium	ND	5000	100	ND	5000
Chromium	ND	5000	89.9	ND	5000
Lead	ND	5000	105	ND	5000
Mercury	ND	50.0	101	ND	50.0
Selenium	ND	1000	83.9	ND	1000
Silver	ND	2500	95.4	ND	2500

** NOTES :

- BLANK 12-92-1 - TCLP BLANK.
- BLANK 12-92-1 SPK ADD - TCLP BLANK SPIKE.
- BLANK 12-92-1 SPK RCV% - TCLP BLANK SPIKE.
- BLANK 12-92-2 - TCLP BLANK.
- BLANK 12-92-2 SPK ADD - TCLP BLANK SPIKE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921462
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 12-28-92 09:51
 Prepared By: *KG*
 QA/QC Check: *TS*
 Lab Manager: *TS*

Sample Number	BLANK	BLANK	BLANK	BLANK	LIMIT
Lab ID Number	12-92-2 SPK RCV%	12-92-3	12-92-3 SPK ADD	12-92-3 SPK RCV%	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	DETECTION
Type	SAMPLE**	SAMPLE	SAMPLE	SAMPLE	
Date of Collection					
Date of Receipt					
Date of Digestion	12-92	12-92	12-92	12-92	
Date of Analysis	12-92	12-92	12-92	12-92	
Arsenic	97.7	ND	1000	97.5	50
Barium	98.0	ND	25000	97.5	5000
Cadmium	99.4	ND	5000	95.8	25
Chromium	116	ND	5000	98.4	1000
Lead	102	ND	5000	98.0	250
Mercury	101	ND	50.0	101	2
Selenium	101	ND	1000	99.9	25
Silver	99.8	ND	2500	101	100

** NOTES :
 BLANK 12-92-2 SPK RCV% - TCLP BLANK SPIKE.

Sample Number
 Lab ID Number
 Matrix
 Type

LIMIT
 OF
 QUANTITATION

Date of Collection
 Date of Receipt
 Date of Digestion
 Date of Analysis

Arsenic	-
Barium	-
Cadmium	-
Chromium	-
Lead	-
Mercury	-
Selenium	-
Silver	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100

Memphis, Tennessee 38132

(901)-345-1788

Client Contact: Bobby Allen
Project: E T I - NAS
Northside
Sample(s) Type: Water Waste

Report No: R-921463
Report Date: 12/29/92
Facility ID#:

Quality Assurance Summary:

<u>Type of Analysis</u>	<u>Method</u>	<u>Holding Time</u>	<u>Surrogate Recovery</u>	<u>Matrix Spike Recoveries</u>	<u>Blanks</u>	<u>Overall Summary</u>
CORROSIVITY	SW846-9040	A	NA	NA	NA	A
CYANIDE (reactive)	SW846-7.3.3.2	A	NA	NA	A	A
SULFIDE (reactive)	SW846-7.3.4.2	A	NA	A	A	A
IGNITABILITY	SW846-1010	A	NA	NA	NA	A
TCLP	SW846-1311	A				
VOC	SW846-8240	A	A	A(N-1)	A	A (See N-1)
BNA	SW846-3580/ 8270	A	A	A(N-1)	A	A (See N-1)
PESTICIDES	SW846-3510/ 8080	A	A	A(N-1)	A	A (See N-1)
HERBICIDES	SW846-3580/ 8150	A	A(N-2)	A	A	A (See N-2)
METALS	SW846-6010/ 7000	A	NA	A(N-1)	A	A (See N-1)

A = Requirements set by method were met

NA = Not applicable

N-1 = See NOTE 1 on page 2

N-2 = See NOTE 2 on page 2

Terri Gray
QA Officer

Terri Gray
Laboratory Manager

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100

Memphis, Tennessee 38132

(901)-345-1788

Client Contact: Bobby Allen
Project: E T I - NAS
Northside
Sample(s) Type: Water Waste

Report No: R-921463
Report Date: 12/29/92
Facility ID#:

Quality Assurance Summary page 2:

NOTE 1: These samples were analyzed as part of a larger set which included matrix spikes that had acceptable recoveries.

NOTE 2: The surrogate was diluted out.


QA Officer


Laboratory Manager

Report Number: R-921463
Project Number: 375-05-02-00
Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
Analytical Report
General Chemistry
Results given in: mg/Kg

Report Date: 12-27-92 16:05
Prepared By *CW*
QA/QC Check *JB*
Lab Manager *JB*

Sample Number 112592-DH-014
Lab ID Number 9207668
Matrix WATER WASTE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction -
Date of Analysis 11-30-92

Corrosivity - pH (ph units) 8.87
Cyanide (Reactive) ND
Sulfide (Reactive) 10.9

** NOTES :

9207668*SAMPLE - Cyanide (Reactive) ANALYZED 12/04/92 AND Sulfide (Reactive) ANALYZED 12/01/92.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
 Project Number: 375-05-02-00
 Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
 QA/QC Report - Blanks
 General Chemistry
 Results given in: mg/Kg

Report Date: 12-27-92 16:05
 Prepared By: CLW/s
 QA/QC Check: TL
 Lab Manager: TL

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-92	12-92 SPK ADD	12-92 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	-	-	-		
Date of Analysis	12-92	12-92	12-92		
Corrosivity - pH (ph units)	-	-	-	-	-
Cyanide (Reactive)	ND	20	71.2	1	-
Sulfide (Reactive)	ND	620	53.2	10	-

** NOTES :

BLANK 12-92 - Cyanide (Reactive) ANALYZED 12/04/92 AND Sulfide (Reactive) ANALYZED 12/01/92.
 BLANK 12-92 SPK ADD - Cyanide (Reactive) ANALYZED 12/04/92 AND Sulfide (Reactive) ANALYZED 12/01/92.
 BLANK 12-92 SPK RCV% - Cyanide (Reactive) ANALYZED 12/04/92 AND Sulfide (Reactive) ANALYZED 12/01/92.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
Project Number: 375-05-02-00
Description: ETI/NAS - WATER WASTE

Memphis Environmental Center
Analytical Report
General Chemistry
Results given in:

Report Date: 12-27-92 15:26
Prepared By *[Signature]*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number	112592-DH-014	LIMIT	LIMIT	SURROGATE
Lab ID Number	9207668	OF	OF	SPIKE
Matrix	WATER WASTE	DETECTION	QUANTITATION	LEVELS
Type	SAMPLE**			
Date of Collection	11-25-92			
Date of Receipt	11-25-92			
Date of Extraction	-			
Date of Analysis	12-11-92			
Ignitability (degrees)	140	-	-	-

** NOTES :

9207668*SAMPLE - RESULT FOR Ignitability > 140 DEGREES FAHRENHEIT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Volatile Organics By Method: SW846-8240
Results given in: ug/L

Report Date: 12-27-92 14:16
Prepared By:
QA/QC Check:
Lab Manager:

Sample Number 112592-DH-014
Lab ID Number 9207668
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-04-92
Date of Analysis 12-04-92

Benzene	ND
Carbon tetrachloride	ND
Chlorobenzene	ND
Chloroform	ND
Dichlorobenzene, 1,4-	ND
Dichloroethane, 1,2-	ND
Dichloroethene, 1,1-	ND
Methylethyl ketone	206000
SURR.(Bromofluorobenzene, 4-)%	88
SURR.(Toluene-d8) %	100
SURR.(d-4,1,2-Dichloroethane)%	98
Tetrachloroethene	ND
Trichloroethene	ND
Vinyl chloride	ND

** NOTES :

9207668*SAMPLE - PQLs FOR THIS SAMPLE ARE 100 TIMES THE VALUES STATED.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-27-92 14:16
 Prepared By: KL
 QA/QC Check: KL
 Lab Manager: KL

Sample Number	BLANK	BLANK	BLANK	BLANK	METHOD
Lab ID Number	11-24 SPK ADD	11-24 SPK RCV%	11-24-92-1	11-24-92-2	DETECTION
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	LIMIT
Type	SAMPLE	SAMPLE	SAMPLE	SAMPLE	
Date of Collection					
Date of Receipt					
Date of Extraction	11-24-92	11-24-92	11-24-92	11-24-92	
Date of Analysis	12-02-92	12-02-92	12-04-92	12-02-92	
Benzene	500	88	ND	ND	
Carbon tetrachloride	500	93	ND	ND	
Chlorobenzene	500	90	ND	ND	
Chloroform	500	89	ND	ND	
Dichlorobenzene, 1,4-	500	79	ND	ND	
Dichloroethane, 1,2-	500	89	ND	ND	
Dichloroethene, 1,1-	500	95	ND	ND	
Methylethyl ketone	1000	86	ND	ND	
SURR.(Bromofluorobenzene, 4-)%	415	99	91	97	
SURR.(Toluene-d8) %	440	107	101	106	
SURR.(d-4,1,2-Dichloroethane)%	464	103	100	107	
Tetrachloroethene	500	94	ND	ND	
Trichloroethene	500	85	ND	ND	
Vinyl chloride	500	75	ND	ND	

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-27-92 14:16
 Prepared By AV
 QA/QC Check AV
 Lab Manager AV

Sample Number	PRACTICAL	SURROGATE
Lab ID Number	QUANTITATION	SPIKE
Matrix	LIMIT	LEVELS
Type		

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

Benzene	50	-
Carbon tetrachloride	50	-
Chlorobenzene	50	-
Chloroform	50	-
Dichlorobenzene, 1,4-	50	-
Dichloroethane, 1,2-	50	-
Dichloroethene, 1,1-	50	-
Methylethyl ketone	500	-
SURR.(Bromofluorobenzene, 4-)%	-	415
SURR.(Toluene-d8) %	-	440
SURR.(d-4,1,2-Dichloroethane)%	-	464
Tetrachloroethene	50	-
Trichloroethene	50	-
Vinyl chloride	100	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-28-92 09:14
Prepared By: [Signature]
QA/QC Check: [Signature]
Lab Manager: [Signature]

Sample Number 112592-DH-014
Lab ID Number 9207668
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-04-92
Date of Analysis 12-17-92

Cresols	195000
Dinitrotoluene, 2,4-	ND
Hexachlorobenzene	ND
Hexachlorobutadiene	ND
Hexachloroethane	ND
Nitrobenzene	ND
Pentachlorophenol	ND
Pyridine	ND
SURR.(Fluorobiphenyl, 2-) %	60.2
SURR.(Fluorophenol, 2-) %	51.7
SURR.(Nitrobenzene, d-5) %	63.4
SURR.(Phenol, d-6) %	10.2
SURR.(Terphenyl, d-14-p-) %	60.5
SURR.(Tribromophenol, 2,4,6-) %	87.8
Trichlorophenol, 2,4,5-	ND
Trichlorophenol, 2,4,6-	ND

** NOTES :

9207668*SAMPLE - TCLP EXTRACTION DATE - 12/03/92. LOQs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 09:14
 Prepared By: RF
 QA/QC Check: JA
 Lab Manager: LP

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-04-92-2	12-4-2 SPK ADD	12-4-2 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-16-92	12-16-92	12-16-92		
Cresols	ND	240	51.2		100
Dinitrotoluene, 2,4-	ND	80	69.6		50
Hexachlorobenzene	ND	80	65.5		50
Hexachlorobutadiene	ND	80	47.4		50
Hexachloroethane	ND	80	44.3		50
Nitrobenzene	ND	80	54.4		50
Pentachlorophenol	ND	80	74.1		100
Pyridine	ND	80	33.6		50
SURR.(Fluorobiphenyl, 2-) %	65.4	40	65.6		-
SURR.(Fluorophenol, 2-) %	47.8	80	49.1		-
SURR.(Nitrobenzene, d-5) %	67.0	40	66.2		-
SURR.(Phenol, d-6) %	34.6	80	36.3		-
SURR.(Terphenyl, d-14-p-) %	63.4	40	69.1		-
SURR.(Tribromophenol, 2,4,6-) %	81.7	80	85.8		-
Trichlorophenol, 2,4,5-	ND	80	69.6		100
Trichlorophenol, 2,4,6-	ND	80	65.4		100

** NOTES :

BLANK 12-04-92-2 - TCLP BLANK.
 BLANK 12-4-2 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-4-2 SPK RCV% - TCLP BLANK SPIKE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 09:14
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number
 Lab ID Number
 Matrix
 Type

SURROGATE
 SPIKE
 LEVELS

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

Cresols	-
Dinitrotoluene, 2,4-	-
Hexachlorobenzene	-
Hexachlorobutadiene	-
Hexachloroethane	-
Nitrobenzene	-
Pentachlorophenol	-
Pyridine	-
SURR.(Fluorobiphenyl, 2-) %	400
SURR.(Fluorophenol, 2-) %	800
SURR.(Nitrobenzene, d-5) %	400
SURR.(Phenol, d-6) %	800
SURR.(Terphenyl, d-14-p-) %	400
SURR.(Tribromophenol, 2,4,6-)%	800
Trichlorophenol, 2,4,5-	-
Trichlorophenol, 2,4,6-	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 09:14
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-04-92-1	12-4-1 SPK ADD	12-4-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-16-92	12-16-92	12-16-92		
Cresols	ND	240	43.9		10
Dinitrotoluene, 2,4-	ND	80	49.3		5
Hexachlorobenzene	ND	80	47.8		5
Hexachlorobutadiene	ND	80	35.6		5
Hexachloroethane	ND	80	40.3		5
Nitrobenzene	ND	80	43.0		5
Pentachlorophenol	ND	80	45.2		10
Pyridine	ND	80	22.7		5
SURR.(Fluorobiphenyl, 2-) %	45.4	40	48.1		-
SURR.(Fluorophenol, 2-) %	31.9	80	37.8		-
SURR.(Nitrobenzene, d-5) %	47.5	40	47.7		-
SURR.(Phenol, d-6) %	27.1	80	26.0		-
SURR.(Terphenyl, d-14-p-) %	46.6	40	48.4		-
SURR.(Tribromophenol, 2,4,6-) %	52.7	80	59.4		-
Trichlorophenol, 2,4,5-	ND	80	47.4		10
Trichlorophenol, 2,4,6-	ND	80	49.6		10

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Blanks
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-28-92 09:14
Prepared By: [Signature]
QA/QC Check: [Signature]
Lab Manager: [Signature]

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Cresols	-
Dinitrotoluene, 2,4-	-
Hexachlorobenzene	-
Hexachlorobutadiene	-
Hexachloroethane	-
Nitrobenzene	-
Pentachlorophenol	-
Pyridine	-
SURR.(Fluorobiphenyl, 2-) %	40
SURR.(Fluorophenol, 2-) %	80
SURR.(Nitrobenzene, d-5) %	40
SURR.(Phenol, d-6) %	80
SURR.(Terphenyl, d-14-p-) %	40
SURR.(Tribromophenol, 2,4,6-) %	80
Trichlorophenol, 2,4,5-	-
Trichlorophenol, 2,4,6-	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Pesticides By SW846-1311/3510/8080
Results given in: ug/L

Report Date: 12-27-92 15:23
Prepared By KS
QA/QC Check KS
Lab Manager KS

Sample Number 112592-DH-014
Lab ID Number 9207668
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-05-92
Date of Analysis 12-07-92

BHC, gamma (Lindane) ND
Chlordane ND
Endrin ND
Heptachlor ND
Heptachlor epoxide ND
Methoxychlor ND
SURR.(TCMX) % 60.3
Toxaphene ND

** NOTES :

9207668*SAMPLE - TCLP EXTRACTION DATE - 12/03-04/92.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-27-92 15:23
 Prepared By:
 QA/QC Check:
 Lab Manager:

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-05-92-2	12-5-2 SPK ADD	12-5-2 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-05-92	12-05-92	12-05-92		
Date of Analysis	12-07-92	12-07-92	12-07-92		
BHC, gamma (Lindane)	ND	0.416	95.1	0.20	-
Chlordane	ND	-	-	2.0	-
Endrin	ND	0.412	81.9	0.20	-
Heptachlor	ND	0.729	80.5	0.20	-
Heptachlor epoxide	ND	0.435	90.8	0.20	-
Methoxychlor	ND	-	-	2.0	-
SURR.(TCMX) %	-	2.0	67.2	-	-
Toxaphene	ND	-	-	20	-

** NOTES :

BLANK 12-05-92-2 - TCLP BLANK. SURROGATE NOT AVAILABLE.

BLANK 12-5-2 SPK ADD - TCLP BLANK SPIKE. SPIKED ADDED AMOUNTS ARE 4 TIMES THE VALUES STATED. Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.

BLANK 12-5-2 SPK RCV% - TCLP BLANK SPIKE. Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
Project Number: 375-05-02-00
Description: ET1/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Blanks
Pesticides By SW846-1311/3510/8080
Results given in: ug/L

Report Date: 12-27-92 15:22
Prepared By JA
QA/QC Check JA
Lab Manager JA

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

BHC, gamma (Lindane)	-
Chlordane	-
Endrin	-
Heptachlor	-
Heptachlor epoxide	-
Methoxychlor	-
SURR.(TCMX) %	2.0
Toxaphene	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-27-92 15:23
 Prepared By: K
 QA/QC Check: JK
 Lab Manager: JK

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-05-92-1	12-5-1 SPK ADD	12-5-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-05-92	12-05-92	12-05-92		
Date of Analysis	12-07-92	12-07-92	12-07-92		
BHC, gamma (Lindane)	ND	0.416	86.3	0.05	-
Chlordane	ND	-	-	1.0	-
Endrin	ND	0.412	79.1	0.05	-
Heptachlor	ND	0.729	83.1	0.05	-
Heptachlor epoxide	ND	0.435	89.4	0.05	-
Methoxychlor	ND	-	-	0.5	-
SURR.(TCMX) %	65.5	2.0	68.0	-	-
Toxaphene	ND	-	-	5.0	-

** NOTES :

BLANK 12-5-1 SPK ADD - Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-5-1 SPK RCV% - Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

BHC, gamma (Lindane)	-
Chlordane	-
Endrin	-
Heptachlor	-
Heptachlor epoxide	-
Methoxychlor	-
SURR.(TCMX) %	2.0
Toxaphene	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Herbicides By SW846-1311/8150
Results given in: ug/L

Report Date: 12-27-92 14:38

Prepared By K
QA/QC Check T
Lab Manager T

Sample Number 112592-DH-014
Lab ID Number 9207668
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-06-92
Date of Analysis 12-11-92

2,4-D ND
SURR.(DCAA) % -
Silvex (2,4,5-TP) ND

** NOTES :

9207668*SAMPLE - LODs FOR THIS SAMPLE ARE 100 TIMES THE VALUES STATED. TCLP EXTRACTION DATE - 12/06/92. SURROGATE DILUTED OUT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-27-92 14:38
 Prepared By: *K.*
 QA/QC Check: *F*
 Lab Manager: *LF*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-06-92-2	12-6-2 SPK ADD	12-6-2 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-06-92	12-06-92	12-06-92		
Date of Analysis	12-08-92	12-08-92	12-08-92		
2,4-D	ND	8.28	81.4	5.0	-
SURR.(DCAA) %	48.0	10.0	84.8		-
Silvex (2,4,5-TP)	ND	7.72	71.3	1.0	-

** NOTES :
 BLANK 12-06-92-2 - TCLP BLANK.
 BLANK 12-6-2 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-6-2 SPK RCV% - TCLP BLANK SPIKE.

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	
Date of Collection	
Date of Receipt	
Date of Extraction	
Date of Analysis	
2,4-D	-
SURR.(DCAA) %	10.0
Silvex (2,4,5-TP)	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-27-92 14:38

Prepared By: *IS*
 QA/QC Check: *TA*
 Lab Manager: *TA*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-06-92-1	12-6-1 SPK ADD	12-6-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-06-92	12-06-92	12-06-92		
Date of Analysis	12-08-92	12-08-92	12-08-92		
2,4-D	ND	2.07	0.0	1.25	-
SURR.(DCAA) %	113	10.0	19.8		-
Silvex (2,4,5-TP)	ND	1.93	9.2	0.25	-

** NOTES :

BLANK 12-6-1 SPK RCV% - RECOVERY FOR 2,4-D UNACCEPTABLE DUE TO ANALYTICAL INTERFERENCES.

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

2,4-D	-
SURR.(DCAA) %	10.0
Silvex (2,4,5-TP)	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Metals By SW846-1311/6010/7000
Results given in: ug/L

Report Date: 12-27-92 14:25
Prepared By *RH*
QA/QC Check *Th*
Lab Manager *Th*

Sample Number 112592-DH-014
Lab ID Number 9207668
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Digestion 12-92
Date of Analysis 12-92

Arsenic	ND
Barium	ND
Cadmium	ND
Chromium	1100
Lead	850
Mercury	ND
Selenium	ND
Silver	ND

** NOTES :

9207668*SAMPLE - TCLP EXTRACTION STARTED 12/03/92. Hg ANALYSIS DATE 12/10/92. DUE TO HIGH LEVELS OF ORGANICS, SAMPLE DILUTED 1:5 FOR ALL DIGESTIONS (Hg 1:10); THEREFORE, LODs 5 TIMES HIGHER THAN NORMAL (Hg 10 TIMES).

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 12-27-92 14:25
 Prepared By: *RH*
 QA/QC Check: *TS*
 Lab Manager: *TS*

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-92-1	12-92-1 SPK ADD	12-92-1 SPK RCV%	12-92-2	12-92-2 SPK ADD
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE	SAMPLE
Date of Collection					
Date of Receipt					
Date of Digestion	12-92	12-92	12-92	12-92	12-92
Date of Analysis	12-92	12-92	12-92	12-92	12-92
Arsenic	ND	1000	102	ND	1000
Barium	ND	25000	97.5	ND	25000
Cadmium	ND	5000	96.5	ND	5000
Chromium	ND	5000	91.5	ND	5000
Lead	ND	5000	95.0	ND	5000
Mercury	ND	50.0	101	ND	50.0
Selenium	ND	1000	94.9	ND	1000
Silver	ND	2500	98.2	ND	2500

** NOTES :

BLANK 12-92-1 - TCLP BLANK.
 BLANK 12-92-1 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-92-1 SPK RCV% - TCLP BLANK SPIKE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921463
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 12-27-92 14:25
 Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Sample Number	BLANK	LIMIT	LIMIT
Lab ID Number	12-92-2 SPK RCV%	OF	OF
Matrix	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE		

Date of Collection	
Date of Receipt	
Date of Digestion	12-92
Date of Analysis	12-92

Arsenic	97.5	50	-
Barium	97.5	5000	-
Cadmium	95.8	25	-
Chromium	98.4	1000	-
Lead	98.0	250	-
Mercury	101	2	-
Selenium	99.9	25	-
Silver	101	100	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100

Memphis, Tennessee 38132

(901)-345-1788

Client Contact: Bobby Allen
Project: E T I - NAS
 Northside
Sample(s) Type: Liquid Waste

Report No: R-921464
Report Date: 12/30/92
Facility ID#:

Quality Assurance Summary:

<u>Type of Analysis</u>	<u>Method</u>	<u>Holding Time</u>	<u>Surrogate Recovery</u>	<u>Matrix Spike Recoveries</u>	<u>Blanks</u>	<u>Overall Summary</u>
CORROSIVITY	SW846-9040	A	NA	NA	NA	A
CYANIDE (reactive)	SW846-7.3.3.2	A	NA	NA	A	A
SULFIDE (reactive)	SW846-7.3.4.2	A	NA	A	NA	A
IGNITABILITY	SW846-1010	A	NA	NA	NA	A
TCLP	SW846-1311	A				
VOC	SW846-8240	A	A	A(N-1)	A	A(See N-1)
BNA 2 Reports	SW846-3580/ 8270	A	N-2	A(N-1)	A	A(See N-1 and N-2)
PESTICIDES	SW846-3510/ 8080	A	A(N-2)	A(N-3)	A	A(See N-2 and N-3)
HERBICIDES	SW846-3580/ 8150	A	A	A(N-1)	A	A(See N-1)
METALS 2 Reports	SW846-6010/ 7000	A	NA	A(N-1)	A	A(See N-1)

A = Requirements set by method were met

NA = Not applicable

N-1 = See NOTE 1 on page 2

N-2 = See NOTE 2 on page 2

N-3 = See NOTE 3 on page 2

Terri Gray
 QA Officer

Terri Gray
 Laboratory Manager

E T I - NAS
Northside

Liquid Waste Samples

R-921464

Page 2

NOTE 1: These samples were analyzed as part of a larger set which included matrix spikes that had acceptable recoveries.

NOTE 2: The surrogate was diluted out of some of the samples.

NOTE 3: Due to the level of contamination present in the sample, the matrix spikes added were diluted out in one set of samples.

Report Number: R-921464
Project Number: 375-05-02-00
Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
Analytical Report
General Chemistry
Results given in: mg/Kg

Report Date: 12-29-92 13:11
Prepared By *CW/KH*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number 112592-DH-015
Lab ID Number 9207669
Matrix LIQUID WASTE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction -
Date of Analysis 11-30-92

Corrosivity - pH (ph units) 6.64
Cyanide (Reactive) ND
Sulfide (Reactive) 141

** NOTES :

9207669*SAMPLE - Cyanide (Reactive) ANALYZED 12/04-07/92 AND Sulfide (Reactive) ANALYZED 12/01/92.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
 QA/QC Report - Blanks
 General Chemistry
 Results given in: mg/Kg

Report Date: 12-29-92 13:11
 Prepared By *CW/KH*
 QA/QC Check *[Signature]*
 Lab Manager *[Signature]*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-92	12-92 SPK ADD	12-92 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	-	-	-		
Date of Analysis	12-92	12-92	12-92		
Corrosivity - pH (ph units)	-	-	-	-	-
Cyanide (Reactive)	ND	20	71.2	1	-
Sulfide (Reactive)	ND	620	53.2	10	-

** NOTES :

BLANK 12-92 - Cyanide (Reactive) ANALYZED 12/04-07/92 AND Sulfide (Reactive) ANALYZED 12/01/92.
 BLANK 12-92 SPK ADD - Cyanide (Reactive) ANALYZED 12/04-07/92 AND Sulfide (Reactive) ANALYZED 12/01/92.
 BLANK 12-92 SPK RCV% - Cyanide (Reactive) ANALYZED 12/04-07/92 AND Sulfide (Reactive) ANALYZED 12/01/92.

- Not Applicable
 ND Non detected at stated limit
 VA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
Project Number: 375-05-02-00
Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
Analytical Report
General Chemistry
Results given in:

Report Date: 12-29-92 10:56
Prepared By *ESP/KAT*
QA/QC Check *ly*
Lab Manager *ly*

Sample Number 112592-DH-015
Lab ID Number 9207669
Matrix LIQUID WASTE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction -
Date of Analysis 12-11-92

Ignitability (degrees) 69

** NOTES :

9207669*SAMPLE - RESULT REPORTED IN DEGREES FAHRENHEIT. SAMPLE FLASHED AT ROOM TEMPERATURE (WITHOUT HEATING);
ACTUAL Flash point MAY BE LOWER.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - LIQUID WASTE

Memphis Environmental Center
 QA/QC Report
 General Chemistry
 Results given in:

Report Date: 12-29-92 10:56
 Prepared By: *KH*
 QA/QC Check: *Jy*
 Lab Manager: *ly*

Sample Number	112592-DH-015	112592-DH-015	LIMIT	LIMIT
Lab ID Number	9207669	9207669	OF	OF
Matrix	LIQUID WASTE	LIQUID WASTE	DETECTION	QUANTITATION
Type	SAMPLE**	LAB DUPLICATE**		
Date of Collection	11-25-92	11-25-92		
Date of Receipt	11-25-92	11-25-92		
Date of Extraction	-	-		
Date of Analysis	12-11-92	12-11-92		
Ignitability (degrees)	69	70	-	-

** NOTES :

- 9207669*SAMPLE - RESULT REPORTED IN DEGREES FAHRENHEIT. SAMPLE FLASHED AT ROOM TEMPERATURE (WITHOUT HEATING); ACTUAL Flash point MAY BE LOWER.
- 9207669*LAB DUP - RESULT REPORTED IN DEGREES FAHRENHEIT. SAMPLE FLASHED AT ROOM TEMPERATURE (WITHOUT HEATING); ACTUAL Flash point MAY BE LOWER.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Volatile Organics By Method: SW846-8240
Results given in: ug/L

Report Date: 12-29-92 13:50
Prepared By *R.M.*
QA/QC Check *Ty*
Lab Manager *Ty*

Sample Number 112592-DH-015
Lab ID Number 9207669
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-07-92
Date of Analysis 12-14-92

Benzene	ND
Carbon tetrachloride	ND
Chlorobenzene	ND
Chloroform	ND
Dichlorobenzene, 1,4-	ND
Dichloroethane, 1,2-	ND
Dichloroethene, 1,1-	ND
Methylethyl ketone	ND
SURR.(Bromofluorobenzene, 4-)%	93
SURR.(Toluene-d8) %	94
SURR.(d-4,1,2-Dichloroethane)%	108
Tetrachloroethene	ND
Trichloroethene	ND
Vinyl chloride	ND

** NOTES :

9207669*SAMPLE - PQLs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-29-92 13:50
 Prepared By *Bm*
 QA/QC Check *[Signature]*
 Lab Manager *[Signature]*

Sample Number Lab ID Number Matrix Type	BLANK 12-04 SPK ADD SYSTEM SAMPLE	BLANK 12-04 SPK RCV% SYSTEM SAMPLE	BLANK 12-04-92 SYSTEM SAMPLE	METHOD DETECTION LIMIT	PRACTICAL QUANTITATION LIMIT
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-11-92	12-11-92	12-14-92		
Benzene	500	101	ND		50
Carbon tetrachloride	500	108	ND		50
Chlorobenzene	500	102	ND		50
Chloroform	500	96	ND		50
Dichlorobenzene, 1,4-	500	70	ND		50
Dichloroethane, 1,2-	500	93	ND		50
Dichloroethene, 1,1-	500	26	ND		50
Methylethyl ketone	1000	90	ND		500
SURR.(Bromofluorobenzene, 4-)%	415	97	95		-
SURR.(Toluene-d8) %	440	105	108		-
SURR.(d-4,1,2-Dichloroethane)%	464	99	109		-
Tetrachloroethene	500	109	ND		50
Trichloroethene	500	95	ND		50
Vinyl chloride	500	95	ND		100

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Blanks
Volatile Organics By Method: SW846-8240
Results given in: ug/L

Report Date: 12-29-92 13:50
Prepared By *LM*
QA/QC Check *LM*
Lab Manager *LM*

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Benzene	-			
Carbon tetrachloride	-			
Chlorobenzene	-			
Chloroform	-			
Dichlorobenzene, 1,4-	-			
Dichloroethane, 1,2-	-			
Dichloroethene, 1,1-	-			
Methylethyl ketone	-			
SURR.(Bromofluorobenzene, 4-)%	41.5			
SURR.(Toluene-d8) %	44			
SURR.(d-4,1,2-Dichloroethane)%	46.4			
Tetrachloroethene	-			
Trichloroethene	-			
Vinyl chloride	-			

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-29-92 17:10
Prepared By: 
QA/QC Check: 
Lab Manager: 

Sample Number 112592-DH-015
Lab ID Number 9207669
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-04-92
Date of Analysis 12-17-92

Cresols	17500
Dinitrotoluene, 2,4-	ND
Hexachlorobenzene	ND
Hexachlorobutadiene	ND
Hexachloroethane	ND
Nitrobenzene	ND
Pentachlorophenol	ND
Pyridine	ND
SURR.(Fluorobiphenyl, 2-) %	81.2
SURR.(Fluorophenol, 2-) %	66.1
SURR.(Nitrobenzene, d-5) %	83.5
SURR.(Phenol, d-6) %	50.0
SURR.(Terphenyl, d-14-p-) %	81.1
SURR.(Tribromophenol, 2,4,6-) %	102
Trichlorophenol, 2,4,5-	ND
Trichlorophenol, 2,4,6-	ND

** NOTES :

9207669*SAMPLE - TCLP EXTRACTION DATE FOR THIS SET OF SAMPLES - 12/03/92. LOQs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-29-92 17:10
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-04-92-2	12-4-2 SPK ADD	12-4-2 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-16-92	12-16-92	12-16-92		
Cresols	ND	240	51.2		100
Dinitrotoluene, 2,4-	ND	80	69.6		50
Hexachlorobenzene	ND	80	65.5		50
Hexachlorobutadiene	ND	80	47.4		50
Hexachloroethane	ND	80	44.3		50
Nitrobenzene	ND	80	54.4		50
Pentachlorophenol	ND	80	74.1		100
Pyridine	ND	80	33.6		50
SURR.(Fluorobiphenyl, 2-) %	65.4	40	65.6		-
SURR.(Fluorophenol, 2-) %	47.8	80	49.1		-
SURR.(Nitrobenzene, d-5) %	67.0	40	66.2		-
SURR.(Phenol, d-6) %	34.6	80	36.3		-
SURR.(Terphenyl, d-14-p) %	63.4	40	69.1		-
SURR.(Tribromophenol, 2,4,6-) %	81.7	80	85.8		-
Trichlorophenol, 2,4,5-	ND	80	69.6		100
Trichlorophenol, 2,4,6-	ND	80	65.4		100

** NOTES :

BLANK 12-04-92-2 - TCLP BLANK.
 BLANK 12-4-2 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-4-2 SPK RCV% - TCLP BLANK SPIKE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Blanks
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-29-92 17:10
Prepared By *[Signature]*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Cresols	-
Dinitrotoluene, 2,4-	-
Hexachlorobenzene	-
Hexachlorobutadiene	-
Hexachloroethane	-
Nitrobenzene	-
Pentachlorophenol	-
Pyridine	-
SURR.(Fluorobiphenyl, 2-) %	400
SURR.(Fluorophenol, 2-) %	800
SURR.(Nitrobenzene, d-5) %	400
SURR.(Phenol, d-6) %	800
SURR.(Terphenyl, d-14-p-) %	400
SURR.(Tribromophenol, 2,4,6-) %	800
Trichlorophenol, 2,4,5-	-
Trichlorophenol, 2,4,6-	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-29-92 17:10
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-04-92-1	12-4-1 SPK ADD	12-4-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-16-92	12-16-92	12-16-92		
Cresols	ND	240	43.9		10
Dinitrotoluene, 2,4-	ND	80	49.3		5
Hexachlorobenzene	ND	80	47.8		5
Hexachlorobutadiene	ND	80	35.6		5
Hexachloroethane	ND	80	40.3		5
Nitrobenzene	ND	80	43.0		5
Pentachlorophenol	ND	80	45.2		10
Pyridine	ND	80	22.7		5
SURR.(Fluorobiphenyl, 2-) %	45.4	40	48.1		-
SURR.(Fluorophenol, 2-) %	31.9	80	37.8		-
SURR.(Nitrobenzene, d-5) %	47.5	40	47.7		-
SURR.(Phenol, d-6) %	27.1	80	26.0		-
SURR.(Terphenyl, d-14-p-) %	46.6	40	48.4		-
SURR.(Tribromophenol, 2,4,6-) %	52.7	80	59.4		-
Trichlorophenol, 2,4,5-	ND	80	47.4		10
Trichlorophenol, 2,4,6-	ND	80	49.6		10

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
Project Number: 375-05-02-00
Description: ET1/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Blanks
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-29-92 17:10
Prepared By: [Signature]
QA/QC Check: [Signature]
Lab Manager: [Signature]

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Cresols	-
Dinitrotoluene, 2,4-	-
Hexachlorobenzene	-
Hexachlorobutadiene	-
Hexachloroethane	-
Nitrobenzene	-
Pentachlorophenol	-
Pyridine	-
SURR.(Fluorobiphenyl, 2-) %	40
SURR.(Fluorophenol, 2-) %	80
SURR.(Nitrobenzene, d-5) %	40
SURR.(Phenol, d-6) %	80
SURR.(Terphenyl, d-14-p-) %	40
SURR.(Tribromophenol, 2,4,6-) %	80
Trichlorophenol, 2,4,5-	-
Trichlorophenol, 2,4,6-	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00

Memphis Environmental Center
 Analytical Report

Report Date: 12-29-92 15:09

Description: ETI/NAS - TCLP LIQUID PHASE

Base/Neutral/Acid Extractables By SW846-1311/3640/8270

Prepared By: *[Signature]*
 QA/QC Check: *[Signature]*
 Lab Manager: *[Signature]*

Results given in: mg/Kg

Sample Number	112592-DH-015	LIMIT	LIMIT	SURROGATE
Lab ID Number	9207669	OF	OF	SPIKE
Matrix	LEACHATE	DETECTION	QUANTITATION	LEVELS
Type	SAMPLE**			
Date of Collection	11-25-92			
Date of Receipt	11-25-92			
Date of Extraction	12-04-92			
Date of Analysis	12-18-92			
Cresols	5000		250	-
Dinitrotoluene, 2,4-	ND		125	-
Hexachlorobenzene	ND		125	-
Hexachlorobutadiene	ND		125	-
Hexachloroethane	ND		125	-
Nitrobenzene	ND		125	-
Pentachlorophenol	ND		250	-
Pyridine	ND		125	-
SURR.(Fluorobiphenyl, 2-) %	-		-	40000
SURR.(Fluorophenol, 2-) %	-		-	80000
SURR.(Nitrobenzene, d-5) %	-		-	40000
SURR.(Phenol, d-6) %	-		-	80000
SURR.(Terphenyl, d-14-p-) %	-		-	40000
SURR.(Tribromophenol, 2,4,6-) %	-		-	80000
Trichlorophenol, 2,4,5-	ND		250	-
Trichlorophenol, 2,4,6-	ND		250	-

** NOTES :

9207669*SAMPLE - TCLP EXTRACTION DATE FOR THIS SET OF SAMPLES - 12/03/92. LOQs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED. SURROGATES DILUTED OUT.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP LIQUID PHASE

Memphis Environmental Center
Analytical Report
Pesticides By SW846-1311/3580/8080
Results given in: mg/Kg

Report Date: 12-29-92 15:36
Prepared By: *[Signature]*
QA/QC Check: *[Signature]*
Lab Manager: *[Signature]*

Sample Number 112592-DH-015
Lab ID Number 9207669
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-03-92
Date of Analysis 12-06-92

BHC, gamma (Lindane)	ND
Chlordane	ND
Endrin	ND
Heptachlor	ND
Heptachlor epoxide	ND
Methoxychlor	ND
SURR.(TCMX) %	-
Toxaphene	ND

** NOTES :

9207669*SAMPLE - TCLP EXTRACTION DATE - 12/03-04/92. RESULTS ARE FROM THE TCLP LIQUID PHASE ANALYSIS OF SAMPLE #9207669.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP LIQUID PHASE

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3580/8080
 Results given in: mg/Kg

Report Date: 12-29-92 15:36

Prepared By *KWB*
 QA/QC Check *JB*
 Lab Manager *JB*

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-03-92-1	12-03-92-2	12-3-1 SPK ADD	12-3-1 SPK RCV%	12-3-2 SPK ADD
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**
Date of Collection					
Date of Receipt					
Date of Extraction	12-03-92	12-03-92	12-03-92	12-03-92	12-03-92
Date of Analysis	12-06-92	12-06-92	12-06-92	12-06-92	12-06-92
BHC, gamma (Lindane)	ND	ND	0.416	57.0	0.416
Chlordane	ND	ND	-	-	-
Endrin	ND	ND	0.412	117	0.412
Heptachlor	ND	ND	0.729	115	0.729
Heptachlor epoxide	ND	ND	0.435	157	-
Methoxychlor	ND	ND	-	-	-
SURR.(TCMX) %	75.1	-	4.0	80.2	-
Toxaphene	ND	ND	-	-	-

** NOTES :

- BLANK 12-03-92-2 - SURROGATE NOT APPLICABLE.
- BLANK 12-3-1 SPK ADD - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.
- BLANK 12-3-1 SPK RCV% - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.
- BLANK 12-3-2 SPK ADD - SURROGATE NOT APPLICABLE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP LIQUID PHASE

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3580/8080
 Results given in: mg/Kg

Report Date: 12-29-92 15:37
 Prepared By *KWPB*
 QA/QC Check *TG*
 Lab Manager *TG*

Sample Number	BLANK	LIMIT	LIMIT	SURROGATE
Lab ID Number	12-3-21 SPK ADD	OF	OF	SPIKE
Matrix	SYSTEM	DETECTION	QUANTITATION	LEVELS
Type	SAMPLE**			

Date of Collection	
Date of Receipt	
Date of Extraction	12-03-92
Date of Analysis	12-06-92

BHC, gamma (Lindane)	171	0.125	-	-
Chlordane	-	2.5	-	-
Endrin	40	0.125	-	-
Heptachlor	169	0.125	-	-
Heptachlor epoxide	-	0.125	-	-
Methoxychlor	-	1.25	-	-
SURR.(TCMX) %	-	-	-	4.0
Toxaphene	-	12.5	-	-

** NOTES :

BLANK 12-3-21 SPK ADD - SURROGATE NOT APPLICABLE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Pesticides By SW846-1311/3510/8080
Results given in: ug/L

Report Date: 12-29-92 14:36
Prepared By *KW*
QA/QC Check *TS*
Lab Manager *TS*

Sample Number 112592-DH-015
Lab ID Number 9207669
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-05-92
Date of Analysis 12-07-92

BHC, gamma (Lindane)	ND
Chlordane	ND
Endrin	ND
Heptachlor	ND
Heptachlor epoxide	ND
Methoxychlor	ND
SURR.(TCMX) %	61.9
Toxaphene	ND

** NOTES :
9207669*SAMPLE - TCLP EXTRACTION DATE - 12/03-04/92.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-29-92 14:36

Prepared By *[Signature]*
 QA/QC Check *[Signature]*
 Lab Manager *[Signature]*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-05-92-2	12-5-2 SPK ADD	12-5-2 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-05-92	12-05-92	12-05-92		
Date of Analysis	12-07-92	12-07-92	12-07-92		
BHC, gamma (Lindane)	ND	0.416	95.1	0.20	-
Chlordane	ND	-	-	2.0	-
Endrin	ND	0.412	81.9	0.20	-
Heptachlor	ND	0.729	80.5	0.20	-
Heptachlor epoxide	ND	0.435	90.8	0.20	-
Methoxychlor	ND	-	-	2.0	-
SURR.(TCMX) %	-	2.0	67.2	-	-
Toxaphene	ND	-	-	20	-

** NOTES :

BLANK 12-05-92-2 - TCLP BLANK. SURROGATE NOT AVAILABLE.

BLANK 12-5-2 SPK ADD - TCLP BLANK SPIKE. SPIKE ADDED AMOUNTS ARE 4 TIMES THE VALUES STATED. Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.

BLANK 12-5-2 SPK RCV% - TCLP BLANK SPIKE. Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.

- Not Applicable

[] - Below LOQ, Above LOD

ND Non detected at stated limit

NA Not analyzed

Report Number: R-921464
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Blanks
Pesticides By SW846-1311/3510/8080
Results given in: ug/L

Report Date: 12-29-92 14:36

Prepared By *YWB*
QA/QC Check *YWB*
Lab Manager *YWB*

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

BHC, gamma (Lindane)	-
Chlordane	-
Endrin	-
Heptachlor	-
Heptachlor epoxide	-
Methoxychlor	-
SURR.(TCMX) %	2.0
Toxaphene	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-29-92 14:36

Prepared By *KV JB*
 QA/QC Check *[Signature]*
 Lab Manager *[Signature]*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-05-92-1	12-5-1 SPK ADD	12-5-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-05-92	12-05-92	12-05-92		
Date of Analysis	12-07-92	12-07-92	12-07-92		
BHC, gamma (Lindane)	ND	0.416	86.3	0.05	-
Chlordane	ND	-	-	1.0	-
Endrin	ND	0.412	79.1	0.05	-
Heptachlor	ND	0.729	83.1	0.05	-
Heptachlor epoxide	ND	0.435	89.4	0.05	-
Methoxychlor	ND	-	-	0.5	-
SURR.(TCMX) %	65.5	2.0	68.0	-	-
Toxaphene	ND	-	-	5.0	-

** NOTES :

BLANK 12-5-1 SPK ADD - Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-5-1 SPK RCV% - Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

BHC, gamma (Lindane)	-
Chlordane	-
Endrin	-
Heptachlor	-
Heptachlor epoxide	-
Methoxychlor	-
SURR.(TCMX) %	2.0
Toxaphene	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP LIQUID PHASE

Memphis Environmental Center
Analytical Report
Herbicides By SW846-1311/3580/8150
Results given in: mg/Kg

Report Date: 12-29-92 16:24
Prepared By *[Signature]*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number 112592-DH-015
Lab ID Number 9207669
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-04-92
Date of Analysis 12-09-92

2,4-D	ND
SURR.(DCAA) %	70.6
Silvex (2,4,5-TP)	ND

** NOTES :
9207669*SAMPLE - TCLP EXTRACTION DATE - 12/06/92. THESE RESULTS ARE FROM THE TCLP LIQUID PHASE ANALYSIS OF SAMPLE #9207669.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP LIQUID PHASE

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/3580/8150
 Results given in: mg/Kg

Report Date: 12-29-92 16:24
 Prepared By *KJ*
 QA/QC Check *EB*
 Lab Manager *EB*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-04 SPK ADD	12-04 SPK RCV%	12-04-92-1	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-09-92	12-09-92	12-09-92		
2,4-D	4.14	137	ND	1.25	-
SURR.(DCAA) %	20	176	176	-	-
Silvex (2,4,5-TP)	3.86	124	ND	0.25	-

** NOTES :

BLANK 12-04 SPK RCV% - RECOVERY FOR SURR.(DCAA) ABOVE ACCEPTED LIMIT OF 150%.
 BLANK 12-04-92-1 - RECOVERY FOR SURR.(DCAA) ABOVE ACCEPTED LIMIT OF 150%.

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

2,4-D	-
SURR.(DCAA) %	20.0
Silvex (2,4,5-TP)	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Herbicides By SW846-1311/8150
Results given in: ug/L

Report Date: 12-29-92 15:41
Prepared By *KWS*
QA/QC Check *TL*
Lab Manager *TL*

Sample Number 112592-DH-015
Lab ID Number 9207669
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-06-92
Date of Analysis 12-11-92

2,4-D ND
SURRE.(DCAA) % 141
Silvex (2,4,5-TP) ND

** NOTES :

9207669*SAMPLE - TCLP EXTRACTION DATE - 12/06/92. LODs FOR THIS SAMPLE ARE 25 TIMES THE VALUES STATED.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-29-92 15:41

Prepared By *KW*
 QA/QC Check *TA*
 Lab Manager *TA*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-06-92-2	12-6-2 SPK ADD	12-6-2 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-06-92	12-06-92	12-06-92		
Date of Analysis	12-08-92	12-08-92	12-08-92		
2,4-D	ND	8.28	81.4	5.0	-
SURR.(DCAA) %	48.0	10.0	84.8	-	-
Silvex (2,4,5-TP)	ND	7.72	71.3	1.0	-

** NOTES :

BLANK 12-06-92-2 - TCLP BLANK.
 BLANK 12-6-2 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-6-2 SPK RCV% - TCLP BLANK SPIKE.

Sample Number SURROGATE
 Lab ID Number SPIKE
 Matrix LEVELS
 Type

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

2,4-D	-
SURR.(DCAA) %	10.0
Silvex (2,4,5-TP)	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-29-92 15:41

Prepared By *KW*
 QA/QC Check *TS*
 Lab Manager *TS*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-06-92-1	12-6-1 SPK ADD	12-6-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-06-92	12-06-92	12-06-92		
Date of Analysis	12-08-92	12-08-92	12-08-92		
2,4-D	ND	2.07	0.0	1.25	-
SURR. (DCAA) %	113	10.0	19.8	-	-
Silvex (2,4,5-TP)	ND	1.93	9.2	0.25	-

** NOTES :

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	
Date of Collection	
Date of Receipt	
Date of Extraction	
Date of Analysis	
2,4-D	-
SURR. (DCAA) %	10.0
Silvex (2,4,5-TP)	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP LIQUID PHASE

Memphis Environmental Center
Analytical Report
Metals By SW846-1311/6010/7000
Results given in: mg/Kg

Report Date: 12-29-92 10:22
Prepared By RA
QA/QC Check RA
Lab Manager RB

Sample Number 112592-DH-015
Lab ID Number 9207669
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Digestion 12-92
Date of Analysis 12-92

Arsenic	ND
Barium	ND
Cadmium	0.7
Chromium	314
Lead	862
Mercury	ND
Selenium	ND
Silver	ND

** NOTES :

9207669*SAMPLE - TCLP EXTRACTION STARTED 12/03/92. Hg ANALYSIS DATE - 12/04/92. THIS DATA IS FOR THE NON-AQUEOUS TCLP LIQUID PHASE; SAMPLE PREPARED AS A SOLID.

- Not Applicable

ND Non detected at stated limit

NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP LIQUID PHASE

Memphis Environmental Center
 QA/QC Report - Blanks
 Metals By SW846-1311/6010/7000
 Results given in: mg/Kg

Report Date: 12-29-92 10:22
 Prepared By [Signature]
 QA/QC Check [Signature]
 Lab Manager [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-92	12-92 SPK ADD	12-92 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Digestion	12-92	12-92	12-92		
Date of Analysis	12-92	12-92	12-92		
Arsenic	ND	19.8	92.5	1.0	-
Barium	ND	495	89.4	20.0	-
Cadmium	ND	99.0	87.1	0.5	-
Chromium	ND	99.0	89.6	1.0	-
Lead	ND	99.0	88.0	5	-
Mercury	ND	4.54	101	0.2	-
Selenium	ND	19.8	101	0.5	-
Silver	ND	49.5	99.0	2.0	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
Project Number: 375-05-02-00
Description: ET1/NAS - TCLP

Memphis Environmental Center
Analytical Report
Metals By SW846-1311/6010/7000
Results given in: ug/L

Report Date: 12-29-92 13:53
Prepared By *KH*
QA/QC Check *EG*
Lab Manager *EG*

Sample Number 112592-DH-015
Lab ID Number 9207669
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Digestion 12-92
Date of Analysis 12-92

Arsenic	ND
Barium	ND
Cadmium	ND
Chromium	ND
Lead	4900
Mercury	ND
Selenium	ND
Silver	ND

** NOTES :

9207669*SAMPLE - TCLP EXTRACTION STARTED 12/03/92. Hg ANALYSIS DATE 12/10/92. DUE TO HIGH LEVELS OF ORGANICS, SAMPLE DILUTED 1:5 FOR ALL DIGESTIONS (Hg 1:10); THEREFORE, LODs ARE 5 TIMES HIGHER THAN NORMAL (Hg 10 TIMES).

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921464
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 12-29-92 13:53
 Prepared By: *KA*
 QA/QC Check: *JA*
 Lab Manager: *GA*

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-92-1	12-92-1 SPK ADD	12-92-1 SPK RCV%	12-92-2	12-92-2 SPK ADD
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE	SAMPLE	SAMPLE	SAMPLE**	SAMPLE**
Date of Collection					
Date of Receipt					
Date of Digestion	12-92	12-92	12-92	12-92	12-92
Date of Analysis	12-92	12-92	12-92	12-92	12-92
Arsenic	ND	1000	97.5	ND	1000
Barium	ND	25000	97.5	ND	25000
Cadmium	ND	5000	95.8	ND	5000
Chromium	ND	5000	98.4	ND	5000
Lead	ND	5000	98.0	ND	5000
Mercury	ND	50.0	101	ND	50.0
Selenium	ND	1000	99.9	ND	1000
Silver	ND	2500	101	ND	2500

** NOTES :

BLANK 12-92-2 - TCLP BLANK.
 BLANK 12-92-2 SPK ADD - TCLP BLANK SPIKE.

Sample Number	BLANK	LIMIT	LIMIT
Lab ID Number	12-92-2 SPK RCV%	OF	OF
Matrix	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**		
Date of Collection			
Date of Receipt			
Date of Digestion	12-92		
Date of Analysis	12-92		
Arsenic	102	50	-
Barium	97.5	5000	-
Cadmium	96.5	25	-
Chromium	91.5	1000	-
Lead	95.0	250	-
Mercury	101	2	-
Selenium	94.9	25	-
Silver	98.2	100	-

** NOTES :

BLANK 12-92-2 SPK RCV% - TCLP BLANK SPIKE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100

Memphis, Tennessee 38132

(901)-345-1788

Client Contact: Bobby Allen
Project: E T I - NAS
 Northside
Sample(s) Type: Sludge Waste

Report No: R-921465
Report Date: 12/29/92
Facility ID#:

Quality Assurance Summary:

Type of Analysis	Method	Holding Time	Surrogate Recovery	Matrix Spike Recoveries	Blanks	Overall Summary
CORROSIVITY	SW846-9045	A	NA	NA	NA	A
CYANIDE (reactive)	SW846-7.3.3.2	A	NA	NA	A	A
SULFIDE (reactive)	SW846-7.3.4.2	A	NA	A	A	A
IGNITABILITY	SW846-1010	A	NA	NA	NA	A
TCLP	SW846-1311	A				
VOC	SW846-8240	A	A	A(N-1)	A	A (See N-1)
BNA	SW846-3580/ 8270	A	A	A(N-1)	A	A (See N-1)
PESTICIDES	SW846-3510/ 8080	A	A	A(N-1)	A	A (See N-1)
HERBICIDES	SW846-3580/ 8150	A	A(N-2)	A(N-1)	A	A (See N-1 and N-2)
METALS	SW846-6010/ 7000	A	NA	A(N-1)	A	A (See N-1)

A = Requirements set by method were met

NA = Not applicable

N-1 = See NOTE 1 on page 2

N-2 = See NOTE 2 on page 2

Terri Gray
 QA Officer

Terri Gray
 Laboratory Manager

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100

Memphis, Tennessee 38132

(901)-345-1788

Client Contact: Bobby Allen
Project: E T I - NAS
Northside
Sample(s) Type: Sludge Waste

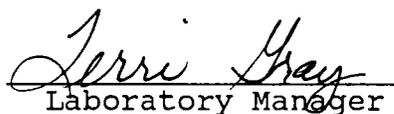
Report No: R-921465
Report Date: 12/29/92
Facility ID#:

Quality Assurance Summary page 2:

NOTE 1: These samples were analyzed as part of a larger set which included matrix spikes that had acceptable recoveries.

NOTE 2: The surrogate was diluted out.


QA Officer


Laboratory Manager

Report Number: R-921465
Project Number: 375-05-02-00
Description: ETI/NAS - SLUDGE WASTE

Memphis Environmental Center
Analytical Report
General Chemistry
Results given in: mg/Kg

Report Date: 12-28-92 16:13
Prepared By *CW/PAH*
QA/QC Check *TA*
Lab Manager *TB*

Sample Number 112592-DH-016
Lab ID Number 9207670
Matrix SLUDGE WASTE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction -
Date of Analysis 11-30-92

Corrosivity - pH (ph units) 6.48
Cyanide (Reactive) ND
Sulfide (Reactive) 178

** NOTES :

9207670*SAMPLE - Cyanide (Reactive) ANALYZED 12/04-07/92. Sulfide (Reactive) ANALYZED 12/01/92.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
Project Number: 375-05-02-00
Description: ETI/NAS - SLUDGE WASTE

Memphis Environmental Center
QA/QC Report - Laboratory Duplicate Samples
General Chemistry
Results given in: mg/Kg

Report Date: 12-28-92 16:13
Prepared By *WJ/KR*
QA/QC Check *WJ*
Lab Manager *WJ*

Sample Number	112592-DH-016	112592-DH-016
Lab ID Number	9207670	9207670
Matrix	SLUDGE WASTE	SLUDGE WASTE
Type	SAMPLE**	LAB DUPLICATE
Date of Collection	11-25-92	11-25-92
Date of Receipt	11-25-92	11-25-92
Date of Extraction	-	-
Date of Analysis	11-30-92	11-30-92
Corrosivity - pH (ph units)	6.48	6.51
Cyanide (Reactive)	ND	-
Sulfide (Reactive)	178	-

** NOTES :

9207670*SAMPLE - Cyanide (Reactive) ANALYZED 12/04-07/92. Sulfide (Reactive) ANALYZED 12/01/92.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
 Project Number: 375-05-02-00
 Description: ETI/NAS - SLUDGE WASTE

Memphis Environmental Center
 QA/QC Report - Blanks
 General Chemistry
 Results given in: mg/Kg

Report Date: 12-28-92 16:13
 Prepared By: CW/KMH
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-01 SPK ADD	12-01 SPK RCV%	12-01-92	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	-	-	-		
Date of Analysis	12-01-92	12-01-92	12-01-92		
Corrosivity - pH (ph units)	-	-	-	-	-
Cyanide (Reactive)	20	71.2	ND	1	-
Sulfide (Reactive)	620	53.2	ND	10	-

** NOTES :

BLANK 12-01 SPK ADD - Cyanide (Reactive) ANALYZED 12/04-07/92.
 BLANK 12-01 SPK RCV% - Cyanide (Reactive) ANALYZED 12/04-07/92.
 BLANK 12-01-92 - Cyanide (Reactive) ANALYZED 12/04-07/92.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
Project Number: 375-05-02-00
Description: ETI/NAS - SLUDGE WASTE

Memphis Environmental Center
Analytical Report
General Chemistry
Results given in:

Report Date: 12-26-92 17:20
Prepared By *[Signature]*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number 112592-DH-016
Lab ID Number 9207670
Matrix SLUDGE WASTE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction -
Date of Analysis 12-11-92

Ignitability (degrees) 73

** NOTES :

9207670*SAMPLE - SAMPLE FLASHED AT ROOM TEMPERATURE (WITHOUT HEAT); ACTUAL Flash point MAY BE LOWER. RESULT REPORTED IN DEGREES FAHRENHEIT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
 Project Number: 375-05-02-00
 Description: ETI/NAS - SLUDGE WASTE

Memphis Environmental Center
 QA/QC Report
 General Chemistry
 Results given in:

Report Date: 12-26-92 17:20
 Prepared By: *RA*
 QA/QC Check: *TA*
 Lab Manager: *BO*

Sample Number	112592-DH-016	112592-DH-016	LIMIT	LIMIT
Lab ID Number	9207670	9207670	OF	OF
Matrix	SLUDGE WASTE	SLUDGE WASTE	DETECTION	QUANTITATION
Type	SAMPLE**	LAB DUPLICATE**		
Date of Collection	11-25-92	11-25-92		
Date of Receipt	11-25-92	11-25-92		
Date of Extraction	-	-		
Date of Analysis	12-11-92	12-11-92		
Ignitability (degrees)	73	74	-	-

** NOTES :

- 9207670*SAMPLE - SAMPLE FLASHED AT ROOM TEMPERATURE (WITHOUT HEAT); ACTUAL Flash point MAY BE LOWER. RESULT REPORTED IN DEGREES FAHRENHEIT.
- 9207670*LAB DUP - SAMPLE FLASHED AT ROOM TEMPERATURE (WITHOUT HEAT); ACTUAL Flash point MAY BE LOWER. RESULT REPORTED IN DEGREES FAHRENHEIT.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Volatile Organics By Method: SW846-8240
Results given in: ug/L

Report Date: 12-28-92 11:37
Prepared By: *[Signature]*
QA/QC Check: *[Signature]*
Lab Manager: *[Signature]*

Sample Number 112592-DH-016
Lab ID Number 9207670
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-07-92
Date of Analysis 12-14-92

Benzene	ND
Carbon tetrachloride	ND
Chlorobenzene	ND
Chloroform	ND
Dichlorobenzene, 1,4-	ND
Dichloroethane, 1,2-	ND
Dichloroethene, 1,1-	ND
Methylethyl ketone	14800
SURR.(Bromofluorobenzene, 4-)%	98
SURR.(Toluene-d8) %	71
SURR.(d-4,1,2-Dichloroethane)%	104
Tetrachloroethene	ND
Trichloroethene	ND
Vinyl chloride	ND

** NOTES :

9207670*SAMPLE - PQLs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED. HIGH LEVELS OF Toluene IN THE SAMPLE INTERFERED WITH SURR.(Toluene-d8).

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Volatile Organics By Method: SW846-8240
 Results given in: ug/L

Report Date: 12-28-92 11:37
 Prepared By *R.M.*
 QA/QC Check *[Signature]*
 Lab Manager *[Signature]*

Sample Number	BLANK	BLANK	BLANK	METHOD	PRACTICAL
Lab ID Number	12-04 SPK ADD	12-04 SPK RCV%	12-04-92	DETECTION	QUANTITATION
Matrix	SYSTEM	SYSTEM	SYSTEM	LIMIT	LIMIT
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-04-92	12-04-92	12-04-92		
Date of Analysis	12-11-92	12-11-92	12-14-92		
Benzene	500	101	ND		50
Carbon tetrachloride	500	108	ND		50
Chlorobenzene	500	102	ND		50
Chloroform	500	96	ND		50
Dichlorobenzene, 1,4-	500	70	ND		50
Dichloroethane, 1,2-	500	93	ND		50
Dichloroethene, 1,1-	500	26	ND		50
Methylethyl ketone	1000	90	ND		500
SURR.(Bromofluorobenzene, 4-)%	415	97	95		-
SURR.(Toluene-d8) %	440	105	108		-
SURR.(d-4,1,2-Dichloroethane)%	464	99	109		-
Tetrachloroethene	500	109	ND		50
Trichloroethene	500	95	ND		50
Vinyl chloride	500	95	ND		100

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Blanks
Volatile Organics By Method: SW846-8240
Results given in: ug/L

Report Date: 12-28-92 11:37
Prepared By MM
QA/QC Check TS
Lab Manager TS

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Benzene	-	
Carbon tetrachloride	-	
Chlorobenzene	-	
Chloroform	-	
Dichlorobenzene, 1,4-	-	
Dichloroethane, 1,2-	-	
Dichloroethene, 1,1-	-	
Methylethyl ketone	-	
SURR.(Bromofluorobenzene, 4-)%	41.5	
SURR.(Toluene-d8) %	44	
SURR.(d-4,1,2-Dichloroethane)%	46.4	
Tetrachloroethene	-	
Trichloroethene	-	
Vinyl chloride	-	

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-28-92 10:17
Prepared By: [Signature]
QA/QC Check: [Signature]
Lab Manager: [Signature]

Sample Number 112592-DH-016
Lab ID Number 9207670
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-08-92
Date of Analysis 12-17-92

Cresols	ND
Dinitrotoluene, 2,4-	ND
Hexachlorobenzene	ND
Hexachlorobutadiene	ND
Hexachloroethane	ND
Nitrobenzene	ND
Pentachlorophenol	ND
Pyridine	ND
SURR.(Fluorobiphenyl, 2-) %	82.7
SURR.(Fluorophenol, 2-) %	53.9
SURR.(Nitrobenzene, d-5) %	82.2
SURR.(Phenol, d-6) %	39.7
SURR.(Terphenyl, d-14-p-) %	81.9
SURR.(Tribromophenol, 2,4,6-) %	99.9
Trichlorophenol, 2,4,5-	ND
Trichlorophenol, 2,4,6-	ND

** NOTES :

9207670*SAMPLE - TCLP EXTRACTION DATE - 12/04/92. LOQs FOR THIS SAMPLE ARE 10 TIMES THE VALUES STATED.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 10:17
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	BLANK	LIMIT
Lab ID Number	12-08-92-2	12-08-92-3	12-8-2 SPK ADD	12-8-2 SPK RCV%	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	DETECTION
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**	
Date of Collection					
Date of Receipt					
Date of Extraction	12-08-92	12-08-92	12-08-92	12-08-92	
Date of Analysis	12-16-92	12-16-92	12-16-92	12-16-92	
Cresols	ND	ND	2400	45.3	
Dinitrotoluene, 2,4-	ND	ND	800	73.0	
Hexachlorobenzene	ND	ND	800	53.2	
Hexachlorobutadiene	ND	ND	800	51.6	
Hexachloroethane	ND	ND	800	47.2	
Nitrobenzene	ND	ND	800	53.2	
Pentachlorophenol	ND	ND	800	76.2	
Pyridine	ND	ND	800	33.5	
SURR.(Fluorobiphenyl, 2-) %	71.7	64.2	400	67.4	
SURR.(Fluorophenol, 2-) %	49.1	47.0	800	48.3	
SURR.(Nitrobenzene, d-5) %	70.0	65.7	400	67.3	
SURR.(Phenol, d-6) %	34.9	35.1	800	36.1	
SURR.(Terphenyl, d-14-p-) %	71.1	66.5	400	69.6	
SURR.(Tribromophenol, 2,4,6-) %	89.5	88.3	800	93.0	
Trichlorophenol, 2,4,5-	ND	ND	800	65.2	
Trichlorophenol, 2,4,6-	ND	ND	800	66.0	

** NOTES :

- BLANK 12-08-92-2 - TCLP BLANK.
- BLANK 12-08-92-3 - TCLP BLANK.
- BLANK 12-8-2 SPK ADD - TCLP BLANK SPIKE.
- BLANK 12-8-2 SPK RCV% - TCLP BLANK SPIKE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 10:18

Prepared By [Signature]
 QA/QC Check [Signature]
 Lab Manager [Signature]

Sample Number	LIMIT	SURROGATE
Lab ID Number	OF	SPIKE
Matrix	QUANTITATION	LEVELS
Type		

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

Cresols	100	-
Dinitrotoluene, 2,4-	50	-
Hexachlorobenzene	50	-
Hexachlorobutadiene	50	-
Hexachloroethane	50	-
Nitrobenzene	50	-
Pentachlorophenol	100	-
Pyridine	50	-
SURR.(Fluorobiphenyl, 2-) %	-	400
SURR.(Fluorophenol, 2-) %	-	800
SURR.(Nitrobenzene, d-5) %	-	400
SURR.(Phenol, d-6) %	-	800
SURR.(Terphenyl, d-14-p) %	-	400
SURR.(Tribromophenol, 2,4,6-) %	-	800
Trichlorophenol, 2,4,5-	100	-
Trichlorophenol, 2,4,6-	100	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/3510/8270
 Results given in: ug/L

Report Date: 12-28-92 10:18
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-08-92-1	12-8-1 SPK ADD	12-8-1 SPK RCV%	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-08-92	12-08-92	12-08-92		
Date of Analysis	12-16-92	12-16-92	12-16-92		
Cresols	ND	240	39.1		10
Dinitrotoluene, 2,4-	ND	80	69.5		5
Hexachlorobenzene	ND	80	61.1		5
Hexachlorobutadiene	ND	80	49.1		5
Hexachloroethane	ND	80	36.7		5
Nitrobenzene	ND	80	50.7		5
Pentachlorophenol	ND	80	70.2		10
Pyridine	ND	80	34.6		5
SURR.(Fluorobiphenyl, 2-) %	65.2	40	64.7		-
SURR.(Fluorophenol, 2-) %	45.8	80	42.7		-
SURR.(Nitrobenzene, d-5) %	67.1	40	64.4		-
SURR.(Phenol, d-6) %	34.1	80	32.1		-
SURR.(Terphenyl, d-14-p-) %	67.3	40	67.9		-
SURR.(Tribromophenol, 2,4,6-) %	87.6	80	84.8		-
Trichlorophenol, 2,4,5-	ND	80	69.5		10
Trichlorophenol, 2,4,6-	ND	80	61.2		10

** NOTES :

BLANK 12-8-1 SPK RCV% - RECOVERY FOR Hexachloroethane BELOW ACCEPTED LIMIT OF 40%.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
QA/QC Report - Blanks
Base/Neutral/Acid Extractables By SW846-1311/3510/8270
Results given in: ug/L

Report Date: 12-28-92 10:18
Prepared By *Kwiz*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Cresols	-
Dinitrotoluene, 2,4-	-
Hexachlorobenzene	-
Hexachlorobutadiene	-
Hexachloroethane	-
Nitrobenzene	-
Pentachlorophenol	-
Pyridine	-
SURR.(Fluorobiphenyl, 2-) %	40
SURR.(Fluorophenol, 2-) %	80
SURR.(Nitrobenzene, d-5) %	40
SURR.(Phenol, d-6) %	80
SURR.(Terphenyl, d-14-p-) %	40
SURR.(Tribromophenol, 2,4,6-) %	80
Trichlorophenol, 2,4,5-	-
Trichlorophenol, 2,4,6-	-

** NOTES :

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Pesticides By SW846-1311/3510/8080
Results given in: ug/L

Report Date: 12-28-92 12:24

Prepared By [Signature]
QA/QC Check [Signature]
Lab Manager [Signature]

Sample Number 112592-DH-016
Lab ID Number 9207670
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-12-92
Date of Analysis 12-13-92

BHC, gamma (Lindane)	ND
Chlordane	ND
Endrin	ND
Heptachlor	ND
Heptachlor epoxide	ND
Methoxychlor	ND
SURR.(TCMX) %	54.3
Toxaphene	ND

** NOTES :

9207670*SAMPLE - TCLP EXTRACTION DATE - 12/04-05/92.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-28-92 12:24
 Prepared By *KW*
 QA/QC Check *TG*
 Lab Manager *TG*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-12-1 SPK ADD	12-12-1 SPK RCV%	12-12-92-1	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE**		
Date of Collection					
Date of Receipt					
Date of Extraction	12-12-92	12-12-92	12-12-92		
Date of Analysis	12-13-92	12-13-92	12-13-92		
BHC, gamma (Lindane)	1.66	67.5	ND	0.20	-
Chlordane	-	-	ND	4.0	-
Endrin	1.65	115	ND	0.20	-
Heptachlor	2.92	50.3	ND	0.20	-
Heptachlor epoxide	1.74	91.6	ND	0.20	-
Methoxychlor	-	-	ND	2.0	-
SURR.(TCMX) %	8.0	63.4	63.7	-	-
Toxaphene	-	-	ND	20.0	-

** NOTES :

BLANK 12-12-1 SPK ADD - TCLP BLANK SPIKE. Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-12-1 SPK RCV% - TCLP BLANK SPIKE. Methoxychlor SPIKED LESS THAN THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-12-92-1 - TCLP BLANK.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By SW846-1311/3510/8080
 Results given in: ug/L

Report Date: 12-28-92 12:24
 Prepared By *KW*
 QA/QC Check *FB*
 Lab Manager *FB*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-12-2 SPK ADD	12-12-2 SPK RCV%	12-12-92-2	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**	SAMPLE**	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-12-92	12-12-92	12-12-92		
Date of Analysis	12-13-92	12-13-92	12-13-92		

BHC, gamma (Lindane)	1.66	75.8	ND	0.05	-
Chlordane	-	-	ND	1.0	-
Endrin	1.65	119	ND	0.05	-
Heptachlor	2.92	74.0	ND	0.05	-
Heptachlor epoxide	1.74	102	ND	0.05	-
Methoxychlor	-	-	ND	0.50	-
SURR.(TCMX) %	8.0	87.3	85.0		-
Toxaphene	-	-	ND	5.0	-

** NOTES :

BLANK 12-12-2 SPK ADD - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.
 BLANK 12-12-2 SPK RCV% - Methoxychlor SPIKED BELOW THE LIMIT OF DETECTION. DATA NOT REPORTED.

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	

Date of Collection
 Date of Receipt
 Date of Extraction
 Date of Analysis

BHC, gamma (Lindane)	-
Chlordane	-
Endrin	-
Heptachlor	-
Heptachlor epoxide	-
Methoxychlor	-
SURR.(TCMX) %	2.0
Toxaphene	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
Project Number: 375-05-02-00
Description: ETI/NAS - TCLP

Memphis Environmental Center
Analytical Report
Herbicides By SW846-1311/8150
Results given in: ug/L

Report Date: 12-28-92 10:20
Prepared By KN
QA/QC Check TS
Lab Manager TS

Sample Number 112592-DH-016
Lab ID Number 9207670
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Extraction 12-10-92
Date of Analysis 12-12-92

2,4-D ND
SURR.(DCAA) % -
Silvex (2,4,5-TP) ND

** NOTES :

9207670*SAMPLE - TCLP EXTRACTION 12/04/92. LODs FOR THIS SAMPLE ARE 50 TIMES THE VALUES STATED. SURROGATE DILUTED OUT.

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-28-92 10:20
 Prepared By *Kw*
 QA/QC Check *JK*
 Lab Manager *JK*

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-10-2 SPK ADD	12-10-2 SPK RCV%	12-10-3 SPK ADD	12-10-3 SPK RCV%	12-10-92-2
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**
Date of Collection					
Date of Receipt					
Date of Extraction	12-10-92	12-10-92	12-10-92	12-10-92	12-10-92
Date of Analysis	12-12-92	12-12-92	12-12-92	12-12-92	12-12-92
2,4-D	41.4	133	41.4	143	ND
SURR.(DCAA) %	200	178	200	149	120
Silvex (2,4,5-TP)	38.6	157	38.6	134	ND

** NOTES :

BLANK 12-10-2 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-10-2 SPK RCV% - TCLP BLANK SPIKE.
 BLANK 12-10-3 SPK ADD - TCLP BLANK SPIKE.
 BLANK 12-10-3 SPK RCV% - TCLP BLANK SPIKE.
 BLANK 12-10-92-2 - TCLP BLANK.

Sample Number	BLANK	LIMIT	LIMIT	SURROGATE
Lab ID Number	12-10-92-3	OF	OF	SPIKE
Matrix	SYSTEM	DETECTION	QUANTITATION	LEVELS
Type	SAMPLE**			
Date of Collection				
Date of Receipt				
Date of Extraction	12-10-92			
Date of Analysis	12-12-92			
2,4-D	ND	40	-	-
SURR.(DCAA) %	123	-	-	10.0
Silvex (2,4,5-TP)	ND	10	-	-

** NOTES :

BLANK 12-10-92-3 - TCLP BLANK.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Herbicides By SW846-1311/8150
 Results given in: ug/L

Report Date: 12-28-92 10:20
 Prepared By *KW*
 QA/QC Check *tg*
 Lab Manager *tg*

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	12-10-1 SPK ADD	12-10-1 SPK RCV%	12-10-92-1	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE	SAMPLE		
Date of Collection					
Date of Receipt					
Date of Extraction	12-10-92	12-10-92	12-10-92		
Date of Analysis	12-12-92	12-12-92	12-12-92		
2,4-D	2.07	116	ND	2.0	-
SURR.(DCAA) %	10.0	141	166		-
Silvex (2,4,5-TP)	1.93	129	ND	0.5	-

** NOTES :

Sample Number	SURROGATE
Lab ID Number	SPIKE
Matrix	LEVELS
Type	
Date of Collection	
Date of Receipt	
Date of Extraction	
Date of Analysis	
2,4-D	-
SURR.(DCAA) %	10.0
Silvex (2,4,5-TP)	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
Project Number: 375-05-02-00
Description: ET1/NAS - TCLP

Memphis Environmental Center
Analytical Report
Metals By SW846-1311/6010/7000
Results given in: ug/L

Report Date: 12-28-92 10:26
Prepared By *MM*
QA/QC Check *TA*
Lab Manager *TA*

Sample Number 112592-DH-016
Lab ID Number 9207670
Matrix LEACHATE
Type SAMPLE**

Date of Collection 11-25-92
Date of Receipt 11-25-92
Date of Digestion 12-92
Date of Analysis 12-92

Arsenic	ND
Barium	ND
Cadmium	ND
Chromium	1470
Lead	950
Mercury	ND
Selenium	ND
Silver	ND

** NOTES :

9207670*SAMPLE - TCLP EXTRACTION STARTED 12/04/92. Hg ANALYSIS DATE 12/10/92. DUE TO HIGH LEVELS OF ORGANICS, SAMPLE DILUTED 1:5 FOR ALL DIGESTIONS (Hg 1:10); THEREFORE, LODs 5 TIMES HIGHER THAN NORMAL (Hg 10 TIMES).

- Not Applicable
ND Non detected at stated limit
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-921465
 Project Number: 375-05-02-00
 Description: ETI/NAS - TCLP

Memphis Environmental Center
 QA/QC Report - Blanks
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 12-28-92 10:26
 Prepared By: *KH*
 QA/QC Check: *JG*
 Lab Manager: *Top*

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	12-92-1	12-92-1 SPK ADD	12-92-1 SPK RCV%	12-92-2	12-92-2 SPK ADD
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE	SAMPLE	SAMPLE	SAMPLE**	SAMPLE**
Date of Collection					
Date of Receipt					
Date of Digestion	12-92	12-92	12-92	12-92	12-92
Date of Analysis	12-92	12-92	12-92	12-92	12-92
Arsenic	ND	1000	97.5	ND	1000
Barium	ND	25000	97.5	ND	25000
Cadmium	ND	5000	95.8	ND	5000
Chromium	ND	5000	98.4	ND	5000
Lead	ND	5000	98.0	ND	5000
Mercury	ND	50.0	101	ND	50.0
Selenium	ND	1000	99.9	ND	1000
Silver	ND	2500	101	ND	2500

** NOTES :

BLANK 12-92-2 - TCLP BLANK.
 BLANK 12-92-2 SPK ADD - TCLP BLANK SPIKE.

Sample Number	BLANK	LIMIT	LIMIT
Lab ID Number	12-92-2 SPK RCV%	OF	OF
Matrix	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE**		
Date of Collection			
Date of Receipt			
Date of Digestion	12-92		
Date of Analysis	12-92		
Arsenic	88.9	50	-
Barium	101	5000	-
Cadmium	100	25	-
Chromium	89.9	1000	-
Lead	105	250	-
Mercury	101	2	-
Selenium	83.9	25	-
Silver	95.4	100	-

** NOTES :

BLANK 12-92-2 SPK RCV% - TCLP BLANK SPIKE.

- Not Applicable
 ND Non detected at stated limit
 NA Not analyzed

[] - Below LOQ, Above LOD

CASE NARRATIVE FOR GENERAL CHEMISTRY

Client: MEC

LSDG: 30027

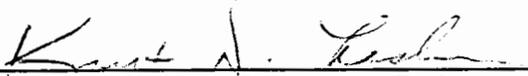
* **Total Organic Carbon, SW 846 Method 9060**

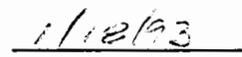
In this method, organic carbon is converted to carbon dioxide by catalytic combustion and then measured directly by an infrared detector. The results are calculated by the instrument and reported as mg/l TOC.

* All QA/QC requirements were acceptable for these analyses.

* Analysis of 9 of the 10 samples in this sample delivery group were discontinued due to the following:

Prior to analysis, all samples in this group were observed to have an oil matrix which is usually indicative of high hydrocarbon levels. The samples visually containing the lowest amounts of oil were prepped according to the above procedure. A TOC high standard, blank, and check standard were run prior to any samples to insure proper operating conditions. Sample 9207341 (3002704) was run first because this sample visually appeared to contain less oil than the other samples. Due to the oily nature of the sample matrix, analysis for TOC was discontinued after sample 9207341 (3002704) contaminated the TOC Analyzer. The instrument result for the above sample was 23.3% TOC. This result is by no means qualified but in light of the sample matrix all samples associated with this LSDG contain no less than 10 % TOC.


General Chemistry Supervisor or Designee


Date

*General Chemistry
Total Organic Carbon*

Client: MEC

Client Reference No.: 337

LSDG: 30027

Date Received: 1/7/93

Method: EPA 415.1

Date Analyzed: 1/14/93

<i>Lab Sample ID</i>	<i>Client ID</i>	<i>Date Analyzed</i>	<i>Matrix</i>	<i>Units</i>	<i>Dilution Factor</i>	<i>Result</i>	<i>Detection Limit</i>	<i>Note</i>
3002701	9207334	NA	Sludge	%	NA	> 10	NA	
3002702	9207335	NA	Sludge	%	NA	> 10	NA	
3002703	9207338	NA	Sludge	%	NA	> 10	NA	
3002704	9207341	1/14/93	Sludge	%	NA	> 10	NA	
3002705	9207656	NA	Sludge	%	NA	> 10	NA	
3002706	9207660	NA	Sludge	%	NA	> 10	NA	
3002707	9207664	NA	Sludge	%	NA	> 10	NA	
3002708	9207666	NA	Powder	%	NA	> 10	NA	
3002709	9207670	NA	Sludge	%	NA	> 10	NA	
3002710	112592-DH-015	NA	Sludge	%	NA	> 10	NA	

NA = Not Applicable, Please refer to the Case narrative.

ATTACHMENT F

NASMEM HAZARDOUS WASTE PROFILE SHEETS

HAZARDOUS WASTE PROFILE SHEET

PART I

A. GENERAL INFORMATION

WASTE PROFILE NO. _____

Method #1 - Northside

1. GENERATOR NAME

Naval Air Station Memphis

2. FACILITY ADDRESS

Public Works Environmental Division

Building South 236

Millington, TN

 5. ZIP CODE
38054

3. GENERATOR USEPA ID

TN 2170022600

4. GENERATOR STATE ID
6. TECHNICAL CONTACT

Mr. James Heide

7. TITLE

General Engineer

PHONE

(901) 873-5461

B. 1. NAME OF WASTE Drummed Spent Material

 2. USEPA/STATE WASTE CODE(S) See Part II, Section 2, Toxicity Characteristic

 3. PROCESS GENERATING WASTE Collected as a result of previous operations of Facility

 4. PROJECTED ANNUAL VOLUME/UNITS 130 / gal 5. MODE OF COLLECTION Drum

 6. IS THIS WASTE A DIOXIN LISTED WASTE AS DEFINED IN 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, OR F028)? YES NO

 7. IS THIS WASTE RESTRICTED FROM LAND DISPOSAL (40 CFR 268)? YES NO

 HAS AN EXEMPTION BEEN GRANTED? YES NO NA

 DOES THE WASTE MEET APPLICABLE TREATMENT STANDARDS? YES NO REFERENCE STANDARDS N/A

PART II

1. MATERIAL CHARACTERIZATION
(OPTIONAL-NOT REQUIRED DATA)

 COLOR _____
 DENSITY _____ BTU/LB
 TOTAL SOLIDS _____ ASH CONTENT _____
 LAYERING: MULTILAYERED BILAYERED SINGLE PHASE

4. MATERIAL COMPOSITION

COMPONENT	CONCENTRATION	RANGE
Water		85-95%
Total Solids		5-15%
TOTAL	100%	

2. RCRA CHARACTERISTICS

 PHYSICAL STATE: SOLID LIQUID SEMI-SOLID
 GAS OTHER
 TREATMENT GROUP: WASTEWATER NON-WASTEWATER
 IGNITABLE (D001) REACTIVE (D003)
 FLASH POINT (F) _____
 HIGH TOC (> 10%) WATER REACTIVE
 LOW TOC (< 10%) CYANIDE REACTIVE
 CORROSIVE (D002) TOXICITY CHARACTERISTIC (SEE REVERSE FOR LISTING)
 pH _____
 CORRODES STEEL

3. CHEMICAL COMPOSITION (ppm or mg/L)

 COPPER _____ PHENOLICS _____
 NICKEL _____ TOTAL HALOGENS
 ZINC _____ VOLATILE ORGANICS _____
 CHROMIUM-HEX _____ PCBs _____
 (OTHER) _____

NOTE: EXPLOSIVES, SHOCK SENSITIVE, PYROPHORIC, RADIOACTIVE, AND ETIOLOGICAL WASTE NORMALLY ARE NOT ACCEPTED BY THE DRMO.

5. SHIPPING INFORMATION

 DOT HAZARDOUS MATERIAL? YES NO

 PROPER SHIPPING NAME Hazardous Waste, liquid, n.o.s.

 HAZARD CLASS ORM-E U.N. or N.A. NO. NA9189

ADDITIONAL DESCRIPTION _____

 METHOD OF SHIPMENT BULK DRUM OTHER: _____

 CERCLA REPORTABLE QUANTITY (RQ) 1 lb (Hexachlorobutadiene)

 EMERGENCY RESPONSE GUIDE PAGE Vinyl Chloride

DOT PUBLICATION 5800.4 PAGE NO. _____ EDITION (YR) _____

SPECIAL HANDLING INFORMATION _____

6. GENERATOR CERTIFICATION
BASIS FOR INFORMATION
 CHEMICAL ANALYSIS (ATTACH TEST RESULTS)

 USER KNOWLEDGE (ATTACH SUPPORTING DOCUMENTS - Explain how and why these documents comply with RCRA requirements)

I, _____, HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL

(Print or Type Name)

ATTACHED DOCUMENTS IS TO THE BEST OF MY KNOWLEDGE AN ACCURATE REPRESENTATION OF THE WASTE TURNED IN TO THE DRMO. ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

SIGNATURE OF GENERATOR'S REPRESENTATIVE

DATE

TOXICITY CHARACTERISTIC LIST

EFFECTIVE 25 SEP 90 - LARGE QUANTITY GENERATORS
29 MAR 91 - SMALL QUANTITY GENERATORS

CONTAMINANT	EPA HW No.	(mg/L)	CONTAMINANT	EPA HW No.	(mg/L)
<input type="checkbox"/> ARSENIC	D004	_____	<input checked="" type="checkbox"/> HEXACHLORO-1,3.-BUTADIENE	D033	< 5.0
<input type="checkbox"/> BARIUM	D005	_____	<input checked="" type="checkbox"/> HEXACHLOROETHANE	D034	< 5.0
<input checked="" type="checkbox"/> BENZENE	D018	< 2.5	<input type="checkbox"/> LEAD	D008	_____
<input type="checkbox"/> CADMIUM	D006	_____	<input type="checkbox"/> LINDANE	D013	_____
<input checked="" type="checkbox"/> CARBON TETRACHLORIDE	D019	< 2.5	<input type="checkbox"/> MERCURY	D009	_____
<input type="checkbox"/> CHLORDANE	D020	_____	<input type="checkbox"/> METHOXYCHLOR	D014	_____
<input type="checkbox"/> CHLOROBENZENE	D021	_____	<input type="checkbox"/> METHYL ETHYL KETONE	D035	_____
<input type="checkbox"/> CHLOROFORM	D022	_____	<input checked="" type="checkbox"/> NITROBENZENE	D036	< 5.0
<input type="checkbox"/> CHROMIUM	D007	_____	<input type="checkbox"/> PENTACHLOROPHENOL	D037	_____
<input type="checkbox"/> O-CRESOL	D023	_____	<input type="checkbox"/> PYRIDINE	D038	_____
<input type="checkbox"/> M-CRESOL	D024	_____	<input type="checkbox"/> SELENIUM	D010	_____
<input type="checkbox"/> P-CRESOL	D025	_____	<input type="checkbox"/> SILVER	D011	_____
<input type="checkbox"/> CRESOL	D026	_____	<input checked="" type="checkbox"/> TETRACHLOROETHYLENE	D039	< 2.5
<input type="checkbox"/> 2,4-D	D016	_____	<input type="checkbox"/> TOXOPHENE	D015	_____
<input type="checkbox"/> 1,4-DICHLOROENZENE	D027	_____	<input checked="" type="checkbox"/> TRICHLOROETHYLENE	D040	< 2.5
<input checked="" type="checkbox"/> 1,2-DICHLOROETHANE	D028	< 2.5	<input type="checkbox"/> 2,4,5-TRICHLOROPHENOL	D041	_____
<input checked="" type="checkbox"/> 1,1-DICHLOROETHYLENE	D029	< 2.5	<input checked="" type="checkbox"/> 2,4,6-TRICHLOROPHENOL	D042	< 10.0
<input checked="" type="checkbox"/> 2,4-DINITROTOLUENE	D030	< 5.0	<input type="checkbox"/> 2,45-TP (SILVEX)	D017	_____
<input type="checkbox"/> ENDRIN	D012	_____	<input checked="" type="checkbox"/> VINYL CHLORIDE	D043	< 5.0
<input type="checkbox"/> HEPTACHLOR (AND ITS HYDROXIDE)	D031	_____			
<input checked="" type="checkbox"/> HEXACHLOROENZENE	D032	< 5.0			

PART III

**FOR DRMO USE ONLY
DRMO VERIFICATION**

1. DATE VERIFIED _____

2. RESULTS ATTACHED

pH _____ FLASH POINT _____ SPECIFIC GRAVITY _____ HALIDES (TOX) _____

REACTIVITY: WATER REACTIVITY _____ CYANIDES _____ SULFIDES _____

TCLP _____

HAZARDOUS WASTE PROFILE SHEET

PART I

A. GENERAL INFORMATION

WASTE PROFILE NO. _____

Method #2 - Northside

1. GENERATOR NAME

Naval Air Station Memphis

2. FACILITY ADDRESS

Public Works Environmental Division

Building South 236

Millington, TN

 5. ZIP CODE
38054

3. GENERATOR USEPA ID

TN 2170022600

4. GENERATOR STATE ID
6. TECHNICAL CONTACT

Mr. James Heide

7. TITLE

General Engineer

PHONE

(901) 873-5461

B. 1. NAME OF WASTE Drummed Spent Material
2. USEPA/or/STATE WASTE CODE(S) See Part II, Section 2, Toxicity Characteristic
3. PROCESS GENERATING WASTE Collected as a result of previous operations of Facility
4. PROJECTED ANNUAL VOLUME/UNITS 300 / gal **5. MODE OF COLLECTION** Drums
6. IS THIS WASTE A DIOXIN LISTED WASTE AS DEFINED IN 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, OR F028)? YES NO

7. IS THIS WASTE RESTRICTED FROM LAND DISPOSAL (40 CFR 268)? YES NO

HAS AN EXEMPTION BEEN GRANTED? YES NO

DOES THE WASTE MEET APPLICABLE TREATMENT STANDARDS? YES NO REFERENCE STANDARDS _____

PART II

1. MATERIAL CHARACTERIZATION
(OPTIONAL-NOT REQUIRED DATA)

 COLOR _____
 DENSITY _____ BTU/LB
 TOTAL SOLIDS _____ ASH CONTENT
 LAYERING: MULTILAYERED BILAYERED SINGLE PHASE

4. MATERIAL COMPOSITION

COMPONENT	CONCENTRATION	RANGE
Water		85-95%
Total Solids		5-15%
TOTAL	100%	

2. RCRA CHARACTERISTICS

 PHYSICAL STATE: SOLID LIQUID SEMI-SOLID
 GAS OTHER
 TREATMENT GROUP: WASTEWATER NON-WASTEWATER
 IGNITABLE (D001) 127 F REACTIVE (D003)
 FLASH POINT (F) _____
 HIGH TOC (> 10%) WATER REACTIVE
 LOW TOC (< 10%) CYANIDE REACTIVE
 CORROSIVE (D002) TOXICITY CHARACTERISTIC
 pH _____ (SEE REVERSE FOR LISTING)
 CORRODES STEEL

3. CHEMICAL COMPOSITION (ppm or mg/L)

 COPPER _____ PHENOLICS _____
 NICKEL _____ TOTAL HALOGENS
 ZINC _____ VOLATILE ORGANICS _____
 CHROMIUM-HEX _____ PCBs _____
 (OTHER) _____

NOTE: EXPLOSIVES, SHOCK SENSITIVE, PYROPHORIC, RADIOACTIVE, AND ETIOLOGICAL WASTE NORMALLY ARE NOT ACCEPTED BY THE DRMO.

5. SHIPPING INFORMATION

 DOT HAZARDOUS MATERIAL? YES NO

 PROPER SHIPPING NAME Hazardous Waste liquid, n.o.s.

 HAZARD CLASS ORM-E U.N. or N.A. NO. NA 9189
 ADDITIONAL DESCRIPTION _____
 METHOD OF SHIPMENT BULK DRUM OTHER: _____
 CERCLA REPORTABLE QUANTITY (RQ) 1 lb (Hexachlorobutadiene, Vinyl Chloride)
 EMERGENCY RESPONSE GUIDE PAGE _____
 DOT PUBLICATION 5800.4 PAGE NO. _____ EDITION (YR) _____
 SPECIAL HANDLING INFORMATION _____

6. GENERATOR CERTIFICATION
BASIS FOR INFORMATION

-
- CHEMICAL ANALYSIS (ATTACH TEST RESULTS)
-
-
- USER KNOWLEDGE (ATTACH SUPPORTING DOCUMENTS - Explain how and why these documents comply with RCRA requirements)

 I, _____, HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL
 (Print or Type Name)

ATTACHED DOCUMENTS IS TO THE BEST OF MY KNOWLEDGE AN ACCURATE REPRESENTATION OF THE WASTE TURNED IN TO THE DRMO. ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

SIGNATURE OF GENERATOR'S REPRESENTATIVE

DATE

TOXICITY CHARACTERISTIC LIST

EFFECTIVE 25 SEP 90 - LARGE QUANTITY GENERATORS
29 MAR 91 - SMALL QUANTITY GENERATORS

CONTAMINANT	EPA HW No.	(mg/L)	CONTAMINANT	EPA HW No.	(mg/L)
<input type="checkbox"/> ARSENIC	D004	_____	<input checked="" type="checkbox"/> HEXACHLORO-1,3.-BUTADIENE	D033	< 5000
<input type="checkbox"/> BARIUM	D005	_____	<input checked="" type="checkbox"/> HEXACHLOROETHANE	D034	< 5000
<input checked="" type="checkbox"/> BENZENE	D018	< 2.5	<input type="checkbox"/> LEAD	D008	_____
<input type="checkbox"/> CADMIUM	D006	_____	<input type="checkbox"/> LINDANE	D013	_____
<input checked="" type="checkbox"/> CARBON TETRACHLORIDE	D019	< 2.5	<input type="checkbox"/> MERCURY	D009	_____
<input type="checkbox"/> CHLORDANE	D020	_____	<input type="checkbox"/> METHOXYCHLOR	D014	_____
<input type="checkbox"/> CHLOROBENZENE	D021	_____	<input type="checkbox"/> METHYL ETHYL KETONE	D035	_____
<input type="checkbox"/> CHLOROFORM	D022	_____	<input checked="" type="checkbox"/> NITROBENZENE	D036	< 5000
<input type="checkbox"/> CHROMIUM	D007	_____	<input checked="" type="checkbox"/> PENTACHLOROPHENOL	D037	< 10,000
<input type="checkbox"/> O-CRESOL	D023	_____	<input checked="" type="checkbox"/> PYRIDINE	D038	< 5000
<input type="checkbox"/> M-CRESOL	D024	_____	<input type="checkbox"/> SELENIUM	D010	_____
<input type="checkbox"/> P-CRESOL	D025	_____	<input type="checkbox"/> SILVER	D011	_____
<input checked="" type="checkbox"/> CRESOL	D026	204	<input checked="" type="checkbox"/> TETRACHLOROETHYLENE	D039	< 2.5
<input checked="" type="checkbox"/> 2,4-D	D016	< 100	<input type="checkbox"/> TOXOPHENE	D015	_____
<input type="checkbox"/> 1,4-DICHLOROENZENE	D027	_____	<input checked="" type="checkbox"/> TRICHLOROETHYLENE	D040	< 2.5
<input checked="" type="checkbox"/> 1,2-DICHLOROETHANE	D028	< 2.5	<input checked="" type="checkbox"/> 2,4,5-TRICHLOROPHENOL	D041	< 10,000
<input checked="" type="checkbox"/> 1,1-DICHLOROETHYLENE	D029	< 2.5	<input checked="" type="checkbox"/> 2,4,6-TRICHLOROPHENOL	D042	< 10,000
<input checked="" type="checkbox"/> 2,4-DINITROTOLUENE	D030	< 5000	<input checked="" type="checkbox"/> 2,45-TP (SILVEX)	D017	< 20
<input type="checkbox"/> ENDRIN	D012	_____	<input checked="" type="checkbox"/> VINYL CHLORIDE	D043	< 5.0
<input type="checkbox"/> HEPTACHLOR (AND ITS HYDROXIDE)	D031	_____			
<input checked="" type="checkbox"/> HEXACHLOROENZENE	D032	< 5000			

PART III

**FOR DRMO USE ONLY
DRMO VERIFICATION**

1. DATE VERIFIED _____

2. RESULTS ATTACHED

pH _____ FLASH POINT _____ SPECIFIC GRAVITY _____ HALIDES (TOX) _____

REACTIVITY: WATER REACTIVITY _____ CYANIDES _____ SULFIDES _____

TCLP _____

HAZARDOUS WASTE PROFILE SHEET

PART I

A. GENERAL INFORMATION

Method #3 - Northside

WASTE PROFILE NO. _____

1. GENERATOR NAME

Naval Air Station Memphis

2. FACILITY ADDRESS

Public Works Environmental Division

Building South 236

Millington, TN

 5. ZIP CODE
38054

3. GENERATOR USEPA ID

TN 2170022600

4. GENERATOR STATE ID
6. TECHNICAL CONTACT

Mr. James Heide

7. TITLE

General Engineer

PHONE

(901) 873-5461

B. 1. NAME OF WASTE Drummed Spent Material
2. USEPA/or/STATE WASTE CODE(S) See Part II, Section 2, Toxicity Characteristic
3. PROCESS GENERATING WASTE Collected as a result of previous operations of Facility
4. PROJECTED ANNUAL VOLUME/UNITS 175 / gal
5. MODE OF COLLECTION Drums
6. IS THIS WASTE A DIOXIN LISTED WASTE AS DEFINED IN 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, OR F028)? YES NO

7. IS THIS WASTE RESTRICTED FROM LAND DISPOSAL (40 CFR 268)? YES NO
 HAS AN EXEMPTION BEEN GRANTED? YES NO

 DOES THE WASTE MEET APPLICABLE TREATMENT STANDARDS? YES NO REFERENCE STANDARDS _____

PART II

1. MATERIAL CHARACTERIZATION
(OPTIONAL-NOT REQUIRED DATA)

 COLOR _____
 DENSITY 0.8264 BTU/LB 19,500
 TOTAL SOLIDS 124 ppm ASH CONTENT <1%
 LAYERING: MULTILAYERED BILAYERED SINGLE PHASE

2. RCRA CHARACTERISTICS

 PHYSICAL STATE: SOLID LIQUID SEMI-SOLID
 GAS OTHER _____
 TREATMENT GROUP: WASTEWATER NON-WASTEWATER
 IGNITABLE (D001) REACTIVE (D003)
 FLASH POINT (F) _____
 HIGH TOC (> 10%) WATER REACTIVE
 LOW TOC (< 10%) CYANIDE REACTIVE
 CORROSIVE (D002) TOXICITY CHARACTERISTIC
 pH _____ *(SEE REVERSE FOR LISTING)*
 CORRODES STEEL

3. CHEMICAL COMPOSITION (ppm or mg/L)

 COPPER _____ PHENOLICS _____
 NICKEL _____ TOTAL HALOGENS <198
 ZINC _____ VOLATILE ORGANICS _____
 CHROMIUM-HEX _____ PCBs <50
 (OTHER) _____

NOTE: EXPLOSIVES, SHOCK SENSITIVE, PYROPHORIC, RADIOACTIVE, AND ETIOLOGICAL WASTE NORMALLY ARE NOT ACCEPTED BY THE DRMO.
4. MATERIAL COMPOSITION

COMPONENT	CONCENTRATION	RANGE
Fuels		100%
TOTAL	100%	

5. SHIPPING INFORMATION

 DOT HAZARDOUS MATERIAL? YES NO

 PROPER SHIPPING NAME Hazardous Waste, liquid, n.o.s.

 HAZARD CLASS ORM-E U.N. or N.A. NO. NA9189

ADDITIONAL DESCRIPTION _____

 METHOD OF SHIPMENT BULK DRUM OTHER: _____

 CERCLA REPORTABLE QUANTITY (RQ) 1 lb (hexachlorobutadiene, toxaphene)

EMERGENCY RESPONSE GUIDE PAGE _____

DOT PUBLICATION 5800.4 PAGE NO. _____ EDITION (YR) _____

SPECIAL HANDLING INFORMATION _____

6. GENERATOR CERTIFICATION
BASIS FOR INFORMATION
 CHEMICAL ANALYSIS (ATTACH TEST RESULTS)

 USER KNOWLEDGE (ATTACH SUPPORTING DOCUMENTS - Explain how and why these documents comply with RCRA requirements) _____

I, _____, HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL

(Print or Type Name)

ATTACHED DOCUMENTS IS TO THE BEST OF MY KNOWLEDGE AN ACCURATE REPRESENTATION OF THE WASTE TURNED IN TO THE DRMO. ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

SIGNATURE OF GENERATOR'S REPRESENTATIVE _____

DATE _____

TOXICITY CHARACTERISTIC LIST

EFFECTIVE 25 SEP 90 - LARGE QUANTITY GENERATORS
29 MAR 91 - SMALL QUANTITY GENERATORS

CONTAMINANT	EPA HW No.	(mg/L)	CONTAMINANT	EPA HW No.	(mg/L)
<input type="checkbox"/> ARSENIC	D004	_____	<input checked="" type="checkbox"/> HEXACHLORO-1,3.-BUTADIENE	D033	< 125,000
<input type="checkbox"/> BARIUM	D005	_____	<input checked="" type="checkbox"/> HEXACHLOROETHANE	D034	< 125,000
<input checked="" type="checkbox"/> BENZENE	D018	122	<input type="checkbox"/> LEAD	D008	_____
<input type="checkbox"/> CADMIUM	D006	_____	<input type="checkbox"/> LINDANE	D013	< 12.5
<input checked="" type="checkbox"/> CARBON TETRACHLORIDE	D019	< 71.5	<input type="checkbox"/> MERCURY	D009	_____
<input checked="" type="checkbox"/> CHLORDANE	D020	< 250	<input checked="" type="checkbox"/> METHOXYCHLOR	D014	< 125
<input type="checkbox"/> CHLOROBENZENE	D021	_____	<input checked="" type="checkbox"/> METHYL ETHYL KETONE	D035	< 715
<input checked="" type="checkbox"/> CHLOROFORM	D022	< 71.5	<input checked="" type="checkbox"/> NITROBENZENE	D036	< 125,000
<input type="checkbox"/> CHROMIUM	D007	_____	<input checked="" type="checkbox"/> PENTACHLOROPHENOL	D037	< 250,000
<input type="checkbox"/> O-CRESOL	D023	_____	<input type="checkbox"/> PYRIDINE	D038	< 125,000
<input type="checkbox"/> M-CRESOL	D024	_____	<input type="checkbox"/> SELENIUM	D010	_____
<input type="checkbox"/> P-CRESOL	D025	_____	<input type="checkbox"/> SILVER	D011	_____
<input checked="" type="checkbox"/> CRESOL	D026	< 250,000	<input checked="" type="checkbox"/> TETRACHLOROETHYLENE	D039	< 71.5
<input type="checkbox"/> 2,4-D	D016	_____	<input checked="" type="checkbox"/> TOXOPHENE	D015	< 1250
<input checked="" type="checkbox"/> 1,4-DICHLOROENZENE	D027	< 71.5	<input checked="" type="checkbox"/> TRICHLOROETHYLENE	D040	< 71.5
<input checked="" type="checkbox"/> 1,2-DICHLOROETHANE	D028	< 71.5	<input checked="" type="checkbox"/> 2,4,5-TRICHLOROPHENOL	D041	< 250,000
<input checked="" type="checkbox"/> 1,1-DICHLOROETHYLENE	D029	< 71.5	<input checked="" type="checkbox"/> 2,4,6-TRICHLOROPHENOL	D042	< 250,000
<input checked="" type="checkbox"/> 2,4-DINITROTOLUENE	D030	< 125,000	<input type="checkbox"/> 2,45-TP (SILVEX)	D017	_____
<input checked="" type="checkbox"/> ENDRIN	D012	< 12.5	<input checked="" type="checkbox"/> VINYL CHLORIDE	D043	< 143
<input checked="" type="checkbox"/> HEPTACHLOR (AND ITS HYDROXIDE)	D031	< 12.5			
<input checked="" type="checkbox"/> HEXACHLOROENZENE	D032	< 125,000			

PART III

**FOR DRMO USE ONLY
DRMO VERIFICATION**

1. DATE VERIFIED _____

2. RESULTS ATTACHED

pH _____ FLASH POINT _____ SPECIFIC GRAVITY _____ HALIDES (TOX) _____

REACTIVITY: WATER REACTIVITY _____ CYANIDES _____ SULFIDES _____

TCLP _____

TOXICITY CHARACTERISTIC LIST

EFFECTIVE 25 SEP 90 - LARGE QUANTITY GENERATORS
29 MAR 91 - SMALL QUANTITY GENERATORS

CONTAMINANT	EPA HW No.	(mg/L)	CONTAMINANT	EPA HW No.	(mg/L)
<input type="checkbox"/> ARSENIC	D004	_____	<input type="checkbox"/> HEXACHLORO-1,3.-BUTADIENE	D033	_____
<input type="checkbox"/> BARIUM	D005	_____	<input type="checkbox"/> HEXACHLOROETHANE	D034	_____
<input type="checkbox"/> BENZENE	D018	_____	<input type="checkbox"/> LEAD	D008	_____
<input type="checkbox"/> CADMIUM	D006	_____	<input type="checkbox"/> LINDANE	D013	_____
<input type="checkbox"/> CARBON TETRACHLORIDE	D019	_____	<input type="checkbox"/> MERCURY	D009	_____
<input type="checkbox"/> CHLORDANE	D020	_____	<input type="checkbox"/> METHOXYCHLOR	D014	_____
<input type="checkbox"/> CHLOROBENZENE	D021	_____	<input type="checkbox"/> METHYL ETHYL KETONE	D035	_____
<input type="checkbox"/> CHLOROFORM	D022	_____	<input type="checkbox"/> NITROBENZENE	D036	_____
<input type="checkbox"/> CHROMIUM	D007	_____	<input type="checkbox"/> PENTACHLOROPHENOL	D037	_____
<input type="checkbox"/> O-CRESOL	D023	_____	<input type="checkbox"/> PYRIDINE	D038	_____
<input type="checkbox"/> M-CRESOL	D024	_____	<input type="checkbox"/> SELENIUM	D010	_____
<input type="checkbox"/> P-CRESOL	D025	_____	<input type="checkbox"/> SILVER	D011	_____
<input type="checkbox"/> CRESOL	D026	_____	<input type="checkbox"/> TETRACHLOROETHYLENE	D039	_____
<input type="checkbox"/> 2,4-D	D016	_____	<input type="checkbox"/> TOXOPHENE	D015	_____
<input type="checkbox"/> 1,4-DICHLOROENZENE	D027	_____	<input type="checkbox"/> TRICHLOROETHYLENE	D040	_____
<input type="checkbox"/> 1,2-DICHLOROETHANE	D028	_____	<input type="checkbox"/> 2,4,5-TRICHLOROPHENOL	D041	_____
<input type="checkbox"/> 1,1-DICHLOROETHYLENE	D029	_____	<input type="checkbox"/> 2,4,6-TRICHLOROPHENOL	D042	_____
<input type="checkbox"/> 2,4-DINITROTOLUENE	D030	_____	<input type="checkbox"/> 2,45-TP (SILVEX)	D017	_____
<input type="checkbox"/> ENDRIN	D012	_____	<input checked="" type="checkbox"/> VINYL CHLORIDE	D043	< 0.50
<input type="checkbox"/> HEPTACHLOR (AND ITS HYDROXIDE)	D031	_____			
<input type="checkbox"/> HEXACHLOROBENZENE	D032	_____			

PART III

FOR DRMO USE ONLY

DRMO VERIFICATION

1. DATE VERIFIED _____

2. RESULTS ATTACHED

pH _____ FLASH POINT _____ SPECIFIC GRAVITY _____ HALIDES (TOX) _____

REACTIVITY: WATER REACTIVITY _____ CYANIDES _____ SULFIDES _____

TCLP _____

HAZARDOUS WASTE PROFILE SHEET

PART I

A. GENERAL INFORMATION

WASTE PROFILE NO. _____

Method #5 - Northside

1. GENERATOR NAME

Naval Air Station Memphis

2. FACILITY ADDRESS

Public Works Environmental Division

Building South 236

Millington, TN

5. ZIP CODE
 38054

3. GENERATOR USEPA ID

TN 2170022600

4. GENERATOR STATE ID
6. TECHNICAL CONTACT

Mr. James Heide

7. TITLE

General Engineer

PHONE

(901) 873-5461

B. 1. NAME OF WASTE
Drummed Spent Material
2. USEPA/STATE WASTE CODE(S) See Part II, Section 2, Toxicity Characteristic
3. PROCESS GENERATING WASTE Collected as a result of previous operations of Facility
4. PROJECTED ANNUAL VOLUME/UNITS 370 / gal **5. MODE OF COLLECTION** Drums
6. IS THIS WASTE A TOXIN LISTED WASTE AS DEFINED IN 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, OR F028)? YES NO

7. IS THIS WASTE RESTRICTED FROM LAND DISPOSAL (40 CFR 268)? YES NO
HAS AN EXEMPTION BEEN GRANTED? YES NO

DOES THE WASTE MEET APPLICABLE TREATMENT STANDARDS? YES NO REFERENCE STANDARDS _____

PART II

1. MATERIAL CHARACTERIZATION
(OPTIONAL-NOT REQUIRED DATA)

 COLOR orange

 DENSITY _____ BTU/LB

 TOTAL SOLIDS _____ ASH CONTENT

 LAYERING: MULTILAYERED BILAYERED SINGLE PHASE

2. RCRA CHARACTERISTICS

 PHYSICAL STATE: SOLID LIQUID SEMI-SOLID
 GAS OTHER

 TREATMENT GROUP: WASTEWATER NON-WASTEWATER

 IGNITABLE (D001) REACTIVE (D003)

 FLASH POINT (F) _____ WATER REACTIVE

 HIGH TOC (> 10%) CYANIDE REACTIVE

 LOW TOC (< 10%) SULFIDE REACTIVE

 CORROSIVE (D002) TOXICITY CHARACTERISTIC
 pH _____ *(SEE REVERSE FOR LISTING)*
 CORRODES STEEL

4. MATERIAL COMPOSITION

COMPONENT	CONCENTRATION	RANGE
Orange Water		100%
TOTAL	100%	

5. SHIPPING INFORMATION

 DOT HAZARDOUS MATERIAL? YES NO

 PROPER SHIPPING NAME Hazardous Waste, liquid, n.o.s.

 HAZARD CLASS ORM-E U.N. or N.A. NO. NA9189

ADDITIONAL DESCRIPTION _____

 METHOD OF SHIPMENT BULK DRUM OTHER: _____

 CERCLA REPORTABLE QUANTITY (RQ) 1 lb (hexachlorobutadiene)

 EMERGENCY RESPONSE GUIDE PAGE toxaphene

DOT PUBLICATION 5800.4 PAGE NO. _____ EDITION (YR) _____

SPECIAL HANDLING INFORMATION _____

3. CHEMICAL COMPOSITION (ppm or mg/L)

COPPER _____ PHENOLICS _____

 NICKEL _____ TOTAL HALOGENS

ZINC _____ VOLATILE ORGANICS _____

CHROMIUM-HEX _____ PCBs _____

(OTHER) _____

NOTE: EXPLOSIVES, SHOCK SENSITIVE, PYROPHORIC, RADIOACTIVE, AND ETIOLOGICAL WASTE NORMALLY ARE NOT ACCEPTED BY THE DRMO.
6. GENERATOR CERTIFICATION
BASIS FOR INFORMATION
 CHEMICAL ANALYSIS (ATTACH TEST RESULTS)

 USER KNOWLEDGE (ATTACH SUPPORTING DOCUMENTS - Explain how and why these documents comply with RCRA requirements) _____

I, _____, HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL

ATTACHED DOCUMENTS IS TO THE BEST OF MY KNOWLEDGE AN ACCURATE REPRESENTATION OF THE WASTE TURNED IN TO THE DRMO. ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

SIGNATURE OF GENERATOR'S REPRESENTATIVE

DATE

TOXICITY CHARACTERISTIC LIST

EFFECTIVE 25 SEP 90 - LARGE QUANTITY GENERATORS
29 MAR 91 - SMALL QUANTITY GENERATORS

CONTAMINANT	EPA HW No.	(mg/L)	CONTAMINANT	EPA HW No.	(mg/L)
<input type="checkbox"/> ARSENIC	D004	_____	<input checked="" type="checkbox"/> HEXACHLORO-1,3,-BUTADIENE	D033	< 125,000
<input type="checkbox"/> BARIUM	D005	_____	<input checked="" type="checkbox"/> HEXACHLOROETHANE	D034	< 125,000
<input type="checkbox"/> BENZENE	D018	_____	<input type="checkbox"/> LEAD	D008	_____
<input type="checkbox"/> CADMIUM	D006	_____	<input checked="" type="checkbox"/> LINDANE	D013	< 12.5
<input type="checkbox"/> CARBON TETRACHLORIDE	D019	_____	<input type="checkbox"/> MERCURY	D009	_____
<input checked="" type="checkbox"/> CHLORDANE	D020	< 2 50	<input checked="" type="checkbox"/> METHOXYCHLOR	D014	< 125
<input type="checkbox"/> CHLOROBENZENE	D021	_____	<input type="checkbox"/> METHYL ETHYL KETONE	D035	_____
<input type="checkbox"/> CHLOROFORM	D022	_____	<input checked="" type="checkbox"/> NITROBENZENE	D036	< 125,000
<input type="checkbox"/> CHROMIUM	D007	_____	<input checked="" type="checkbox"/> PENTACHLOROPHENOL	D037	< 250,000
<input type="checkbox"/> O-CRESOL	D023	_____	<input checked="" type="checkbox"/> PYRIDINE	D038	< 125,000
<input type="checkbox"/> M-CRESOL	D024	_____	<input type="checkbox"/> SELENIUM	D010	_____
<input type="checkbox"/> P-CRESOL	D025	_____	<input type="checkbox"/> SILVER	D011	_____
<input checked="" type="checkbox"/> CRESOL	D026	< 250,000	<input type="checkbox"/> TETRACHLOROETHYLENE	D039	_____
<input type="checkbox"/> 2,4-D	D016	_____	<input checked="" type="checkbox"/> TOXOPHENE	D015	< 1250
<input type="checkbox"/> 1,4-DICHLOROENZENE	D027	_____	<input type="checkbox"/> TRICHLOROETHYLENE	D040	_____
<input type="checkbox"/> 1,2-DICHLOROETHANE	D028	_____	<input checked="" type="checkbox"/> 2,4,5-TRICHLOROPHENOL	D041	< 250,000
<input type="checkbox"/> 1,1-DICHLOROETHYLENE	D029	_____	<input checked="" type="checkbox"/> 2,4,6-TRICHLOROPHENOL	D042	< 250,000
<input checked="" type="checkbox"/> 2,4-DINITROTOLUENE	D030	< 125,000	<input type="checkbox"/> 2,45-TP (SILVEX)	D017	_____
<input checked="" type="checkbox"/> ENDRIN	D012	< 12.5	<input type="checkbox"/> VINYL CHLORIDE	D043	_____
<input checked="" type="checkbox"/> HEPTACHLOR (AND ITS HYDROXIDE)	D031	< 12.5			
<input checked="" type="checkbox"/> HEXACHLOROENZENE	D032	< 125,000			

PART III

**FOR DRMO USE ONLY
DRMO VERIFICATION**

1. DATE VERIFIED _____

2. RESULTS ATTACHED

pH _____ FLASH POINT _____ SPECIFIC GRAVITY _____ HALIDES (TOX) _____

REACTIVITY: WATER REACTIVITY _____ CYANIDES _____ SULFIDES _____

TCLP _____

HAZARDOUS WASTE PROFILE SHEET

PART I

A. GENERAL INFORMATION

WASTE PROFILE NO. _____

Method #6 - Northside

1. GENERATOR NAME

Naval Air Station Memphis

2. FACILITY ADDRESS

Public Works Environmental Division

Building South 236

Millington, TN

5. ZIP CODE
38054

3. GENERATOR USEPA ID

TN 2170022600

4. GENERATOR STATE ID
6. TECHNICAL CONTACT

Mr. James Heide

7. TITLE

General Engineer

PHONE

(901) 873-5461

B. 1. NAME OF WASTE Drummed Spent Material
2. USEPA/STATE WASTE CODE(S) See Part II, Section 2, Toxicity Characteristic
3. PROCESS GENERATING WASTE Collected as a result of previous operations of Facility
4. PROJECTED ANNUAL VOLUME/UNITS 135 / gal **5. MODE OF COLLECTION** Drums
6. IS THIS WASTE A DIOXIN LISTED WASTE AS DEFINED IN 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, OR F028)? YES NO

7. IS THIS WASTE RESTRICTED FROM LAND DISPOSAL (40 CFR 268)? YES NO

 HAS AN EXEMPTION BEEN GRANTED? YES NO

 DOES THE WASTE MEET APPLICABLE TREATMENT STANDARDS? YES NO REFERENCE STANDARDS _____

PART II

1. MATERIAL CHARACTERIZATION (OPTIONAL-NOT REQUIRED DATA)

COLOR _____

 DENSITY 0.8611 BTU/LB 10,600

 TOTAL SOLIDS 237,000 ppm ASH CONTENT <1%

 LAYERING: MULTILAYERED BILAYERED SINGLE PHASE

4. MATERIAL COMPOSITION

COMPONENT	CONCENTRATION	RANGE
Heavy Oils		100%
TOTAL	100%	

2. RCRA CHARACTERISTICS

 PHYSICAL STATE: SOLID LIQUID SEMI-SOLID
 GAS OTHER

 TREATMENT GROUP: WASTEWATER NON-WASTEWATER

 IGNITABLE (D001) 94 F REACTIVE (D003)

 FLASH POINT (F) _____ WATER REACTIVE

 HIGH TOC (> 10%) CYANIDE REACTIVE

 LOW TOC (< 10%) SULFIDE REACTIVE

 CORROSIVE (D002) TOXICITY CHARACTERISTIC (SEE REVERSE FOR LISTING)

pH _____

 CORRODES STEEL

3. CHEMICAL COMPOSITION (ppm or mg/L)

COPPER _____ PHENOLICS _____

 NICKEL _____ TOTAL HALOGENS < 279

ZINC _____ VOLATILE ORGANICS _____

 CHROMIUM-HEX _____ PCBs < 200

(OTHER) _____

NOTE: EXPLOSIVES, SHOCK SENSITIVE, PYROPHORIC, RADIOACTIVE, AND ETIOLOGICAL WASTE NORMALLY ARE NOT ACCEPTED BY THE DRMO.

5. SHIPPING INFORMATION

 DOT HAZARDOUS MATERIAL? YES NO

 PROPER SHIPPING NAME Hazardous Waste, liquid, n.o.s.

 HAZARD CLASS ORM-E U.N. or N.A. NO. NA9189

ADDITIONAL DESCRIPTION _____

 METHOD OF SHIPMENT BULK DRUM OTHER: _____

 CERCLA REPORTABLE QUANTITY (RQ) 1 lb (toxaphene, chlordane)

EMERGENCY RESPONSE GUIDE PAGE _____

DOT PUBLICATION 5800.4 PAGE NO. _____ EDITION (YR) _____

SPECIAL HANDLING INFORMATION _____

6. GENERATOR CERTIFICATION
BASIS FOR INFORMATION
 CHEMICAL ANALYSIS (ATTACH TEST RESULTS)

 USER KNOWLEDGE (ATTACH SUPPORTING DOCUMENTS - Explain how and why these documents comply with RCRA requirements) _____

I, _____, HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL

(Print or Type Name)

ATTACHED DOCUMENTS IS TO THE BEST OF MY KNOWLEDGE AN ACCURATE REPRESENTATION OF THE WASTE TURNED IN TO THE DRMO. ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

SIGNATURE OF GENERATOR'S REPRESENTATIVE _____

DATE _____

TOXICITY CHARACTERISTIC LIST

EFFECTIVE 25 SEP 90 - LARGE QUANTITY GENERATORS
29 MAR 91 - SMALL QUANTITY GENERATORS

CONTAMINANT	EPA HW No.	(mg/L)	CONTAMINANT	EPA HW No.	(mg/L)
<input type="checkbox"/> ARSENIC	D004	_____	<input checked="" type="checkbox"/> HEXACHLORO-1,3.-BUTADIENE	D033	< 70.9
<input type="checkbox"/> BARIUM	D005	_____	<input checked="" type="checkbox"/> HEXACHLOROETHANE	D034	< 70.9
<input checked="" type="checkbox"/> BENZENE	D018	0.749	<input checked="" type="checkbox"/> LEAD	D008	11.0
<input type="checkbox"/> CADMIUM	D006	_____	<input checked="" type="checkbox"/> LINDANE	D013	< 12.5
<input type="checkbox"/> CARBON TETRACHLORIDE	D019	_____	<input type="checkbox"/> MERCURY	D009	_____
<input checked="" type="checkbox"/> CHLORDANE	D020	< 250	<input type="checkbox"/> METHOXYCHLOR	D014	< 12.5
<input checked="" type="checkbox"/> CHLOROBENZENE	D021	_____	<input type="checkbox"/> METHYL ETHYL KETONE	D035	_____
<input type="checkbox"/> CHLOROFORM	D022	_____	<input checked="" type="checkbox"/> NITROBENZENE	D036	< 70.9
<input type="checkbox"/> CHROMIUM	D007	_____	<input checked="" type="checkbox"/> PENTACHLOROPHENOL	D037	< 142
<input type="checkbox"/> O-CRESOL	D023	_____	<input checked="" type="checkbox"/> PYRIDINE	D038	< 70.9
<input type="checkbox"/> M-CRESOL	D024	_____	<input type="checkbox"/> SELENIUM	D010	_____
<input type="checkbox"/> P-CRESOL	D025	_____	<input type="checkbox"/> SILVER	D011	_____
<input type="checkbox"/> CRESOL	D026	_____	<input type="checkbox"/> TETRACHLOROETHYLENE	D039	_____
<input type="checkbox"/> 2,4-D	D016	_____	<input checked="" type="checkbox"/> TOXOPHENE	D015	< 1250
<input type="checkbox"/> 1,4-DICHLOROBENZENE	D027	_____	<input type="checkbox"/> TRICHLOROETHYLENE	D040	_____
<input type="checkbox"/> 1,2-DICHLOROETHANE	D028	_____	<input type="checkbox"/> 2,4,5-TRICHLOROPHENOL	D041	_____
<input type="checkbox"/> 1,1-DICHLOROETHYLENE	D029	_____	<input checked="" type="checkbox"/> 2,4,6-TRICHLOROPHENOL	D042	< 142
<input type="checkbox"/> 2,4-DINITROTOLUENE	D030	_____	<input type="checkbox"/> 2,45-TP (SILVEX)	D017	_____
<input checked="" type="checkbox"/> ENDRIN	D012	< 12.5	<input type="checkbox"/> VINYL CHLORIDE	D043	_____
<input checked="" type="checkbox"/> HEPTACHLOR (AND ITS HYDROXIDE)	D031	< 12.5			
<input checked="" type="checkbox"/> HEXACHLOROBENZENE	D032	< 70.9			

PART III

**FOR DRMO USE ONLY
DRMO VERIFICATION**

1. DATE VERIFIED _____

2. RESULTS ATTACHED

pH _____ FLASH POINT _____ SPECIFIC GRAVITY _____ HALIDES (TOX) _____

REACTIVITY: WATER REACTIVITY _____ CYANIDES _____ SULFIDES _____

TCLP _____

HAZARDOUS WASTE PROFILE SHEET

PART I

A. GENERAL INFORMATION

WASTE PROFILE NO. _____

Method #7 - Northside

1. GENERATOR NAME

Naval Air Station Memphis

2. FACILITY ADDRESS

Public Works Environmental Division

Building South 235

Millington TN

5. ZIP CODE 38054

3. GENERATOR USEPA ID

TN 2170022600

4. GENERATOR STATE ID
7. TITLE
 General Engineer

PHONE

(901) 873-5461

6. TECHNICAL CONTACT

Mr. James Heide

B. 1. NAME OF WASTE Drummed Spent Material
2. USEPA/or/STATE WASTE CODE(S) D043
3. PROCESS GENERATING WASTE Collected as a result of previous operations of Facility
4. PROJECTED ANNUAL VOLUME/UNITS 5 / gal **5. MODE OF COLLECTION** Drum
6. IS THIS WASTE A DIOXIN LISTED WASTE AS DEFINED IN 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, OR F028)? YES NO

7. IS THIS WASTE RESTRICTED FROM LAND DISPOSAL (40 CFR 268)? YES NO

 HAS AN EXEMPTION BEEN GRANTED? YES NO N/A

 DOES THE WASTE MEET APPLICABLE TREATMENT STANDARDS? YES NO REFERENCE STANDARDS N/A

PART II

1. MATERIAL CHARACTERIZATION
(OPTIONAL-NOT REQUIRED DATA)

 COLOR _____
 DENSITY 0.9166 BTU/LB 17,300
 TOTAL SOLIDS 838,000 ASH CONTENT 3.25%
 LAYERING: MULTILAYERED BILAYERED SINGLE PHASE

4. MATERIAL COMPOSITION

COMPONENT	CONCENTRATION	RANGE
Oil		45-55%
Total Solids		45-55%
TOTAL	100%	

5. SHIPPING INFORMATION

 DOT HAZARDOUS MATERIAL? YES NO

 PROPER SHIPPING NAME Hazardous Waste, liquid, n.o.s.

 HAZARD CLASS ORM-E U.N. or N.A. NO. NA 9189
ADDITIONAL DESCRIPTION

 METHOD OF SHIPMENT BULK DRUM OTHER: _____

 CERCLA REPORTABLE QUANTITY (RQ) 1 lb (vinyl chloride)

EMERGENCY RESPONSE GUIDE PAGE _____

DOT PUBLICATION 5800.4 PAGE NO. _____ EDITION (YR) _____

SPECIAL HANDLING INFORMATION _____

3. CHEMICAL COMPOSITION (ppm or mg/L)

 COPPER _____ PHENOLICS _____
 NICKEL _____ TOTAL HALOGENS <7283
 ZINC _____ VOLATILE ORGANICS _____
 CHROMIUM-HEX _____ PCBs <1000
 (OTHER) _____

NOTE: EXPLOSIVES, SHOCK SENSITIVE, PYROPHORIC, RADIOACTIVE, AND ETIOLOGICAL WASTE NORMALLY ARE NOT ACCEPTED BY THE DRMO.
6. GENERATOR CERTIFICATION
BASIS FOR INFORMATION
 CHEMICAL ANALYSIS (ATTACH TEST RESULTS)

 USER KNOWLEDGE (ATTACH SUPPORTING DOCUMENTS - Explain how and why these documents comply with RCRA requirements) _____

 I, _____, HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL
(Print or Type Name)

 ATTACHED DOCUMENTS IS TO THE BEST OF MY KNOWLEDGE AN ACCURATE REPRESENTATION OF THE WASTE TURNED
 IN TO THE DRMO. ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

SIGNATURE OF GENERATOR'S REPRESENTATIVE

DATE

TOXICITY CHARACTERISTIC LIST

EFFECTIVE 25 SEP 90 - LARGE QUANTITY GENERATORS
29 MAR 91 - SMALL QUANTITY GENERATORS

CONTAMINANT	EPA HW No.	(mg/L)	CONTAMINANT	EPA HW No.	(mg/L)
<input type="checkbox"/> ARSENIC	D004	_____	<input type="checkbox"/> HEXACHLORO-1,3,-BUTADIENE	D033	_____
<input type="checkbox"/> BARIUM	D005	_____	<input type="checkbox"/> HEXACHLOROETHANE	D034	_____
<input type="checkbox"/> BENZENE	D018	_____	<input type="checkbox"/> LEAD	D008	_____
<input type="checkbox"/> CADMIUM	D006	_____	<input type="checkbox"/> LINDANE	D013	_____
<input type="checkbox"/> CARBON TETRACHLORIDE	D019	_____	<input type="checkbox"/> MERCURY	D009	_____
<input type="checkbox"/> CHLORDANE	D020	_____	<input type="checkbox"/> METHOXYCHLOR	D014	_____
<input type="checkbox"/> CHLOROBENZENE	D021	_____	<input type="checkbox"/> METHYL ETHYL KETONE	D035	_____
<input type="checkbox"/> CHLOROFORM	D022	_____	<input type="checkbox"/> NITROBENZENE	D036	_____
<input type="checkbox"/> CHROMIUM	D007	_____	<input type="checkbox"/> PENTACHLOROPHENOL	D037	_____
<input type="checkbox"/> O-CRESOL	D023	_____	<input type="checkbox"/> PYRIDINE	D038	_____
<input type="checkbox"/> M-CRESOL	D024	_____	<input type="checkbox"/> SELENIUM	D010	_____
<input type="checkbox"/> P-CRESOL	D025	_____	<input type="checkbox"/> SILVER	D011	_____
<input type="checkbox"/> CRESOL	D026	_____	<input type="checkbox"/> TETRACHLOROETHYLENE	D039	_____
<input type="checkbox"/> 2,4-D	D016	_____	<input type="checkbox"/> TOXOPHENE	D015	_____
<input type="checkbox"/> 1,4-DICHLOROBENZENE	D027	_____	<input type="checkbox"/> TRICHLOROETHYLENE	D040	_____
<input type="checkbox"/> 1,2-DICHLOROETHANE	D028	_____	<input type="checkbox"/> 2,4,5-TRICHLOROPHENOL	D041	_____
<input type="checkbox"/> 1,1-DICHLOROETHYLENE	D029	_____	<input type="checkbox"/> 2,4,6-TRICHLOROPHENOL	D042	_____
<input type="checkbox"/> 2,4-DINITROTOLUENE	D030	_____	<input type="checkbox"/> 2,45-TP (SILVEX)	D017	_____
<input type="checkbox"/> ENDRIN	D012	_____	<input checked="" type="checkbox"/> VINYL CHLORIDE	D043	< 1.0
<input type="checkbox"/> HEPTACHLOR (AND ITS HYDROXIDE)	D031	_____			
<input type="checkbox"/> HEXACHLOROBENZENE	D032	_____			

PART III

FOR DRMO USE ONLY

DRMO VERIFICATION

1. DATE VERIFIED _____

2. RESULTS ATTACHED

pH _____ FLASH POINT _____ SPECIFIC GRAVITY _____ HALIDES (TOX) _____

REACTIVITY: WATER REACTIVITY _____ CYANIDES _____ SULFIDES _____

TCLP _____

HAZARDOUS WASTE PROFILE SHEET

PART I

A. GENERAL INFORMATION

WASTE PROFILE NO. _____

Method #8 - Northside

1. GENERATOR NAME

Naval Air Station Memphis

2. FACILITY ADDRESS

Public Works Environmental Division

Building South 236

Millington, TN

 5. ZIP CODE
38054

3. GENERATOR USEPA ID

TN 2170022600

4. GENERATOR STATE ID
6. TECHNICAL CONTACT

Mr. James Heide

7. TITLE

General Engineer

PHONE

(901) 873-5461

B. 1. NAME OF WASTE Drummed Spent Material

 2. USEPA/or/STATE WASTE CODE(S) See Part II, Section 2, Toxicity Characteristic
Collected as a result of previous operations of Facility

 3. PROCESS GENERATING WASTE _____
 4. PROJECTED ANNUAL VOLUME/UNITS 35 / gal 5. MODE OF COLLECTION Drums

 6. IS THIS WASTE A DIOXIN LISTED WASTE AS DEFINED IN 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, OR F028)? YES NO

 7. IS THIS WASTE RESTRICTED FROM LAND DISPOSAL (40 CFR 268)? YES NO
 HAS AN EXEMPTION BEEN GRANTED? YES NO

 DOES THE WASTE MEET APPLICABLE TREATMENT STANDARDS? YES NO REFERENCE STANDARDS _____

PART II

1. MATERIAL CHARACTERIZATION
(OPTIONAL-NOT REQUIRED DATA)

 COLOR _____
 DENSITY _____ BTU/LB
 TOTAL SOLIDS _____ ASH CONTENT _____
 LAYERING: MULTILAYERED BILAYERED SINGLE PHASE

2. RCRA CHARACTERISTICS

 PHYSICAL STATE: SOLID LIQUID SEMI-SOLID
 GAS OTHER

 TREATMENT GROUP: WASTEWATER NON-WASTEWATER

 IGNITABLE (D001) 69 F REACTIVE (D003)

 FLASH POINT (F) _____
 HIGH TOC (> 10%) WATER REACTIVE
 LOW TOC (< 10%) CYANIDE REACTIVE
 SULFIDE REACTIVE

 CORROSIVE (D002) TOXICITY CHARACTERISTIC
 pH _____ *(SEE REVERSE FOR LISTING)*
 CORRODES STEEL

4. MATERIAL COMPOSITION

COMPONENT	CONCENTRATION	RANGE
Paint		85-90%
Water		5-15%
TOTAL	100%	

5. SHIPPING INFORMATION

 DOT HAZARDOUS MATERIAL? YES NO

 PROPER SHIPPING NAME
Hazardous Waste, liquid, n.o.s.

 HAZARD CLASS ORM-E U.N. or N.A. NO. NA 9189

 ADDITIONAL DESCRIPTION _____
 METHOD OF SHIPMENT BULK DRUM OTHER: _____
 CERCLA REPORTABLE QUANTITY (RQ) 1 lb (hexachlorobutadiene, lead)
 EMERGENCY RESPONSE GUIDE PAGE _____
 DOT PUBLICATION 5800.4 PAGE NO. _____ EDITION (YR) _____
 SPECIAL HANDLING INFORMATION _____

3. CHEMICAL COMPOSITION (ppm or mg/L)

 COPPER _____ PHENOLICS _____
 NICKEL _____ TOTAL HALOGENS
 ZINC _____ VOLATILE ORGANICS _____
 CHROMIUM-HEX _____ PCBs _____
 (OTHER) _____

NOTE: EXPLOSIVES, SHOCK SENSITIVE, PYROPHORIC, RADIOACTIVE, AND ETIOLOGICAL WASTE NORMALLY ARE NOT ACCEPTED BY THE DRMO.

6. GENERATOR CERTIFICATION
BASIS FOR INFORMATION
 CHEMICAL ANALYSIS (ATTACH TEST RESULTS)

 USER KNOWLEDGE (ATTACH SUPPORTING DOCUMENTS - Explain how and why these documents comply with RCRA requirements) _____

 I, _____, HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL
(Print or Type Name)

 ATTACHED DOCUMENTS IS TO THE BEST OF MY KNOWLEDGE AN ACCURATE REPRESENTATION OF THE WASTE TURNED
 IN TO THE DRMO. ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

SIGNATURE OF GENERATOR'S REPRESENTATIVE

DATE

TOXICITY CHARACTERISTIC LIST

EFFECTIVE 25 SEP 90 - LARGE QUANTITY GENERATORS
29 MAR 91 - SMALL QUANTITY GENERATORS

CONTAMINANT	EPA HW No.	(mg/L)	CONTAMINANT	EPA HW No.	(mg/L)
<input type="checkbox"/> ARSENIC	D004	_____	<input checked="" type="checkbox"/> HEXACHLORO-1,3.-BUTADIENE	D033	< 1250
<input type="checkbox"/> BARIUM	D005	_____	<input checked="" type="checkbox"/> HEXACHLOROETHANE	D034	< 1250
<input checked="" type="checkbox"/> BENZENE	D018	< 5.0	<input checked="" type="checkbox"/> LEAD	D008	862
<input type="checkbox"/> CADMIUM	D006	_____	<input type="checkbox"/> LINDANE	D013	_____
<input checked="" type="checkbox"/> CARBON TETRACHLORIDE	D019	< 5.0	<input type="checkbox"/> MERCURY	D009	_____
<input checked="" type="checkbox"/> CHLORDANE	D020	< 2.5	<input checked="" type="checkbox"/> METHOXYCHLOR	D014	< 2.0
<input type="checkbox"/> CHLOROBENZENE	D021	_____	<input checked="" type="checkbox"/> METHYL ETHYL KETONE	D035	206
<input type="checkbox"/> CHLOROFORM	D022	_____	<input checked="" type="checkbox"/> NITROBENZENE	D036	< 1250
<input checked="" type="checkbox"/> CHROMIUM	D007	314	<input checked="" type="checkbox"/> PENTACHLOROPHENOL	D037	< 2500
<input type="checkbox"/> O-CRESOL	D023	_____	<input checked="" type="checkbox"/> PYRIDINE	D038	< 1250
<input type="checkbox"/> M-CRESOL	D024	_____	<input type="checkbox"/> SELENIUM	D010	_____
<input type="checkbox"/> P-CRESOL	D025	_____	<input type="checkbox"/> SILVER	D011	_____
<input checked="" type="checkbox"/> CRESOL	D026	5000	<input checked="" type="checkbox"/> TETRACHLOROETHYLENE	D039	< 5.0
<input type="checkbox"/> 2,4-D	D016	_____	<input checked="" type="checkbox"/> TOXOPHENE	D015	< 20
<input type="checkbox"/> 1,4-DICHLOROBENZENE	D027	_____	<input checked="" type="checkbox"/> TRICHLOROETHYLENE	D040	< 5.0
<input checked="" type="checkbox"/> 1,2-DICHLOROETHANE	D028	< 5.0	<input checked="" type="checkbox"/> 2,4,5-TRICHLOROPHENOL	D041	< 2500
<input checked="" type="checkbox"/> 1,1-DICHLOROETHYLENE	D029	< 5.0	<input checked="" type="checkbox"/> 2,4,6-TRICHLOROPHENOL	D042	< 2500
<input checked="" type="checkbox"/> 2,4-DINITROTOLUENE	D030	< 1250	<input type="checkbox"/> 2,45-TP (SILVEX)	D017	_____
<input checked="" type="checkbox"/> ENDRIN	D012	< 0.2	<input checked="" type="checkbox"/> VINYL CHLORIDE	D043	< 10.0
<input checked="" type="checkbox"/> HEPTACHLOR (AND ITS HYDROXIDE)	D031	< 0.2			
<input checked="" type="checkbox"/> HEXACHLOROBENZENE	D032	< 1250			

PART III

**FOR DRMO USE ONLY
DRMO VERIFICATION**

1. DATE VERIFIED _____

2. RESULTS ATTACHED

pH _____ FLASH POINT _____ SPECIFIC GRAVITY _____ HALIDES (TOX) _____

REACTIVITY: WATER REACTIVITY _____ CYANIDES _____ SULFIDES _____

TCLP _____

ATTACHMENT G

TDEC SPECIAL WASTE PERMIT APPLICATIONS



SPECIAL WASTE APPROVAL FEE
DIVISION OF SOLID WASTE MANAGEMENT
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

(1) Generator's Name and Address: Naval Air Station Memphis Public Works Environmental Division Building South 236 Millington, TN 38054		(2) Applicant's I.D. #: <u>TN 2170022600</u>		
		(3) Date of Application: <u>3/25/93</u>		
		(4) Phone #: (901) <u>873-5461</u>		
		(5) Waste Stream # _____		
		(6) Fee Paid \$ <u>250.00</u>		
		(7) Waste Type or Name: <u>Dry colloidal fire-fighting powder</u>		(8) Is This Application <input checked="" type="checkbox"/> New or a <input type="checkbox"/> Renewal
(9) Name, Address and I.D. Number of Disposal Facility: <u>BFI North Shelby County Landfill</u> <u>7111 Old Millington Rd.</u> <u>Millington, TN 38053</u> <u>SNL 791060224</u>		(10) Amount to be Disposed: <u>2.5cv(one-time)</u> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly <input type="checkbox"/> Annually <input type="checkbox"/>		
(11) If This Waste Previously Approved, Have Any of the Items Below Changed? a. Generation Rate <input type="checkbox"/> Yes <input type="checkbox"/> No New Rate _____ b. Generation Process <input type="checkbox"/> Yes <input type="checkbox"/> No New Process _____ c. Physical or Chemical Characteristic <input type="checkbox"/> Yes <input type="checkbox"/> No New _____ d. Disposal Site <input type="checkbox"/> Yes <input type="checkbox"/> No New Site I.D.# _____ e. Transporter <input type="checkbox"/> Yes <input type="checkbox"/> No New Transporter _____ (If additional space is needed for answer, place the item number and answer in box (12) below.)				
(12)				
Field Office Use Only Below This Line.				
(13) Approved By: _____		(14) Date of Approval: _____		
(15) Field Office Comment: 				
Central Office Use Only Below Line.				
CD Number	Date Rec'd	Amount	Receipt #	Comments

SPECIAL WASTE DATA COLLECTION FORM

I. **Generator Information**

Facility Name and Location

01 Name: **Naval Air Station** I.D.#: **TN2170022600** 02 City: **Millington**

03 Street: **Public Works Environmental Division** 04 County: **Shelby**
Building South 236

05 Number of Employees: 05 Zip Code: **38054**

Responsible Official

06 Name: **Mr. Jim Heide** 07 Title: **General Engineer**

08 Telephone: **(901) 578-5461**

Mailing Address (If different from Location)

09 Street:

10 City: 11 State: 12 Zip Code:

Generation Source (If more space is needed, please use back)

13 Narrative and Flow Diagram of the Manufacturing of Treatment Process which creates the waste:

Dry colloidal fire-fighting powder collected as a result of previous operations at facility

14 Nature of Business: **Naval facility**

Generation Rate

15 Quantity (lbs, CY): **2.5 cy**

16 Frequency (per day, week): **one-time**

17 Date generation started:

II. Waste Characteristics

Chemical Constituents or Compounds (% of dry weight)

01 **fire-fighting powder-100%** 02 03

04 05 06

Chemical Analysis (mg/kg/dry weight) or (mg/1 Extract)

07 08 09

10 11 12

13 14 15

16 pH (units): **9.45**

Physical Characteristics

16 Percentage Moisture: **0-1%**

17 State (*solid, liquid or sludge*): **Solid**

18 Color: **pinkish gray**

19 Density:

*Hazardous Characteristics (If applicable) Rule 1200-1-11-.02(3)

20 Ignitable: 21 Corrosive:

22 Flammable: 23 EP Toxic:

24 Reactive: 25 Subject to F solvent Restrictions (*yes or no*):

III. Proposed Disposal Site

01 Site Name: **BFI N. Shelby Co. Landfill** 02 County: **Shelby**

03 Operator's Name: **Browning-Ferris Industries**

04 Describe Delivery Schedule and Handling Procedures:

IV. Proposed Transporter

01 Name:

02 Address:

03 Telephone:

V. Facility Geographic Location

Clearly delineate all existing structures, storage, treatment and disposal areas. Include scale drawing of facility floor plan with respect to bordering streets.

Drums are located at the Northside of the Naval Air Station Memphis

VI. Disposal

Describe how waste is presently being disposed of. **Waste is presently stored in drums at the site and awaiting acceptance into the BFI North Shelby County Landfill.**

VII. Signature

This form will not be processed without the preparer's signature.

A. Signature: _____

Printed Name: _____

B. Date Signed: _____

**Rule 1200-1-11-.03(1)(b) - A person who generates a waste must determine if that waste is a hazardous waste.*

RETURN THIS FORM TO:

Tennessee Department of Environment and Conservation
Division of Solid Waste Management
2500 Mount Moriah Road, Suite E-645
Memphis, TN 38115-1511



BROWNING-FERRIS INDUSTRIES

WCD No. AA 81299

BFI WASTE CODE

WASTE EVALUATION REQUEST

BFI to complete this area.

BFI Initiator Location Company Number Date Telephone Number Action Requested: New Waste Approval Up-Date Approval Priority Other

Previous Laboratory Number Management Method Requested: Landfill Hauling Other Disposal Site Requested Company Number P.O. Number Analyses Requested: TCLP RCI Other Analyses To Follow: TCLP Other

WASTE CHARACTERIZATION DATA

Special Waste

IMPORTANT: THIS FORM IS TO BE COMPLETED BY A REPRESENTATIVE OF THE WASTE GENERATOR. PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS FORM. THIS FORM IS TO BE USED ONLY ONE TIME, AND MUST BE TYPEWRITTEN OR LEGIBLY PRINTED IN INK, AND SIGNED.

1. GENERATOR INFORMATION

a) Generator's Name: Naval Air Station Memphis e) Local Registration No. b) Generating Facility Address: Public Works Env Div-Bldgs-236 Generator's EPA Id. No. TN 2170022600 City: Millington State: TN Zip: 38054 c) Company Representative: Mr. James Heide Title: General Engineer f) Telephone No. (901) 873-5461 After Hours No. d) Emergency Contact: Ms. Tonya Barker Title: Environmental Engineer, Division Supervisor Emergency No.

2. GENERAL WASTE STREAM INFORMATION

a) Description of The Waste: Dry colloidal fire-fighting powder collected as a result of previous operations at facility b) Process Generating Waste: Clean-up of spent materials c) Is this a treatment residue of a waste which was previously a restricted characteristically hazardous waste? No d) Is this a "Hazardous Waste" as defined by State or local Regulations? No If yes, enter the Waste Identification Number if one has been assigned: e) Is this a "Special Waste", an "Industrial Process Waste", or a "Pollution Control Waste" as defined by State or local Regulations? Yes If yes, enter Waste Identification Number: f) Recommended personal protection equipment and special handling procedures: Respiratory protection g) Anticipated Volume: 515 Gallons Per: One Time, or To be transported in: Drums (type/size) Steel/55-gallon h) Is a representative sample included? Yes - If yes, complete the RSC found on the reverse side.

3. WASTE PROPERTIES @ 72°F

a) Physical State: Solid Semi-solid Powder Liquid Combination b) Odor: Describe None Mild Strong c) Flash Point, °F: ≤72 73-100 101-140 141-200 ≥201 N/A N/D d) Layers: Single Phase Bi-layered Multi-layered e) Density Range: N/D lbs./gal. g./cc. lbs./yd.³ Other f) Color(s): Describe pinkish gray g) pH: ≤2.0 2.1-5.0 5.1-9.0 9.1-12.4 ≥12.5 N/A N/D

4. REACTIVITY

Note if the waste exhibits any of the following reactive properties: Water Reactive Alkaline Reactive Pyrophoric Thermally Sensitive Acid Reactive Autopolymerizable Explosive Shock Sensitive None of the above



SPECIAL WASTE APPROVAL FEE
DIVISION OF SOLID WASTE MANAGEMENT
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

(1) Generator's Name and Address: Naval Air Station Memphis Public Works Environmental Division Building South 236 Millington, TN 38054		(2) Applicant's I.D. #: TN 2170022600		
		(3) Date of Application: 3/25/93		
		(4) Phone #:(901) 873-5461		
		(5) Waste Stream #		
		(6) Fee Paid \$ 250.00		
		(7) Waste Type or Name: Dry brown granules		(8) Is This Application <input checked="" type="checkbox"/> New or a <input type="checkbox"/> Renewal
(9) Name, Address and I.D. Number of Disposal Facility: BFI North Shelby County Landfill 7111 Old Millington Rd. Millington, TN 38053 SNL 791060224		(10) Amount to be Disposed: 0.15cy(one-time) Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly <input type="checkbox"/> Annually <input type="checkbox"/>		
(11) If This Waste Previously Approved, Have Any of the Items Below Changed? a. Generation Rate <input type="checkbox"/> Yes <input type="checkbox"/> No New Rate _____ b. Generation Process <input type="checkbox"/> Yes <input type="checkbox"/> No New Process _____ c. Physical or Chemical Characteristic <input type="checkbox"/> Yes <input type="checkbox"/> No New _____ d. Disposal Site <input type="checkbox"/> Yes <input type="checkbox"/> No New Site I.D.# _____ e. Transporter <input type="checkbox"/> Yes <input type="checkbox"/> No New Transporter _____ (If additional space is needed for answer, place the item number and answer in box (12) below.)				
(12)				
Field Office Use Only Below This Line.				
(13) Approved By:		(14) Date of Approval:		
(15) Field Office Comment:				
Central Office Use Only Below Line.				
CD Number	Date Rec'd	Amount	Receipt #	Comments

SPECIAL WASTE DATA COLLECTION FORM

I. **Generator Information**

Facility Name and Location

01 Name: **Naval Air Station** I.D.#: **TN2170022600** 02 City: **Millington**

03 Street: **Public Works Environmental Division** 04 County: **Shelby**
Building South 236

05 Number of Employees: 05 Zip Code: **38054**

Responsible Official

06 Name: **Mr. Jim Heide** 07 Title: **General Engineer**

08 Telephone: **(901) 578-5461**

Mailing Address (If different from Location)

09 Street:

10 City: 11 State: 12 Zip Code:

Generation Source (If more space is needed, please use back)

13 Narrative and Flow Diagram of the Manufacturing of Treatment Process which creates the waste:

Dry brown granules collected as a result of previous operations at facility

14 Nature of Business: **Naval facility**

Generation Rate

15 Quantity (lbs, CY): **0.15 CY**

16 Frequency (per day, week): **one-time**

17 Date generation started:

II. Waste Characteristics

Chemical Constituents or Compounds (% of dry weight)

01 **Dry granules-100%** 02 03

04 05 06

Chemical Analysis (mg/kg/dry weight) or (mg/1 Extract)

07 08 09

10 11 12

13 14 15

16 pH (units): **6.80**

Physical Characteristics

16 Percentage Moisture:

17 State (*solid, liquid or sludge*): **Solid**

18 Color: **Brown**

19 Density:

*Hazardous Characteristics (If applicable) Rule 1200-1-11-.02(3)

20 Ignitable: 21 Corrosive:

22 Flammable: 23 EP Toxic:

24 Reactive: 25 Subject to F solvent Restrictions (*yes or no*):

III. Proposed Disposal Site

01 Site Name: **BFI N. Shelby Co. Landfill** 02 County: **Shelby**

03 Operator's Name: **Browning-Ferris Industries**

04 Describe Delivery Schedule and Handling Procedures:

IV. Proposed Transporter

01 Name:

02 Address:

03 Telephone:

V. Facility Geographic Location

Clearly delineate all existing structures, storage, treatment and disposal areas. Include scale drawing of facility floor plan with respect to bordering streets.

Drums are located at the Northside of the Naval Air Station Memphis

VI. Disposal

Describe how waste is presently being disposed of. **Waste is presently stored in drums at the site and awaiting acceptance into the BFI North Shelby County Landfill.**

VII. Signature

This form will not be processed without the preparer's signature.

A. Signature: _____

Printed Name: _____

B. Date Signed: _____

**Rule 1200-1-11-.03(1)(b) - A person who generates a waste must determine if that waste is a hazardous waste.*

RETURN THIS FORM TO:

Tennessee Department of Environment and Conservation
Division of Solid Waste Management
2500 Mount Moriah Road, Suite E-645
Memphis, TN 38115-1511



WCD No. AA 61300

BROWNING-FERRIS INDUSTRIES

BFI WASTE CODE

WASTE EVALUATION REQUEST

BFI to complete this area.

BFI Initiator
Location
Company Number
Date
Telephone Number
Action Requested:
New Waste Approval
Up-Date Approval
Priority
Other

Previous Laboratory Number
Management Method Requested:
Landfill
Hauling
Other
Disposal Site Requested
Company Number
P.O. Number
Analyses Requested:
TCLP
RCI
Other
Analyses To Follow:
TCLP
Other

WASTE CHARACTERIZATION DATA

Special Waste

IMPORTANT: THIS FORM IS TO BE COMPLETED BY A REPRESENTATIVE OF THE WASTE GENERATOR. PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS FORM. THIS FORM IS TO BE USED ONLY ONE TIME, AND MUST BE TYPEWRITTEN OR LEGIBLY PRINTED IN INK, AND SIGNED.

1. GENERATOR INFORMATION

a) Generator's Name: Naval Air Station Memphis
b) Generating Facility Address: Public Works Env Div-Bldg S-236
City: Millington State: TN Zip: 38054
c) Company Representative: Mr. James Heide
Title: General Engineer
d) Emergency Contact: Ms. Tonya Barker
Title: Environmental Engineer, Division Supervisor
e) Local Registration No.
Generator's EPA Id. No. TN 2170022600
f) Telephone No. (901) 873-5461
After Hours No.
Emergency No.

2. GENERAL WASTE STREAM INFORMATION

a) Description of The Waste: Dry brown granules collected as a result of previous operations at facility
b) Process Generating Waste: Clean-up spent materials
c) Is this a treatment residue of a waste which was previously a restricted characteristically hazardous waste? No
d) Is this a "Hazardous Waste" as defined by State or local Regulations? No
e) Is this a "Special Waste", an "Industrial Process Waste", or a "Pollution Control Waste" as defined by State or local Regulations? No
f) Recommended personal protection equipment and special handling procedures: Not applicable
g) Anticipated Volume: 30 Gallons
Per: One Time, or
To be transported in: Drums (type/size) Steel/55-gallon
h) Is a representative sample included? Yes

3. WASTE PROPERTIES @ 72°F

a) Physical State: Solid
b) Odor: None
c) Flash Point, °F: N/A
d) Layers: Single Phase
e) Density Range: N/D
f) Color(s): Brown
g) pH: 5.1-9.0

4. REACTIVITY

Note if the waste exhibits any of the following reactive properties: Water Reactive, Acid Reactive, Alkaline Reactive, Autopolymerizable, Pyrophoric, Explosive, Thermally Sensitive, Shock Sensitive, None of the above

SPECIAL WASTE DATA COLLECTION FORM

I. Generator Information

Facility Name and Location

01 Name: **Naval Air Station** I.D.#: **TN2170022600** 02 City: **Millington**

03 Street: **Public Works Environmental Division** 04 County: **Shelby**
Building South 236

05 Number of Employees: 06 Zip Code: **38054**

Responsible Official

06 Name: **Mr. Jim Heide** 07 Title: **General Engineer**

08 Telephone: **(901) 578-5461**

Mailing Address (If different from Location)

09 Street:

10 City: 11 State: 12 Zip Code:

Generation Source (If more space is needed, please use back)

13 Narrative and Flow Diagram of the Manufacturing of Treatment Process which creates the waste:

Dry paper-like material collected as a result of previous operations at the facility

14 Nature of Business: **Naval facility**

Generation Rate

15 Quantity (lbs, CY): **0.15 CY**

16 Frequency (per day, week): **one-time**

17 Date generation started:

II. Waste Characteristics

Chemical Constituents or Compounds (% of dry weight)

01 **Paper-100%** 02 03

04 05 06

Chemical Analysis (mg/kg/dry weight) or (mg/1 Extract)

07 08 09

10 11 12

13 14 15

16 pH (units): **9.22**

Physical Characteristics

16 Percentage Moisture:

17 State (*solid, liquid or sludge*): **Solid**

18 Color: **light brown**

19 Density:

*Hazardous Characteristics (If applicable) Rule 1200-1-11-.02(3)

20 Ignitable: 21 Corrosive:

22 Flammable: 23 EP Toxic:

24 Reactive: 25 Subject to F solvent Restrictions (*yes or no*):

III. Proposed Disposal Site

01 Site Name: **BFI N. Shelby Co. Landfill** 02 County: **Shelby**

03 Operator's Name: **Browning-Ferris Industries**

04 Describe Delivery Schedule and Handling Procedures:

IV. Proposed Transporter

01 Name:

02 Address:

03 Telephone:

V. Facility Geographic Location

Clearly delineate all existing structures, storage, treatment and disposal areas. Include scale drawing of facility floor plan with respect to bordering streets.

Drums are located at the Northside of the Naval Air Station Memphis

VI. Disposal

Describe how waste is presently being disposed of. **Waste is presently stored in drums at the site and awaiting acceptance into the BFI North Shelby County Landfill.**

VII. Signature

This form will not be processed without the preparer's signature.

A. Signature: _____

Printed Name: _____

B. Date Signed: _____

*Rule 1200-1-11-.03(1)(b) - A person who generates a waste must determine if that waste is a hazardous waste.

RETURN THIS FORM TO:

Tennessee Department of Environment and Conservation
Division of Solid Waste Management
2500 Mount Moriah Road, Suite E-645
Memphis, TN 38115-1511



BROWNING-FERRIS INDUSTRIES

WCD No. AA 61298

BFI WASTE CODE

WASTE EVALUATION REQUEST

BFI to complete this area.

BFI Initiator, Location, Company Number, Date, Telephone Number, Action Requested: New Waste Approval, Up-Date Approval, Priority, Other

Previous Laboratory Number, Management Method Requested: Landfill, Hauling, Other, Disposal Site Requested, Company Number, P.O. Number, Analyses Requested: TCLP, RCI, Other, Analyses To Follow: TCLP, Other

WASTE CHARACTERIZATION DATA

Special Waste

IMPORTANT: THIS FORM IS TO BE COMPLETED BY A REPRESENTATIVE OF THE WASTE GENERATOR. PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS FORM. THIS FORM IS TO BE USED ONLY ONE TIME, AND MUST BE TYPEWRITTEN OR LEGIBLY PRINTED IN INK, AND SIGNED.

1. GENERATOR INFORMATION

a) Generator's Name: Naval Air Station Memphis, e) Local Registration No., b) Generating Facility Address: Public Works Env Div-Bldg S-236, Generator's EPA Id. No. TN 2170022600, City: Millington, State: TN, Zip: 38054, c) Company Representative: Mr. James Heide, Title: General Engineer, f) Telephone No. (901) 873-5461, After Hours No., d) Emergency Contact: Ms. Tonya Barker, Title: Environmental Engineer, Division Supervisor, Emergency No.

2. GENERAL WASTE STREAM INFORMATION

a) Description of The Waste: Dry paper-like material collected as a result of previous operations at facility, b) Process Generating Waste: Clean-up of spent materials, c) Is this a treatment residue of a waste which was previously a restricted characteristically hazardous waste? No, d) Is this a "Hazardous Waste" as defined by State or local Regulations? No, e) Is this a "Special Waste", an "Industrial Process Waste", or a "Pollution Control Waste" as defined by State or local Regulations? Yes, f) Recommended personal protection equipment and special handling procedures: Not Applicable, g) Anticipated Volume: 30 Gallons, Per: One Time, To be transported in: Drums (type/size) steel/55 gallon, h) Is a representative sample included? Yes

3. WASTE PROPERTIES @ 72°F

a) Physical State: Solid, b) Odor: None, c) Flash Point, °F: N/A, d) Layers: Single Phase, e) Density Range: N/D, f) Color(s): light brown, g) pH: 9.1-12.4

4. REACTIVITY

Note if the waste exhibits any of the following reactive properties: Water Reactive, Alkaline Reactive, Pyrophoric, Thermally Sensitive, Acid Reactive, Autopolymerizable, Explosive, Shock Sensitive, None of the above

5. THIS WASTE CONTAINS

Note if the waste contains any of the following:

- | | | | |
|---------------------------------------|---|---|--|
| <input type="checkbox"/> Free Liquids | <input type="checkbox"/> Dioxins | <input type="checkbox"/> Etiological Agents | <input type="checkbox"/> Radioactive Materials |
| <input type="checkbox"/> Free Cyanide | <input type="checkbox"/> Organic Solvents | <input type="checkbox"/> Pathogens | <input type="checkbox"/> PCBs not regulated by TSCA 40 CFR 761 |
| <input type="checkbox"/> Free Sulfide | <input type="checkbox"/> Used Oils | <input type="checkbox"/> OSHA Substances | <input type="checkbox"/> None of the above |
| <input type="checkbox"/> Free Ammonia | <input type="checkbox"/> Virgin Oils | <input type="checkbox"/> Biological Materials | |

If any of the above are checked "Yes", specify type (if applicable) and include its concentration as part of the waste composition, Section 6.

6. COMPLETE WASTE COMPOSITION

Concentration ranges are suggested, but total must equal 100%. Units must be identified and are to be in parts per million (ppm) and/or percentages (%). Attach additional pages if necessary.

Components	Range Min. / Max.	Components	Range Min. / Max.
Paper	100%		

7. TRANSPORTATION INFORMATION

If the waste is a DOT Hazardous Material, complete the following:

Proper USDOT Shipping Name: _____
 USDOT Hazard Class: _____ UN or NA Number: _____ CERCLA Reportable Quantity: _____

8. SUPPLEMENTAL INFORMATION

- None MSD Sheets Analytical Data Memo/Letter Waste Composition
 Other - describe _____ No. of Pages _____

9. GENERATOR'S CERTIFICATION

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine, that no deliberate or willful omissions of composition or properties exists, that all known or suspected hazards have been disclosed, and that the waste is not designated a Hazardous Waste by the USEPA or contains PCBs regulated by TSCA 40 CFR 761.

GENERATOR'S AUTHORIZED SIGNATORY:

DATE	PRINT NAME	SIGNATURE	TITLE	INITIALS
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REPRESENTATIVE SAMPLE CERTIFICATE

This Section is to be completed by the person obtaining the sample of the above described waste, preferably a representative of the generator. **DO NOT COLLECT OR SUBMIT SAMPLES THAT ARE RADIOACTIVE, SHOCK SENSITIVE, EXPLOSIVE, OR PYROPHORIC.**

I certify that the sample identified below that is being forwarded to BFI for evaluation is representative of the waste described above. I also understand that, should the waste material described herein not be acceptable for management by BFI Waste Systems, the sample(s) may be returned to the generator.

Collector's Name: <u>KARLA L. JENKINS</u>	(Peel Off Label)
Signature: <u><i>Karla L. Jenkins</i></u>	Generator's Name: <u>Naval Air Station Memphis</u>
Company: <u>Memphis Environmental Center, Inc.</u>	Waste Description: <u>Dry Paper-like Material</u>
Title: <u>Environmental Engineer</u>	Date Collected: _____ WCD No. AA <u>81298</u>
Telephone Number: (901) <u>345-1788</u>	Date at BFI Lab: _____ BFI Lab No. _____